STACKS

Scientific and Technical Aerospace Reports

ANNUAL INDEXES JANUARY–DECEMBER

SECTION II

SUBJECT INDEX (Mam–Z)

DECEMBER 31, 1967

VOLUME 5 • NUMBERS 1–24

N67-10001—N67-40600

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

PURCHASE OF *STAR*

The semimonthly issues and the cumulative index issues are available postpaid on subscription and in single copy from the Superintendent of Documents, United States Government Printing Office, Washington, D.C., 20402, United States of America.

Semimonthly issues . . .

Annual subscription rate: $33.00, domestic; $42.00, foreign. Price per single copy: $2.25, domestic; 25¢ extra for foreign mailing.

Cumulative index issues . . .

Annual subscription rate: $30.00, domestic; $35.00, foreign. Price per single copy varies according to the number of pages.

Domestic subscription rates . . .

Apply to the United States, Canada, Mexico, and all Central and South American countries, except as noted below.

Foreign subscription rates . . .

Apply to Argentina, Brazil, French Guiana, Guyana, Surinam, British Honduras, and all other countries throughout the world.

Payment should be by check, money order, or document coupons, and must accompany order. Remittances from foreign countries should be made by international money order, or draft on an American bank, payable to the Superintendent of Documents, or by UNESCO book coupons.

PUBLISHED BY:
UNITED STATES GOVERNMENT
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
SCIENTIFIC AND TECHNICAL INFORMATION DIVISION

Scientific and Technical Aerospace Reports, Volume 5, is prepared by the NASA Scientific and Technical Information Facility operated for the National Aeronautics and Space Administration by Documentation Incorporated.

Use of funds for printing this publication approved by the Director of the Bureau of the Budget June 7, 1966.

VOLUME 5 NUMBERS 1-24

Scientific and Technical Aerospace Reports

Annual Indexes (Section II) January–December 1967

SPECIAL NOTICE

The abstract sections of the semi-monthly *STAR* journals can be bound separately. Individual abstracts can be located readily by means of the page numbers given at each index entry, e.g. 21 p 4190. To assist the user in binding *STAR* Volume 5, four (4) title pages are included in the back of Section I of the Annual Indexes.

Page

SECTION I

Subject Index (A–Mas) A-1

SECTION II

Subject Index (Mass–Z) A-657

SECTION III

Personal Author Index B-1

SECTION IV

Corporate Source Index C-1

Contract Number Index D-1

Report/Accession Number Index E-1

Accession/Report Number Index F-1

VOLUME 5 NUMBERS 1–24

Scientific and Technical Aerospace Reports.

Annual Indexes (Section II) January–December 1967

TABLE OF CONTENTS

	Page
SECTION I	
Subject Index (A–Mai)	A-1
SECTION II	
Subject Index (Mam–Z)	A-657
SECTION III	
Personal Author Index	B-1
SECTION IV	
Corporate Source Index	C-1
Contract Number Index	D-1
Report/Accession Number Index	E-1
Accession/Report Number Index	F-1

Eng'g
2629.13
U58TA
v.5
1967
Index
sec.2

Introduction

WHAT *STAR* ANNUAL INDEXES ARE

These Annual Indexes are edited consolidations of the indexes to the individual issues of *Scientific and Technical Aerospace Reports (STAR)* for the calendar year 1967 (Volume 5, Numbers 1 through 24). For the convenience of the user, they are divided into four sections, each bound separately. Sections I and II contain the Subject Index. Section III contains the Personal Author Index. Section IV contains a Corporate Source Index, a Contract Number Index, a Report/Accession Number Index, and an Accession Number/Report Index. The Annual Indexes supersede the semimonthly and quarterly indexes previously issued during 1967.

Each entry in these indexes includes a group of identifying numbers in the following form: 06 p 0850 N67-23456. The first two digits (06) identify the issue in which the document was announced. The "p" stands for page number, and the four digits that follow (0850) refer to the page number, in the designated issue, on which the abstract of the document appears. The next group of numbers (N67-23456) is the NASA Accession Number, a unique identification number assigned by NASA to each document that was acquired, indexed, and announced in *STAR* during the year.

In addition to these identifying numbers, each entry in the Subject Index contains a Notation of Content, a one-sentence description of the contents of the document; each entry in the Personal Author and Corporate Source Indexes contains the exact title of the document.

At the beginning of each index in this cumulation, a typical listing is illustrated with each of its elements identified to assist the reader in using the different types of index entries.

HOW TO USE THE SUBJECT INDEX

Subject terms in this cumulative index are arranged alphabetically, and are supplemented with cross-references which are intended to serve as directions that will enable the user to modify, enlarge, or narrow his search in accordance with his specific interests. Two types of cross-references are used:

1. "See" ("S") is used to relate broad concepts, too general to be useful index terms, to the specific terms used in the Index. For example:

   ATTENUATION
   S ACOUSTIC ATTENUATION
   S MICROWAVE ATTENUATION
   S RADAR ATTENUATION

   "S" is also used to indicate which of a pair of synonyms has been used in this index. For example:

   COLUMBIUM
   S NIOBIUM

2. "See also" ("SA") directs a searcher from a general to a specific term for postings under the specific term that are not repeated under the general headings. For example:

HEAT
SA SOLAR HEAT
SA SPECIFIC HEAT

tells a searcher that postings under SPECIFIC HEAT are different from those under HEAT.

"SA" is also used to relate associated concepts usually having different groups of postings. For example:

PLASMA PHYSICS
SA MAGNETOHYDRODYNAMICS
SA NUCLEAR PHYSICS

tells a searcher that, while these terms are related in subject matter, postings under each term may be different.

Finally, a searcher should use the notations of content in the Index to narrow further his quest for particular items. This is because subject terms can readily include more than one class of document. For example:

CATHODE
Cesium plasma cathodes as sources of high intensity electron beams.
Cathode material testing in electrochemical half cells.

illustrates a case where two references on different topics are listed under the same subject term.

AVAILABILITY OF *STAR* AND DOCUMENTS

NASA documents (identified by an asterisk in the abstract section and in the report/accession number and accession/report numbers indexes) and *STAR* are available without change to:

1. NASA Offices, Centers, contractors, subcontractors, grantees, and consultants.
2. Other U.S. Government agencies and their contractors.
3. Libraries in the United States that have arrangements with NASA to maintain collections of NASA documents for public use.
4. Other organizations in the United States having a need for NASA documents in work related to the aerospace program.
5. Foreign government or academic (university) organizations that have established reciprocal arrangements for the exchange of publications with NASA, that have current agreements for scientific and technical cooperative activities with NASA, or that have arrangements with NASA to maintain collections of NASA documents for public use.

European requesters may purchase facsimile copy or microfiche of NASA documents, identified by a pound sign (#), from ESRO/ELDO Space Documentation Service, European Space Research Organization, 114, av. de Neuilly, 92 – NEUILLY sur Seine, France. Advisory Group for Aerospace Research & Development (AGARD) reports that are not copyrighted will be made available on the same basis as NASA documents.

HOW TO REQUEST LISTED DOCUMENTS

If you are registered with NASA, send a completed *Document Request* (Facility Form 492) to:

NASA Scientific and Technical Information Facility
P.O. Box 33
College Park, Maryland 20740

If you are not registered with NASA, but are eligible to receive documents without charge according to the information on the previous page in the section on Availability of *STAR* and Documents, request Registration Form—Technical Publications (Facility Form 713) from the above address.

HOW THE PUBLIC MAY OBTAIN LISTED DOCUMENTS

For reference purposes, NASA documents listed in *STAR* may be consulted at one of the organizations listed on the inside back cover. Commerical publications listed in *STAR* may be consulted in libraries or purchased from publishers or booksellers.

The public may purchase NASA documents and non-copyrighted foreign documents, including AGARD reports, from either of the following sales agencies as specifically identified in the abstract section:

Clearinghouse for Federal Scientific and Technical Information
(CFSTI)
Springfield, Virginia 22151

Superintendent of Documents, U.S. Government Printing Office
(GPO)
Washington, D.C. 20402

Documents available from CFSTI are sold in hart copy and microfiche form. If a printed hard copy is not available, a facsimile copy is provided. The symbols "HC" and "MF" are used in the abstract section to designate the copy available. "HC" (hard copy) for full size or facsimile; "MF" for microfiche. A unit price policy has been established by CFSTI: $3.00 for printed hard copy or facsimile copy; $0.65 for microfiche.

Not all NASA documents, however, are subject to this policy. Documents available from Superintendent of Documents which are also available from CFSTI are sold at the Superintendent of Documents price, and other selected NASA publications will continue to be priced according to previous practices. In all cases, the *STAR* citation includes the specific sale price which applies.

Following the availability information in the citation of each NASA-supported document is a code, e.g., CSCL 25A, indicating the subject category assigned to that document from the *COSATI Subject Category List* (first ed., December, 1964) published by the Committee on Scientific and Technical Information of the Federal Council for Science and Technology.

The public may request non-NASA documents by writing to the source or other information systems. Bibliographic information, e.g., report number, etc., rather than the NASA accession number (i.e., N68-12345) should always be provided when requesting such a document from its source.

Department of Defense documents (identified by the "AD" number in the citation) are available without charge to U.S. Government-sponsored research and development activities from the Defense Documentation Center (DDC), Cameron Station, Alexandria, Virginia 22314. Department of Defense documents are not available from NASA.

Other non-NASA documents are provided by NASA without charge only to NASA Offices, Centers, contractors, subcontractors, grantees, and consultants. Foreign non-copyrighted documents will be provided to U.S. Government Agencies and their contractors.

Documents that have been placed on microfiche (a transparent sheet of film, approximately 4×6" in size, capable of containing an orderly arrangement of 60 or more pages of information reduced to micro images) are identified with the symbol #. Microfiche are available on the same basis as hard copy.

ABSTRACTS OF JOURNAL ARTICLES

By arrangement between NASA and the American Institute of Aeronautics and Astronautics, the AIAA publication *International Aerospace Abstracts* is issued in coordination with *STAR*. Each journal appears on alternate weeks. *IAA* uses subject categories identical with those in *STAR*, and publishes similar indexes. *IAA's* worldwide coverage of books and scientific and trade journals complements *STAR's* worldwide report coverage. The two publications thus provide comprehensive access to current literature on aerospace science and technology.

Organizations having a NASA contract may obtain *IAA* by writing NASA, Code USS-A Washington, D.C. 20546. Others should direct inquiries to the American Institute of Aeronautics and Astronautics, 750 Third Avenue, New York, N. Y. 10017.

Annual subscription rates for *IAA*:

Semimonthly issues: United States and Possessions, $33.00 postpaid;
Foreign countries, $42.00 postpaid.
Cumulated Index Volumes: United States and Possessions, $30.00 postpaid;
Foreign countries, $35.00 postpaid.

MAMMAL
SA BAT
SA CAT
SA CHIMPANZEE
SA DOG
SA DOLPHIN
SA GOAT
SA GUINEA PIG
SA MAN
SA MONKEY
SA MOUSE
SA OPOSSUM
SA RABBIT
SA RAT
SA RODENT
SA WHALE

Role of adrenal glands, hypophysis, and cortex, in development of adaptation syndrome in mammals subjected to prolonged conditions of reduced barometric pressure 02 p0290 N67-11568
Fortran IV program for computer reduction of data on thyroid uptake and effective half-life of radioiodine ingested in different mammalian species and in same species with different diets
[UCLA-12-592] 03 p0348 N67-13351
Mechanical properties of mammalian connective tissue 05 p0647 N67-14598
Abstracted reports on isolated and combined effects of acceleration and radiation on central nervous system functions of mammals
[ATD-66-99] 05 p0652 N67-14961
Morphological polarization of mechanoreceptors of vestibular and acoustic systems in birds, fishes, mammals, and frogs 05 p0655 N67-15127
Biodynamic regulator chain models for physical chemical systems in mammals
[NASA-CR-81061] 05 p0658 N67-15152
Deficient mammalian cells isolated from X-ray irradiation cultures 06 p0802 N67-15949
Cholinesterase containing nerves in ocular and orbital tissue of rats, rabbits, and guinea pigs
[AFOSR-66-3072] 06 p0807 N67-16650
Structure of lactate dehydrogenase isozyme systems and role in vertebrate and mammalian embryonic development 07 p1006 N67-16787
Endogenic formation of carbon monoxide and importance in closed ecological systems - literature survey 10 p1566 N67-30396
Ionizing and ultraviolet radiation mechanisms in mammalian cell cultures
[EUR-3366.I] 10 p1565 N67-31753
Cosmic ray heavy nuclei and microbeam effects on mammalian skin tissue
[NYO-3018-8] 12 p2019 N67-33566
Brain mechanisms in conditioning and learning of higher mammals
[NASA-CR-84656] 15 p2648 N67-28010
Ecology of small mammals, and radiation tests with iodine 131 under natural environments
[NYO-2579-14] 15 p2648 N67-28306
Behavior performance of small mammals during hypothermia
[AD-653127] 18 p3213 N67-32386
Pathological response of eight species of mammals to air blast waves
[DASA-1854] 18 p3218 N67-32512
Ionizing radiation damage effects on life organisms particularly humans and mammals
[CMN-PUB-3/66] 19 p3373 N67-32912
Hypothermic suspended animation for protection of mammalian hearts against accelerative stress and reduced gravity
[NASA-CR-87449] 20 p3570 N67-34021
Radiation effects on mammalian cells and bacteria
[NASA-CR-87813] 20 p3577 N67-34791
Ultrastructure of gastric glandular tissue of ferret for studies of physiological and pharmacological response of mammalian gastric mucosa
[NASA-CR-73136] 22 p3973 N67-37640

MAN
Nitrogen damping effect on fire hazard to man in compressed air environment
[FPRC/1249] 01 p0015 N67-10469
Ignited clothing fire risk to man in oxygen rich environment
[FPRC/MEMO-223] 01 p0015 N67-10471
Plasma-iron turnover, blood volume, and hematological quantities of man living in hypoxic environment 04 p0601 N67-15946
Trace contaminants produced by man in space cabin simulator
[NASA-CR-87451] 19 p3378 N67-32827

MAN-MACHINE SYSTEM
SA HUMAN ENGINEERING
SA HUMAN FACTOR
Optimization of man-machine functions in automatic railroad transportation systems
[JPRS-36196] 01 p0022 N67-10399
Pilot programming system to facilitate development and changes of computer programs - Man-machine system
[MAC-TR-33] 01 p0043 N67-10456
Computer-based question-answering system capable of conversing with user in natural language
[BBN-1439] 01 p0045 N67-10986
Remote access graphical display console system
[MONOGRAPH-5113] 01 p0046 N67-11138
Man-machine problems, and mathematical modeling of conflict situation in interdependent group activity of operators 02 p0217 N67-11461
Algorithms on operator activity in automatic control and management system 02 p0217 N67-11473
Condensation algorithms for processing command information reports 02 p0218 N67-11480
Psychophysiological aspects of pilot performance in automated control systems 02 p0219 N67-11519
Man-machine systems, model construction of human systems, simulation studies, computer processing techniques, and bioelectrical effects
[JPRS-36716] 03 p0349 N67-12341
Monitoring, predicting, and controlling psychological state of human operator in man-machine system 03 p0349 N67-12342
Biocontrol of technical objects by bioelectric signals 03 p0376 N67-12346
Developments in bionics - neuron models, man-machine systems, orientation and navigation in animals, and biomechanics and bioenergetics 03 p0354 N67-12792
Problems of automatic control and information transmission in Soviet technical cybernetics
[JPRS-39098] 04 p0522 N67-13596
Colloquy on electronic computers - construction, applications, training, improvement, and problems
[JPRS-38778] 04 p0518 N67-14147
Compensatory tracking task for use in variety of man-machine applications analyzed on basis of human response research 06 p0813 N67-15677
Cybernetics application to information processing problems - control and communication in animal and machine
[LT-66-55] 06 p0814 N67-16216
Tactual perception experiments and models
[NASA-CR-625] 06 p0816 N67-16861
Critical points of communications links and kinks in man-machine systems 07 p1019 N67-16981
Estimated man-machine requirement computations for space navigation and guidance
[NASA-CR-80011] 08 p1232 N67-18738
Human cutaneous senses as related to maintenance, troubleshooting, and man-machine communication, including bibliography
[AMRL-TR-66-108] 09 p1401 N67-19812
Graphical service system, VITAL compiler, display sequence, three-dimensional wand, remote terminal, and computer network study - graphics
[ESD-TR-66-563] 09 p1432 N67-20003
Human behavior in problem solving when aided by computers and display systems
[SDC-TM-3237] 10 p1568 N67-21841
Identification and analysis of image interpreter-computer reporting techniques
[TRN-170] 11 p1838 N67-23459
Manipulator restraint effects on human operator performance
[STI-TR-134-3] 12 p2031 N67-23938
Flight simulator and techniques for training pilots to control compensatory task
[UTIAS-TN-106] 12 p2033 N67-24597
Conversational programming system with graphical orientation
[TN-109] 12 p2061 N67-24822
Speech discrimination and verbal information exchange between man and computer systems 13 p2288 N67-25762
Russian open syllable count for automatic speech recognition in man-computer information systems 13 p2279 N67-25790
Subroutines for IBM system/360 for visual display and man-machine relationships
[NWL-2074] 14 p2496 N67-26459
Human operator performance in man-machine systems 14 p2466 N67-26688
Man-machine system equalization techniques for designing two symbol head-up display adequate for consistently accurate manual control of stereotyped flight profiles
[NRL-MR-1746] 14 p2471 N67-26810
Man-computer communication in active monitoring of automated checkout
[P-3522] 14 p2471 N67-26912
Optimal training algorithms for man-machine systems with nonideal teacher
[JPRS-40659] 14 p2473 N67-27360
Human engineering as scientific discipline
[DGRR/WGLR PAPER-66-066] 15 p2662 N67-27631
Feasibility and design of walking machines with servocontrol for human operator
[AD-634618] 15 p2666 N67-27972
Problem solving with man-computer system using on-line programming
[AD-649863] 15 p2672 N67-28092
Computer-assisted instruction systems - literature survey and bibliography
[AD-649235] 15 p2674 N67-28189
Computer augmentation of problem solving capability in man-machine system
[P-3533] 15 p2676 N67-28943
Feasibility model design plan for broadband laser beam digital deflector display system used for transferring information from machine to man
[ECOM-2758] 16 p2983 N67-29422
Information processing by weather forecasters analyzed to evaluate human functions in complex system
[ESD-TR-67-218] 16 p2940 N67-29491
Cathode ray tube aided semiautomatic mathematics
[AFCRL-67-0167] 16 p2929 N67-29512
Methods for use in design and analysis of space vehicle flight control systems - recommendations for placing man in control loop of boosters
[NASA-CR-829] 16 p2976 N67-30132
Development of usable metric of information transfer from large scale visual displays
[RADC-TR-67-57] 17 p3069 N67-30307
Research development in language programming, man machine communication, data and language processing, and computer networks
[TM-687-007-00] 17 p3181 N67-30404
Machine languages and problem oriented language related to computers 17 p3030 N67-30606
Man-machine systems and field calibrated simulation method with applications in communications and flight simulation
[SC-R-67-1045] 17 p3046 N67-31347
Man-computer target detection systems and sonar operator performance characteristics
[U417-66-037] 18 p3226 N67-32313
Validation of display evaluative index technique for large-scale display evaluation
[RADC-TR-67-134] 18 p3217 N67-32314
Man-machine information system with major activity in storage and manipulation of relational sentences
[REPT.-106-3] 18 p3217 N67-32481
Conference papers on human performance quantification in systems effectiveness
[AD-650791] 19 p3361 N67-32362
Methodology, tools, and laboratory facilities to meet Navy requirements of effective man machine systems 19 p3362 N67-32369
Human factors engineering, training, and motivation in Army research and development program 19 p3363 N67-32364
Air Force position on human performance and increased effectiveness of man machine systems 19 p3363 N67-32365
Digital computer simulation, and model to predict operator performance of man machine system 19 p3363 N67-32367
Performance prediction and methodology of real time field calibrated simulation for complex man machine systems 19 p3363 N67-32310
Human performance optimization through establishment of human factor laboratory, information exchange and other techniques 19 p3363 N67-32318

Potential utility and feasibility of servomechanism propelled walking vehicles [P-314] 20 p3645 N67-34111
Improving steering or handling characteristics in man-driven vehicle, and role of human driver in man-machine system 20 p3652 N67-35176
User performance in time sharing computer systems [SP-3046] 21 p3803 N67-35584
Operator console design concepts for production version of POLLY bubble chamber film measuring system 21 p3810 N67-36273
Training research using man-computer interactions [AD-654818] 21 p3773 N67-36417
Computer simulation of remote control manipulation [DSR-79000-5] 22 p3975 N67-36723
Computer simulation for remote control and dynamic system behavior [DSR-9000-4] 22 p4003 N67-36759
Man-machine interface in automated systems design [JPRS-43042] 24 p4454 N67-40296
Digital computers, man-machine interactions, information processing, radio physics, radar astronomy, and solid state physics [ESD-TR-67-327] 24 p4425 N67-40311
Natural communication of computers with people, other computers, and real-time devices [RBN-1548] 24 p4417 N67-40562

MANAGEMENT
SA PERSONNEL
SA PROGRAM MANAGEMENT
SA WEAPON SYSTEM MANAGEMENT
Research program on management of research and development [NASA-CR-80139] 03 p0477 N67-12904
Management model for selecting major subcontractors in aerospace industry [NASA-CR-80763] 04 p0626 N67-13820
Handbook of policies and procedures for facility management [NASA-TM-X-59258] 05 p0690 N67-14881
Commercial aviation - public interest and interaction of labor, management, and government 11 p2006 N67-22274
Airline industry and management-labor relations 11 p2004 N67-22276
Experimental analysis of large fallout shelter management, environmental threat, and small shelter habitability under conditions of stress [AIR-D93A/1AND2/-9/66-FR] 11 p1798 N67-23615
Data processing experience applied to military management technology [PRC-R-932, VOL. I] 13 p2062 N67-24975
Bibliography on management functions and techniques [NASA-CR-85839] 17 p3182 N67-31342
Effects of science and newly emerging technologies on contemporary urban management [NASA-CR-86664] 18 p3360 N67-33557
Interdisciplinary study of organization, planning, and management of science and technology [JPRS-43057] 21 p3951 N67-35900
Information processing and retrieval for current awareness and distribution systems for management, scientists and engineers - abstracts, indices, and profiles for industry [NASA-CR-86352] 22 p4168 N67-36751
Labor disputes and work stoppages at Kennedy Space Center and Air Force Eastern Test Range July 1956 through July 1965 [NASA-TM-X-60556] 24 p4553 N67-39756

MANAGEMENT PLANNING
SA PRODUCT DEVELOPMENT
Optimal linear inventory control and first order exponential smoothing [P-3264-1] 01 p0169 N67-10583
Federal non-defense expenditure programs analyzed for impact on regional income distribution [NASA-CR-79997] 02 p0227 N67-11841
Organization control systems for complex operations [JPRS-38763] 02 p0238 N67-12014
Procedures for management control of computer programming in Apollo project [NASA-CR-80133] 02 p0242 N67-12167
Optimal control algorithm applied to multinomenclature reserves of multiple supply periods system 03 p0376 N67-12508
Utility of multispectral photography for urban research and planning activities 04 p0548 N67-13476
Program and facility planning, and cost estimation for Manned Orbital Telescope /MOT/ [NASA-CR-66256] 05 p0766 N67-14902
Propellant and explosive safety activities - management planning, static electricity and lightning hazards, and sensitivity measurement [NASA-CR-81250] 06 p0984 N67-15981
Responsibilities of management in fields of ordnance and propellant safety 06 p0985 N67-15982
Plan, scheduling, costs, and interactions of development program for automated biological laboratory for exploration of life on Mars [NASA-CR-81312] 06 p0973 N67-16578
Economic impact of reusable orbital transport on manned space flight program [P-3465] 07 p1192 N67-17676
Problem of aged scientific organization and suggested solutions [NASA-TM-X-57084] 07 p1214 N67-18199
Theory of formal organizations with ordering of relevant data [NASA-CR-71866] 08 p1365 N67-18252
NASA survey for future development of sounding rockets [NASA-TM-X-55685] 08 p1371 N67-18738
Design Point Vehicle and comparative resource planning data for LUNAR Surface Mobility Systems Comparison and Evolution /MOBEV/ [NASA-CR-82747] 09 p1508 N67-19265
Role of economics in long range management planning for aerospace industry [NASA-CR-82943] 09 p1546 N67-19956
Launch instrumentation development plan - instrumentation systems and services, reliability and quality assurance, procurement, funding, manpower, and management plan [NASA-TM-X-59474] 09 p1431 N67-19995
Evaluation of critical path method for scheduling transuranium processing plant [ORNL-3925] 10 p1690 N67-21816
Logistics management conference [NASA-TM-X-53566] 11 p1850 N67-21962
Keynote address on importance of logistics management to manned space program 11 p1850 N67-21963
Logistics support for Kennedy Space Center launch site operations 11 p1850 N67-21964
United States Army logistics support operations in Viet Nam 11 p1850 N67-21965
Integrated logistics support and role in planning for hardware acquisition 11 p1850 N67-21966
Preplanning logistics support and role in Air Force Systems Command program scheduling 11 p1851 N67-21967
Naval Air Systems Command technical philosophy of logistics support 11 p1851 N67-21968
Scoping of logistics support to program requirements - participation of logistician during conceptual, design, development, production, and deployment phases 11 p1851 N67-21969
Logistics support management and program controls 11 p1851 N67-21971
Saturn V program management problems induced by failure to plan for integrated logistics program and contractor logistics activities 11 p1852 N67-21972
NASA position in contracting for logistics support 11 p1852 N67-21974
Industry position in management planning for government logistics support contracts 11 p1852 N67-21975
Management planning and visibility in evaluation of contractor logistics in missile systems 11 p1852 N67-21978
Management planning, systems analysis, and evaluation of logistics within NASA programs 11 p1852 N67-21979
Procurement process for evaluating logistics performance, and incentive features in support contracts 11 p1853 N67-21980
Combined government agency and airline management planning to insure adequate airport capacities 11 p2005 N67-22284
Analysis of air base maintenance data collection and workload control information systems [RM-4985-PR] 11 p2006 N67-22509
Operational concept and plan for engineering development of management information system based on Air Force automatic data processing experience [PRC-R-932, VOL. III] 13 p2294 N67-25110
Automatic data processing management information system program activites - data collection and reduction, experience handbook development, and operational concept and plan development [PRC-R-932, VOL. II] 13 p2294 N67-25119
Management methods used to evaluate priorities and costs of West German space projects and long range planning [RF-720] 14 p2616 N67-27702
Development plan for design, development, and production of solid state Mars probe radar altimeter [NASA-CR-66384] 15 p2715 N67-28922
Reliability and quality assurance plan for design, development, and production of solid state Mars probe radar altimeter [NASA-CR-66385] 15 p2715 N67-28923
Planning data for assessing utility and cost of manned lifting body entry vehicle research program [NASA-CR-66357] 16 p2974 N67-29964
Policy planning for transfer of government sponsored technology to industry 17 p3182 N67-30783
Evaluation of systems approach in management science and planning [NASA-CR-85563] 17 p3182 N67-30814
Comparative study of effectiveness in winning government research and development contracts [NASA-CR-85971] 18 p3357 N67-31583
Development and implementation planning for marketing information technology [NASA-CR-85577] 18 p3274 N67-31726
Management planning of Aurora 1 spacecraft missions [NASA-TM-X-55849] 18 p3344 N67-32236
Management survey on economic, sociological, and psychological determinants of organizational success [NASA-CR-86985] 18 p3358 N67-32361
Management planning and administration of irradiation program for fast reactor Dounreay Experimental Reactor Establishment 18 p3363 N67-32435
Supersonic transport development and production cost analysis program [AD-652306] 18 p3186 N67-32468
Compression algorithm and computer program for planning and controlling large management projects [NASA-CR-65644] 18 p3360 N67-32588
Technical control and design verification of computer programs [ESD-TR-67-67] 18 p3240 N67-32975
Critical path time cost scheduling for research and development projects [ORNL-4112] 19 p3557 N67-33182
Planning, organization, and management of science and technology programs in Soviet Union [FTD-MT-67-17] 19 p3557 N67-33439
Role of follow-on contracts in government sponsored research and development [NASA-CR-87404] 20 p3749 N67-34158
Minimum average cost ordering policies for two product inventory systems with joint setup costs [NASA-CR-87490] 20 p3750 N67-34469
Organization and methodology of managing space projects 20 p3750 N67-34661
Goddard Space Flight Center and Industry Second Seminar - marketing practices and problems related to research and development procurements [NASA-TM-X-60213] 20 p3751 N67-34722
Summaries of progress during 1966 in research projects covering management planning, systems analysis, information processing, and methods of rationalization in research [REPT.-83] 20 p3751 N67-34918
Organization and planning of geodetic and topographic operations [ACIC-TC-1144] 21 p3836 N67-35436
Extension of configuration management techniques to computer programming [NASA-CR-88490] 22 p4003 N67-36770
Industrial location theory in era of super cargo aircraft [AD-655695] 22 p4169 N67-37167
Finite-state space deterministic dynamic programming model for management planning [AROD-968-46-M] 22 p4065 N67-37697
Financing and management of supersonic

transport development program
[AD-655605] 22 p2961 N67-37982
Economic feasibility report for supersonic transport program
[CRA-1123-1] 22 p4177 N67-38367
Aerospace related science and technology applicability to urban management problems
[NASA-CR-89307] 22 p4370 N67-38944
Research and analysis outline for organizational behavior and administration of scientific and engineering facilities
[NASA-TM-X-66441] 23 p4370 N67-39199
Economic, management, and retrieval aspects of information systems
[AFOSR-67-1998] 24 p4552 N67-39410
Conference proceedings on quality and reliability management
[AD-648315] 24 p4457 N67-39646
Cost estimate of savings to be obtained from multi-year procurement compared at prime and subcontractor levels
[AD-655815] 24 p4553 N67-39769
Conference proceedings on quality and reliability management techniques and concepts
[AD-648316] 24 p4458 N67-40068
Total package procurement concept
[AD-655814] 24 p4554 N67-40140
Management planning guidelines for standard payload module definition network
[NASA-TM-X-53299] 24 p4426 N67-40151
Management and utilization of research equipment in Federal Government laboratories 24 p4557 N67-40547
MANDREL
Small-diameter, thin-wall tungsten tubing by hot extrusion over floating mandrel
[NASA-TN-D-3772] 03 p0405 N67-13173
Tube rolling processes using long mandrel 06 p0883 N67-15398
MANEUVER
SA FLIGHT CONTROL
SA SELF-MANEUVERING UNIT
SA SPACE RENDEZVOUS MANEUVER
SA SPACECRAFT MANEUVER
SA VALSALVA MANEUVER
Optimal control of structural vibrations in large flexible aerospace vehicles during flight maneuvers
[AFOSR-66-0766] 03 p0467 N67-13654
Piloted simulator study of yaw coupling in turning maneuvers of supersonic transport compared with flight test data on large variable stability jet transport
[NASA-TN-D-3910] 12 p2013 N67-23796
MANEUVERABLE SATELLITE
Minimum energy reaction wheel control for Advanced Orbiting Solar Observatory performing raster scan over small celestial area
[NASA-TN-D-3922] 11 p1848 N67-22870
MANEUVERABLE SPACECRAFT
Effects of decreases in maneuvering range angle on design parameters for lifting maneuverable spacecraft performing orbital plane changes
[P-3434] 01 p0154 N67-10965
MANGABEY
Hematological data on sooty Mangabey monkey
[REPT.-679] 11 p1793 N67-23049
MANGANESE
Potentiometric titration of cerium and manganese following separation from plutonium and cobalt ternary and quaternary alloys
[LA-3402] 03 p0411 N67-12861
Neutron activation analytical method for determining amounts of manganese in nitric and hydrochloric acids 06 p0824 N67-14276
Transformation curves for continuous cooling of manganese-molybdenum-vanadium steel determined under argon
[EURAEC-1677] 07 p1164 N67-17890
Neutron radiative capture cross section measurements on irradiated sodium, manganese, indium, and holmium samples 06 p1340 N67-18840
Solid state reactions of manganese with silica investigated in high temperature tests
[BM-RI-6985] 06 p1343 N67-19248
Microwave properties of manganese substituted zinc-yttrium single crystals as function of temperature
[ECOM-2762] 10 p1747 N67-20720
Austenitic grain growth of manganese-molybdenum and manganese-nickel-molybdenum steels during heat cycle simulating vertical slag welding conditions
[EUR-2960] 11 p1899 N67-23184
Difference spectroscopy, quantum yields in chloroplast reactions as function of wavelength, and analysis of oxygen evolving photoreaction in study of manganese function in photosynthesis
[NASA-CR-83842] 13 p2357 N67-25753
Metallization and hard soldering techniques for obtaining vacuum tight cermet joints through infusion of molybdenum manganese paste and nickel
[FTD-HT-66-711] 15 p2717 N67-28265
X-ray diffraction determination of crystal structure of alpha manganese
[AMRA-TR-67-06] 15 p2725 N67-28553
Function of manganese in photosynthesis 18 p2306 N67-31776
Photooxidation of manganese by chloroplasts 18 p2309 N67-31782
Thin film electroluminescent display fabricated on glass substrate using vacuum deposition procedures and manganese doped zinc sulfide phosphor
[AMRL-TR-67-1] 22 p4013 N67-37393
Measurement of moderated neutron fluxes using gold lanthanum cobalt manganese sandwich detectors
[CEA-R-3300] 22 p4095 N67-37854
Phase diagram cross section of aluminum copper cadmium manganese system with constant manganese concentration at 500 C
[NASA-TT-F-11014] 24 p4465 N67-39880
MANGANESE ALLOY
Neutron diffraction study of ordered nickel-manganese alloys
[ANL-TRANS-344] 04 p0561 N67-13986
Irradiation effect on high-strain fatigue behavior of low-carbon high-manganese and low-alloy steel
[TRG-1277/C/] 07 p1184 N67-17940
Complexiometric determination of manganese in aluminum-manganese alloys
[EUR-3279.F] 13 p2272 N67-26096
Mechanical properties of high-manganese low-carbon steel for welded heavy-section ship plate
[SSC-175] 19 p3469 N67-33035
Preparation, crystal structures, phase diagrams, and magnetic properties of rare earth manganese alloys
[AFML-TR-66-366] 21 p3848 N67-35720
MANGANESE COMPOUND
Absolute calibration of neutron sources by manganese sulfate method
[EFK-RN-33] 01 p0126 N67-10810
Fine structure in absorption spectra of manganese potassium fluoride and manganese rubidium fluoride
[TR-4] 05 p0752 N67-15017
Magnon sidebands in cesium manganese fluoride
[TR-7] 06 p0849 N67-16354
Limitations imposed by demagnetizing fields on bit packing densities within thin ferromagnetic films of manganese bismuthide 06 p1256 N67-18329
Magnetic properties of isostructural dihydrated ferrous, manganous, and nickelous formates measured between 1.4 deg and 20 deg K
[TR-4] 09 p1501 N67-19609
Absorption spectra of manganous fluoride and cesium manganous fluoride
[TR-6] 10 p1742 N67-20448
Critical magnetic scattering experiments on simple ionic antiferromagnet potassium manganese trifluoride compound
[BNL-9615] 10 p1753 N67-21596
Optical, electrical, and magnetic properties of zinc sulfide manganese chloride powders - electroluminescent materials for space vehicle surfaces
[NASA-CR-86326] 11 p1967 N67-22872
Neel temperature of manganese fluoride in two spin cluster variation limit
[NOLTR-84-193] 11 p1966 N67-22148
Flat cell battery utilizing magnesium-manganese dioxide electrochemical system
[ECOM-01136-3] 12 p2019 N67-24929
Manganous sulfate bath method to determine emission rate of americium-beryllium neutron source for calibration
[CSIR-FIS-12] 17 p3126 N67-30219
Crystal structure of ytterbium sulfide and manganese ytterbium sulfide 21 p3787 N67-36329
One-step electrolysis for recovery of manganese and iron as chlorides from ores and slags
[BM-RI-6959] 23 p4902 N67-39435
Structure and magnetic properties determined for manganese ytterbium sulfide spinel
[ESD-TR-67-349] 23 p4321 N67-39867
MANGANESE DIOXIDE BATTERY
SA ALKALINE-MANGANESE DIOXIDE BATTERY
MANGANESE ION
Energy levels and transition probabilities of manganese plus 4 titanium oxide and chromium plus 3 zinc tungstate - tables
[NASA-TM-X-55972] 24 p4515 N67-39694
MANGANESE OXIDE
Chemical diffusion coefficient of manganous oxide in p-region and n-region by measuring electronic conductivity as function of time and oxygen pressure 18 p2232 N67-31794
Improving high temperature storability of zinc-manganese dioxide battery
[ECOM-02254-1] 22 p3962 N67-38744
MANGANESE 54
Photoelectric absorption cross section of lead measured with manganese 54 photons 03 p0439 N67-12596
MANGANESE 56
Asymmetric coefficients of beta gamma circular polarization correlation of silver, argon, calcium, cesium, cobalt, manganese, sodium, scandium, and vanadium isotopes
[KFK-424] 15 p2770 N67-28300
MANIFOLD
Measurements of steady-state amplitude, pulsation, and excited modes on modal radio frequency manifold system
[UCRL-17129] 10 p1600 N67-20811
Radio frequency manifold system model, and cavity resonance 12 p2077 N67-24083
MANITOBA
Meteorological data from micrometeorological instruments on 200-foot tower and from climatology ground station in Manitoba, Canada
[AECL-3620] 07 p1110 N67-18106
MANN-WHITNEY-WILCOXON U TEST
Asymptotic efficiency of two nonparametric competitors of Mann-Whitney-Wilcoxon U test
[NASA-CR-83488] 06 p1288 N67-18086
MANNED AIRCRAFT
Compilation of research articles on manned military aircraft - hypersonic and supersonic flight, air breathing propulsion, simulation, noise, and aerodynamics
[NASA-TM-X-490] 19 p3365 N67-33970
State-of-the-art in manned military VTOL aircraft 19 p3365 N67-33971
Manned military aircraft structures and materials 19 p3365 N67-33977
Simulation requirements for development of advanced manned military aircraft 19 p3366 N67-33979
MANNED ORBITAL LABORATORY /MOL/
Manned dynamic testing in space station development, inclusion of failure analysis capability with space rescue mission, and manned orbiting structures laboratory
[NASA-TM-X-53545] 05 p0772 N67-14823
Reactor power systems design requirements for manned Earth orbital applications
[NASA-CR-84254] 07 p1122 N67-17320
High energy cosmic ray experiments in manned orbiting laboratory
[NASA-CR-85639] 17 p3155 N67-31163
MANNED ORBITAL RESEARCH LABORATORY /MORL/
Updated bipropellant and advanced thruster systems for Manned Orbital Research Laboratory, and comparison of integrated propulsion/reaction control systems
[NASA-CR-66229] 08 p1371 N67-19880
Analysis of 48-hr period in operational lifetime of Manned Orbital Research Laboratory - mission description, experiment program, flight crew activity, and perturbation analyses
[NASA-CR-66287] 09 p1514 N67-19857
Environmental control and life support systems analyses for improved Manned Orbital Research Laboratory
[NASA-CR-66289] 09 p1466 N67-19858
Manned Orbital Research Laboratory system improvement study on stabilization and control subsystems
[NASA-CR-66290] 09 p1514 N67-19859
Communications and telemetry subsystem analyses for Manned Orbital Research Laboratory system improvement study
[NASA-CR-66291] 09 p1417 N67-19860
Program planning and economic analysis for Manned Orbital Research Laboratory
[NASA-CR-66294] 09 p1514 N67-19874

Data bank summaries of proposed MORL experiments in space sciences, earth-oriented applications, and space travel support
[NASA-CR-66283] 09 p1513 N67-19980
Earth-orientated objectives for Manned Orbital Research Laboratory
[NASA-CR-66282] 09 p1516 N67-19984
Application plan for tasks to be accomplished on board Manned Orbital Research Laboratory
[NASA-CR-66285] 09 p1516 N67-20161
Integrated mission development plan for Manned Orbital Research Laboratory
[NASA-CR-66284] 09 p1516 N67-20162
Manned Orbital Research Laboratory system improvement study
[NASA-CR-66286] 09 p1516 N67-20163
Manned Orbital Laboratory propulsion/reaction control system improvement
[NASA-CR-66292] 09 p1516 N67-20164
Space station mission simulation computerized mathematical model for analyzing and implementing MORL system or similar programs
[NASA-CR-66316, VOL. I] 11 p1980 N67-22159
Integrated mission development plan for manned orbital research laboratory
[NASA-CR-66331] 12 p2308 N67-23904
Manned orbital research laboratory mission planning analysis
[NASA-CR-66286] 16 p2974 N67-29897
MANNED ORBITAL SPACE STATION /MOSS/
Combined passive and active methods for thermal control of manned orbital space station to reduce heat flux on space radiators
[NASA-TN-D-3995] 14 p2466 N67-26551
Configurations, integration, and weights of earth orbital manned space station
[NASA-TM-X-59701] 14 p2630 N67-27652
Human factors, environment, logistics, and crew operations of earth orbital manned space station
[NASA-TM-X-59700] 14 p2630 N67-27653
Electric power, environmental control/life support, instrumentation, communications, and cryogenic storage systems for earth orbital manned space station
[NASA-TM-X-59699] 14 p2630 N67-27654
Human factors, environment, logistics, systems, weights, and configurations for earth orbital manned space station
[NASA-TM-X-59698] 14 p2630 N67-27655
MANNED ORBITAL TELESCOPE /MOT/
Program and facility planning, and cost estimation for Manned Orbital Telescope /MOT/
[NASA-CR-66256] 05 p0766 N67-14901
MANNED REENTRY
Planning data for assessing utility and cost of manned lifting body entry vehicle research program
[NASA-CR-66357] 16 p2974 N67-29984
Optimization of manned lifting body entry vehicle used for conducting space research tasks
[NASA-CR-66332] 16 p2975 N67-30023
Spinning filamentary disk used as hypersonic decelerator for manned reentry missions
[NASA-CR-89684] 24 p4548 N67-40217
MANNED SPACE FLIGHT
SA SPACE FLIGHT STRESS
Prototype life support system in simulated cabin, for extended manned space flights
[NASA-CR-614] 02 p0216 N67-11542
Spatial orientation and weightlessness problems in manned space flight
[NASA-CR-80123] 02 p0233 N67-13177
Aerospace medicine and biology bibliography - space flight simulation effects on man
[NASA-SP-7011/30/] 03 p0348 N67-13182
U.S.S.R. conference on space biology and medicine environmental factors in space cabins and human body reactions to acceleration, weightlessness, and isolation
[JPRS-38586] 04 p0494 N67-13421
Basic principles of bioregenerative circulation system for manned space flight 04 p0495 N67-13423
Altitude acclimatization for increased resistance to hypoxia and psychophysical factors of manned space flight 04 p0495 N67-13431
Isolation influence on psychophysiological reactions of man during long space flight 04 p0495 N67-13435
Biological deuteron microbeam experiments for manned space flight simulated environment
[BNL-9468] 04 p0494 N67-14042
Water reclamation from human waste products during manned space flights 04 p0496 N67-14246
Contaminant collection and identification, and biological effects due to contamination encountered on manned space flights 04 p0496 N67-14247
Integrated regenerative life support system for extended space missions involving 4 men 04 p0496 N67-14249
Reaction of human organism to prolonged enclosure in space cabin simulator
[FTD-TT-65-1591] 05 p0661 N67-14966
Onboard centrifuge as prophylactic and therapeutic device to prevent debilitation from effects of weightlessness during extended manned space missions 05 p0662 N67-15141
Functional requirements for spacecraft computers on advanced manned flyby missions
[NASA-CR-81237] 06 p0847 N67-15582
Soviet motion picture on outer space
[FTD-TT-66-27] 06 p0948 N67-16344
Bibliography on manned exploration, colonization, and exploitation of lunar surface
[TRW-99900-6945-T000] 06 p0949 N67-16527
Functional requirements for spacecraft computers on advanced manned flyby missions 07 p1044 N67-17103
Economic impact of reusable orbital transport on manned space flight program
[P-3465] 07 p1192 N67-17676
Command and communication system test set ground support equipment
[NASA-CR-81696] 07 p1041 N67-18025
Keynote address on importance of logistics management to manned space program 11 p1850 N67-21963
Minimal energy ballistic trajectories for manned and unmanned space flights to Mercury
[NASA-TN-D-3900] 11 p1978 N67-22291
NASA meteorological flight program plans, procedures for participation in space flight programs, and requirements for meteorological research on Mars 12 p2214 N67-24309
Extraterrestrial biophysical and biological studies in West Germany - scientific satellite experiment, space simulation effects on animals, plants, and microorganism, and future projects 12 p2024 N67-24424
Extraterrestrial biophysical factors of space flight 12 p2024 N67-24430
Renal elimination of steroids during manned space flight stress 12 p2025 N67-24434
Measuring and transmission systems for biological data during space flight 12 p2018 N67-24435
International agreements for control of satellites and manned space flights in outer space 13 p2436 N67-25286
Manned and unmanned space flights, ground support system, international cooperation, and advanced technology and nuclear propulsion - NASA report for January through June 1966
[NASA-TM-X-59654] 13 p2440 N67-25648
Air conditioning, oxygen regeneration, and food and water recovery life support systems for manned space flight vehicles 13 p2266 N67-26475
Biomedical effects of single and mixed gas space cabin atmospheres for manned flights 14 p2471 N67-26734
Manned orbiting stopover round trips to Venus studied for departure dates between 1975 and 1986
[NASA-TM-X-53311] 14 p2613 N67-27239
Radiation safety of manned space flights - radiobiological aspects 16 p2827 N67-29217
Extravehicular protection and operations
[NASA-CR-773] 16 p2829 N67-29283
Human water exchange in space suits and capsules
[NASA-CR-804] 16 p2829 N67-29296
Experimental payloads for manned Mars flyby mission, including onboard remote sensors and unmanned probes for measuring Martian environment
[NASA-CR-85122] 16 p2970 N67-29891
Fabrication of prototype expandable structure for manned earth orbiting artificial gravity research vehicle
[NASA-CR-66351] 16 p2982 N67-30080
Task identification, requirements, and justification for use in manned flight research program - size influence of lifting body entry vehicle on costs and potentials
[NASA-CR-66353] 16 p2975 N67-30024
Marshall Space Flight Center research project, and technological developments on manned space flight, trajectory analysis, structural designs, and related topics
[NASA-TM-X-53630] 17 p3181 N67-30654
Meteoroid and hypervelocity impact criteria for spacecraft design study 17 p3171 N67-30611
Rumors, speculations, and facts of Soyuz-1 flight
[ATD-67-31] 17 p3166 N67-30632
Full-scale model flight testing of abort-escape system for manned space capsule used in case of booster rocket malfunction at or near takeoff
[NASA-TM-X-351] 18 p3216 N67-31980
Support services for calibration and development of optimum utilization plans for visual parameter tester applicable to manned space flight
[NASA-CR-73009] 18 p3217 N67-32271
Spacecrew sleep characteristics under conditions of simulated manned space flight
[NASA-TT-F-11136] 18 p3212 N67-32331
Review of individuals and societies involved in growth of rocketry
[FTD-MT-66-57] 19 p3528 N67-33876
Digital computers and performance characteristics for manned space flights and other aerospace applications
[NASA-CR-87173] 20 p3607 N67-34283
Closed life support system research, and other conference papers on water purification, waste disposal, and food synthesis for space flights
[NASA-SP-134] 20 p3583 N67-34383
Life support systems for manned space missions exceeding one year in duration 20 p3583 N67-34384
Regenerative life support system to minimize expendable materials aboard spacecraft during long manned flights 20 p3583 N67-34385
Program plans to study closed life support system in manned spacecraft flights 20 p3584 N67-34386
Waste stabilization in closed ecological systems of manned space environments 20 p3584 N67-34387
Spin inertia culture system in waste treatment in closed ecological system 20 p3584 N67-34388
Chemically synthesized food for long space missions 20 p3575 N67-34389
Chemical synthesis of protinaceous foodstuffs in application to long manned space flights 20 p3576 N67-34390
Analyses of swingby and conjunction class missions, mission aborts, and launch azimuth constraints based on manned Mars stopover missions study
[NASA-CR-87487] 20 p3736 N67-34485
Mission, trajectory, and vehicle analyses of manned Mars stopover missions - advanced nuclear system parameters
[NASA-CR-87488] 20 p3733 N67-34791
Guidelines and assumptions for manned Mars stopover mission planning analyses - nuclear system parameters
[NASA-CR-87489] 20 p3727 N67-34793
Biomagnetic literature reviewed and magnetic field exposures in space studied for effects on health and performance of astronauts
[NASA-CR-989] 21 p3930 N67-35706
Evaluation of single unit and integrated life support system for simulated twenty day aerospace mission
[AMRL-TR-66-185] 22 p3978 N67-37077
Concepts and considerations for manned extravehicular activities in assembly and operation of large space structures
[NASA-CR-671] 22 p3981 N67-38033
Space flight missions in astronomy, solar physics, particles and fields, ionospheres and radio physics, planetary atmospheres, planetology, bioscience, and spacecraft applications
[NHB-8030.2A] 23 p4344 N67-38579
NASA launchings, space probes, manned space flights, and other space-related and aeronautics events and discoveries in 1966
[NASA-SP-4007] 23 p4345 N67-39999
Sleep characteristics in simulated manned space flight 23 p4191 N67-39018

Nutrition problems during manned space flights 23 p4193 N67-39099
Manned expeditions to Mars - Selective bibliography
[TRW-99900-6264-T001] 24 p4529 N67-39866
Weightlessness - principles, effects on manned space flight, and simulation
[NASA FACTS S-5/8-67] 24 p4533 N67-40440
Practicality of redundancy and space maintenance in manned space flight
[AFAPL-CONF-66-3] 24 p4533 N67-40537
MANNED SPACE FLIGHT NETWORK /MSFN/
Equations for interrelating position data of different coordinate systems used in manned space flight network tracking equipment
[NASA-TM-X-55956] 23 p4217 N67-39334
Network performance analysis for Gemini GTA-8 mission
[NASA-TM-X-55965] 24 p4407 N67-39953
Aircraft instrumentation systems for testing manned space flight network capability to support Gemini/Agena missions
[NASA-TM-X-55963] 24 p4410 N67-40287
Spacecraft tracking and communication systems
[NASA FACTS S-2/8-67] 24 p4411 N67-40513
MANNED SPACECRAFT
SA APOLLO SPACECRAFT
SA GEMINI SPACECRAFT
SA LUNAR EXCURSION MODULE /LEM/
SA MERCURY CAPSULE
SA UNMANNED SPACECRAFT
SA VOSKHOD MANNED SPACECRAFT
Manufacturing responsibility to maintain reliability of equipment for manned space operations 03 p0403 N67-12711
Microorganism growth control in manned spacecraft environment
[NASA-CR-65556] 03 p0344 N67-12818
Manned meterological satellite instrumentation and observation
[DAC-59300] 04 p0571 N67-13562
Environmental and attitude control problems of manned spacecraft
[NASA-TM-X-1325] 04 p0616 N67-14243
State of the art review on expandable and modular structures technology for manned spacecraft missions
[AFAPL-CONF-67-5] 06 p0977 N67-16106
Multiprocessor computer design for manned Mars spacecraft 07 p1044 N67-17103
Multiprocessor program control for manned Mars spacecraft 07 p1045 N67-17105
Lifting bodies for manned reentry spacecraft
[NASA FACTS, VOL. IV, NO. 2] 06 p1370 N67-18508
Closed-loop control systems including human operator for manned spacecraft
[NASA-CR-82370] 08 p1260 N67-19041
Flight test evaluation of on-off rate command attitude control system of manned lunar landing research vehicle
[NASA-TN-D-3903] 11 p1983 N67-23293
Prototype development of water recovery system for manned spacecraft based on electrochemical treatment of urine
[NASA-CR-66323] 11 p1801 N67-23324
Nominal natural environment values for advanced manned planetary space flights to Venus and Mars
[NASA-SP-3016] 12 p2213 N67-25042
Optimal accoustic environment in spacecraft cabins for extended manned missions
[NASA-TT-F-10980] 15 p2794 N67-28221
Using magnetic fields to protect manned spacecraft from ionizing radiation
[FTD-HT-66-717] 15 p2851 N67-28892
Propagation anomaly research, and telemetry signal strength prediction for manned spacecraft application 17 p3025 N67-30602
Advanced integrated visual and control systems simulator evaluations for post-Apollo manned spacecraft
[NASA-CR-762] 17 p3044 N67-30604
Altered cabin atmospheres for manned spacecrafts 18 p3239 N67-31673
Oxygen supply system for manned space enclosures using catalytic decomposition of hydrogen peroxide
[AMRL-TR-66-169] 18 p3317 N67-32347
Modifications to interim visual space flight simulator
[NASA-CR-65639] 18 p3257 N67-32368
Deduction of reentry near wake plasma properties for Mercury and Gemini manned orbital spacecraft from radio signal attenuation data
[NASA-TN-D-4118] 19 p3517 N67-33463
Permselective composite techniques applied to atmosphere thermal control of emergency and extravehicular manned space assemblies
[AMRL-TR-66-234] 21 p3770 N67-35433
Oxygen reclamation system with electrolysis cell for reduction of carbon dioxide on manned spacecraft
[NASA-CR-66403] 21 p3772 N67-35768
Laboratory model waste management unit for use in space simulator
[U-412-66-145] 21 p3773 N67-36429
Immobilized liquid membranes for continuous carbon dioxide removal from manned spacecraft
[S-67-1076] 22 p3979 N67-37546
Oxygen toxicity at cellular level in manned spacecraft
[NASA-CR-66545] 22 p3972 N67-37632
Mercury-Redstone project development history, and contributions to future manned spacecraft design and operation
[NASA-TM-X-53107] 22 p4151 N67-37935
Telemetry methods for manned and unmanned spacecrafts measurement of physiological, physical and operational data
[NASA FACTS S-3/8-67] 24 p4411 N67-40538
MANOMETER
Differential manometer for measuring wind velocity
[JPRS-38403] 01 p0100 N67-10387
Membrane deflections in automatic manometer gas pressure measurements 07 p0994 N67-16863
Scientific instrumentation and apparatus for pressure measurement 10 p1633 N67-21386
Multiple point manometer with dynamic compensation and distant printout
[FTD-HT-67-30] 22 p4047 N67-37364
Manometric gauge with outside collector for very low pressure applications
[NASA-TT-F-11349] 24 p4452 N67-40158
MANPOWER
SA PERSONNEL
Future manpower and training needs in commercial aviation industry 11 p2004 N67-22273
Prospective manpower situation for science and engineering staff in universities and colleges
[NSF-67-11] 20 p3750 N67-34449
Expenditures of resources, funds, and manpower for research and development programs
[NSF-67-7] 20 p3750 N67-34500
Uranium, scientific manpower, scientific research organizations, and gas diffusion plant resources of Lanchow nuclear base 20 p3622 N67-35143
Overall management, scheduling, manpower, and financial aspects of Voyager data management
[NASA-CR-89713] 24 p4427 N67-40420
MANUAL
SA HANDBOOK
SA INSTALLATION MANUAL
Spacecraft manual for OSO - telemetry system, command system, power supply and distribution, antenna system, experiment complement, temperature monitoring, and launch program
[NASA-TM-X-55616] 02 p0313 N67-11395
Nimbus II users guide
[NASA-CR-80361] 03 p0389 N67-12369
Computer program users manual for entry vehicle design
[NASA-CR-80503] 03 p0372 N67-13141
Procedures for maintenance of space center base utilities
[NASA-TM-X-53265] 05 p0691 N67-14898
Base support services manual of maintenance procedures and responsibilities
[NASA-TM-X-53264] 05 p0691 N67-14899
Systems manual program description R 104 Master Orbit Tape Routine for computing inertial, geocentric, geodetic position, velocity, real field, and geomagnetic data for satellites
[NASA-TM-X-55623] 05 p0681 N67-15154
Users manual for Pat Editor System Tentative /PEST/ monitor program for Phoenix computer
[MTR-219] 06 p0848 N67-16407
Signal conditioning device for antisubmarine warfare magnetometer systems users manual
[MEL-TM-164/66] 06 p0823 N67-16412
Instruction and maintenance manual of standard relay modules for plant safety and control circuits
[TRG-988/R/, PT. 2] 07 p1054 N67-18121
Lunar surface mobility systems comparison and evolution - evolution methodology computer program users manual
[NASA-CR-82746] 09 p1566 N67-19977
Digital computer instruction manual
[AD-638023] 09 p1421 N67-19987
User manual for digital time series analysis program
[NASA-CR-66315] 09 p1422 N67-19988
Bibliography on analytical chemistry manuals
[AWRE/LIB/BIB/15] 10 p1590 N67-21612
Handheld space sextant and preflight battery charger and test equipment - operating manuals
[NASA-CR-73072] 11 p1877 N67-22065
Data structure, control language, and command structure of Editor I on-line program - Manual
[MTR-222] 12 p2089 N67-24660
Manual for procedure of experiment proposal for inclusion in ESRO sounding rocket program
[ESRO-SP-3] 13 p2362 N67-25691
Transient electric network analyzer computer program manual
[NASA-CR-83882] 13 p2390 N67-25872
Design manual for fabricating ground mounted inflatable structures with lowest possible weight
[TR-67-35-ME] 14 p2621 N67-26491
Instruction manual for Collected Algorithms for Learning Machines /CALM/ computer program simulating wide class of learning machines on digital computer
[RADC-TR-66-761] 14 p2496 N67-26660
Effects of added material during manual argon arc welding on structure, strength, and plasticity of welded joints 14 p2555 N67-27038
Systems design manual for forming airframe parts of annealed titanium alloys
[GDC-ERR-AN-997] 14 p2544 N67-27218
HFIR homogeneity scanner - operation and maintenance manual
[ORNL-TM-1687] 14 p2577 N67-27333
Manual on short term prediction of ionospheric geomagnetic storms, and radio propagation forecasting service 14 p2327 N67-27550
Instruction manual for Selma interpretive code to facilitate programming problems in matrix notation
[REPT.-38] 14 p2564 N67-27699
Users manual for OGO C and D experiment 19 data interpolation program
[NASA-TM-X-53600] 16 p2961 N67-29660
Reduction of hazards during testing of Saturn systems - manual
[NASA-TM-X-53563] 16 p2975 N67-29997
Instruction manual for programmers using Gerber series 1000 automatic drafting machine via Fortran II programs
[SC-RR-67-79] 17 p3023 N67-31667
Operation manual for stratosphere temperature sonde
[ECOM-5114] 18 p3244 N67-32329
Radiator condenser design manual for SNAP II mercury Rankine program
[NAA-SR-MEMO-12129] 19 p3427 N67-32766
Users manual for Quick Look mission analysis program
[NASA-CR-67301] 19 p3523 N67-32972
Propulsion system dynamic simulation computer program - instruction manual
[NASA-CR-72113] 19 p3499 N67-33011
Manual on short range radio propagation prediction services and principles of predicting ionospheric and magnetic disturbances
[JPRS-41851] 19 p3498 N67-33561
Universal programming language - manual for study of algol 60
[FTD-HT-66-363] 19 p3412 N67-33536
Reference manual for use of computer with on-line remote devices /CORD/ time-sharing system from teletype terminal 19 p3413 N67-33906
ARN-3 type atmospheric noise measuring equipment - manual
[AD-652796] 20 p3529 N67-34200
Chamber voltage monitor and test unit for testing response of parts of reactor safety system - maintenance manual
[ORNL-TM-1628] 21 p3805 N67-35429
Metal casting manufacturing process manual 21 p3861 N67-36119
Implementation manual for selective

dissemination of information system [IDC-0074-3] 22 p4169 N67-37324
Biotelemetry system operating and assembly manual [NASA-CR-98403] 22 p3909 N67-37336
Manual for inverse computation of supersonic inviscid flow fields with imbedded shocks [TM-156] 22 p4081 N67-37675
Shock and vibration design criteria manual for transportation and handling [NASA-CR-84400] 23 p4361 N67-39312
Reference manual on Strigol program for data strings and string manipulation languages [NASA-CR-89640] 24 p4415 N67-40067
Preliminary power system configuration tradeoffs to select optimized systems with respect to reliability and weight - manual [NASA-CR-89596] 24 p4379 N67-40098
MANUAL CONTROL
Manual control systems technology - human performance in tracking data acquisition [NASA-CR-79386] 01 p0021 N67-10173
Manual control data acquisition research facility 01 p0057 N67-10174
Random variables to use in modeling manual control performance 01 p0021 N67-10176
Finite-state machine theory application to manual control, and development of models of tracking behavior 01 p0021 N67-10177
Vestibular motion sensor role in human dynamic space orientation and manual vehicle control [NASA-CR-635] 01 p0016 N67-10751
Discrete and continuous models, multivariable and adaptive control, information theory, and design methods - NASA-university conference on manual control [NASA-SP-128] 06 p0808 N67-15850
Summary of papers presented at NASA-university program conference on dynamic and other models, control devices, operator performance, and information theory related to manual control 06 p0808 N67-15851
Sine-wave tracking studies indicate predictability of input and control device dynamics in manual control by human operator 06 p0808 N67-15852
Asynchronous finite-state models of manual control systems in which human operator behaves as finite-state machine 06 p0808 N67-15853
Adaptive manual control by human operator under unexpected or very complicated conditions 06 p0809 N67-15858
Nonlinear and time-varying models in relation to manual control problems of human operator 06 p0809 N67-15859
Experiments to determine necessary modifications to current models of human controller of single variable systems to make them representative of controller in two variable situations 06 p0810 N67-15863
Hand control designs and manual operator performance evaluated under random vertical vibration 06 p0811 N67-15870
Model based on optimal control theory for characterizing human operator in preview control task to provide reference frame for studying performance value and learning in manual control 06 p0812 N67-15872
Studies in optimal behavior in manual control systems - effect of four performance criteria in compensatory rate-control tracking 06 p0812 N67-15873
Model to describe human decision making in manual control systems 06 p0812 N67-15874
Variational methods used to solve pursuit-evasion differential game and manual control 06 p0812 N67-15875
Usefulness of adaptive simulators in manual control system design 06 p0812 N67-15876
Piloted simulation of manual guidance techniques for upper stages of Saturn V launch vehicle [NASA-TN-D-3901] 11 p1982 N67-22562
Measurement and display of control information using remote manipulation and manual control techniques [NASA-CR-83960] 13 p2263 N67-26018
Man-machine system equalization techniques for designing two symbol head-up display adequate for consistently accurate manual control of stereotyped flight profiles [NRL-MR-1746] 14 p3471 N67-36810
Measurement and display of control information by remote manipulation and continuous manual control [NASA-CR-85775] 17 p3034 N67-31432
Signal analysis programs for manual control studies 18 p3217 N67-31917
Manual technique using optical device to abort manned lunar landing module in orbits compatible with concentric-flight-plan rendezvous [NASA-TN-D-4089] 19 p3486 N67-33456
Survey of human operator response mechanisms, and development of visual-auditory display device to increase operator response speed, frequency, and flexibility [NASA-CR-874] 21 p3773 N67-35672
Graphic method for stability analysis of manual control systems using parameter plane technique [RE-299] 21 p3773 N67-36189
Human controller behavior in multivariable control systems [NASA-CR-875] 24 p4390 N67-39978
Hierarchial model on adaptive behavior of human operators in manual control systems [NASA-CR-89592] 24 p4424 N67-40066
MANUFACTURING
Preparation of carbon 14-labelled graphites using additives in manufacturing process [TRG-1258/C/] 01 p0026 N67-10076
Preproduction testing of two terminal and gate high speed semiconductor switches [QR-13] 01 p0052 N67-10375
Pilot line production for nuclear radiation resistant electron tubes [AD-639610] 01 p0054 N67-10932
Methods and applications of glass fiber and glass pipe production [JPRS-37744] 01 p0079 N67-11122
Ultrasonic welding process capability in electron tube manufacturing [AD-639213] 02 p0263 N67-11270
Fabrication of beryllium test sheet for structural applications [NASA-TM-X-53525] 02 p0265 N67-11824
PEM low frequency /1 to 10 Mc/ quartz crystal filter manufacturing methods [QPR-8] 02 p0244 N67-11895
Manufacture of upper sideband quartz crystal filters [QPR-5] 02 p0244 N67-11923
Review of processes developed, program management, and reporting techniques related to manufacturing of various stages of Saturn boosters - conference [NASA-CR-80274] 03 p0401 N67-12701
Manufacturing responsibility to maintain reliability of equipment for manned space operations 03 p0402 N67-12711
Responsibility of spacecraft manufacturer during launch operation and throughout spacecraft life 03 p0403 N67-12712
Mechanized direct labor data collection system to support manufacturing reliability program and to provide information on available manned-machine time and productive time of tool utilization 03 p0403 N67-12714
Vehicle Project Administration to provide constant surveillance of Apollo manufacturing procedure on vehicle by vehicle basis 03 p0403 N67-12715
Quality assurance of weldments for Saturn S-IC assembly during manufacturing 03 p0403 N67-12717
Manufacturing modifications, and glass filler additions for dip resin used in honeycomb structures [NASA-CR-80517] 03 p0406 N67-13198
Radiation produced wood-plastics composite materials - process, manufacturing, commercial applications, and test and development programs [ORNL-IIC-7] 04 p0563 N67-13361
Feasibility of wood-plastics material process and design features for monomer handling, impregnation, and irradiation equipment for pilot plant 04 p0553 N67-13367
Radiation produced wood-plastic composites - product applications, cost considerations, manufacturing interest, and plant siting 04 p0565 N67-13372
Commercial manufacture of irradiated wood-plastic composites and design of pilot plant production facility 04 p0565 N67-13373
Potential commercial manufacture and use of hardwood plywood plastic composites 04 p0565 N67-13377
Semiautomated tool setter [RPP-886] 04 p0557 N67-14134
Manufacturing, assembly, and handling procedures for planetary spacecraft to be heat sterilized 05 p0711 N67-14794
Manufacture of pistons for high speed engines using Sintered Aluminum Powder /SAP/ [JPRS-39514] 05 p0713 N67-15171
Fabrication of porous plate filters 06 p0823 N67-15503
Present status of radiation chemistry in Japan 06 p0817 N67-15528
Fabrication of diffused silicon wafer diodes [UCRL-14651] 06 p0855 N67-16388
Design and manufacture of hydrogen generator [ACSDS-696640, VOL. I] 07 p0998 N67-17635
Manufacturing and test procedures for fuel and oxidizer burst diaphragms for Aerobee 350 propellant start valves [NASA-TM-X-53654] 07 p1182 N67-17635
Silicon n-p-n very high frequency power translators [QR-4] 07 p1051 N67-17648
Epoxy casting systems used in manufacturing transducers [RAE-TR-66094] 07 p1085 N67-17814
Fabrication quality control of monolithic microcircuits [NASA-CR-81723] 07 p1053 N67-18012
Quality control program for manufacturing high reliability silicon monolithic integrated circuits [NASA-CR-81699] 07 p1054 N67-18021
Manufacturing, failure analysis, and clinic for valves with aerospace applications [NASA-TM-X-53419] 08 p1285 N67-19032
Production facilities for manufacturing multiturn metal film trimmer resistors [AD-646711] 09 p1424 N67-19679
Production techniques and ability of pilot facility to manufacture microminiature crystal units [QPR-5] 09 p1425 N67-19652
Fabrication and testing of silicon surface barrier detectors and correlated properties [BMWF-FBK-66-34] 10 p1748 N67-20814
Fabrication methods for beryllium oxide pellets containing uranium or uranium-thorium fuel particles [GA-7120] 10 p1675 N67-20819
Two wall attachment fluid elements developed by empirical methods 10 p1608 N67-21103
Manufacturing methods and economic advantages of powder metallurgy [FTD-HT-66-641] 10 p1658 N67-21845
Soviet electroslag welding method for production of clad plate rolled products for pressure vessels [FTD-MT-65-468] 11 p1989 N67-22539
Quality control testing of semiconductor switches [W-22] 11 p1838 N67-22678
Phosphine-oxygen diffusion system as manufacturing process for silicon integrated circuit fabrication [RCS-OSD-1366] 11 p1968 N67-23051
Powder metallurgy process and potential applications [AD-645456] 12 p2105 N67-23517
Identification of designs, materials, and processes used in manufacturing of electronic equipment 12 p2043 N67-23851
Fabrication of miniaturized electronics devices, including circuit interconnections, device joining, and flat package sealing [GDC-ERR-AN-958] 12 p2067 N67-25079
Bearings and spindles - causes of bearing failures, measurement definitions and nomenclature, gauging practices, and high accuracy bearing specifications [RPP-734] 13 p2225 N67-25390
Production of silver plated, copper-beryllium alloy tubular booms and deployment mechanism for gravity gradient stabilization of space satellites [NASA-CR-83978] 13 p2227 N67-26020
Statistical probability of equipment failures for manufacturers [ARC-R+M-3443] 13 p2229 N67-26130
Fabrication design for titanium gore segment [NASA-CR-84049] 13 p2231 N67-26288
High speed coating process for producing foamed high density polyethylene insulated fine gauge conductors for use in exchange cables [AD-646542] 14 p2542 N67-26784
Application of welded thin metal in new communication cable designs [AD-646528] 14 p2504 N67-26788
Silicone rubber suitable for production of

high performance coaxial cable
[AD-646540] 14 p2559 N67-26789
Tabular line of balance production control system for production scheduling and control of weapons components
[Y-KA-17] 14 p2497 N67-26227
Manufacturing capabilities of superinsulation materials designed for use with liquid hydrogen propellant tanks and space vehicle structures
[GDC-ERR-AN-960] 14 p2544 N67-27210
Manufacture of reactor fuel elements from fused carbides and coating with pyrolytic graphite
[ORNL-TR-1417] 16 p2929 N67-29277
Planar conductive interconnection techniques
[ECOM-02024-3] 16 p2872 N67-29592
Motor chamber and nozzle shell designs, material and process evaluation studies, and fabrication methods for pressure vessel components of two 260-SL motors
[NASA-CR-72126, VOL. V.]
16 p2964 N67-30032
Procurement, process, and nondestructive test specifications for development of 260-SL motor chamber and nozzle shell fabrication of high nickel maraging steel
[NASA-CR-72126, V. V, APPEND. A]
16 p2964 N67-30033
Material and process evaluation program for 260-SL motor chamber and nozzle shell fabrication of 18 percent nickel maraging steel - appendix
[NASA-CR-72126, V. V, APPEND. B]
16 p2964 N67-30034
Manufacture of radioisotopes, closed sources, and labelled compounds pn Czechoslovakia
[AERE-TRANS-1068] 17 p3002 N67-30416
Design and material evaluation program for fabrication of large ablative motor nozzle and exit cone
[NASA-CR-72125, BK. 1] 17 p3152 N67-31200
Manufacturing processes for seamless stainless steel tubing
[NASA-CR-85910] 17 p3083 N67-31377
Goddard Space Flight Center microelectronics program - integrated circuit block and semiconductor process development 18 p3241 N67-31563
Ion beam implantation method for fabrication of automatic transistors and integrated circuits 18 p3243 N67-31567
Gap welding method and application to microcircuit interconnections 18 p3273 N67-31572
Fabrication induced surface instabilities in semiconductor devices 18 p3243 N67-31575
Feasibility of fabricating thick film, insulated gate field effect transistor using integrated screened circuit technology 18 p3243 N67-31577
Fabrication of thin film transistors compatible with passive components 18 p3243 N67-31578
Fabrication of optical memory with ferrimagnetic storage elements 18 p3243 N67-31579
Hybrid analog-to-digital converter for spacecraft applications 18 p3244 N67-31582
Fabrication, packaging, and testing of microelectronic equipment for Applications Technology Satellite /ATS/ scientific experimental package 18 p3247 N67-31605
Magnesium/magnesium perchlorate/m dinitrobenzene dry cells fabrication techniques
[ECOM-0140-3] 18 p3200 N67-32677
Microelectronic design, fabrication, materials and packaging techniques
[NAFI-TP-202] 19 p3413 N67-32731
Thermal effects on precision of machine tool manufacturing process
[UCRL-50194] 19 p3464 N67-33149
Manufacturing and metallurgical handbook
[FTD-MT-64-192] 19 p3464 N67-33410
Development and control of texture in zirconium alloy tubes
[AECL-2498] 20 p3685 N67-35138
Feasibility of manufacturing large solar collectors by rotation of matrices 21 p3856 N67-35476
Statistical evaluation of flare dimensions obtainable with current manufacturing processes 21 p3856 N67-35570
Industrial separation methods and plants for producing heavy water
[JPRS-42164] 21 p3780 N67-35652
Metal casting manufacturing process manual 21 p3861 N67-36119
Magnetic forming manufacturing and assembling techniques for irradiation equipment 21 p3892 N67-36548
Flat conductor cable installation techniques
[NASA-TM-X-53586] 21 p3820 N67-36554
Shrink-fitted sleeves and boots with encapsulating compounds used to fabricate firing cables
[SCL-DR-67-34] 21 p3864 N67-36597
Raw materials and techniques for manufacturing industrial carbons and graphite
[LA-3693] 22 p4076 N67-37119
Industrial processes for manufacturing welded straight-seam tubes from titanium and its alloys
[FTD-MT-65-27] 22 p4053 N67-37229
Evaluation of fabrication process and structural properties of chemically vapor deposited alumina and magnesia
[S-946] 22 p4077 N67-37254
Grinding apparatus and surface finishing methods for ceramic materials
[REPT.-12] 22 p4077 N67-37262
High pressure consolidation of vacuum encapsulated tungsten compacts
[UCRL-13298] 22 p4070 N67-37297
Company investment in research projects, with emphasis on chemical industry, and cooperation between manufacturing/marketing and research 23 p4308 N67-38512
Product-process relationships, automatic process control, and dependence of manufacturing research on scientific innovations 23 p4308 N67-38517
Fast reactor fuel element development
[KFK-575] 23 p4291 N67-39143
Fabrication of fast reactor fuel pins for test irradiations
[EURFNR-314] 23 p4291 N67-39144
Chemical vapor deposition of tungsten and tungsten-rhenium alloys for structural applications - process development
[UCRL-70340, PT. 1] 23 p4287 N67-39206
Uranium hexafluoride specifications study for power reactor use
[ORO-656] 23 p4210 N67-39291
Functional and environment testing of 8-inch valve used in vaporizer units and umbilical tower hydrogen vent
[NASA-CR-89769] 24 p4458 N67-39986
Electrochemical machining processing techniques improvement
[AMRA-CR-67-03/F/] 24 p4459 N67-40077
Manufacturing contractor data project for Voyager spacecraft systems
[NASA-CR-89767] 24 p4460 N67-40414
Manufacturing verification tests for quality assurance and control data management on Voyager spacecraft
[NASA-CR-89769] 24 p4461 N67-40416

MANY-BODY PROBLEM

Significance of one-dimensional many-body problem to quantum mechanics - historical survey of existing one-dimensional and two-dimensional models
[AFOSR-66-1574] 01 p0114 N67-10316
Regularization of relative many-body equations of celestial mechanics and relative three-body equations in case of binary collisions 05 p0727 N67-14415
Many-body problem, continuum, and statistical methods applied to dynamics of star clusters, with bibliography 05 p0759 N67-14419
Qualitative methods in three-body and many-body problems 05 p0738 N67-14420
Determination of periodic cislunar trajectories in four-body problem
[GGC/EE/66-9] 05 p0764 N67-15366
Properties of one-particle Green function and application of dispersion relations to many-body problem 07 p1146 N67-17213
Approximation method for energy calculation in many-electron problem
[NASA-TT-F-10848] 12 p2178 N67-25625
Quantum field theory used in many-body problems - deceleration of relativistic particle in plasma and radiation of high temperature plasma
[FTD-MT-64-435] 13 p2383 N67-25387
Equations in momentum space representation for wave function of many body system with definite angular momentum 19 p3568 N67-33948
Polar substorm model on auroral effects, algebra of fermi-dirac operators applied to many-body problems, and dynamitron accelerator as thermal neutron source 20 p3634 N67-34777
Plasma physics, Vlasov theory, astrophysics, magnetohydrodynamics, many-body problem, and computer simulation - conference
[NASA-SP-153] 22 p4118 N67-37737
Many-body gravitational problem and galactic star cluster simulation 22 p4143 N67-37755
Computer methods for solving many-body and charged particle problems and nonlinear systems, classification and bibliography 23 p4130 N67-37760
Computer experiments on many-body problem and Lagrange versus Euler equations 22 p4143 N67-37761

MANY-PARTICLE THEORY

Particle movement through compact subset of d-dimensional Euclidean space in system of infinitely many particles in statistical equilibrium
[RM-4964-PR] 08 p0988 N67-18113
Schroedinger equation for system of one dimensional particles with point interaction 12 p2159 N67-25704
Application of many-electron theory of solids to theory of metals
[NASA-TT-F-10670] 14 p2601 N67-26622
Sum rules in geminal expansion of many-electron wave functions
[AAEC/TM382] 20 p3691 N67-34173

MAP

SA ASTRONOMICAL MAP
SA CHART
SA LUNAR MAP
SA RADAR CLUTTER MAP
SA RADAR MAP
SA RELIEF MAP
SA WEATHER MAP

Maps and data of solar activity for October 1966 01 p0147 N67-10262
Reference map display systems for using image interpreters
[AD-629128] 01 p0078 N67-11068
Nonlinear analog simulation of tungsten water moderated reactor to obtain steady state operating maps
[NASA-TN-D-3040] 12 p2151 N67-24824
Moving map instrument display evaluation in helicopter landing approach tests under simulated IFR conditions
[NASA-TN-D-3796] 14 p2571 N67-26548
Atmospheric radio wave refraction - maps and graphs
[ESSA-MONO-1] 14 p2321 N67-26874
MANS - Map analysis system for processing maps and line drawings
[NASA-CR-85360] 17 p3081 N67-30980
Fortran program for producing contour map of function of two independent variables
[ORNL-4031] 17 p3082 N67-30982
Map of magnetic field intensity above U.S.S.R. constructed from measurements by earth satellite
[ACIC-TC-1340] 23 p4041 N67-37793

MAP-MATCHING GUIDANCE

Geographic orientation in aircraft pilots - flight method of reporting navigation performance
[TR-751-10] 17 p3000 N67-30999
Spacecraft attitude sensors design and operational features - horizon scanners, solar sensors, star trackers, space sextants, and map matchers
[NASA-SP-145] 17 p3166 N67-31298

MAPPING

SA CARTOGRAPHY
SA CONFORMAL MAPPING
SA FIXED POINT
SA FLUX MAPPING
SA PHOTOGRAMMETRY
SA TOPOGRAPHY

Factorization of general relative lifting problems into simpler problems solvable by algebraic means in obstruction theory 01 p0082 N67-10087
Classical equation for radio refractive index of atmosphere, and exponential model for preparation of climatic maps 01 p0099 N67-10343
Homomorphisms of graphs and automata
[REPT.-02166-44-T] 01 p0095 N67-10947
Defining cold region boundaries of Northern Hemisphere by using parameters of air temperature, snow depth, ice cover, and frozen ground
[CRREL-TR-176] 01 p0069 N67-11027
Fixed point theorems for weakly continuous mappings in Banach spaces
[MRC-636] 03 p0415 N67-13422
International Indian Ocean Expedition

including studies in meteorology, geophysics, and mapping 04 p0544 N67-14223
Radar techniques applied to mapping of visible portion of lunar surface [NASA-CR-80640] 04 p0614 N67-14256
Analysis of passive, low light level photographic systems for application to topographic mapping [REPT.-82-TR] 06 p0880 N67-16171
Parameter space mapping of guided high frequency electromagnetic wave propagation on magneoplasma column 07 p1162 N67-17007
Color photomap of Saudi Arabia 07 p1086 N67-17954
Mapping of lunar surface and measurement of radar cross section of moon for selection of landing site [NASA-CR-81718] 07 p1194 N67-18007
Statistical decision theory for automatic classification of multiple spectral image points [NASA-CR-81725] 07 p1048 N67-18052
Stability of periodic and equilibrium solutions of restricted three-body problems - measure preserving mappings, normal form of Hamiltonian, and Poincare recurrence theorem [NASA-CR-82480] 08 p1301 N67-19029
Mathematical lectures on mapping, fiber spaces, invariance, group theory, and algebraic topology [AFOSR-66-2023] 09 p1466 N67-19630
High altitude color and multispectral imagery for inventory and mapping of timber resource [NASA-CR-82963] 09 p1449 N67-19905
High altitude multispectral imagery of wildland area studied to determine accuracy of mapping wildland resources [NASA-CR-83973] 09 p1450 N67-19939
Perspective projection of spherical zone boundaries to image plane [MTR-92] 10 p1621 N67-20672
Generalization of Motzkin theorem - mathematical model for mapping and visual pattern recognition [SR-2] 12 p2131 N67-24706
Pulsed magnetoplasmadynamic arc facility [NASA-CR-83991] 13 p2386 N67-25954
Generalized computer techniques for solving contour map problems [NASA-CR-83991] 13 p2291 N67-26007
Quantitative analysis and mapping of spatial perception 14 p2469 N67-26685
Statistical model for topographic representation of aircraft penetration maneuvers in tactical warfare on digital computer [RM-5061-PR] 14 p2562 N67-26702
Homomorphic mapping from universal Teichmuller space to bounded operators in Banach space [CU-30] 14 p2563 N67-26800
Ground mapping airborne radar for helicopter navigation [RD-66-74] 14 p2572 N67-27193
Nonexpansive and monotone mappings in Banach spaces [NASA-CR-84418] 14 p2565 N67-27377
Electron beam mapping on 4 MV pulsed electron accelerator [SC-CR-66-158] 14 p2513 N67-27494
Evaluation of dyad-spline method for all-weather terrain mapping [C6-3231/6030] 15 p2703 N67-28392
Exponential generating function derived for number of idempotent elements in symmetric semigroups [MRC-699] 15 p2738 N67-28889
Contour, grid, polynomial, statistical, and analog representations of multivariate functions, and applications to topographic modeling [RM-4636-PR] 15 p2738 N67-28896
Fundamental equations for determining direct and inverse azimuths, zenith distance, hour angle, declination and distance between two points on normal sections - geodesics [GIMRADA-RN-19] 16 p2883 N67-29140
Terrain profile recorder image point transfer instrument [AD-649830] 16 p2894 N67-29444
Channel capacity of nonfeedback decoding scheme for use in binary sequence convolutional mapping [R-345] 16 p2921 N67-29639
Low altitude navigation methods - effects of map scale and reference point variables, and training on ability of pilots to estimate direction [TR-67-4] 17 p3100 N67-30245
Astrogeologic studies - lunar and planetary research [NASA-CR-86649] 18 p3326 N67-31934
Summary of telescopic lunar stratigraphy program 18 p3339 N67-31955
Classification of mappings for finite sets - applications for edge detector and for relationships between information theory and algebraic theory of machines [BCL-2.2] 18 p3287 N67-32153
Mathematical analysis of object and image planes mapped onto one another by photographic process [HRB-35216-R-3] 18 p3272 N67-32497
Fraenkel-Mostowski type models used to prove notion of cardinal numbers in set theory [TR-30] 19 p3478 N67-32739
Mapping of earth's bow shock and magnetic tail by Explorer XXXIII satellite [NASA-TM-X-55868] 19 p3539 N67-32848
Performance evaluation technique for surveillance sensors applied to airborne radar [USAEPG-FR-290] 19 p3400 N67-32952
Stereometrograph for compiling relief and planimetric detail for topographic maps from vertical serial aerial photographs [FTD-HT-66-390] 19 p3451 N67-33004
Semiconductor field intensity meters and radio wave mapping technique for geological surveys and geophysical investigations [FTD-MT-65-369] 19 p3402 N67-33007
Mapping, lithology, and stratiography of Sierra Madera structure, Texas 19 p3441 N67-33165
Compatibility and row-column minimization of sequential machine [R-355] 19 p3410 N67-33297
Algorithm for solving zero-one integer programming problem [AD-654162] 19 p3481 N67-33350
Dispersion sum rules used for mapping relations between high energy cross sections into low energy region [JINR-P2-3190] 19 p3508 N67-33706
Cloud mapping by Nimbus I and II high resolution radiometers [NASA-TM-X-55873] 19 p3486 N67-33968
Electric conductivity measurements of soil in U.S.S.R. for mapping radio wave propagation routes [JPRS-41790] 20 p3636 N67-35094
Aircraft flight tests of electric scanning microwave radiometer designed for meteorological satellite [NASA-TM-X-55893] 21 p3847 N67-35540
Mapping interplanetary magnetic field by extrapolating satellite measurements, and sector evolution observations [TM-X-55889] 21 p3932 N67-36393
Infrared thermal mapping of hypothetical nuclear explosions [REPT.-9711-F] 22 p4045 N67-36901
Classification of map surfaces based on structure of polynomial and Fourier coefficient matrices [AD-655445] 22 p4004 N67-36951
Two-dimensional measure preserving mappings [MATT-540] 22 p4100 N67-37585
Lunar geologic analysis and mapping from Ranger photographs, Ranger photogrammetry, analysis of small lunar craters, and site reports made for Lunar Orbiter I mission [NASA-CR-88522] 22 p4142 N67-37651
Properties of rings with one-sided inverses or one-sided identities [NOTS-TP-4322] 23 p4356 N67-38265
North Atlantic velocity profile atlas for latitudes 40 to 60 degrees N [NADC-AE-6647, VOL. I] 23 p4348 N67-38988
North Atlantic velocity profile atlas for latitudes 20 to 40 degrees N [NADC-AE-6647, VOL. II] 23 p4346 N67-38989
Optical heterodyne measurements for mapping spatial velocity distribution in turbulent flow [NASA-CR-89614] 24 p4434 N67-40512

MARAGING STEEL

Machining characteristics of nickel maraging steel 08 p1289 N67-18214
Stress-wave emission in fatigue crack propagation of nickel maraging steel, and of low alloy steel [NASA-CR-66309] 09 p1461 N67-19864
Tension, compression, and impact testing of maraging and alloy steels and titanium alloy - welding materials for submersible pressure hulls [REPT.-5-16-67-3] 13 p2341 N67-26343
Procurement, process, and nondestructive test specifications for development of 260-SL motor chamber and nozzle shell fabrication of high nickel maraging steel [NASA-CR-72126, V. V, APPEND. A] 16 p2964 N67-30032
Material and process evaluation program for 260-SL motor chamber and nozzle shell fabrication of 18 percent nickel maraging steel - appendix [NASA-CR-72126, V. V, APPEND. B] 16 p2964 N67-30034
Chemical composition and mechanical properties of nickel maraging steel plate, forged, and weld wire materials for 260 inch diameter motor chamber and nozzle shell [NASA-CR-72126, V. V, APPEND. C] 16 p2964 N67-30035
Dimensional changes in steel and maraging steel structures during heat treatment [COA-NOTE-MAT-15] 16 p2913 N67-30111
Hydrogen embrittlement of stainless steel, nickel maraging steel and Ti-6Al-4V alloy [NASA-CR-86675] 18 p3280 N67-32356
Stress-corrosion cracking resistance of 18Ni 200 grade maraging steel base plate and weld in salt water [NRL-MEMO-1772] 19 p3472 N67-33575
Thermal history influence on phase transformation behavior and hardness in maraging steel [UCRL-50207] 20 p3631 N67-34427
Electron microscopic study of precipitation hardening and plastic deformation of maraging steel [UCRL-17334] 21 p3868 N67-35853
Structural ductility for titanium alloy and maraging steel [NASA-CR-89260] 23 p4285 N67-38811
Optical emission and X-ray spectroscopy for rapid analysis of stainless and maraging steels [RIA-67-1593] 24 p4464 N67-39525

MARE

SA LUNAR MARE
Stratigraphy and structure of Mare Serenitatis region of moon 18 p3327 N67-31936
Stratigraphy and structure of Julius Caesar and Mare Vaporum quadrangles 18 p3327 N67-31941

MARINE NAVIGATION

Nautical chart data from color photographs obtained on Gemini orbital flights 4, 5, and 7 04 p0549 N67-13500
Pilot identification instruments and sea surface roughness effect for radar navigation of small ships [FTD-MT-65-35] 10 p1673 N67-20531
Portable pilot instruments for identifying ships from shore stations, using ultrashort wave and harbor radar frequency ranges 10 p1673 N67-20532
Sea roughness effects on dispersion of radar for small ship navigation 10 p1674 N67-20533
Experimental long range VLF relative navigation system used on research vessel Atlantis II [AD-646056] 11 p1918 N67-23139
Literature review of inertial navigation systems, equipment, and techniques for sea and air applications [TDCK-46515] 15 p2742 N67-28860
Application of lifting foil theory solved by rheoelectric analogy to calculation and design of subcavitating and supercavitating propellers [AD-652961] 19 p3363 N67-32791
Performance analysis and implementation of marine and air navigation and traffic control system using navigation satellite [NASA-CR-85010] 20 p3731 N67-34257

MARINER I SPACE PROBE

Structural design, analysis, and testing procedures in construction and evaluation of Mariner I space probe 02 p0310 N67-11286

MARINER II SPACE PROBE

Positive ion component properties of solar wind determined by Mariner II [NASA-CR-79321] 01 p0152 N67-10253
Mariner II magnetometer data analyzed to determine effects from Alfven or accoustic plasma waves 06 p0957 N67-15739
Mariner Venus project design changes for flyby mission and sensing of Venus atmosphere 13 p2406 N67-25094
Masses of Venus and Moon, and astronomical unit determined by Mariner II radio tracking data

[NASA-CR-84978] 16 p2966 N67-29180
MARINER IV SPACE PROBE
Mariner IV observations of protons in interplanetary space
[NASA-CR-79364] 02 p0300 N67-11688
Analysis and interpretation of Mariner IV magnetic field measurements between Earth and Mars
[NASA-CR-79396] 02 p0306 N67-12069
Articles and bibliography on origin and evolution of extraterrestrial life - Mariner IV and other observations of Mars
[NAS-NRC-1296A] 03 p0341 N67-12721
Crater size distribution on Mars surface observed by Mariner IV photographs 03 p0461 N67-12745
Mariner IV observations on formation rate, density, and age of craters on Mars 03 p0344 N67-12746
Estimating age of Martian surface by comparing Mars craters observed by Mariner IV photography with data on lunar craters 03 p0461 N67-12747
Capabilities and trajectory parameters for encounter of Mariner IV spacecraft with Mars 03 p0461 N67-12749
Sensitive particle detectors aboard Mariner IV indicate absence of Martian radiation belts 03 p0461 N67-12750
Trapped electrons and magnetic moment of Mars determined by solid-state charged-particle telescope aboard Mariner IV 03 p0462 N67-12751
Flux-mass distribution of sodiacal dust particles near Mars measured by Mariner IV space probe 03 p0462 N67-12752
Martian magnetic dipole measurements from magnetometer aboard Mariner IV space probe 03 p0463 N67-12753
Frequency, phase, and amplitude changes of Mariner IV radio signal through atmosphere and ionosphere of Mars observed before and after planetary occulatation 03 p0462 N67-12754
Mariner IV spacecraft mechanical operations summary including flight and test configuration photographs
[NASA-CR-80519] 03 p0467 N67-13194
Planetary approach orbit determination target errors using Mariner IV Doppler tracking data 05 p0670 N67-14423
Venus station transmitting and receiving systems during Mariner IV tracking 05 p0689 N67-14457
Thermal sterilization effects on components used in construction of Mariner IV endless loop magnetic tape transport 06 p0879 N67-15748
Mars crater analysis from Mariner IV records 06 p0966 N67-16103
Mariner IV dampers for vibration protection and structural weight reduction 07 p1196 N67-16964
Design, development, and performance of Mariner IV scan platform and actuator 07 p1195 N67-16914
Image dissector vacuum tube used in star sensor on Mariner spacecraft 06 p1306 N67-18314
Mariner IV spacecraft system and subsystem performance and analysis
[NASA-CR-82154] 08 p1371 N67-18625
Structure, design, and fabrication of Mariner IV 1964 spacecraft and electronic assembly
[NASA-CR-83959] 13 p2409 N67-25998
Radio communication system instrumentation for Mariner IV space probe, and received spectrograms
[NASA-CR-83957] 13 p2409 N67-25998
Solar energetic particle intensities obtained with Mariner IV and Injun IV during 5-12 February 1965 cosmic ray event
[NASA-CR-84126] 13 p2400 N67-26441
Temperature control system, surface finishes and materials, thermal shields, and louvers of Mariner IV space probe
[NASA-CR-84293] 14 p2617 N67-26581
Martian atmosphere model deduced from Mariner IV ionosphere electron density measurements
[NASA-CR-84825] 15 p2791 N67-28785
Mariner IV - data on Mars, solar system, and interplanetary space flight
[NASA-SP-130] 17 p3163 N67-31356
Interplanetary dust flux and mass distributions obtained from Mariner IV flight 18 p3333 N67-33941
Design of particle detector used in Mariner IV cosmic ray observations
[NASA-CR-86988] 19 p3531 N67-33971
Analysis of Mariner IV magnetometer data to determine magnetic field fluctuations in earths magnetosheath 22 p4144 N67-37821
MARINER V SPACE PROBE
Mariner V - Venus scientific space probe
[NASA NEWS RELEASE-67-124] 14 p2619 N67-27316
Trasectory and experiments for Mariner V Venus flyby mission
[NASA NEWS RELEASE-67-247] 23 p4350 N67-38324
MARINER B PROGRAM
Mariner II attitude control system, OSO spacecraft, and OGO spacecraft 12 p2143 N67-23817
MARINER C PROGRAM
Circuitry, logical design, and test data on redundant spacecraft sequencer breadboard
[NASA-CR-86510] 03 p0372 N67-12219
Fortran IV programming of test point allocations and reliability analysis procedure for redundant digital system, and application to Mariner C sequencer
[NASA-CR-80826] 04 p0523 N67-14217
Mariner Mars 64 spacecraft mission study - probabilities of successfully transmitting encounter TV science data, releasing capsule for Mars landing, and command systems logic
[NASA-CR-83736] 12 p2118 N67-24629
Comparison of Mariner assembly level and spacecraft level vibration test 14 p2823 N67-26645
Models of Agena/Mariner C and Agena/Lunar Orbiter shroud tested in wind tunnels over Mach number range 0.56 to 3.46 for comparison of aerodynamic characteristics
[NASA-TM-X-52296] 14 p2619 N67-27284
MARINER PROGRAM
Sensitive S-band noise receiver for Mariner Mars 1964 spacecraft program
[NASA-CR-81637] 07 p1039 N67-17824
NASA space exploration programs design modifications and instrumentation developments
[NASA-CR-83745] 13 p2406 N67-25092
Mariner Mars 1969 project and spacecraft design modifications for flyby missions 13 p2406 N67-25095
Nasa programs related to Surveyor, Mariner, Pioneer, Venus probe, and similar projects 13 p2406 N67-25097
Surveyor project, Mariner Venus and Mariner Mars projects, and deep space network
[NASA-CR-84519] 14 p2616 N67-27741
Attitude control, temperature control, power system transducers, and space simulator tests for Mariner Venus 67 spacecraft 14 p2621 N67-27743
Spacecraft configuration, attitude control, propulsion, and temperature control for Mariner Mars 1969 project 14 p2621 N67-27744
Elliptic orbits in three-body problem, error analysis for Mariner Mars celestial mechanics experiment, and mathematics for sample point spacing and nonlinear system dispersions 16 p2966 N67-29143
Surveyor, Mariner Venus 67, and Mariner Mars 1969 projects, and Deep Space Network /DSN/
[NASA-CR-88737] 22 p4149 N67-37345
MARINER SPACE PROBE
Mechanical design of spacecraft engineering problems of spacecraft design, structural materials, and instrument integration
[NASA-CR-70521] 02 p0310 N67-11281
Science and engineering problems of spacecraft engineers 02 p0310 N67-11282
Design procedures for Mariner spacecraft 02 p0310 N67-11283
Error correction for Mariner space probe high speed data transmission 05 p0672 N67-14428
Reliability efforts and test facility developments summarized for Deep Space Instrumentation Facility and Surveyor, Mariner, and Voyager projects
[NASA-CR-81190] 06 p0971 N67-15825
Ranging measurements and equipment for Mariner Venus space probe 06 p0826 N67-15915
Ground facility instrumentation for Mariner Venus project occultation measurements 06 p0940 N67-15925
Venus Deep Space Station experimental activities and equipment performance and improvements 06 p0940 N67-15926
Surveyor mission operations, and systems design engineering for Mariner, Voyager, and Surveyor space probes
[NASA-CR-81293] 06 p0966 N67-16561
Ranger and Mariner spacecraft hydraulic timers 07 p0997 N67-16810
Optical approach guidance aboard Mariner Mars spacecraft 06 p1206 N67-16816
Mariner S-band turnaround ranging transponder improvement program 06 p1245 N67-16945
Mariner V - Venus scientific space probe
[NASA NEWS RELEASE-67-124] 14 p2619 N67-27316
Detection of medium intensity solar flares by Mariner V spacecraft
[NASA NEWS RELEASE-67-209] 18 p3323 N67-32384
Functional design of Mariner midcourse maneuver operations program
[NASA-CR-86914] 18 p3335 N67-32930
Mission planning and experiment design for future Mariner-type Venus space probes
[NASA-CR-86867] 18 p3336 N67-32977
Orbital trajectory analysis for Ranger VII lunar probe, and systems and thermal testing of Mariner spacecraft - deep space network, and Surveyor project
[NASA-CR-86987] 21 p3894 N67-35948
Definition and design study of temperature control flux monitor for Mariner Mars 1969
[NASA-CR-86749] 22 p4049 N67-37816
Design study of temperature control flux monitor for Mariner Mars 1969 spacecraft
[NASA-CR-86746] 22 p4050 N67-37768
MARK 13 REENTRY BODY
Environmental testing of tape-wound shield structure for Mark 12 reentry vehicle
[DOC.-66SD9101] 20 p3732 N67-34817
MARKOV CHAIN
Queueing systems with limited channel resources, and Markov chain probability model for problem of homogeneous system with single action channels 05 p0726 N67-14547
Determining class properties of finite Markov chain
[ORC-66-23] 05 p0730 N67-15079
Markov chain concept for treating random processes of neutron scattering and absorption in slabs
[TR-482] 06 p0743 N67-15289
Computation of expected discounted return in Markov chain
[AD-641193] 06 p0982 N67-15869
Intrinsically determined Markov chain 07 p1112 N67-17344
Closed networks of queues
[ORC-67-1] 12 p2130 N67-24094
Stochastic control of diffusion processes, optimal linear filtering and prediction, and optimization of control for Markov chains
[NASA-CR-84074] 13 p2380 N67-26271
Basic aspects of Markov chains
[NASA-CR-84155] 14 p2862 N67-26899
Algorithm for identifying ergodic subchains and transient states of Markov chain
[RM-5269-PR] 15 p3722 N67-29694
Frequency spectra of aperiodic chains studied using histograms
[RIFP-60] 15 p3773 N67-30871
Learning behavior and ergodic property of finite state Markov chains
[REPT.-3] 18 p3216 N67-32498
Formulas for definition of finite probabilities of two-connected Markov chain and transition time from state to state 20 p3617 N67-35259
Fortran IV computer programs for Markov chain experiments in geology
[TR-6] 22 p4094 N67-38775
MARKOV PROCESS
Optimal detection of Markov signals against background of Markov noise with discrete time 03 p0365 N67-12518
Test for suboptimal actions in Markovian decision problems and intrinsically determined Markov chain
[AD-641195] 07 p1112 N67-17342
Test for suboptimal actions in Markovian decision problems 07 p1112 N67-17343
Markov process analysis of Laplah queueing model
[TR-16] 09 p1487 N67-19658
Performance of digital computer in series transformation calculations with Markov algorithm
[JUL-177-MA] 10 p1698 N67-21694
Finite-state, finite alternative space,

infinite-horizon, undiscounted, and discounted models of Markov-renewal programming
[ORC-66-41] 11 p1908 N67-22691
Construction and reliability characteristics of semi-Markov process systems operating in periodically alternating modes 12 p2070 N67-24207
Random prognosis parameter used to determine level for which repairs to automatic system is made - preventive maintenance 12 p2070 N67-24212
Reliability and maintenance control of complex automatic technical systems - scheduling theory 12 p2070 N67-24213
Finite renewal algorithms for discrete dynamic programming models - Markovian decision models
[TR-99] 13 p2350 N67-26477
Adaptative predictor studies based on Tiros cloud picture video data, and relative merits of linear and Markov prediction data compression techniques 14 p2492 N67-27405
Estimation of transition matrix of finite Markov process, abelian groups, structure of near rings and near rings homomorphisms, and metrization of topological spaces
[NASA-CR-84514] 14 p2565 N67-27672
Total positivity of some functions associated with Markov branching processes
[MRC-TSR-717] 15 p2733 N67-28354
Maintenance policies in multichannel systems and Markovian multiservice systems
[TR-34] 16 p2920 N67-29411
Continuous nonlinear recursive filtering theory applied to optimum analog demodulation, using Markov processes and state variable concepts 16 p2963 N67-29903
Finite state continuous time Markov decision processes with finite planning horizon
[P-3569] 17 p3091 N67-30440
Markovian decision model for joint replacement and stocking problem
[TR-93] 17 p3094 N67-31301
Bivariate Markov process for investigating Poisson arrivals at single channel queue
[TR-17] 18 p3284 N67-31517
Discontinuous Markov processes and stochastic population processes applied to transport theory problems
[AML-7131] 18 p3306 N67-31623
Statistical analysis of renewal and Markov processes - probability distribution
[AD-653492] 19 p3478 N67-33789
Nonparametric estimation of densities in Markov processes
[TR-110] 19 p3479 N67-33045
Asymptotic normality applied to problem of nonparametric estimation in Markov processes
[TR-100] 19 p3480 N67-33150
Markov process used in formulations and theory of stochastic neutron transport
[LA-DC-8708] 19 p3507 N67-33644
Behavior of automata in periodic random media, and synchronization problem in presence of interference - Markov process 20 p3614 N67-34556
Probability of one-dimensional Markov process reaching fixed boundaries 20 p3617 N67-35290
Nearly optimal policies for small discount rates found for Markov renewal programs by linear programming
[P-3624] 21 p3877 N67-35542
Queuing system control problem solution using Bellman equations and Markov process 21 p3921 N67-35814
Basic properties of Markov processes and application to decision making
[DOUGLAS PAPER-4368] 21 p3900 N67-36116
Markov process in continuous growth of cloud drops at small-scale fluctuations and effect on development of cumulonimbus
[EMM-67-155] 22 p4006 N67-36633
Asymptotic normality of maximum likelihood estimate in Markov processes
[TR-115] 22 p4083 N67-37234
Optimal schemes for finding Markov decision processes
[DSR-79493] 22 p4085 N67-37724
Optimal control in bounded phase-coordinate processes and for antenna pointing direction subject to random disturbances
[NASA-CR-89341] 23 p4230 N67-38818
Functions of processes with Markovian states - stochastic processes, theorems, statistical processes
[RM-193] 24 p4478 N67-39557

MARS /PLANET/
5A EARTH-MARS RENDEZVOUS TRAJECTORY
Influence of topography on formation of bright patches on Mars
[NASA-CR-79721] 01 p0154 N67-10677
Space science research on elevation differences on Mars
[NASA-CR-80110] 02 p0309 N67-12248
Articles and bibliography on origin and evolution of extraterrestrial life - Mariner IV and other observations of Mars
[NAS-NRC-1296A] 03 p0341 N67-12721
Comparison of Mars reflection characteristics in optical and radio bands
[NASA-CR-80145] 03 p0463 N67-12905
Power systems related to Mars landing capsule
[NASA-CR-86991] 05 p0638 N67-14931
Comparative study of total equilibrium shock layer radiation for three potential Mars entry body shapes
[NASA-CR-81675] 07 p1210 N67-17948
Atmospheric brightness of Mars determined by polarimetric and photometric measurements
[TR-34] 12 p2210 N67-24229
Two planet or double flyby of Venus and Mars 14 p2617 N67-26531
Possible long-period fluctuations, due to solar gravitational field, in radius of pericenter of orbiter of Mars 16 p2968 N67-29377
Mariner IV - data on Mars, solar system, and interplanetary space flight
[NASA-SP-130] 17 p3163 N67-31356
Thermal evolution of Earth, Mars, and Moon
[NASA-CR-85848] 17 p3164 N67-31396
Energy source and conversion for microorganism metabolism in Mars surface soil
[NASA-CR-87159] 19 p3373 N67-32993
Design parameters of microcalorimetric systems for detection of Martian microorganism
[NASA-CR-73044] 19 p3375 N67-33255
Electronic circuitry for aluminum oxide detector of water content in Martian atmosphere and surface
[NASA-CR-86771] 20 p3642 N67-34759
Mission, trajectory, and vehicle analyses of manned Mars stopover missions - advanced nuclear system parameters
[NASA-CR-87488] 20 p3733 N67-34792
Guidelines and assumptions for manned Mars stopover mission planning analyses - nuclear system parameters
[NASA-CR-87489] 20 p3727 N67-34793
Handbook on physical properties of planet Mars
[NASA-SP-3030] 20 p3730 N67-35182
Feasibility of parachute entry system for Mars lander
[NASA-CR-88498] 22 p4139 N67-36922
System functional requirements and configurations for roving vehicle missions on Moon and Mars - motion control
[NASA-CR-89583] 24 p4527 N67-39669
Manned expeditions to Mars - Selective bibliography
[TRW-99900-6264-T001] 24 p4529 N67-39856
Bibliography on thermophysical experiments and analyses for Mars
[NASA-TM-X-60552] 24 p4529 N67-39868
Spacecraft sterilization standards and microbial contamination of Mars
[NASA-CR-89786] 24 p4533 N67-40438

MARS ATMOSPHERE
Expandable, terminal decelerators for Mars atmosphere entry
[NASA-CR-79496] 02 p0317 N67-12052
Total equilibrium shock layer radiative heat transfer for entry body configurations in simulated Mars atmosphere 02 p0318 N67-12109
Gas chromatography column packed with porous polymer beads for use with mass spectrometer for resolving Martian atmosphere components 02 p0323 N67-12128
Planetary physics seminar - polarization, spectrometric, and radio signal techniques for measuring Martian surface and atmospheric parameters 03 p0459 N67-12864
Martian atmosphere and ionosphere electron density and refractivity profiles determined by two frequency beat occultation technique used by Mariner IV space probe 03 p0460 N67-12865
Surface and atmospheric parameter measurements by use of polarization instrumentation aboard Mariner orbiter space probe 03 p0460 N67-12866
Martian surface and atmospheric parameter measurements by means of gamma ray spectrometric instrumentation aboard Voyager mission 03 p0460 N67-12867
Absorption spectroscopic determination of water vapor abundance in Martian atmosphere 03 p0460 N67-12868
Frequency, phase, and amplitude changes of Mariner IV radio signal through atmosphere and ionosphere of Mars observed before and after planetary occultation 03 p0462 N67-12754
Numerical model for simulating general circulation of atmosphere of Mars
[NASA-CR-81146] 05 p0764 N67-15280
On-board tracking system of two-way coherent Doppler between entry capsule and orbiting bus for determining orbit of entry capsule and estimating atmospheric parameters 06 p0964 N67-15904
Spectroscopic and photometric analysis of Venus and Mars atmospheres to determine luminescence and other properties
[NASA-TT-F-394] 07 p1186 N67-16881
Optical thickness of Mars atmosphere determined by photometric observations 07 p1187 N67-16807
Models that assume Mars atmosphere has absorptive rather than scattering properties, and that redness of planet is due to selective absorption 07 p1187 N67-16808
Model for Martian atmosphere and planetary surface assuming atmospheric spectrum with purely scattering properties and surface covered with limonite dust 07 p1187 N67-16809
Photometric analysis of aerosol component of Mars atmosphere 07 p1188 N67-16810
Discrepancy between Mars atmospheric pressure data from spectroscopic measurements and from photometric and polarimetric observations 07 p1188 N67-16811
Infrared spectroscopy to determine temperature, pressure, and chemical composition of Martian atmosphere 07 p1188 N67-16813
Shock layer radiation predictions from molecular band systems in Martian and Venusian atmospheres
[NASA-TN-D-3850] 07 p1066 N67-17829
Thermal structure of upper Mars atmosphere
[NASA-TM-X-57327] 08 p1363 N67-18632
Atmospheric data for Earth, Mars, and Venus 08 p1367 N67-19026
Ignition temperatures of powdered metals in simulated Mars and Venus atmospheres
[NASA-CR-82878] 09 p1544 N67-20169
Multicolor photographic and visual patrol of atmosphere and surface of Martian northern hemisphere during spring and summer of 1964-1965 apparition
[NASA-CR-83123] 10 p1761 N67-21180
NASA meteorological flight program plans, procedures for participation in space flight programs, and requirements for meteorological research on Mars 12 p2214 N67-24309
Mariner Mars 1969 project and spacecraft design modifications for flyby missions 13 p2400 N67-25008
Nasa programs related to Surveyor, Mariner, Pioneer, Venus probe, and similar projects 13 p2400 N67-25007
Component of Mars ionosphere due to solar protons
[NASA-CR-84411] 14 p2609 N67-27370
Martian atmosphere model deduced from Mariner IV ionosphere electron density measurements
[NASA-CR-84825] 15 p2791 N67-28765
Model computations of temperature variations and wind circulations in Martian atmosphere
[NASA-CR-85569] 17 p3159 N67-30634
Estimates of vertical temperature structure, heat balance, solstice circulation, and thermally driven tides on Mars in comparison with like conditions on Earth
[NASA-CR-86912] 18 p3337 N67-32496
IBM 7094 computer program for theoretical calculation of outgoing infrared radiances from atmospheres of Earth and Mars as aid in satellite measurement interpretations
[NASA-TN-D-4045] 19 p3479 N67-32936
Martian and Cytherean atmospheric composition determinations using entry probe measurements of ultraviolet and X-ray

attenuation
[DAC-60627] 19 p3538 N67-33758
Thermodynamic properties of three Martian model atmospheres for calculating equilibrium flow fields for real gases - tables
[ATDM-66-1] 20 p3724 N67-34135
Flyby infrared absorption measurements in Martian atmosphere for determination of profiles of carbon dioxide, particulate matter and water vapor
[NASA-TN-D-4115] 20 p3728 N67-34684
Chemical kinetics of carbon dioxide for Martian atmospheric entry applications
[ARL-67-0113] 24 p4536 N67-39458
Dust devils in relation to Martian yellow clouds
[NASA-CR-89578] 24 p4538 N67-40004
MARS ENVIRONMENT
Extraterrestrial microbiology, planetary ecology, and photosynthesis on Mars 03 p0344 N67-12743
Flux-mass distribution of zodiacal dust particles near Mars measured by Mariner IV space probe 03 p0462 N67-12752
Martian magnetic dipole measurements from magnetometer aboard Mariner IV space probe 03 p0462 N67-12753
Ultraviolet reflectivity of Mars measured by objective grating spectrograph on Aerobee rocket, and represented by model with atmosphere of nitrogen, carbon dioxide, and argon 03 p0462 N67-12755
Extraterrestrial life in simulated Martian environment, and effects of barometric pressure and carbon dioxide
[NASA-CR-80187] 03 p0345 N67-12930
Simulated Martian environment growth experiments conducted with Staphylococcus aureus
[NASA-CR-83484] 06 p1230 N67-19156
Inflation, drag, and stability characteristics of 26-meter diameter ringsail parachute in simulated Martian environment
[NASA-TM-X-1358] 06 p1221 N67-19289
Retrorocket exhaust plume interaction with Martian environment
[RM-354] 12 p2269 N67-24199
Nominal natural environment values for advanced manned planetary space flights to Venus and Mars
[NASA-SP-3016] 12 p2213 N67-25042
Model laws governing parachute performance in Martian environment landing 15 p3637 N67-27805
Viability of microorganisms under conditions of extreme dryness, irradiation, and temperature approximating those on Mars
[NASA-TT-F-10721] 15 p2649 N67-28222
Life studies of simulated extraterrestrial environments
[NASA-CR-88134] 21 p3769 N67-36580
Solar array design concepts for recording of Martian environmental data during probe
[NASA-CR-89562] 24 p4377 N67-39743
Decision theory biological search strategies and planetary quarantine aspects of Mars exploratory missions
[NASA-CR-89773] 24 p4533 N67-40462
MARS PROBE
SA MARINER SPACE PROBE
Plasma rocket engine used in Mars probe
[FTD-TT-65-1886] 01 p0146 N67-11092
Multiple planet flyby missions to Venus and Mars in 1975 to 1980 time period
[NASA-TM-X-53511] 02 p0304 N67-11823
Trajectory design and associated computer programs for spacecraft ballistic Earth-Mars round-trip mission
[NASA-CR-80630] 03 p0465 N67-13195
Scientific payload objectives definition, and systems engineering for automated biological laboratory for exploration of life on Mars
[NASA-CR-81309] 06 p0969 N67-16575
Scientific objectives and payload definition for automated biological laboratory for exploration of life on Mars
[NASA-CR-81310] 06 p0969 N67-16576
Systems engineering studies for automated biological laboratory for exploration of life on Mars
[NASA-CR-81307] 06 p0973 N67-16577
Plan, scheduling, costs, and interactions of development program for automated biological laboratory for exploration of life on Mars
[NASA-CR-81312] 06 p0973 N67-16578
Stability and drag characteristics of slender, flare-stabilized cone cylinder for Mars atmospheric probe at Mach numbers 10 and 26
[NASA-TN-D-3917] 11 p1661 N67-22296
Mars probe for determining organic materials of planetary surface 13 p2211 N67-24441
Mariner Mars 66 spacecraft mission study - probabilities of successfully transmitting encounter TV science data, releasing capsule for Mars landing, and command systems logic
[NASA-CR-83726] 12 p2118 N67-24639
Characteristics and trajectory analysis of solar electric propulsion space missions - Mars orbiter and Jupiter flyby
[NASA-CR-84067] 13 p2404 N67-26378
Solid state Mars probe radar altimeter
[NASA-CR-66383] 15 p2715 N67-28931
Development plan for design, development, and production of solid state Mars probe radar altimeter
[NASA-CR-66384] 15 p2715 N67-28932
Reliability and quality assurance plan for design, development, and production of solid state Mars probe radar altimeter
[NASA-CR-66385] 15 p2715 N67-28933
Experimental payloads for manned Mars flyby mission, including onboard remote sensors and unmanned probes for measuring Martian environment
[NASA-CR-85123] 16 p2970 N67-29691
Natural environment design criteria guidelines for Voyager spacecraft for Mars 1973 missions
[NASA-TM-X-53616] 18 p3346 N67-32399
Mars probe design and subsystem performance characteristics for investigating Martian atmosphere
[NASA-CR-530] 19 p3532 N67-32719
Self-adaptive and self-steering antenna arrays for Mars probe
[NASA-CR-73118] 21 p3600 N67-36102
Payload analysis for automated Mars surface sampling mission modes
[NASA-CR-84849] 21 p3938 N67-36556
Weighting factors combined with individual value functions for 250 candidate orbits for Voyager Mars missions to develop computer-determined overall value functions for optimum orbits
[NASA-CR-89731] 24 p4528 N67-39754
MARS SPACECRAFT
SA MARINER SPACE PROBE
Various approaches to problems of delivering Apollo type entry capsule to Mars, entering and descending through its atmosphere, and placing scientific payload on its surface
[NASA-CR-79676] 01 p0156 N67-10743
Expandable terminal decelerators studied for use in Mars atmosphere entry
[NASA-CR-79526] 02 p0313 N67-11721
Design of expandable terminal decelerators for Mars atmosphere entry by Mars-lander capsule
[NASA-CR-80127] 02 p0315 N67-12174
Capabilities and trajectory parameters for encounter of Mariner IV spacecraft with Mars 03 p0461 N67-12749
Payload capabilities of Saturn IB-Centaur for launch opportunities to Mars in 1971, 1973, and 1975 and to Venus in 1972 and 1973
[NASA-TM-X-1337] 03 p0465 N67-13177
Sterilization effect on separation, entry, descent, and landing phases of Mars module 05 p0760 N67-14791
Mariner Mars 1964 failure rates computed for use in reliability predictions and cost allocations
[NASA-CR-81192] 06 p0851 N67-15684
Multiprocessor computer design for manned Mars spacecraft 07 p1044 N67-17102
Multiprocessor program control for manned Mars spacecraft 07 p1045 N67-17105
Sensitive S-band noise receiver for Mariner Mars 1964 spacecraft program
[NASA-CR-81637] 07 p1039 N67-17234
Aerothermoelastic effects on unmanned entry vehicles for Mars
[NASA-CR-81648] 07 p1196 N67-17999
Booster and upper stage system capabilities of placing payloads into Mars orbit
[NASA-TM-X-1334] 06 p1361 N67-18359
Analysis and configuration of control system for Mars propulsive lander
[NASA-CR-82912] 09 p1428 N67-19017
Technical requirements study for applicability of lunar orbiter subsystems in Venus and Mars orbiters
[NASA-CR-66308] 10 p1763 N67-21436
Mathematical model for analyzing damage to phenolic honeycomb spherical impact limiter, and shock layer radiative heat transfer for Mars entry body shapes 16 p3978 N67-29148
Analyses of swingby and conjunction class missions, mission aborts, and launch azimuth constraints based on manned Mars stopover missions study
[NASA-CR-87457] 20 p3726 N67-34685
Variable lift control to obtain maximum velocity reduction through aerodynamic braking for Mars entry
[NASA-CR-88243] 21 p3982 N67-36172
Feasibility estimate, mission profile, and design Orbital Experiment Capsule /OEC/ Mars satellite to be used in Voyager Project
[NASA-CR-73126] 23 p4146 N67-36792
Mission analysis and design study of Mars spacecraft solar-powered electric propulsion system
[NASA-CR-89652] 24 p4378 N67-39969
Objectives, constraints, and design of Voyager entry science package for Mars atmosphere probe
[NASA-CR-89699] 24 p4540 N67-40527
Design alternatives and systems analysis of Voyager entry science package for Mars atmosphere probe
[NASA-CR-89700] 24 p4538 N67-40528
Major equipment and subsystem descriptions of Voyager entry science package for Mars
[NASA-CR-89701] 24 p4540 N67-40529
Reliability, planetary quarantine, support equipment, and interface alternatives of Voyager entry science package for Mars atmosphere probe
[NASA-CR-89702] 24 p4534 N67-40530
MARS SURFACE
Space science research on elevation differences on Mars
[NASA-CR-80110] 02 p0309 N67-12348
Doppler radar spectroscopy of Mars surface - elevation differences between bright and dark areas
[NASA-CR-80134] 02 p0309 N67-12371
Spectrophotometric analysis and X-ray diffraction of fine grained rocks and minerals for examining composition of Martian surface
[AD-630076] 03 p0459 N67-12681
Crater size distribution on Mars surface observed by Mariner IV photographs 03 p0461 N67-12745
Mariner IV observations on formation rate, density, and age of craters on Mars 03 p0344 N67-12746
Estimating age of Martian surface by comparing Mars craters observed by Mariner IV photography with data on lunar craters 03 p0461 N67-12747
Age of Martian craters predicted to be less than 300 million years, assuming formation by asteroid collisions and spatial distributions independent of time and asteroid size 03 p0461 N67-12748
Selected literature summary and annotated bibliography on Mars surface formation, material, and terrain
[NASA-TM-X-53177] 03 p0464 N67-12823
Photograph interpretations of lunar and Martian surfaces, lunar limb areas, and comet Ikeya-Seki
[NASA-CR-66525] 06 p0966 N67-16181
Infrared spectroscopic comparison of Mars surface and terrestrial rocks 06 p0966 N67-16182
Mars crater analysis from Mariner IV records 06 p0968 N67-16186
Optical properties of Martian surface indicate redness results from high atmospheric absorption 07 p1188 N67-16812
Photometric study of brightness distribution across Martian disk, and analysis of limb darkening 07 p1189 N67-16814
Spectrophotometric reflectivity data of terrestrial specimens compared to spectral measurements of Martian continents to verify hypothesis of limonite covering on Mars 07 p1189 N67-16815
Indicatometry used to verify hypothesis of limonite surface cover on Mars 07 p1970 N67-16816
Scattering anisotropy effect on optical parameters of Martian atmosphere and surface - photometry 07 p1189 N67-16820
Enzyme activity in terrestrial soil studied in relation to exploration of Mars surface
[NASA-CR-82944] 09 p1468 N67-19853

Martian surface determined by solar radiation absorption by carbon dioxide, and balloon sounding of earth radiance 16 p2368 N67-29158
Engineering model of wolf trap Mars microorganism detection device [NASA-CR-85569] 17 p3166 N67-36742
Survival of selected microorganisms exposed to high ultraviolet flux equivalent to Martian surface [NASA-TM-X-55853] 19 p3376 N67-33406
Multidetector spectrometer for measuring surface temperature of Mars, and error analysis on application of stereophotogrammetry to extraterrestrial mapping 20 p3642 N67-34773
Visual, contact, and decision subsystems for Mars rover [NASA-CR-87503] 20 p3621 N67-34834
Polarimetry of limonite surface as function of wavelength and particle size [RM-371J] 21 p3931 N67-36001
Spectral studies of Mars surface materials [AD-656257] 22 p4140 N67-37051
Optical design for infrared spectrophotometer and telescope for Mars flyby spacecraft [NASA-CR-86500] 22 p4045 N67-37174
Voyager capsule surface laboratory system - design concepts and objectives [NASA-CR-89691] 24 p4540 N67-40581
Voyager capsule surface laboratory system - mission analysis, system functional requirements, and design selection and alternatives [NASA-CR-89692] 24 p4534 N67-40582
Voyager capsule surface laboratory system - subsystem design analysis [NASA-CR-89693] 24 p4534 N67-40583
Voyager capsule surface laboratory system - subsystem design analysis [NASA-CR-89694] 24 p4495 N67-40584
Voyager capsule surface laboratory system - subsystem functional descriptions [NASA-CR-89695] 24 p4541 N67-40585
Voyager capsule surface laboratory system - subsystem functional descriptions [NASA-CR-89696] 24 p4541 N67-40586
Voyager capsule surface laboratory system - operational support equipment [NASA-CR-89697] 24 p4438 N67-40587
Voyager capsule surface laboratory system - reliability [NASA-CR-89698] 24 p4585 N67-40588

MARTENSITIC STEEL
Transformation kinetics, microplasticity, and aging of martensite in iron-31 nickel [AD-641433] 06 p0893 N67-15975
Effects of irradiation, cold work, and annealing on deformation induced martensitic transformation of austenitic stainless steel [BNWL-238] 06 p0894 N67-16384
Resistance of chromium nickel vanadium steel in elastic plastic range to cyclic loads 12 p2114 N67-23529
Brittle strength of chromium nickel vanadium steel 12 p2114 N67-23530
Frequency and temperature effects on deformation and fatigue rupture behavior of chromium martensitic steel [NGTE-R-278] 15 p2721 N67-27792
Tempered martensite embrittlement studied in 4340 steel by Charpy impact, tension, and fracture toughness tests over range of temperatures [AMRA-TR-67-03] 15 p2800 N67-28613
Cubic iron-carbon martensite examined by X-ray diffraction [TR-1] 19 p3469 N67-33990
Chemical shift in nuclear magnetic resonance of fluoride ions in crystals and solutions, and internal friction peaks occurring during tempering of high and low carbon martensites [FTD-TT-65-1661] 19 p3476 N67-33214
Internal friction peaks associated with coherency of decomposition products of high carbon and low carbon martensites 19 p3479 N67-33216
Thermal history influence on phase transformation behavior and hardness in maraging steel [UCRL-50207] 20 p3631 N67-34427
Tempering, prestraining, and retempering influence on strength and toughness of martensitic and bainitic 4340 steel rods [AMMRC-TR-67-03] 24 p4465 N67-39720

MASER
SA GAS MASER
SA INFRARED MASER
SA LASER
SA OPTICAL MASER
SA TRAVELING WAVE MASER
Maser spin dynamics [NASA-TM-X-55675] 08 p1287 N67-18747
Rate equations describing transient behavior of microwave maser oscillators [TR-504] 11 p1894 N67-23044
Masers, radiation detectors, ferroelectric and antiferroelectric compounds, polymers, space biology and medicine, radiobiology and oceanography 11 p1894 N67-23449
Calibration techniques, antenna systems, microwave maser, and frequency multiplier for deep space network 12 p2057 N67-25063
Hydrogen maser for precision tracking system in application to spacecraft trajectories 17 p3076 N67-30660
Bibliography with abstracts on military and industrial applications of lasers and masers [TDCK-47999] 17 p3076 N67-30627
Spectroscopic application of optical and infrared masers [NASA-CR-89032] 24 p4462 N67-39892

MASK
SA OXYGEN MASK
Protective masks to prevent inhalation of agricultural chemicals [JPRS-39281] 05 p0662 N67-15178
Nucleation and moving mask experiments in single crystal thin film research program 10 p1744 N67-20495
Design and fabrication techniques for wiring pattern used for interconnecting network circuits of automatic mask sets 11 p1838 N67-22824
Fitting personnel with half-mask respirators for protection against toxicity [RFP-810] 12 p2032 N67-24572
Doorman speech membrane influence Dutch gas mask to improve speech intelligibility [AS5/KM/061] 13 p2364 N67-26157
Full pressure spacesuit helmet with aspherical glass faceplece for astronaut protection during extravehicular mission [AMRL-TR-66-195] 19 p3381 N67-33108
Production capability for specific monolithic and hybrid semiconductor circuits and standard test mask incorporating transistor and resistor patterns 19 p3416 N67-33384
Full-face respirator masks for radiological protection and relation of efficiency to pressure drop [HOHF-3] 19 p3385 N67-33843
Silicon oxide dust control during stoneworking with pneumatic tools, using pneumatic devices and masks 20 p3451 N67-35110

MASKING
Microcircuit masking techniques 18 p3242 N67-31574

MASS
SA AIR MASS
SA CRITICAL MASS
SA PARTICLE MASS
SA PLANETARY MASS
SA STELLAR MASS
SA VARIABLE MASS SYSTEM
Electrical analogy technique for determining rotational apparent masses of body in two-dimensional fluid flow [NASA-CR-73060] 12 p2010 N67-24546
Photometric determination of masses and densities of meteoric bodies [NASA-TT-F-10067] 15 p2789 N67-28229
Masses of meteors calculated from radiation, velocity, composition, and structural measurements [NASA-TT-F-10099] 15 p2657 N67-28231
Release rates and median mass diameter for ignited and oxidized bulk metallic plutonium pieces [BNWL-557] 15 p2805 N67-28599
Pulsed mass expulsion attitude control system for Saturn launch vehicle and other spacecraft mission planning 17 p3165 N67-30564
Geometrical model on mass budget of arctic pack ice 20 p3634 N67-34851
Dirichlet principles for determining bounds on apparent mass coefficients and values of contour integrals 24 p4476 N67-39467

MASS BALANCE
Snow and ice formation and ablation investigated to determine mass balance of glaciers in Polar Urals 14 p2325 N67-27159
Mass and heat budgets of atmosphere over Antarctic plateau, with particular emphasis on spring [TR-6] 14 p2568 N67-27692
Sensitive balance for recording human weight changes due to sweat evaporation [FPRC/MEMO-232] 20 p3640 N67-34420
Stability of continually created mass against gravitational decay [CRSR-277] 22 p4100 N67-37795

MASS DISTRIBUTION
Motion of human center of mass and its relationship to mechanical impedance [AMRL-TR-65-50] 01 p0022 N67-10278
Neutral kaons with measurable mass differences, and experiments dealing with scattering, transitions, and parity changing 07 p1146 N67-17215
Sign of mass difference between two kaons determined by using one or more very thin plates 07 p1146 N67-17216
Rotating liquid mass model for heterogeneity analysis of earth 07 p1065 N67-17326
Effective mass distributions and cross sections of multi-pion final states from pion proton interactions at 3.2 and 4.2 BeV/c [UCRL-16881] 07 p1147 N67-17409
Mass distribution of shower meteors determined from radar echo measurements [NASA-CR-83328] 11 p1865 N67-22212
Modified potential energy mass representations for frequency prediction 11 p1969 N67-22813
Mass distributions of proton meson and neutron pion combinations for 114 cases of neutron proton reactions [JINR-P1-3146] 15 p2770 N67-28598
Approximation method for calculating distribution of masses in galaxies according to data on radial velocities [NASA-CR-85240] 18 p2971 N67-30015
Interplanetary dust flux and mass distributions obtained from Mariner IV flight 18 p3232 N67-32041
Dust particle sensor data on mass distribution and time variations in flux of small interplanetary dust particles 18 p3333 N67-32068
Equal mass spacing of decuplet of baryons using perturbation theory [UCRL-17450] 20 p3692 N67-34312
Distribution of momentum, heat, and matter in open laminar and turbulent jet diffusion flames [TAE-62] 20 p3744 N67-34355
Numerical calculations of particle decay curves from mass distributions [IS-T-186] 21 p3900 N67-35851
Relationship between daily and annual rainfall mass distribution in Thailand, based on prediction equations and nomograms 24 p4487 N67-39823

MASS FILTER
Theoretical and experimental study of introduction of ions into strong fields of quadrupole mass filter [NASA-CR-81280] 06 p0936 N67-16091
Introduction of ions into region of strong fields within quadrupole mass filter [NASA-CR-79170] 15 p2712 N67-28361

MASS FLOW
Variable injection angle and mass flow effects on heat transfer and flow characteristics of vortex flow in centrally heated cylinder [GAM-66A/AE/66-6] 09 p1542 N67-19830
Characteristics of confined dense phase flow of granular solids driven by compressed air through plastic pipes [AD-642845] 10 p1805 N67-20525
Calculation method for mass flow of real gases through critical-flow nozzles [NASA-CR-87316] 19 p3555 N67-33025

MASS FLOW FACTOR
SA NOZZLE GEOMETRY
Supersonic and hypersonic wind tunnel tests to determine aerodynamic error due to mass flow around pancake type air blast gauge [BRL-R-1345] 15 p2711 N67-28337

MASS FLOW RATE
Mixing of two flows with different stagnation enthalpies in supersonic ejectors [TP-411] 04 p0522 N67-14371
Calculation of viscosity effects, thrust, mass flow rate in supersonic nozzles [TP-408] 04 p0807 N67-14500
Sonic blocking limitations of mass flow rate of compressible fluids of different enthalpies flowing in constant section duct with external heat input

[TP-410] 04 p0533 N67-14305
Formation and properties of liquid propellant sheets from fuel injectors on curved deflector surfaces 06 p0954 N67-15732
Temperature and mass flow rate variation of gas determined in system consisting of storage bottle, pressure regulator, and flow choke
[AFWL-TR-66-100] 09 p1395 N67-19722
Heating channel length, mass flow rate, and fluid enthalpy effects on heating channel inlet in relation to critical flux in swirl flow
[EURAEC-1544] 15 p2745 N67-28212
Thrust and mass flow rate determination for supersonic nozzle without internal separation
[TP-408/1966/] 17 p3153 N67-31358
Electronic scale for measuring mass flow rate of volatile material
[LA-3659] 18 p3270 N67-32107
Test apparatus to measure mass discharge rate and internal static pressure along axis of 2-micron porous tube 19 p3552 N67-33371

MASS RATIO
SA PAYLOAD MASS RATIO
SA PROPELLANT MASS RATIO
Mass ratio stabilities analyzed in triangular equilibrium positions of three-body problem
[D1-82-0580] 11 p1976 N67-22565
Kinematics of spacecraft launching - mass ratio, orbit injection, and launch constraints 12 p2214 N67-24455

MASS SPECTROMETER
Radio frequency spark source spectrometer for analysis of high purity solids
[NBS-TN-286] 01 p0072 N67-10449
Impulse mass spectrometer for studying high velocity phenomena in low pressure gases and nonstationary plasma
[FTD-TT-65-859] 01 p0075 N67-11062
Evaluation of miniaturized magnetic double focusing mass spectrometer to measure gas concentrations in flight environment
[NASA-CR-605] 02 p0256 N67-11341
Positive ion composition and density in lower E region measured by mass spectrometry
[NASA-TM-X-55582] 02 p0254 N67-11363
Expired air analyzers with time-of-flight and magnetic deflection mass spectrometers for spacecraft use
[NASA-CR-619] 02 p0211 N67-11821
Feasibility study for analyzing ablator blow-off gases with time-of-flight mass spectrometer
[USNRDL-TR-1014] 02 p0235 N67-11893
Gas chromatography column packed with porous polymer beads for use with mass spectrometer for resolving Martian atmosphere components 02 p0233 N67-12128
Gas chromatograph and mass spectrometer methods of analyzing gases in heavy water and helium systems of NRX and NRU reactors 03 p0425 N67-12693
Mass spectrometric stable isotope dilution method for barium determination in G-1 and W-1 rock standards
[NASA-TM-X-55583] 03 p0360 N67-13221
Mathematical analysis of leak measurement in vacuum component using helium mass spectrometer
[RAE-TR-66158] 04 p0553 N67-14385
Sputter ion source mass spectrometer for analysis of solid materials
[NASA-CR-683] 05 p0743 N67-14927
Constant momentum mass spectrometer for ionospheric soundings
[NASA-CR-81186] 06 p0877 N67-15457
Primary processes in radiation chemistry studied by mass spectrometry, and distribution of primary decomposition products of tetrahydronaphthalene in liquid phase 06 p0825 N67-16288
Nonmagnetic dynamic mass spectrometer in which energy selection is obtained by parabolic particle trajectories
[NASA-TT-F-10465] 06 p0883 N67-16883
Double focusing tandem mass spectrometer for ion molecule reaction studies 07 p1077 N67-16945
Upper atmosphere neutral particle composition measured by mass spectrometer mounted in Centaur rocket nose cone
[ESRO-SN-21 /ESLAB/] 07 p1974 N67-17841
Monopole and time-of-flight spectrometers for in-flight analysis of lunar atmosphere
[NASA-CR-82968] 09 p1449 N67-19922
High resolution beta and gamma ray spectrometer
[UCRL-17149] 10 p1630 N67-20792
Resolving power of mass spectrometers for nuclear fission product separation
[JUL-348-NP] 10 p1631 N67-21063
Drift mass spectrometer for analyzing ion beam separated from plasma 11 p1952 N67-21914
Drift mass spectrometric analysis of button-type plasma source 11 p1952 N67-21916
Quadrupole mass spectrometer for determining relationship between partial pressures and filament temperature in synthesis of hydrocarbons
[NASA-TN-D-3906] 11 p1811 N67-22869
Multimodulated cyclotron mass spectrometer with alternating pulse
[IFA-IS-38] 12 p2056 N67-25891
Ion sources with magnetically aligned electron beam and compatibility with quadrupole mass spectrometer for planetary atmospheric analysis
[NASA-CR-774] 12 p2104 N67-25054
Development of computerized high resolution mass spectrometer and gas-liquid chromatographic facility for study of lunar soil samples
[NASA-CR-83971] 13 p2270 N67-25831
Introduction of ions into strong fields within quadrupole mass spectrometer
[NASA-CR-83922] 13 p2321 N67-25896
Crossed field ion spectrometer for plasma energy distribution measurements
[CTO-329] 13 p2321 N67-25924
Open ion source mass spectrometer used with omegatron mass spectrometer to measure atmospheric gas density and composition in thermosphere probe experiment
[NASA-CR-83901] 13 p2313 N67-25943
Photoionization mass spectrometer studies of ion-molecular reactions in oxygen-nitrogen atmosphere, and McLeod gauge measurements of ion source pressures
[NASA-CR-84114] 13 p2274 N67-26455
Mass spectrometer, spectrography, and other electronic instrumentation development 14 p2534 N67-27087
Atomic absorption, flame emission, cathodic etching, spectrophotofluorimetry, X-ray fluorescence, gas chromatography, densitometer, mass spectrometer, and coulometer
[UCID-15066] 15 p2659 N67-28402
Chemical analyses by helium analyzer, atomic absorption spectrophotometry, mass spectrometer, X-ray fluorescence spectroscopy, coulometer, vacuum fusion device, and gas chromatography
[UCID-15079] 15 p2659 N67-28403
Instrument errors in mass spectrometric determinations of isotopic composition
[K-TRANS-12] 15 p2712 N67-28422
Mass spectrometer gauss meter with Hall-effect probe 16 p2893 N67-29155
Inflight hydrogen detection by mass spectrometer 17 p3015 N67-30584
Solid state electronic circuits installed in mass spectrometer used for analysis and control of gaseous diffusion processes
[K-1692] 17 p3060 N67-30630
Introduction of ions into strong magnetic fields within quadrupole mass spectrometer
[NASA-CR-85000] 17 p3130 N67-30799
Spark chamber double-arm magnetic spectrometer with automatic vidicon readout system 17 p3064 N67-30964
Alpha particle reactions in atmospheric gases using mass spectrometer
[NYO-3706-3] 17 p3134 N67-31027
Mass spectrometer for measuring single bosons produced in positron electron collisions 18 p3209 N67-31863
Literature review on gas chromatographic - mass spectrometric analytical methods
[NRL-6525] 18 p3236 N67-32535
Radio frequency mass spectrometer for determining composition and content of gas mixtures by ionizing gases and determining ion mass number
[FTD-HT-66-690] 19 p3451 N67-32868
Fabrication and environmental testing of cryosorption pump designed for mass spectrometer for use in atmospheric soundings
[AFCRL-66-768] 21 p3839 N67-36015
Cyclotronic mass spectrometer with non-accelerating synchronous ion
[IFA-15-41] 21 p3885 N67-36557
Calibrated enclosure technique for rapid and accurate determination of leak rates
[NASA-CR-88504] 22 p4021 N67-37647
Ultrahigh velocity molecular beam apparatus with mass spectrometric detector designed to measure dipole moments and polarizabilities
[AFOSR-67-1971] 24 p4429 N67-40176

MASS SPECTROMETRY
Gas chromatographic and mass spectrometric analysis of surface failure modes in semiconductor devices due to gas ambients 01 p0060 N67-10129
Mass spectrometric determination of carbon dioxide ionization after electron and ion impact
[AFCRL-66-605] 01 p0027 N67-10225
High temperature mass spectrometry and electric deflection analyses of molecular structures of alkali hydroxides, metaborates, and cesium sulfate
[PR-3] 01 p0025 N67-11088
Mass spectrometry, spectroscopy, and thin layer and gas chromatography studies of hydrocarbons in banana leaves
[NASA-CR-80880] 02 p0246 N67-12062
Low voltage mass spectrometric characterization of sulfur compounds on high-boiling petroleum fractions
[BM-RI-6879] 03 p0600 N67-13158
Borane and carborane analyses by mass spectrometry
[SGC-483-10] 05 p0667 N67-14945
Comparison of capacity for ion formation of silicagel, aluminum silicagel, and zirconium silicagel used in mass spectrometry
[JPRS-39535] 05 p0740 N67-15175
Mass spectrometric observations on negative ions in hydrocarbon flames 05 p0776 N67-15219
Mass spectrometry capabilities of cold cathode magnetron ion source for use in ultrahigh vacuum residual gas analysis
[NASA-CR-65257] 06 p0870 N67-15675
Mass spectrometry of tetrahydronaphthalene fragmentation under electron impact 06 p0823 N67-16234
Mass spectrometry measurement of appearance potentials of hydrocarbon ions derived from tetrahydronaphthalene by electron impact 06 p0823 N67-16240
Collision processes between particles in gaseous discharge plasma measured by mass spectrometry
[AD-640582] 06 p0943 N67-16441
Aerospace mass spectrometry involving processes of ion production, mass separation, and ion detection 07 p1004 N67-17795
Qualitative analyses, mass spectrometry, metal impurity determination, gas chromatography, and trace element detection studies
[UCID-15014] 07 p1021 N67-17890
Gas chromatography and mass spectrometry of acetonitrile, furan, pyrrole, paraffins, and other aromatic organic compounds of biological significance
[NASA-CR-81780] 07 p1022 N67-18000
Physics related topics including proton transfer reactions, computer uses, and mass spectrometry
[ANL-7218] 08 p1244 N67-19028
Mass spectrometric determination of nighttime topside ionosphere composition
[NASA-CR-82513] 08 p1270 N67-19085
Chemical physics - molecular beam studies, calorimetry, microwave and radio frequency spectroscopy, neutron and X-ray crystallography, and mass spectrometry 08 p1244 N67-19049
Optical and mass spectrometric measurements of neutral element composition in upper atmosphere 10 p1758 N67-20288
Partial pressure measurements of residual gas mixtures in high vacuum systems by time of flight mass spectrometry
[AEDC-TR-66-150] 10 p1620 N67-21328
Mass spectrometric characteristics of plasmoid ions in conical plasma generator 11 p1955 N67-21922
Spectrometric analysis of dense plasma interaction with space-modulated magnetic field 11 p1954 N67-21927
Flash photolysis and time resolved mass spectrophotometry - reaction of excited iodine atoms in decomposition of methyl iodide
[SC-RR-66-669] 11 p1960 N67-22260
Pile neutron capture cross sections of rare earth isotopes determined by mass

spectrometric analysis - tables
[SGAE-PH-47/1966] 11 p1939 N67-22978
Mass spectrometric studies of scandium, yttrium, lanthanum, and rare-earth fluorides
[ORO-2907-16] 12 p2038 N67-23592
Mass spectrometric stable isotope dilution technique for analysis of rare earth element abundance
[NASA-TM-X-55765] 12 p2092 N67-23945
Analytical reactor chemistry, radiation effects on methods, electron microscopy, mass spectrometry, biochemistry, radiochemistry, and inorganic and organic preparations
[ORNL-4038] 13 p2267 N67-25429
Fluorometry, gas chromatography and optical resolution, mass spectrometry, computer managed instrumentation, and ultraviolet microspectrometry in exobiology studies
[NASA-CR-83896] 13 p2258 N67-25670
Gas chromatography-mass spectrometry system for analysis of organic compounds on moon and planetary surfaces
[NASA-CR-83966] 13 p2271 N67-26062
Mass spectrometric sampling of high temperature systems at atmospheric and high pressures
[AD-646935] 14 p2475 N67-26809
Mass spectrometric determination of rare earth trace elements in aged sediments
[NASA-TM-X-55796] 14 p2528 N67-27577
Preparation of synthetic boron isotopic mixtures for mass spectrometric determination
[NBL-233] 15 p2660 N67-28448
Isotope dilution mass spectrometric method for determining burn up of irradiated uranium nuclear reactor fuels
[AERE-R-5316] 15 p2750 N67-28850
Analysis of trace contaminants from closed ecological system by gas chromatography, mass spectrometry, and infrared spectrophotometry
[SAM-TR-67-4] 16 p2840 N67-29549
Reactor technological developments in pressurized water reactor and power reactor research facility
[WAPD-BT-30] 17 p3103 N67-30170
Burnup on highly irradiated fuels determined by spectrometric methods 17 p3104 N67-30173
Direct mass spectrometric sampling of high pressure inorganic gas systems
[AD-651458] 17 p3123 N67-30231
Gas chromatography and mass spectrometry used to analyze trace contaminants trapped in closed environment simulating space cabin
[SAM-TR-67-6] 17 p3009 N67-30439
Mass spectrometric determination of krypton and xenon fission product retention in irradiation fuel elements
[TRG-1382/D/] 17 p3111 N67-30926
Nonmetallic impurities in sodium by amalgamation coupled with mass spectrometry
[TRG-1227/R/] 17 p3017 N67-30944
Thermochemical method using mass spectrometry to obtain well depth for weak intermolecular potentials
[AD-652314] 18 p3220 N67-31513
Radioactive dating of meteorites and tektites, cosmic dust and radiation studies, and mass spectrometry of atmosphere conducted in German facility 18 p3336 N67-32343
Mass spectrometric analysis of impurities in uranium hexafluoride
[CEA-R-3133] 19 p3395 N67-32654
Dissociation of hydrogen on tantalum using modulated molecular beam, mass spectrometric technique
[UCRL-17886] 19 p3508 N67-32696
Chromatographic separation of neodymium for measuring burn-up of irradiated nuclear fuel solutions using mass spectrometry
[TRG-1496/D/] 20 p3592 N67-34383
Radioactive material analyses using spark source mass spectrometry
[ORNL-P-2051] 21 p3775 N67-35442
Stirred reactor-mass spectrometric technique to determine rate constants and activation energies of carbon monoxide reactions with hydroxyl radicals and oxygen atoms
[NASA-TN-D-4162] 21 p3781 N67-35735
Mass spectrometric detection of labile hydrides formed by atomic hydrogen reactions
[TR-1001/2210-10/-3] 22 p3982 N67-36777
Mass spectrometric detection of nitric oxide dimers and other polyatomic molecules
[AD-655454] 22 p3982 N67-36852
Mass spectrometric study of homogeneous nucleation in free jets and its application to beam formation and molecular beam sampling
[AD-655292] 22 p4026 N67-37409
Mass spectrometric methods for trace analysis of insulating solids in powder form
[AFCRL-67-0451] 23 p4200 N67-38099
Mass spectrometer analysis of solid materials using ion microprobe sputter source
[NASA-CR-89326] 23 p4255 N67-39205
Mass spectrometric study of zirconium, hafnium and thorium dioxides vaporization
[NASA-TT-F-11396] 23 p4216 N67-39346
Mass spectrometric measurements of scattering cross sections of fission product ions interacting with matter
[BMWF-FBK-67-56] 24 p4503 N67-40405
MASS SPECTROSCOPY
Bibliography of mass spectroscopy literature compiled by computer method
[IS-1335] 03 p0858 N67-12862
Spark source mass spectroscopic analysis of radioactive metallic elements
[RFP-699] 04 p0506 N67-14037
Balloon-borne mass spectrometer measurements of constituents of atmosphere to 22 km
[AFCRL-66-339] 05 p0702 N67-14726
Analysis of trace contaminants in closed ecological atmosphere systems by gas chromatography and mass spectroscopy
[SAM-TR-66-99] 12 p2032 N67-24405
Free carrier absorption, valence band effective masses and relaxtion times in zinc antimonide cadmium antimonide alloys
[NASA-CR-85579] 17 p3149 N67-30827
Experiments with mass spectroscopically separated fission product ions from uranium 235
[BMWF-FBK-67-62] 19 p3495 N67-33916
Nuclear spectroscopy - nuclear reactions and scattering - structure theory - fission - hyperfine interactions - mass spectroscopy - chemistry - instrumentation
[UCRL-17299] 20 p3704 N67-35232
Analysis of impurities in magnesium oxide materials by mass spectrographic, chemical, thermogravimetric, vacuum-fusion furnace, quartz tube graphite crucible furnace techniques
[NASA-CR-88493] 22 p3981 N67-36692
MASS SPECTRUM
SA MOLECULAR SPECTRUM
Measurement of interactions after exposure of liquid hydrogen bubble chamber to separated beam of pion mesons
[UR-875-151] 01 p0130 N67-10907
Energy and mass spectra of plasmoids in coaxial plasma gun 11 p1952 N67-21919
Mass spectrum digitizer for rapid spectrum data analysis
[EUR-3176.E] 11 p1886 N67-23096
Calculated lambda hyperon-photon mass spectra from lambda hyperon reflection resonance
[JINR-P1-3048] 13 p2376 N67-25915
Quadratures of distribution of effective mass spectrum in arbitrary cascades
[JINR-P2-3163] 16 p2946 N67-29692
Resonances in dibaryonic system
[JINR-P1-3169] 16 p2946 N67-29693
Exponential mass spectrum of elementary particles
[ARL-67-0051] 20 p3695 N67-34571
Preparation, isolation, and recording of infrared and mass spectra for trifluoromethyl fluoroformates
[TR-1001/2250-40/-9] 24 p4399 N67-40170
MASS TRANSFER
SA ENERGY TRANSFER
All-Soviet Union heat and mass transfer conference proceedings
[R-451-PR, VOL. I] 02 p0319 N67-11201
Collective retardation model for mass 15 nuclei
[LPEN.41/BETA/] 03 p0442 N67-13142
Evidence for baryon minus eta enhancement near threshold
[COO-881-75] 03 p0443 N67-13265
Mechanism of heat and mass exchange during vibrations of subliming body under free convection conditions in rarefied gas medium 05 p0773 N67-14387
Body vibration rate effect on heat and mass transfer during sublimation under vacuum conditions 05 p0774 N67-14388
Laminar boundary layers with uniform fluid properties similar solutions to velocity equations involving mass transfer
[ARC-CP-857] 05 p0694 N67-14840
Transport of carbon and nitrogen from stainless steel containing flowing potassium, and reliability evaluation of transmission gears 06 p0887 N67-16174
Kinetic analyses to predict quantative loss or gain of interstitial elements from stainless steel materials used to transport liquid metals in nuclear power systems 06 p0894 N67-16175
Heat transfer characteristics of wire gauze, surface mass transfer in falling film, and cooling of electromagnetic liquid metal pump
[TUBIK-1] 07 p1206 N67-17188
Correlation between surface ripples and mass transfer in pseudolaminar falling film 07 p1206 N67-17189
Analytical model for equating surface heat and mass transfer rates in supersonic base flow region 08 p1385 N67-19296
Mass transfer rate and surface characteristics of air-water interface during annular two-phase flow in vertical pipe
[NASA-CR-82543] 08 p1275 N67-19328
Unified theory of friction, heat transfer, and mass transfer in turbulent boundary layer and wall jet
[ARC-CP-829] 09 p1433 N67-19421
Mass transfer studies in sodium, and corrosion rate data 09 p1541 N67-19592
SNAP-8 corrosion and mass transfer patterns 09 p1477 N67-19595
Diffusion experiment on tantalum mass transfer in linear system under isothermal and temperature conditions 09 p1477 N67-19597
Molybdenum alloy /TZM/ capsule experiments with boiling-refluxing potassium to determine mass transfer parameters 09 p1459 N67-19602
Heat and mass transfer during water evaporation through porous wall
[FTD-HT-66-307] 10 p1768 N67-20457
Heat and mass transfer during water evaporation through porous wall 10 p1768 N67-20458
Critical assessment of published calculations for heat and mass transfer during water evaporation through porous wall 10 p1768 N67-20459
Sodium mass transfer, and effect of carbon and carbonate additions in sodium test loop
[GEAP-4496] 10 p1652 N67-20850
Complete equation system formulated for laminar boundary layer stability with mass transfer and foreign gas injection
[NOLTR-66-187] 10 p1615 N67-21440
Experimental and numerical analyses of unsteady state heat and mass transfer
[NASA-TT-F-432] 11 p1905 N67-22041
Contact problem for generalized system of differential equations of heat and mass transfer 11 p1906 N67-22043
System of heat and mass transfer equations and field reconstruction for colloids 11 p1906 N67-22047
Vibration effects on mass and convective heat transfer under vacuum sublimation conditions 11 p1907 N67-22050
Heat and mass transfer rate dependence on vibration velocity of body undergoing vacuum sublimation with steady state free convection conditions 11 p1907 N67-22051
Mass transfer coefficient of air passing between capillary-porous body and surroundings 11 p1907 N67-22052
Specific isothermal mass capacity of humid air for calculating mass transfer from colloidal capillary-porous body to surroundings 11 p1907 N67-22053
Mass transfer coefficient in moist grain cooling after drying in multisectional packed heat exchanger 11 p1908 N67-22055
Mass transfer effects in some refractory metal alkali metal stainless steel systems
[ORNL-4025] 11 p1896 N67-23323
Improved correlation of nonuniformly heated round tube burnout data, based on local heat flux and tube diameter, and mass velocity
[AEEW-R-500] 11 p1922 N67-23479
Forced convection and nonisothermal irradiation effects on sublimation and mass transfer from snow surface
[CRREL-SR-90] 11 p1870 N67-23530

Mass entrainment by jets - effect of sound on jet and fluidics application
[AFOSR-67-0837] 13 p2306 N67-35418
Heat and mass transfer in flash distillation of sea water without metallic interfaces
[TAE-47] 13 p2268 N67-35563
Diffusion and kinetic control of hydrogen discharge from acid electrolytes on platinum and platinum alloys
[TR-21] 14 p2475 N67-36738
Interference measurements of mass transfer in turbulent boundary layer through permeable surface
[NASA-TT-F-11025] 16 p2936 N67-29013
Turbulent boundary layer under conditions of heat and mass transfer at hypersonic flow - data tabulation
[NOLTR-67-6] 16 p2876 N67-29121
Thermodynamics, kinetics, and mass transport research projects 16 p2846 N67-29469
Sodium components development program - shell-side heat transfer, once-through steam generator, mechanical properties, carbon analysis, Na mass transfer, and impurity analysis for Na
[ORNL-3965, VOL. II] 16 p2900 N67-29746
Numerical determination of energy and mass transport characteristics of gas flowing axially through constricted arc plasma generator
[NASA-TN-D-4042] 16 p2957 N67-30122
Simultaneous effects of heat and mass transfer on boundary layer properties at three-dimensional stagnation point flows
[NASA-CR-817] 16 p3081 N67-30133
Monte Carlo method for computing particle and gamma radiation transfer for radiation shielding 17 p3114 N67-31259
Prediction of heat transfer and skin friction for mass transfer cooled zero pressure gradient surfaces exposed to high velocity laminar flow of nitrogen and carbon dioxide gas streams
[NASA-CR-85699] 17 p3179 N67-31323
Similarity solutions for retarded compressible boundary layer with heat and mass transfer
[ARL-67-0054] 18 p3260 N67-32375
Inviscid flow field over slender bodies with high rates of mass transfer or hard blowing at surface
[RM-5196-ARPA] 19 p3430 N67-32860
Heat and mass transfer during evaporation of liquid with free surface in rarefied gas medium
[NASA-TT-F-11151] 19 p3555 N67-33864
Heat and mass transfer characteristics of axial-flow liquid-core nuclear rocket engine employing radiation heat transfer
[NASA-TN-D-4127] 19 p3494 N67-33877
Formation of new metal phases on surfaces of metals in contact with liquid sodium at high temperatures
[KFK-466] 20 p3655 N67-34138
Mechanism of gas phase formation at electrode and solution interface, mass transfer aspects of electrolytic gas evolution process, and analogy with nucleate boiling
[UCRL-17324] 20 p3744 N67-34254
Formation data of falling drops obtained by dynamic mass transfer measurements
[IS-T-130] 21 p3951 N67-36512
Diffusion-controlled electrolytic mass-transfer technique to measure mass-transfer coefficient between falling liquid film and vertical surface
[TWF/R/4] 21 p3834 N67-36518
Tables of similar solutions for equations of momentum, heat, and mass transfer in laminar boundary flow 22 p4163 N67-37368
Laminar boundary layer with large pressure gradient and surface mass transfer
[P-3506] 24 p4431 N67-39620
Dynamic mass transfer of stainless steel in sodium under high heat flux conditions
[NAA-SR-12447] 24 p4491 N67-39622
Mass transfer effects on aerodynamic pitching moment of conical bodies supported in hypersonic wind tunnels
[REPT.-6414-3-31-67] 24 p4371 N67-39670
MAST
S MAGNETIC ANNULAR SHOCK TUBE /MAST/
MATERIAL
S ABLATING MATERIAL
S AIRFRAME MATERIAL
S ANISOTROPIC MATERIAL
S BITUMINOUS MATERIAL
S COMPOSITE MATERIAL
S DIELECTRIC MATERIAL
S FOAMED MATERIAL
S HIGH TEMPERATURE MATERIAL
S IMPREGNATED MATERIAL
S INTERSTELLAR MATERIAL
S LAMINATED MATERIAL
S MAGNETIC MATERIAL
S MOLDING MATERIAL
S NONABLATING MATERIAL
S NONFLAMMABLE MATERIAL
S ORGANIC MATERIAL
S ORTHOTROPIC MATERIAL
S PHOTOELASTIC MATERIAL
S PHOTOELECTRIC MATERIAL
S PLASTIC MATERIAL
S POROUS MATERIAL
S PYROLYTIC MATERIAL
S RADIOACTIVE MATERIAL
S RADOME MATERIAL
S REACTOR MATERIAL
S REFRACTORY MATERIAL
S REINFORCED MATERIAL
S SELF-LUBRICATING MATERIAL
S STRUCTURAL MATERIAL
S THERMOELECTRIC MATERIAL
S TRANSPARENT MATERIAL
S VITREOUS MATERIAL
MATERIAL REMOVAL
SA MACHINING
Effectiveness of electrolysis and solvents in removing vinyl paint from platinum anodes
[PR-1] 05 p0713 N67-15075
Consolidation, joining, metal removal, and forming techniques used in fabricating gas turbine components 16 p2890 N67-29300
Method for photographic emulsion removal from nontransparent backing and transfer to transparent backing
[EGG-1183-2133] 16 p2897 N67-29738
MATERIAL TESTING
SA ENVIRONMENTAL TESTING
SA FAILURE
SA FATIGUE
SA NONDESTRUCTIVE TESTING
Impregnated papers tested for corrosion-preventive properties when used with metal parts
[TDCK-46179] 01 p0089 N67-10154
Acoustic reliability testing of continuously welded and spot welded steel section models for ship hull construction
[TDCK-46298] 01 p0115 N67-10465
Structural materials test techniques design
[MAB-225-M] 01 p0079 N67-11002
Space power system material compatibility tests of selected refractory metal alloys with boiling potassium
[NASA-TM-X-52343] 02 p0289 N67-11330
Cable insulating materials measured for swelling after submersion in hydraulic, diesel, and lubricating oils
[TDCK-45714] 02 p0266 N67-11999
Performance evaluation tests on encapsulating polyurethane elastomeric compound, type III
[NASA-TM-X-59136] 02 p0279 N67-12306
Performance evaluation tests on encapsulating polyurethane elastometric compound, type III
[NASA-TM-X-59135] 02 p0279 N67-12307
High power laser research - laser material evaluation, stimulated output and Q-switching, self-focusing in liquids, and flash lamp spectroscopy
[NRL-6444] 02 p0407 N67-12645
Equipment assembly for laser materials evaluation program 02 p0452 N67-12647
Effects of thermal sterilization on polymeric products used on Ranger and Mariner spacecraft
[NASA-CR-59434] 02 p0415 N67-12660
Castable polyurethane and thin film forming conformal coating materials compared and evaluated for use as environmental protective coating
[NASA-TM-X-59180] 02 p0415 N67-13110
Filler and matrix composite materials for use in silver-zinc battery separators
[NASA-CR-60529] 03 p0336 N67-13312
High temperature testing and evaluation of graphite helical screw expanders and compressors
[UCRL-14660, REV. 1] 03 p0327 N67-13369
Evaluation of radio frequency characteristics of radome materials for Venus Deep Space Station antenna using radiometric measurements 05 p0673 N67-14444
Materials analysis branch for environmental and nondestructive testing of spacecraft components
[NASA-TM-X-59274] 05 p0691 N67-14849
Fuel cell asbestos test program
[NASA-CR-72148] 05 p0799 N67-15562
Low solar absorption emissivity coatings for low temperature spacecraft radiators - ultraviolet radiation tests
[NASA-CR-72139] 06 p0962 N67-16568
Emittance and thermal cycling tests of stainless steel tubes coated with iron and calcium titanate, and niobium-zirconium tubes coated with iron titanate
[NASA-CR-72149] 06 p0962 N67-16569
System design and materials testing in development of sterilizable liquid propulsion system
[NASA-CR-61643] 07 p1183 N67-17970
Polymer separator materials for heat sterilizable battery
[NASA-CR-61610] 07 p1197 N67-17975
Development program for separator and modified polyethylene separator material for silver-zinc battery, and program for development of sealed heat sterilizable batteries 08 p1222 N67-18313
Washout tests on ceramic core material after fuel element failure
[BNWL-395] 08 p1316 N67-18972
Channel wall limitations in magnetohydrodynamic generator
[ANL-7168] 08 p1368 N67-18982
Materials compatibility and corrosion in SNAP-8 test loops 09 p1476 N67-19594
Potassium corrosion studies - refluxing X tests of Nb-containing alloys, refluxing X stress corrosion tests with D-43 alloy, and X compatibility tests 09 p1459 N67-19603
Test program to determine behavior of advanced refractory metal alloys in boiling potassium 09 p1499 N67-19604
High temperature thermocouples used in gas cooled reactor irradiation tests of encapsulated fuel materials 09 p1477 N67-19622
Thermochromic materials for use in display devices under wide ranges of ambient illumination
[NASA-CR-80016] 09 p1449 N67-19819
High performance lightweight electrodes for hydrox fuel cells
[NASA-CR-72186] 09 p1396 N67-19830
Centimeter wave measurement of dielectric constants for materials as determined by short circuit, open circuit, and impedance transformer methods
[TIL/T-5711] 09 p1504 N67-20311
Ultrasonic nondestructive inspection technique for evaluation of weldments
[TR-66-19] 10 p1627 N67-20881
High temperature fibrous insulation for radioisotope power systems
[ALO-3633-2] 10 p1660 N67-20735
Materials compatibility and corrosion studies for research reactor
[ORNL-4034] 10 p1696 N67-21479
Dutch air force cotton overalls tested for fire resistance after repeated dry cleaning
[REPT.-668] 10 p1566 N67-21768
Materials selection and testing, design criteria, and fabrication processes for high temperature, uncooled, articulating control rod
[GE-TM-66-6-23] 10 p1690 N67-21880
Metallic coating materials evaluated for use in transition joints for SNAP-8 transformer rector assembly
[NASA-CR-72195] 11 p1890 N67-22894
Swelling and hardness data of PVC, neoprene, and hypalon cable sleeves after immersion tests in diesel oil
[TDCK-46563] 11 p1891 N67-22900
Operation of hydrodynamic journal bearings in liquid sodium at high temperatures and high speeds
[NASA-TN-D-3928] 11 p1891 N67-22901
Evaluation of Hastelloy X as nuclear cladding - oxidation and mechanical property studies, metallography, X-ray analysis, and tensile testing
[AGN-8305] 12 p2144 N67-23596
Thermal performance of Nimbus B/SNAP-19 materials and mechanical joints
[MND-3697-113] 12 p2164 N67-23692
Codes, specifications, and acceptance standards for weldments
[ORNL-P-2615] 12 p2196 N67-23720
Beta emitting strontium 90 used as electron source for material testing in space environment simulation chamber
[NASA-CR-73052] 12 p2276 N67-23869
Evaluation of various padding materials for aircraft crash protection

[AM-66-40] 13 p2302 N67-25135
Sintered aluminum products development and control of material and processing parameters 13 p2325 N67-25363
Materials development and testing for molten-salt reactor program 13 p2356 N67-25371
Materials for encapsulating isotopes for use as heat sources 13 p2356 N67-25374
Instrumentation, techniques, and material testing for control of radiation hazards [PR-25] 13 p2439 N67-25461
Testing of coating materials for glove boxes, floors, and ventilation ducts to determine resistance to chemical attack and abrasion 13 p2343 N67-25476
Pure bending tests to determine mechanical properties of materials in elastoviscoplastic domain [NT-99/1966/] 13 p2416 N67-25578
Strength of high alumina ceramics under impact loading [REPT.-1651-2] 13 p2416 N67-25627
Heat treatment and testing to improve mechanical properties of strippers from feeder mechanism of H-61 cannon, F-104G aircraft [M-66-1071] 13 p2302 N67-25738
425-foot diameter passive communication satellite with self erecting properties [NASA-CR-83907] 13 p2406 N67-25750
Collector-radiator fabrication and brazing materials evaluation in solar thermionic generator development [NASA-CR-83886] 13 p2249 N67-25876
Rubber and butyl cable insulation materials tested for physical and mechanical properties to determine effects of aging [MAR-6702] 13 p2328 N67-26035
Brass, bronze, stainless steel, and copper wires for rocket retainer part tested for shear strength [M-66-1068] 13 p2329 N67-26125
Thermionic converter research - electrode materials evaluation and theory of vacuum double diode [NASA-CR-84004] 13 p2251 N67-26176
Parts and materials data retrieval system for selection of spacecraft materials for toxicological testing and off-gassing rates 14 p2452 N67-26715
Simulated environmental studies of gas-off and oxidation products from spacecraft cabin materials 14 p2470 N67-26716
Low modulus materials for coaxial cable insulation and jacketing [AD-646530] 14 p2505 N67-26796
Explosive ring test for determining flow laws of rate sensitive plastic and strain hardened materials [REPT.-3] 14 p2552 N67-26916
Advanced test reactor beryllium surveillance program [IN-1043] 14 p2579 N67-27596
Materials testing facility for determining mechanical properties for specific transient load applications [AD-634666] 15 p2797 N67-27949
Surface finish, piping configuration, and leak tightness evaluations on seat materials for pressurizer steam relief valve [Y-EF-22] 15 p2747 N67-28414
Thermal insulation - material testing of refrasil quartz fiber paper, metal foil, quartz cloth composite, and metal foil glass fiber paper composite [ALO-3632-11] 15 p2804 N67-28416
Compatibility of polymeric films with liquid oxygen [NASA-CR-72134] 15 p2732 N67-28755
Materials development for advanced concept turbomachine compressor casings, blades, and other components 16 p2906 N67-29202
Nondestructive test methods for detecting and measuring stress corrosion and residual stress 16 p2907 N67-29304
Methods for evaluating coatings for superalloys and refractory metals [AGARD-509] 16 p2979 N67-29540
Laser materials research - nonradiative energy transfer in doubly and triply activated glasses [NRL-MR-1713] 16 p2905 N67-29678
Embrittlement tests at high temperatures on austeno-ferritic and austenitic steels [EURAEC-1645] 16 p2910 N67-29824
Literature review of compatibility of commercial materials with ethylene oxide-Freon 12 sterilant gas mixture [NASA-CR-88235] 16 p2854 N67-30007
Motor chamber and nozzle shell designs, material and process evaluation studies, and fabrication methods for pressure vessel components of two 260-SL motors [NASA-CR-72126, VOL. V.] 16 p2964 N67-30032
Material and process evaluation program for 260-SL motor chamber and nozzle shell fabrication of 18 percent nickel maraging steel - appendix [NASA-CR-72126, V. V, APPEND. B] 16 p2964 N67-30034
Polymeric materials for spacecraft application tested after curing and thermal vacuum exposure for weight loss and mechanical properties [NASA-CR-85361] 16 p2917 N67-30078
Asbestos and other candidate materials for electrochemical cell separators [NASA CR-72267] 17 p2997 N67-30685
Material testing of components and closed loop systems of SNAP-8 turboelectric space power mercury Rankine cycle conversion system [NASA-CR-72257] 17 p3108 N67-30835
Feasibility of Scout launched small lifting reentry vehicle for testing materials and thermostructures of full scale reentry vehicles [NASA-CR-66397] 17 p3168 N67-31444
Thin film capacitor research and development - deposition of materials for capacitor dielectrics, and materials compatibility with integrated circuits 18 p3243 N67-31580
Surveillance of in-pile tests using neutron radiography 18 p3309 N67-32437
Operation and upgrading of 1200 solar simulator, including testing of arc lamp housing materials and water-cooled collectors 18 p3200 N67-32595
Annotated bibliography of literature on fatigue testing [AMRA-MS-67-05] 19 p3468 N67-32858
Fracture toughness measurements of reactor pressure vessel steels [COO-1477-7] 19 p3460 N67-32909
Processing tests, offgassing rates, and gaseous compositions for thermal insulation materials [ALO-3632-14] 19 p3555 N67-33700
Ultrasonic testing applied in machine and boiler construction to detect material flaws and determine strength [ORNL-TR-1369] 20 p3645 N67-34001
Nimbus satellite component and materials environmental investigations, failure analyses, and quality control procedures [NASA-CR-87481] 20 p3732 N67-34431
Use of crack line loading methods for measuring plane strain fracture toughness 20 p3738 N67-34488
Isostatic polybutene in contact with bronze journal as bearing material combination for water lubrication [MEL-163/67] 20 p3648 N67-34619
Methods for producing high modulus, high strength carbon fiber reinforced plastics [RAE-TR-67088] 20 p3665 N67-34684
Performance of stainless steel 304, 316, and 348 in sodium-potassium alloy at high temperatures [IN-1089] 20 p3659 N67-34786
Basic design, component selection, and materials compatibility tests for sterilizable liquid bipropellant propulsion system [NASA-CR-88020] 21 p3925 N67-35988
Thermal sterilization effects and application parameters determined for connector cup joints soldered with tin and antimony [NASA-CR-88902] 21 p3861 N67-36194
Test equipment development for research on substructure effects on irradiation stability of ASTM A302 grade B steel [GA-7896] 21 p3870 N67-36239
Deformation and fracture, surface properties, radiation effects, and chemical engineering of materials - summaries of research activities 21 p3864 N67-36575
Selected transition metal silicides for electrochemical oxidation of fuels, and effects of trace amounts of platinum on catalytic activity of gold surfaces [PWA-3106] 22 p3981 N67-36731
Life expectancies of thermionic cathodes [NASA-CR-88499] 22 p3963 N67-36922
Interfiber distance and temperature effect on critical aspect ratio in composites [NASA-TM-X-52347] 22 p4075 N67-37067
Raw materials and techniques for manufacturing industrial carbons and graphite [LA-3693] 22 p4076 N67-37219
Emittance testing of calcium titanate and iron titanate coated stainless steel tubes and thermal cycling tests of iron titanate coated niobium-zirconium tubes [NASA-CR-72294] 22 p4162 N67-37318
Fatigue testing of rolling contact bearing materials and analysis of advanced lubricants [NASA-CR-72290] 22 p4054 N67-37370
Aircraft cabin fire study with emphasis on testing material ignition and burning rates [FAA-ADS-44] 22 p3961 N67-37376
Advanced Test Reactor /ATR/ high temperature helium loop model [BNWL-419] 22 p4092 N67-37488
Feasibility demonstration of parametric charting portion of material prediction technique - testing of composite materials in hypothetical thermal environment [NASA-CR-88470] 22 p4078 N67-37535
Volatile contaminants of space cabin materials [NASA-CR-88636] 22 p4079 N67-37551
Regenerative thrust chamber design, material selection, and fabrication methods [NASA-CR-72286] 22 p4134 N67-37634
Emitter fabrication and testing, engine testing and performance, and accelerator material studies in development of cesium contact ion engine [NASA-CR-54693] 22 p4134 N67-37657
Composite fracture diagrams for aluminum alloys 22 p4129 N67-37812
Thermophysical properties of nondegraded and thermally degraded phenolic-carbon fiber composite material [NASA-CR-896] 22 p4074 N67-38017
Improved tri-metallic T-39 aircraft brake prototype evaluated in wearout landing tests [AD-657385] 23 p4257 N67-38170
Full scale crawler belt shoe tests on surfaces and lubricants for structural and sliding friction effects [NASA-CR-88964] 23 p4232 N67-38347
Prediction of shelf-storage life in rubbers from accelerated heat aging tests - oven aging experiments with nitrile, neoprene, and hypalon [RAE-TR-67118] 23 p4269 N67-38444
Life test data to determine structural stability of semiconductor materials /cadmium selenide, cadmium sulfide, and tellurium/ used in field effect transistors 23 p4224 N67-38470
Ultrasonic investigation of steel plates and bodies [REPT.-6702.283] 23 p4257 N67-38496
Sliding wear performance of metallic material couples in high purity water environment at 300 deg F and at 500 deg F [WAPD-314] 23 p4266 N67-38987
Corrosion resistance of construction materials in boiling 13 M nitric acid and 0.1 M hydrofluoric acid solution [BMI-X-434] 23 p4209 N67-38990
Plotting of 1.2 MD 0.7 steel transformation curves for austenization temperatures fo 900 and 1100 C [EURAEC-1687] 23 p4267 N67-39046
Pressure drop across fixed beds of anthracite briquetts and blast furnace materials [BM-RI-6945] 23 p4209 N67-39124
Transient surface temperatures of strips with coatings of temperature indicating materials [UCRL-70397] 23 p4266 N67-39845
Notch strength of irradiated A302-B steel measured in simulated reactor pressure vessel walls [NRL-6575] 24 p4463 N67-39485
Interface friction between tool and workpiece materials under plastic deformation conditions [IITRI-B6069-6] 24 p4456 N67-39521
Mechanical testing of brittle materials [AMRA-CR-67-09/1] 24 p4472 N67-39953
Fabrication, testing and processing of high performance composite materials [HPC-67-28] 24 p4472 N67-40015
Irradiation effects at 160 to 340 deg C in six pressure vessel steels [AE-298] 24 p4468 N67-40143
Tungsten-rhenium alloys tested as thermocouple materials for high temperature measurement of ceramic fuel elements [AECL-2788] 24 p4469 N67-40360
Testing of stainless steels and stainless steel wire

[EURAEC-1865] 24 p4479 N67-40501

MATERIALS EROSION
Cavitation damage data for water and various liquid metals
[REPT.-05031-6-T] 01 p0061 N67-11126
Formation and life histories of transfer films of self-lubricating retainer materials on ball bearings operating in hydrogen gas at 33 deg K
[NASA-TN-D-3730] 02 p0265 N67-11512
Construction and application of analytical model of wet vapor turbine blad erosion
[NASA-CR-81135] 05 p0697 N67-15257
Effect of external variables on erosion rates of turbine blade materials under impacting liquid drops and chemical dissolution of flowing liquid
[NASA-CR-81136] 05 p0698 N67-15258
Lubrication, and friction and wear concepts for high vacuum applications
[NASA-TM-X-52271] 07 p1094 N67-17831
Accelerated wet mercury vapor erosion testing of candidate SNAP-8 turbine rotor and nozzle materials in close pump loop
[NASA-CR-72196] 11 p1922 N67-22855
Effects of vapor quality, droplet size and velocity, and turbine geometry on turbine blade erosion with steam
[NASA-CR-84499] 14 p2450 N67-27666
Flow components and instrumentation resistance to high temperature lithium impingement in separator materials study for liquid metal magnetohydrodynamic power system
[NASA-CR-89234] 23 p4182 N67-38617

MATERIALS SCIENCE
SA CERAMICS
SA METALLURGY
SA PLASTIC MATERIAL
Thermoluminescent emission spectra of various materials by means of quartz-prism spectrography
[NRL-6408] 01 p0113 N67-10291
Abstracts on materials sciences research
[AD-632316] 01 p0138 N67-10357
Damping capacity in materials - annotated bibliography
[NASA-CR-80143] 02 p0317 N67-12859
Interdisciplinary materials research including fundamental physics and chemistry of materials, environmental effects and related problems
[NASA-CR-79755] 02 p0229 N67-12974
Publications listed and progress reported in studies of single crystals, crystal growth, material analyses, and solid compounds
[AD-637845] 02 p0295 N67-13091
Wood-plastic materials research - process and properties, market surveys, plant design, and applications in industry 04 p0563 N67-13362
Large deformations and viscous flow in isomorphic and isotropic materials 05 p0768 N67-14483
Research in mechanical and aerospace engineering and materials science 05 p0780 N67-14845
Materials science research project
[AD-640485] 05 p0667 N67-15022
Metallurgy and materials science technological developments
[MAB-206-M/4/] 05 p0713 N67-15023
Strength and bearing capacity, heat resistance, thermoelasticity, thermoplasticity, rheology, construction mechanics, and stress concentration of materials
[JPRS-39233] 05 p0773 N67-15168
Conference papers on metallurgy techniques, manufacturing processes, materials research, and national programs in metal working
[AFOSR-66-2001, VOL. II] 06 p0891 N67-15501
Materials science in support of advanced military technology 06 p0854 N67-15510
Design optimization through materials research 06 p0885 N67-15514
University research projects in materials science in applied mathematics, chemistry, engineering, geology, and physics departments
[AD-641405] 06 p0946 N67-15997
Determination of antimony in natural materials by neutron activation
[ORO-3670-15] 07 p1027 N67-17460
Bibliography on high temperature chemistry and physics of materials in condensed state 07 p1033 N67-18182
Materials evaluation for components of SNAP-8 system - design, development, fabrication, and testing
[NASA-CR-72146] 08 p1320 N67-18969
Materials research on design, fabrication, and development of SNAP-8 components and system loops
[NASA-CR-72156] 08 p1320 N67-18985
Analytical technique for predicting physical, thermal, and optical properties of composite material constituents used in radiant and/or radiant/convective heating environment
[NASA-CR-83485] 08 p1286 N67-19155
Bonding materials on backing and coating sheets on electrical steel 09 p1452 N67-19367
Materials science and structures dealing with fatigue mechanisms 09 p1457 N67-19411
Materials science research projects
[AR-7] 09 p1499 N67-19453
Compatibility of metallic and ceramic materials with gaseous and liquid cesium for ion engines 09 p1460 N67-19606
AGARD activities in aerospace medicine, avionics, flight mechanics, fluid dynamics, guidance and control, propulsion and energetics, structures and materials, and technical information 09 p1462 N67-19910
Research summaries in general areas of electronics, materials science, and general sciences
[PB-178681] 09 p1485 N67-19930
Permeability of materials to gaseous tritium
[CEA-R-3018] 09 p1496 N67-20180
Semiconductor devices, optical techniques, materials research, and physics of solids
[REPT.-1966-3] 10 p1745 N67-20543
Materials sciences research
[AD-645165] 16 p1751 N67-21329
High temperature chemical and physical properties of metallic and nonmetallic solids, and measuring apparatuses - bibliography 11 p1803 N67-22095
Lunar surface mining techniques and materials characteristics in vacuum environment
[NASA-TM-X-53560] 11 p1974 N67-22172
Compatibility of nuclear fuel materials UN, UC, and uranium dioxide with metals
[KFK-435] 12 p2144 N67-23591
Space programs supporting research and advanced development in systems analysis, spacecraft guidance and control, materials science, communications and telemetry, and propulsion
[NASA-CR-83804] 12 p2073 N67-23641
Carbon and graphite, sterilization of impact liners, nonmagnetic material for welded structures, and other materials science studies 12 p2105 N67-23649
Materials preparation and characterization research - crystal growth and application of electron microprobe to characterization of solids
[AD-647065] 12 p2049 N67-24984
Solid state devices, optical techniques and devices, materials research, and physics of solids
[ESD-TR-66-566] 13 p2383 N67-25121
University research in materials, plasma, and engineering for direct energy conversion
[NASA-CR-62859] 13 p2394 N67-25643
Materials research projects
[NASA-CR-83234] 13 p2368 N67-25894
Defect structure, mechanical behavior, electrical and optical properties, magnetic, thermodynamic, and thin film properties of solid materials and crystals
[NASA-CR-84070] 13 p2395 N67-26375
Theoretical and applied mechanics research programs for mathematical analyses of stresses, vibrations, fluid flow and materials behavior 14 p2622 N67-26612
Cumulative index of NASA Tech Briefs dealing with electrical and electronic, physical science and energy sources, materials and chemistry, life science, and mechanical innovations
[NASA-SP-5021/04/] 14 p2435 N67-27296
Materials data handbook for aluminum alloy 6061
[NASA-CR-84480] 14 p2556 N67-27520
Analytical characterization of metallic and ceramic materials
[ARL-67-0062] 16 p1906 N67-28995
Three classes of composite materials for space vehicle application
[NASA-CR-795] 16 p2973 N67-29030
Deformations in pyrolytic graphite, impurities in magnesium oxide, and ablating materials 16 p2914 N67-29147
Materials research - diffusion bonding methods, stress corrosion tests, nondestructive testing, material designs for electronic equipment, and nonmetallic material development
[NASA-TM-X-53610] 16 p2936 N67-29261
Material designs for electronic applications - motor brushes, dielectrics for wire coatings, electrical properties of cryogenic fluids, and potting compounds 16 p2899 N67-29265
Nonmetallic materials development - cryogenic insulation, adhesives research, and membrane diffusion theory 16 p2914 N67-29266
Profile on Laboratory for Research on the Structure of Matter, and materials science projects
[AD-648126] 16 p2945 N67-29462
Development and evaluation of magnetic and electric materials to operate in 800 deg to 1000 deg F temperature range for application to space electric power systems
[NASA-CR-54359] 16 p2912 N67-29668
Characterization of defects, polycrystals, and polymer materials on basis of structure and composition
[MAB-229-M] 17 p3064 N67-30363
Report of special committee on characterization of materials 17 p3147 N67-30364
Characterization of materials according to composition 17 p3014 N67-30365
Structural characterization of materials - methods for describing location of atoms within solid 17 p3147 N67-30366
Characterization of defects in solids 17 p3147 N67-30367
Characterization of polycrystalline materials 17 p3147 N67-30368
Characterization of polymer materials 17 p3064 N67-30369
Materials research program for application to rocketry and space flight environment 17 p3078 N67-30565
Lunar surface mission planning 17 p3159 N67-30611
Solid state physics, methods, devices, and materials 17 p3148 N67-30715
Ceramic materials science - chemical effects, surface phenomena, solid state ceramics, and processing
[NASA-CR-85768] 17 p3097 N67-31233
Langley Research Center microelectronics program - systems, circuits and devices, and materials and components development 18 p3241 N67-31564
Plasma jet applications in material processing and metallurgical processes
[FTD-MT-65-543] 19 p3483 N67-32956
Effects of simulated lunar environment on inorganic terrestrial materials
[REPT.-1890] 19 p3535 N67-32972
Bibliography on high temperature chemistry and physics of materials in condensed state 19 p3394 N67-32982
Materials research projects in solid state physics, electronics, cryogenics, and radiation effects
[AD-650265] 19 p3536 N67-32997
Field ion microscopy to study influence of nonstoichiometry on structure of carbides
[NYO-3716-1] 19 p3474 N67-32998
Crystallographic research at elevated pressures, with bibliography
[AD-653007] 20 p3567 N67-34056
Bibliography on high temperature chemistry and physics of materials in condensed state 20 p3714 N67-34742
Industrial and commercial applications of aerospace biotechnology, materials science, bearings and lubrication, and electric and electronic equipment - conference
[NASA-TM-X-52345] 21 p3854 N67-35303
Reinforced composite materials, refractory alloy dies, corrosion resistance paints, and insulations for very high and low temperatures 21 p3872 N67-35304
Experimental investigation to determine relationships between polarization and surface structure of rhyolytic pumice
[RM-3707] 21 p3840 N67-35502
Materials science and engineering activities dealing with chemical and solid state physics, material properties and device applications, and magnet instrumentation and Lincoln laboratories
[AD-652562] 21 p3894 N67-36571
Electric, magnetic, and optical properties of materials and applications to devices - research summaries 21 p3894 N67-36573
Physics of solids, metallurgy, and materials science - summaries of research activities 21 p3894 N67-36574

Facilities for general services, specialized research, and materials preparation and processing 21 p3829 N67-36579
Inorganic materials research in chemistry, metallurgy, ceramics, and solid state physics [UCRL-17330] 22 p4129 N67-37646
Material and process specifications for refractory alloys and alkali metals [NASA-CR-88711] 22 p4065 N67-37648
Materials research laboratory progress report on materials preparation and characterization studies [AD-657237] 23 p4328 N67-38363
Physics of failure in electronics - conference on material processes and phenomena influencing degradation and failure of solid state electronic devices and related structures [AD-655397] 23 p4223 N67-38461
Historical approach to development of metallurgy and evolution of materials science 23 p4363 N67-38510
Multidisciplinine research in materials science [COO-1198-443] 23 p4330 N67-38530
Materials science, physical chemistry, solid state physics, metallurgy, magnets, and instrumentations [TID-23852] 23 p4333 N67-38877
Summaries and notes on major Soviet achievements during 1966 in physical, life, and material sciences, space medicine, mathematics, and astronomy 23 p4370 N67-39198
Effect of structure and material research on weight, performance, and cost of advanced launch vehicle systems [NASA-CR-89270] 23 p4362 N67-39351
High temperature and high strength alloy development for magnetic and electric equipment [NASA-CR-54360] 24 p4463 N67-39389
Physical, mechanical, and nuclear properties of wrought elements of PAR-1 alloy for use in construction of EWA 10 MW nuclear reactor core [INP-779/XIV/PS] 24 p4469 N67-40453

MATERIALS TESTING REACTOR
Manufacture of materials testing reactor thermocouple fuel plates [AKRE-M-1040] 12 p2148 N67-24000
Tabulation of total neutron cross section of uranium 232 determined with materials testing reactor fast chopper [IN-1015] 12 p2169 N67-24550
Epithermal neutron spectra in materials testing reactor determined by resonance detectors [WAPD-TM-642] 16 p2931 N67-29723
Thermal flux calculations for fueled irradiation experiments in materials testing reactor 18 p3297 N67-32417
Comparative burnout data on irradiation programs in test reactor and materials testing reactor using calorimetric method and isotopic analysis 18 p3301 N67-32442
Irradiation facilities in Oak Ridge National Laboratory bulk shielding reactor [ORNL-P-2160] 18 p3304 N67-32458
Performance tests of delayed neutron monitor used in conjunction with boiling water loop in materials testing reactor [TRG-1416/D/] 20 p3681 N67-34428
Design, development and manufacture of neutron converters for Dounreay materials testing reactor [TRG-1453/D/] 20 p3682 N67-34532
Operational problems and failures of Wigner-type rigs for materials testing reactors 21 p3892 N67-36551
Development and in-pile performance of Belgian Engineering Test Reactor /BR2/ irradiation rigs [EUR-3626.E] 24 p4494 N67-40455

MATHEMATICAL MODEL
SA FLOW GRAPH
SA POISSON PROCESS
Mathematical models and equations for bodily tide and free oscillations of earth derived and analyzed for accuracy 01 p0092 N67-10070
Cumulative degradation model and application to component life estimation 01 p0047 N67-10106
Mathematical model for space mission success evaluation [NASA-CR-79222] 01 p0152 N67-10240
Mathematical model for motion of rotating or nonrotating space vehicle having passive moving parts [ADR-06-07-64.3] 01 p0114 N67-10425
Statistical model approach for computing ratios of neutron cross sections for reaction on adjacent isotopes [UCRL-14575] 01 p0121 N67-10606
Space independent model of two-phase flow [BNL-963] 01 p0166 N67-10779
Mathematical model and method of orbit adjust and station keeping gravity-oriented satellites [NASA-TN-D-3652] 01 p0153 N67-10787
Bethe-Salpeter equation application to static bootstrap model [CAR-882-19] 01 p0129 N67-10836
Mathematical model of criteria for using forward error correction devices for retransmission data communications systems [MTR-316] 01 p0041 N67-11022
Comparing nine profile models for diabatic boundary layer [ECOM-5054] 01 p0102 N67-11030
Man-machine problems, and mathematical modeling of conflict situation in interdependent group activity of operators 02 p0217 N67-11461
Mathematical modeling of oxygen consumption by human body during physical work 02 p0186 N67-11462
Mathematical model for recovery of aluminum nitrate nonahydrate from Redox acid waste by crystallization from concentrated nitric acid solution [HW-82771, PT. 3] 02 p0226 N67-11708
Boltzmann equation, variational principle, and mathematical models of collision operator in relation to kinetic theory and rarefied gas dynamics [TP-379/1966/] 02 p0251 N67-11919
Human thought process and thermodynamic modeling [JPRS-38540] 02 p0226 N67-12004
Model study of conflict and cooperation behavior causing escalation and de-escalation 02 p0238 N67-12017
Model study of conflict and cooperation behavior causing escalation and de-escalation 02 p0238 N67-12018
Model study of conflict and cooperation behavior causing escalation and de-escalation - appendices 02 p0238 N67-12019
Mathematical model used in estimating statistics of randomly varying parameters of linear systems [NASA-CR-79759] 02 p0239 N67-12082
Rostoker particle theorem for multispecies plasma in framework of Klimontovich formalism 02 p0203 N67-12130
Mathematical simulation of functions of human hearing 03 p0351 N67-12353
Experiments to ascertain validity of mathematical model of vision radiation 03 p0351 N67-12354
Mathematical model of standard homogeneous visual processes in man and problems in theory of color television - Bionics 03 p0351 N67-12359
Mathematical and graphical expressions describing mans requirements for food, water, and oxygen in any terrestrial environment 03 p0339 N67-12443
Optimal algorithm for multi-step search procedure with mathematical model for radar search problem 03 p0375 N67-12505
Multiphase queuing systems used as mathematical models for digital computer simulation 03 p0370 N67-12510
Dynamics of systems with automatic adjustment of amplification coefficient using search modulation 03 p0377 N67-12526
Mathematical model for atmospheric pressure field using finite difference method 03 p0419 N67-12804
Analog computer model of combined rotating unit shaft-bearing system [NAA-SR-11943] 03 p0426 N67-12877
Planetary quarantine mission [NASA-CR-66201] 03 p0345 N67-12902
Theory, mathematical model, and computer simulation of randomly time-variant channels applied in tapped delay line development [NASA-CR-66356] 03 p0367 N67-12978
Quantification and utilization of subjectively determined data in construction of mathematical models [NASA-CR-66349] 03 p0371 N67-12986
Log-normal model for microbial survival in heat sterilization [NASA-CR-66373] 03 p0346 N67-12997
Mathematical models for error evaluation of formulas determining earth shape [ACIC-TC-1062] 03 p0390 N67-13032
Mathematical models for determining photoelectron density of lunar atmosphere - Poisson equation [NASA-CR-66428] 03 p0465 N67-13112
Collective retardation model for mass 15 nuclei [LFEN.41/BETA/] 03 p0442 N67-13142
Mathematical models for effect of tracking systems on RMS errors in spacecraft position and velocity - least squares method [NASA-TN-D-3776] 03 p0369 N67-13175
Mathematical models for calculation of radiation dose equivalents in Clinch river - safety analysis of radionuclide release to river [ORNL-3721, SUPPL. 3] 03 p0348 N67-13253
Mathematical model for statistical processing of experimental biological and medical data by individual criteria 04 p0486 N67-13436
Theoretical problems in biocybernetics, simulation of nervous system physiological processes using mathematical models, and use of cybernetics and electronic methods in medicine [JPRS-37900] 04 p0486 N67-13441
Mathematical models for qualitative studies of nervous system physiology 04 p0487 N67-13443
Optimum control methods for treatment of physiological diseases based on advanced simulation using mathematical models 04 p0487 N67-13444
Methods for development of storage memory in mathematical models with search strategy similar to human brain 04 p0487 N67-13446
Applicability of nonlinear differential equation with discontinuous coefficient to development of mathematical model for simulating excitation properties of nerve tissue 04 p0487 N67-13447
Applicability of nonlinear differential equation with discontinuous coefficient to development of mathematical model for excitation of nerve tissue 04 p0488 N67-13448
Applicability of nonlinear differential equation with discontinuous coefficient to development of mathematical model for studying spontaneous rhythm of neurons 04 p0488 N67-13449
Algorithm for heart function 04 p0488 N67-13452
Mathematical model of extrasystolic allorhythmia 04 p0488 N67-13453
Mathematical model for solution to boundary value problem for high order nonlinear differential equation 04 p0568 N67-13704
Numerical method to determine current distribution on body of revolution excited by electromagnetic wave 04 p0581 N67-13705
Dispersion characteristics of strontium in soil columns from mathematical model 04 p0502 N67-13757
Simplified prediction equations for satellite position display equipment [NRL-6396] 04 p0613 N67-13957
Refined solution of two-dimensional model theories [IC-66/96] 04 p0590 N67-14064
Mathematical model for gas shock wave interaction with plane metallic liner [EUR-3157.E] 04 p0533 N67-14120
Three-dimensional mathematical model for estimating transport and dispersion of falling particles released in atmosphere at altitudes of 10 to 90 km [SC-CR-66-3030] 04 p0543 N67-14135
Momentum integral mathematical model to analyze magnetohydrodynamic flow of incompressible flow fluid [SC-RR-66-356] 04 p0597 N67-14136
Mathematical models for bionics and control systems [JPRS-36966] 04 p0523 N67-14151
Handbook on nonlinear mathematical models for electronic components [NASA-CR-80827] 04 p0521 N67-14216
Mathematical model for improved prediction of mechanical properties of glass fiber resin composite materials [RAE-TR-66345] 04 p0621 N67-14277
Mathematical model and algorithm for finding optimal distribution of limited resources 05 p0726 N67-14346
Mathematical model for separating signal noise of pulse flows with limited aftereffect 05 p0727 N67-14348
Physical and mathematical models of gas flows with chemical and radiative

effects 05 p0692 N67-14404
Bounded range error model applied to evaluation of information content of single pass of Doppler data 05 p0671 N67-14430
First-order nonlinear one-dimensional mathematical model of viscoelasticity using perturbation method 05 p0768 N67-14488
Mathematical model for viscoelastic stress analysis 05 p0769 N67-14499
Nonnewtonian mathematical model and plotting method for analyzing variable head viscometer data obtained on pseudo-plastic polymer solutions - Rheology 05 p0693 N67-14525
Formal theory of conceptual affiliation for document reconstruction - affiliation-value model
[AD-640083] 05 p0779 N67-14721
Mathematical model to optimize plutonium 238 production by fuel recycle 05 p0735 N67-14823
Mathematical model for resonant oscillation in conservative Hamiltonian system
[AROD-4105-23] 05 p0739 N67-14980
Spatial and temporal models used to study response of ionospheric electron density to change of electron temperature
[NASA-CR-81079] 05 p0765 N67-15150
Theory of PERT and control systems for handling mathematical models
[JPRS-29392] 05 p0688 N67-15163
Models of fluid dynamic and thermodynamic processes involved in overall synthesis of analytical model of turbine blade erosion
[NASA-CR-81139] 05 p0697 N67-15249
Construction and application of analytical model of wet vapor turbine blad erosion
[NASA-CR-81135] 05 p0697 N67-15257
Numerical model for simulating general circulation of atmosphere of Mars
[NASA-CR-81146] 05 p0764 N67-15260
Limit theorem use in paired comparison model building for fitting experimental behavioral data
[M-111] 05 p0659 N67-15334
Mathematical model of shell trajectory 06 p0783 N67-15369
Mathematical models for reducing errors and analyzing aerodynamic force and moment data from ballistics tests 06 p0784 N67-15390
Mathematical model and computer program for minimum variance estimates of orbital parameters, geopotential coefficients, station locations, and tracking systems error coefficients
[AD-640331] 06 p0673 N67-15483
Size resonance effects in proton total absorption cross sections of elements derived and compared with optical model calculations 06 p0924 N67-15508
Statistical models used in computer program to simulate atmosphere effect on laser receiver 06 p0833 N67-15746
Asynchronous finite-state models of manual control systems in which human operator behaves as finite-state machine 06 p0806 N67-15853
Derivation of analytical model to predict operator transition response 06 p0809 N67-15856
Adaptive model for human operator engaged in one-dimensional, compensatory, visual-manual tracking 06 p0809 N67-15857
Compensatory tracking experiment performed on single axis and two-axis tracking systems to determine effects of training and task difficulty on parameters of human operator model 06 p0810 N67-15862
Experiments to determine necessary modifications to current models of human controller of single variable systems to make them representative of controller in two variable situations 06 p0810 N67-15863
Model based on optimal control theory for characterizing human operator in preview control task to provide reference frame for studying performance value and learning in manual control 06 p0812 N67-15872
Model to describe human decision making in manual control systems 06 p0813 N67-15874
Application of control theory to development of dynamic system models for human operators in control loop 06 p0812 N67-15876
Multivariate logarithmic series distribution as probability model for human ecology
[ARL-66-0145] 06 p0902 N67-16038
Computer model of fluid transmission line using digital technique to simulate transport delay associated with pressure wave propagation along fluid line 06 p0794 N67-16065
Dynamic programming algorithm, mathematical model formulation, and computer program for estimating spacecraft costs
[NASA-CR-80921] 06 p0885 N67-16114
Use of subjectively determined data in decision making functions, and mathematical models for estimating run-out costs 06 p0886 N67-16116
Mathematical model for determining precursor memory effect and shock wave propagation in crystalline solids
[NOLTR-66-175] 06 p0977 N67-16136
Optical potential parameters of deuteron nuclear interaction model 06 p0937 N67-16382
Measurement of high altitude balloon gas and air temperatures for improvement of mathematical model describing vertical motion of zero pressure balloons
[C-62944] 06 p0790 N67-16343
Diffusion model of low energy charged particles along open field lines of magnetosphere
[AFCRL-66-671] 06 p0957 N67-16359
Regge pole models for bound states and nonrelativistic scattering, and low momentum transfer reactions in crossed channels
[ANL-7173] 06 p0939 N67-16387
Parallel decompositions of single input automata or autonomous sequential machines without and with state-splitting
[AFCRL-66-673] 06 p0849 N67-16442
Mathematical formulations of physical water entry problems for compressible, linearized compressible, linearized incompressible, and other cases Bibliography
[NOLTR-66-173] 06 p0868 N67-16477
Sampling, analyses, and mathematical model of stratosphere contamination and radioactive fallout from nuclear explosions - Star Dust project
[DASA-1821] 06 p0876 N67-16598
Model calculations and measurements of electrical and radiation responses for semiconductor devices and integrated circuits
[ARD-66-49R] 06 p0857 N67-16600
Mathematical models for predicting reliability of semiconductor diodes
[NASA-CR-702] 06 p0905 N67-16870
Mathematical analysis of propagation of spherical shock waves in radiating dynamical gas systems
[D1-82-0555] 07 p1002 N67-16822
Fixed-X linear multiple regression model used in conjunction with electronic computer to determine weighting of relevant variables in policy implementation problems 07 p1019 N67-16975
Applicability of finite escape time concept in reactor kinetics 07 p1122 N67-17044
Nonlinear stability of coupled nuclear systems 07 p1122 N67-17045
Linear optimal feedback control theory for synthesis of optimum nuclear rocket engine start-up 07 p1123 N67-17050
Experimental results and mathematical model for feedback effects during short interval series pulsing with TRIGA Mark II reactor 07 p1125 N67-17064
Analytical model and measurements of coolant flow and temperatures on TRIGA Mark II pulsing reactor at steady state and transient conditions 07 p1125 N67-17066
Supporting studies for dynamic reactivity effect using telegrapher equation for slab geometry and diffusion equation for spherical and cylindrical geometries - mathematical model 07 p1126 N67-17068
Mathematical models for pressure variation effects on space dependent dynamics of boiling water reactors and steam generators 07 p1126 N67-17072
Optimal burn-in testing of repairable equipment based on decreasing failure rate models
[TR-22] 07 p1099 N67-17158
Sakata model that assumes all elementary particles contain three fundamental parts and their antiparticles 07 p1140 N67-17313
Analytical models for prediction of thermal environment of boostar rocket altitude abort
[SC-CR-66-2047] 07 p1196 N67-17902
Applied mathematics in celestial mechanics - theory of librational motions, earth shape, and satellite orbit calculations
[NASA-CR-81531] 07 p1199 N67-17921
Model for formation of stellar systems
[UCRL-TRANS-10041, PT. V] 07 p1192 N67-17938
Multivariate paired comparisons
[FSU-M121] 07 p1113 N67-17799
Generalized mathematical model for semiconductor radiation response prediction
[QPR-6] 07 p1082 N67-17743
Model calculations to determine geometric shape of boundary layer of magnetosphere
[MPI-PAE-EXTRATERR.-16/66] 07 p1107 N67-17847
Mathematical treatment of optimum binary signal sets for certain scatter multipath channel models
[NASA-CR-69640] 07 p1114 N67-17874
Mathematical model for planetary quarantine requirements
[NASA-CR-81656] 07 p1192 N67-17963
Theoretical model for ray reflection from rough dielectric surface
[AA+ES-66-5] 07 p1140 N67-18068
Two-dimensional model for analyzing convection and magnetospheric turbulence 08 p1275 N67-18227
Mathematical response model for linear symmetrical displacements about axis of cylindrical shell partially filled with liquid
[NASA-TN-D-3877] 08 p1275 N67-18411
Mathematical model for human operator performance in decision-making functions
[NASA-CR-80666] 08 p1232 N67-18416
Temperature control in fallout shelters located above and below ground - mathematical techniques to predict cooling capabilities
[R-493] 08 p1262 N67-18569
Mathematical solutions for heat transferred from air directly to or through solid slab to semi-infinite solid 08 p1262 N67-18570
Compartmental model, represented as system of linear combination of exponentials with common exponential parameters, for tracer experiments
[NASA-CR-82474] 08 p1301 N67-19028
Parameter estimation in exponential decontamination models
[NASA-CR-82883] 08 p1229 N67-19107
Possible C-nonconserving interactions and models of elementary particles
[RIFP-56] 08 p1244 N67-19205
Diffusion model analysis of quasi-elastic neutron scattering by incoherent liquid
[AE-259] 08 p1245 N67-19263
Dynamics and thermodynamics of separated wake flows - systems analysis using dissipative flow and heat transfer models 08 p1274 N67-19305
Mathematical model for base flow field of launch vehicle with propulsion nozzles 08 p1274 N67-19311
Adaptive control techniques applied to large flexible launch vehicles in mathematical model studies
[NASA-CR-83502] 08 p1280 N67-19314
Neutron physics researches dealing with nuclear reactors, radiation detection and shielding, and mathematics and computer programs for data processing
[ORNL-3973, VOL. I] 08 p1222 N67-19221
Shielding design mathematics for fuel-handling facilities, computer calculations for gamma ray transport and dose rates, and programs for neutron transport and Legendre coefficients 08 p1284 N67-19338
Use of evaporation model for inelastic scattering in light nuclei
[ORNL-TM-1552] 09 p1488 N67-19555
Discrete linear time series models and dynamic models for forecasting and optimal control
[TR-76] 09 p1473 N67-19672
Method for predicting maximum hourly durations of high and low atmospheric temperatures
[AD-643261] 09 p1473 N67-19726
Coordinate systems, motion equations, aerodynamic forces, and basic developments for unguided rocket trajectory simulation model
[ECOM-5076] 09 p1461 N67-19731
Statistical technique for prediction and analysis of dynamic response of vehicles traversing rough yielding and non-yielding surfaces
[NASA-CR-659] 09 p1431 N67-19838
Diffusion model of perceptual memory

[NASA-CR-82958] 09 p1402 N67-19902
Three nonlinear estimation procedures generalized for simultaneous application to multiple regression model
[NASA-CR-82967] 09 p1470 N67-19923
Model for describing sloshing motion derived and compared with liquid theory
[NASA-CR-82943] 09 p1435 N67-19927
Covered space, Riemann geometry extension, and partition function research on stochastic models for multivalued, multidimensional relations
[NASA-CR-82934] 09 p1470 N67-19937
Accuracy of mathematical models in determining stresses and strains in limiting states of thin walled structures 09 p1529 N67-20082
Mathematical model to determine creep effect on reinforced concrete and thin sandwich shells 09 p1536 N67-20126
Model of structural anisotropy for determining basic stresses in circumference and external fibers of symmetrically loaded ribbed toroidal shell 09 p1538 N67-20139
Mathematical model of magnetic curvature effect on toroidal plasma surface instability
[IC/66/63] 09 p1498 N67-20285
Phenomenological and microscopic analysis of properties of even-even nuclei - microscopic models
[AD-641192] 10 p1697 N67-20479
Mathematical model for pulse amplitude modulation communication link
[TR-495] 10 p1584 N67-20534
Generalizations, extensions, and applications of Von Neumann mathematical model of proportional economic growth
[REPT.-78] 10 p1774 N67-20591
Evolutionary programming to generate successive mathematical models of artificial intelligence
[AFOSR-66-2872] 10 p1774 N67-20632
Mathematical model describing anisotropic diffusion of solar cosmic rays
[CR-88] 10 p1757 N67-20664
Diffusion model used in studies on radiolysis of aqueous solutions
[CALT-532-5] 10 p1571 N67-20734
Relativistic quark model as representation of current algebra
[CALT-68-103] 10 p1701 N67-20795
Soluble three-body model of deuteron stripping
[UCD-CNL-68] 10 p1702 N67-20799
Stress analysis model for calculating reactor primary coolant system reliability
[GEAP-5147] 10 p1679 N67-20947
Mathematical models for computing motion dynamics of linear plasma accelerator
[JUL-180-PP] 10 p1738 N67-21063
Economics of flood control systems, and land-use model on nature of flood control benefits
[TR-145] 10 p1776 N67-21350
Mathematical model for high flux isotope reactor reactivity calculation
[ORNL-TM-1472] 10 p1686 N67-21469
Quark model of backward scattering
[JINR-E1-2941] 10 p1722 N67-21560
Theoretical models for providing neutron cross sections for reactor and shielding calculations
[KAPL-P-3176] 10 p1724 N67-21583
Unitary statistical model of multiple particle production
[JINR-P2-3007] 10 p1727 N67-21636
Ultrahigh temperature reactor experiment system dynamics study using mathematical model and digital computer programs
[LA-3561] 10 p1689 N67-21667
Derivation of Chew-Low equations and origin of cutoff function in static models
[JINR-P2-3054] 10 p1729 N67-21670
Statistical model with breaking unitary symmetry for annihilation processes
[JINR-P2-3001] 10 p1729 N67-21674
Mathematical model and calculator for optimum division of rolled material
[FTD-HT-66-163] 10 p1648 N67-21719
Mathematical model for studying general plane disturbances in magnetized plasma
[IPPJ-52] 10 p1740 N67-21730
Flexible loop model for describing interaction of small plasmoid with external magnetic field 11 p1954 N67-21930
Bayesian estimation, decision theory, least squares method, maximum likelihood, and other mathematical techniques of statistical inference theory
[NASA-TR-R-251] 11 p1905 N67-22039
Configuration interaction method for describing resonant or autoionizing states 11 p1933 N67-22117
Space station mission simulation computerized mathematical model for analyzing and implementing MORL system or similar programs
[NASA-CR-66316, VOL. I] 11 p1900 N67-22159
Mathematical model of space station mission simulation
[NASA-CR-66316, VOL. II] 11 p1901 N67-22160
Effects of klystron saturation and phase and amplitude distortion on performance of wideband high power chirp radar system
[TN-1966-54] 11 p1819 N67-22519
Mathematical model for deriving ambiguity function used to study signals from radar and sonar targets
[NRL-6471] 11 p1819 N67-22525
Noise sources describing quantum effects in laser oscillator
[TR-453] 11 p1893 N67-22537
Mathematical model to predict performance of two-dimensional reaction control jet exhausting normal to supersonic and hypersonic streams
[OR-8439] 11 p1777 N67-22690
Mathematical models for estimating thermal conductivity of cermet fuel materials used in nuclear reactor
[NASA-TN-D-3898] 11 p1923 N67-22866
Elastic proton-proton scattering model for high energy and large momentum transfer
[TH/174] 11 p1940 N67-23003
Quark model for pionic two-body hadron decays which relates S-wave hyperon amplitudes and decays of kaon mesons into two pions
[TH/182] 11 p1941 N67-23067
Approximating optimal regulator control laws for two distributed parameter systems
[REPT.-66-54] 11 p1948 N67-23112
Optimal filtering for correlated noise
[RM-5107-PR] 11 p1825 N67-23144
Source location problem and least squares solution for ray theoretical models
[TR66-82] 11 p1930 N67-23154
Computational computer program for modeling infrared horizon radiance profile using pressure and temperature profile inputs
[NASA-CR-724] 11 p1916 N67-23304
Finite element modeling of circular ring using half and quarter symmetry
[NASA-TM-X-55746] 11 p1995 N67-23317
Linear models for paired comparisons
[M-111] 11 p1802 N67-23365
Statistical and dynamical analyses of severe storms
[ARL-1523-3] 11 p1917 N67-23444
Mathematical model of boundary layers and convective system structures and dynamics in severe storms
[ARL-1523-1] 11 p1917 N67-23447
Six-level baroclinic model for global weather forecasting 12 p2133 N67-23485
Numerical weather prediction models for fine-mesh limited-area forecasting 12 p2134 N67-23489
Theoretical and experimental studies in chemical physics - transport properties, molecular energy levels, excitons, phase studies mathematical models, quantum mechanics, and spectroscopy
[AFOSR-67-0041] 12 p2097 N67-23518
Mathematical model for determining ballistic limit of double-walled meteoroid bumper systems
[NASA-TN-D-3916] 12 p2221 N67-23790
Digital sequence generator for electric stimulation of walking movements, and mathematical models for spinal control reflex of humans 12 p2031 N67-23853
Bayesian model for troubleshooting electronic equipment
[NEL-1412] 12 p2068 N67-23939
Mathematical models, algorithms, and solutions of optimal control problems for distributed parameter systems - boundary value problems, and partial differential equation systems
[REPT.-66-32] 12 p2069 N67-23978
Mathematical techniques for control of distributed parameter systems - optimal and stochastic control, and stability of partial differential equations 12 p2069 N67-23980
Measurement and explanation of loss coefficient characteristics in hydrostatic screw motor using Schlosser mathematical model 12 p2107 N67-23996
Mathematical models and techniques for solving problems on spectral theory and statistical mechanics
[BNL-903/T-422/] 12 p2130 N67-24231
Model equations for class of approximations to linearized Boltzmann equation 12 p2131 N67-24236
Parameter estimation in mathematical modeling using least squares method
[WRE-SAD-41] 12 p2059 N67-24282
Mathematical model of spectral line profiles of solar flares and prominences 12 p2204 N67-24343
System flow charts and coded mathematical model expressions for automatic data processing application of corrective maintenance burden prediction procedures
[PTB-66-8, VOL. II] 12 p2059 N67-24361
Stress concentration around curvilinear holes in plates and shell, conformal mapping and other procedures for mathematical problems, and dynamic problems in bodies weakened by holes 12 p2223 N67-24502
Mathematical model for calculating neutron spectra in infinite homogeneous arbitrary moderators
[BMWF-FBK-66-21] 12 p2170 N67-24675
Generalization of Motzkin theorem - mathematical model for mapping and visual pattern recognition
[SR-2] 12 p2131 N67-24706
Mathematical equations of bending oscillations of cavity partially filled with fluid
[FTD-HT-66-471] 12 p2230 N67-24770
Mathematical analysis of fluid dynamic properties of two-dimensional eddy currents of compressible liquids in turbomachines
[FTD-TT-65-1924] 12 p2069 N67-24772
Mathematical model applied to predict earth cover, snow, and contour effects on image glide paths
[EER-5-5] 12 p2143 N67-24797
Mathematical stiffness model for conical and hemispherical cap filament wound structures
[AFOSR-66-1944] 12 p2230 N67-24865
Linearized Rayleigh problem in rarefied gas flow formulated by using BGK model
[ARL-66-0186] 12 p2069 N67-24880
Mathematical equations for design of two-mesh band pass filters for high frequency application
[NEL-1416] 12 p2067 N67-24948
Synthesis of time-varying passive networks
[SEL-66-099] 12 p2073 N67-24989
Model in which leptons are deeply bound states of combinations of quarks and quirks
[NASA-CR-83743] 12 p2176 N67-25071
Evaluation of transient loads for environmental testing of spacecraft using multiple degree of freedom model 13 p2413 N67-25173
Mathematical model of linear damping in cantilever beam vibrations 13 p2414 N67-25182
Analytical model and digital computer simulation of stroking propellant actuated device
[FA-M67-19-1] 13 p2347 N67-25324
Diffusion coefficients in solids obtained by radioactive tracers, and mathematical models for diffusion in grain boundaries 13 p2335 N67-25345
Compressive-creep deformation modes of thorium oxide, densification kinetics of sintering powder compacts for metal oxides, and mathematical model describing sintering 13 p2343 N67-25348
Rational model to meet spacecraft sterilization requirements set by COSPAR
[NASA-CR-83799] 13 p2356 N67-25423
Internal gaseous convection effects in thermal models of space vehicles
[AEDC-TR-66-257] 13 p2424 N67-25632
Propagation model for plane ionization wave in uniform electric field
[NASA-CR-83962] 13 p2307 N67-25829
Charged particle motion in unidimensional model of magnetosphere transition layer
[NASA-CR-83935] 13 p2313 N67-25883
Mathematical model to predict time-dependent behavior of boiling sodium coolant in nuclear reactor channel
[ANL-7222] 13 p2363 N67-25927
Spacecraft and balloon radiometry data, theories, and mathematical model of reflectance and scattering of solar radiation by earth
[NASA-CR-83954] 13 p2313 N67-25963
Hysteresis model for analyzing dynamic

behavior of complex structures
[NASA-CR-83903] 13 p2418 N67-26008
Numerical methods and computer program for analyzing lateral plane vibration characteristics of simple structure possessing hysteresis damping
[NASA-CR-83904] 13 p2418 N67-26004
Mathematical model for representing restoring force in hereditary springs showing hysteretic damping
[NASA-CR-83905] 13 p2418 N67-26005
Application of probabilistic modeling techniques to tilt stabilization assembly for radar aircraft antenna
[NASA-CR-83964] 13 p2353 N67-26065
Reliability analysis of Centaur inertial guidance system first gimbal stabilization loop
[NASA-CR-83962] 13 p2353 N67-26067
Mathematical model for ramjet engine performance
[WRE-SAD-163] 13 p2396 N67-26146
Mathematical model for calculating radar scattering from cone-sphere
[ESD-TR-66-550] 13 p2383 N67-26245
Formula derivation for optimum satellite station configurations for simultaneous direction observations to satellites
[NASA-CR-84077] 13 p2382 N67-26368
Finite renewal algorithms for discrete dynamic programming models - Markovian decision models
[TR-20] 13 p2350 N67-26477
Mathematical model for atmospherics, and application to radio communication channels with additive atmospherics
[SEL-66-052] 14 p2485 N67-26489
Mathematical model of energy exchange processes in closed ecological systems
[NASA-TT-F-10408] 14 p2466 N67-26567
Approximate theory of wind profiles over homogeneous terrain below 200-meters based on planetary boundary layer models
[ECOM-01388-1] 14 p2530 N67-26684
Statistical model for topographic representation of aircraft penetration maneuvers in tactical warfare on digital computer
[RM-5081-PR] 14 p2563 N67-26702
Linear programming techniques for developing mathematical model used for structuring group interactions
[RR-88] 14 p2471 N67-26755
Maximum heat transfer rate determinations of heat pipes using analytical model 14 p2831 N67-26754
Fabrication cost effects on plutonium dioxide uranium dioxide fuel element design parameters and model for cost estimates
[BNWL-131E] 14 p2574 N67-26824
Reverberation and scattered field statistics for waveforms in general geometries
[AD-648401] 14 p2497 N67-26893
Mathematical models of information processing systems - algorithm theory, isomorphism invariants for sequential machines, switching theory, and graph model of concurrent computation
[IR-3] 14 p2502 N67-26951
Dissipative effects in simple perturbative model for finite temperature properties of normal Fermi systems
[AD-647504] 14 p2597 N67-27040
Mathematical model of moments and moment distribution for nuclear structure
[UR-875-190] 14 p2567 N67-27048
Mathematical prediction and analysis of structural vibrations - shock and vibration symposium
[AD-646983] 14 p2824 N67-27061
Test firings and analytical model used to evaluate chugging instability in subscale experiments with LOX-gaseous hydrogen combustors
[NASA-TN-D-4005] 14 p2632 N67-27227
Mathematical model to determine deposition of radioactive molecules on containment vessel for three vessel geometries
[ORO-3414-2] 14 p2589 N67-27322
Mathematical model for predicting containment system effects on fission product behavior of iodine
[ORNL-4033] 14 p2577 N67-27324
Critical test of electric discharge model for Venus microwave emission
[NASA-CR-84417] 14 p2614 N67-27376
Four-dimensional relativistic model for Green functions and scattering amplitude of scalar particles
[JINR-P2-3114] 14 p2590 N67-27455
Relativistic model in quantum field theory not based on perturbations
[JINR-P2-3113] 14 p2591 N67-27456
Mathematical models used to determine thermal and electrical behavior of composite superconducting magnets
[NASA-CR-84456] 14 p2562 N67-27544
Mathematical models on stability of attitude control systems acted upon by random perturbation processes
[NASA-CR-731] 14 p2510 N67-27619
Earths gravitational constant used as additional state variable in model for obtaining orbit determination schemes
[NASA-CR-84483] 14 p2816 N67-27641
Valid equations derived for approximate continuous nonlinear minimal variance filtering - mathematical models
[NASA-CR-84517] 14 p2566 N67-27675
Mathematical model for target location accuracy requirements in weapon systems analysis
[AD-634642] 15 p2808 N67-27989
Planar, spherical, and Greenberg models used for determining properties of normal waves and eigenvalues in problems of radio wave propagation in earth ionosphere channel 15 p2666 N67-28144
Geometrical interpretation of mathematical model used to calculate energy distribution of solar radiation beam energy distribution in focal plane of paraboloid in collector receiver system 15 p2644 N67-28163
Mathematical model to evaluate effect of moderator temperature coefficient on core stability
[WCAP-2967] 15 p2748 N67-28425
Nuclear physics nucleon-nucleon interaction models
[JINR-P4-3136] 15 p2768 N67-28535
Theoretical sandwich shell model of cornea for use in tonometry
[P-3564] 15 p2850 N67-28699
Sample distribution of conjugate points calculated using various models of main geomagnetic field
[NASA-TM-X-55801] 15 p2706 N67-28750
Mathematical simulation model to relate input and output of telemetry system on Saturn vehicle
[NASA-CR-84821] 15 p2671 N67-28835
Mathematical model for production of intense shear layers by vortex stretching and convection
[AGARD-514] 15 p2894 N67-28880
Mathematical model consisting of spherical particles with statistical size and velocity distribution to examine momentum interaction in solid-fluid flow
[AFOSR-67-0657] 15 p2894 N67-28903
Mathematical analysis and digital simulation of respiratory control system
[RM-5244-PR] 16 p2834 N67-28990
Mathematical model used to investigate mode synchronization phenomena in universal plasma instabilities
[BN-487] 16 p2952 N67-29048
Developing mathematical models for biology, and comparison of electronic and nervous circuits
[S-932] 16 p2834 N67-29096
Mathematical model for analyzing damage to phenolic honeycomb spherical impact limiter, and shock layer radiative heat transfer for Mars entry body shapes 16 p2978 N67-29148
Vortex flow concentration and tornado control, and mathematical model for kinetic collision 16 p2976 N67-29160
Optimum regression designs for discriminating between two mathematical models for assessing system performance
[SU-207] 16 p2919 N67-29222
Mathematical models to approximate functions, bounds and power series for three-body problems, satellite orbit theories, and other aspects of trajectory analysis and guidance theory
[NASA-SP-141] 16 p2967 N67-29270
Mathematical control theory problems involving solutions of certain partial differential equations, nonadditive set functions, or other functionals - approximation and existence theorems 16 p2919 N67-29271
Multivariate functional models for least squares approximation of error tolerance 16 p2919 N67-29272
Magnetic susceptibility for Andersons model of dilute alloy
[TR-908] 16 p2943 N67-29448
Mathematical model and solution to integral equation for unsteady propeller lifting surface theory with finite number of chordwise modes
[R-1122] 16 p2978 N67-29496
Formulation and exploration of explicit mathematical model for analyzing nonsymmetric oligopolistic market
[AD-649949] 16 p2969 N67-29499
Digital computer program for developmental analyses of mathematical model of experimental steam powered, free piston air compressor
[TM-837/65] 16 p2822 N67-29669
Mathematical models for nonlinear mode interactions in bounded plasmas
[BN-473] 16 p2955 N67-29742
Preparation of slow neutron scattering kernels for Brookhaven Evaluated Nuclear Data File using calculations based on models for structure of liquid water and deuterium
[IN-1065] 16 p2982 N67-29772
Mathematical models for aircraft carrier landing process involving interaction of ship motions, optical landing system, pilot aircraft combination, air wake, and signal officer
[STI-TR-137-2] 16 p2818 N67-29848
Model of weak interactions and applications to pi-and K-meson decays
[NUP-67-4] 16 p2961 N67-29912
Mathematical model of arc heating in tube with variable cross section
[NAL-TN-1] 16 p2967 N67-30100
Future ship lines designed using computers, and drafting equipment in combination with analog and computers - mathematical models
[REPT.-59] 16 p2983 N67-30106
Mathematical model and computer program for transient shock analysis of elastic structures
[DTMB-2363] 17 p3170 N67-30213
Unitary-symmetrical statistical model for particle production and transition
[JINR-P2-3182] 17 p3126 N67-30228
Statistical determination using mathematical models of underwater reverberant sound power frequencies
[FR-67-11-148] 17 p3119 N67-30443
Geometrical model for calculation of planet reflected solar thermal fluxes
[NASA-CR-84856] 17 p3155 N67-30621
Mathematical model for orbital system value effectiveness 17 p3159 N67-30751
Linear sampled system model describing automatic controlled rectifier for current fluctuations
[DLR-FB-67-16] 17 p3044 N67-30761
Diagnostic balance model for small Rossby numbers applicable to studies of weather systems of high and low latitudes 17 p3097 N67-30785
Numerical calculation of three-dimensional trajectories using balanced horizontal and vertical motions 17 p3098 N67-30787
Dynamical structure of tropical atmosphere based on experiments with diagnostic numerical model 17 p3098 N67-30788
Preliminary systems design of two-dimensional lunar gravity simulator, and mathematical model of lunar gravity simulator/lunar surface vehicle
[NASA-CR-85582] 17 p3045 N67-30819
Literature search of physical property data and composite surface work function models
[NASA-CR-85562] 17 p3168 N67-30836
Mathematical models of elementary particles
[TUEP-67-13] 17 p3122 N67-30837
Vector model for wave functions of atomic energy levels 17 p3123 N67-31018
Mathematical model for representing action of radiation on simple biological systems
[BNWL-SA-1022] 17 p3095 N67-31029
Higher order perturbation energies for two-electron Hooke law model atom
[NASA-CR-83809] 17 p3124 N67-31061
Mathematical model and computer program for predicting response of earth media to hypervelocity impact
[NASA-CR-85416] 17 p3174 N67-31148
Mathematical model for spectral function compatible with Heisenberg theory of axisymmetric turbulence
[TP-461/1967/] 17 p3049 N67-31398
Markovian decision model for joint replacement and stocking problem

[TR-93] 17 p3094 N67-31301
Transistor and diode equivalent circuits models used in nonlinear computer circuit analysis program
[NAFI-TR-647, VOL. II] 17 p3039 N67-31307
Sample pattern in four-dimensional space for determining oil infiltration in soil - mathematical models of axially symmetrical potential flows
[NR-155A] 17 p3040 N67-31452
Modifications of simple descriptions of yielding at crack tips
[NASA-CR-66400] 17 p3175 N67-31476
Conference report abstracts on automatic control and self-adaptive systems, computer technology, and mathematical modeling methods
[NASA-TT-F-11144] 17 p3034 N67-31482
Proposed model for international geomagnetic field - 1965
[NASA-TM-X-55845] 18 p3261 N67-31543
Adaptation of models for minority carrier devices, and applicability in computer design evaluation studies of integrated circuits 18 p3344 N67-31586
Nonlinear model of field effect transistor for computer aided transient analysis of complementary metal oxide semiconductor-field effect transistor NAND gate 18 p3245 N67-31587
Computer oriented modeling of integrated circuits - algorithms for dichotomous presentation of active networks 18 p3245 N67-31589
Mathematical model for supersonic flow of detonation products behind converging detonation front with application to spherical and spheroidal coordinate systems 18 p3313 N67-31681
Reaction kinetic models for enzyme oxygen metabolism
[DISS-3896] 18 p3224 N67-32101
Mathematical methods of reliability theory for damage and repair problems of mechanical components 18 p3275 N67-32199
Interrelationships of cybernetics and linguistics and mathematical models of structure of natural language 18 p3232 N67-32245
Iterative nature of experimental learning process and problem of mechanistic model building
[TR-111] 18 p3258 N67-32527
Random processes, filtering, and telemetry problems in space communications theory
[NASA-CR-87004] 18 p3234 N67-32534
Sequential machine analysis and optimization method for distributed adaptation ability in neuron model network
[GER-12738] 18 p3254 N67-32545
One-dimensional model for dissociation of diatomic molecules, and calculation of transition probabilities 18 p3227 N67-32593
Mathematical model of space simulator to obtain gas flow distribution patterns on test vehicle 18 p3256 N67-32823
Fraenkel-Mostowski type models used to prove notion of cardinal numbers in set theory
[TR-26] 19 p3478 N67-32739
Estimates of linear trend parameters for univariate time series using Hodges-Lehmann method
[TR-107] 19 p3478 N67-32781
Application of lifting foil theory solved by rheoelectric analogy to calculation and design of subcavitating and supercavitating propellers
[AD-652961] 19 p3363 N67-32791
Mathematical model for structural analysis using slab analogies and stress functions
[SA-3] 19 p3543 N67-32811
New approach to theory of monads
[TR-1] 19 p3479 N67-32852
Differential equations describing operation of electrical generating units system and enabling calculation of system reliability at any point in time
[P-3394] 19 p3430 N67-32959
Balanced incomplete block design and Bayesian analysis of linear models with two random components
[TR-102] 19 p3479 N67-33028
Stochastic models for forecasting seasonal time series
[TR-104] 19 p3484 N67-33094
Probabilistic interpretation of Miner's rule for cumulative damage due to fatigue
[D1-82-0068] 19 p3545 N67-33105
Mathematical model and Fortran IV program for transient shock spectra analysis 19 p3546 N67-33134
Germination, growth, and properties of screw dislocations
[CEA-R-2916] 19 p3523 N67-33161
Scale parameter case and selection procedures based on rank
[AD-652613] 19 p3481 N67-33178
Computer program for simulating moist convection culminating in precipitating cloud
[REPT.-7482-257] 19 p3484 N67-33326
Mathematical model of contact between two surfaces for calculating infacial thermal conductivity
[NASA-CR-87316] 19 p3553 N67-33395
Model for explaining chalcogen self-diffusion data in II-VI compounds 19 p3525 N67-33431
Least squares analysis with dynamic model to study dynamics of chemical processes
[TR-105] 19 p3482 N67-33490
Two nonlinear magnetic toroids in circuit with linear capacitor to achieve capacitor voltage 19 p3417 N67-33614
Mathematical model for retinal burn and other eye effects from nuclear flashes
[AD-653964] 19 p3378 N67-33631
Linear stochastic model for representing time series
[TR-103] 19 p3485 N67-33842
Mathematical model for predicting droplet radius, charge-to-mass, and velocity of electrostatic dispersion in liquid
[NASA-TM-X-55850] 19 p3435 N67-33972
Air traffic control load model for establishing load measure to aid in construction of enroute sector
[RD-67-25] 20 p3676 N67-34012
Noncontamination requirements for planetary exploration mission derived by sequential decision model
[NASA-CR-87423] 20 p3570 N67-34044
Heuristic discussion of general problem of computing and implications for constructing mathematical models
[NOLTR-67-54] 20 p3606 N67-34063
Optimal instruction model in framework of multistage decision theory - dynamic programming for solution of learning optimization problems
[NASA-CR-87406] 20 p3581 N67-34122
Reconstructing patterns from sampled data
[TR-126] 20 p3669 N67-34200
Mathematical model equations used in optimization of hydraulic thrust vector control systems of Saturn launch vehicles - computer program formulated from model equations
[NASA-CR-85596] 20 p3569 N67-34235
Semiconductor device radiation response prediction using lumped model technique
[ARD-67-21R] 20 p3610 N67-34253
Mathematical model and digital computer program for computing coolant flow and enthalpy in subchannels of rod bundle fuel elements
[BNWL-371, PT. 1] 20 p3680 N67-34285
Effect on memory of mode of studying paired associates, and mathematical model employing short term rehearsal buffer and long term memory
[NASA-CR-87507] 20 p3582 N67-34286
Mathematical model for both memory and learning
[NASA-CR-87469] 20 p3571 N67-34288
Single-particle model describing plasma cyclotron echoes
[RLE-TR-456] 20 p3715 N67-34335
Mathematical model for operational data of steam heated tube heat exchanger 20 p3745 N67-34404
Mathematical models used for space vehicle flight adaptive control systems
[NASA-CR-832] 20 p3737 N67-34411
Mathematical models based on experimental data for study of neuron oscillators
[AD-652893] 20 p3573 N67-34497
U.S.S.R. scientific articles on locomotor adaptations of vertebrates and cephalopods, and information transfer in living systems
[FTD-HT-66-661] 20 p3573 N67-34501
Mathematical model for energy relationships during excitation of nerve tissue 20 p3574 N67-34509
Analog computer calculations of mathematical model for nerve tissue excitation 20 p3575 N67-34510
Electric modeling of bond oscillations in nucleic acid and determination of nucleotide sequence 20 p3575 N67-34511
Mathematical programming model for natural gas transmission system optimization
[ORC-67-19] 20 p3750 N67-34518
Collection of models to simulate atmospheric transport of local fallout from nuclear detonations
[TO-B-66-80] 20 p3632 N67-34570
Mathematical model for space vehicle thrust vector control system
[NASA-CR-87448] 20 p3733 N67-34613
Surface interactions in free molecule flow - reflected particle velocity density function model
[AFM-66-17] 20 p3634 N67-34622
Two-process models for memory and learning
[NASA-CR-87446] 20 p3585 N67-34714
Determing continuous operating component of quasi-continuous pulse systems and synthesis of variation algorithms of adjustable coefficients in model reference adaptive control systems
[JPRS-42003] 20 p3615 N67-34813
Synthesis of variation algorithms of adjustable coefficients in model reference adaptive control systems 20 p3615 N67-34817
Mathematical model, using thermoconductivity and heat budget equations, to predict sea ice thickness and temperature 20 p3634 N67-34850
Geometrical model on mass budget of arctic pack ice 20 p3634 N67-34851
Atmospheric circulation model using z-coordinate system 20 p3635 N67-34859
Mathematical model on supercooled water production during Arctic Ocean ice formation 20 p3635 N67-34863
Analytic solution for acoustic pressure statistics in closed rectangular cavity behind supported rectangular plate excited by boundary layer turbulence
[USL-827] 20 p3689 N67-34913
Mathematical model of permanent magnet motor used as timing device
[REPT.-66-C-420] 20 p3570 N67-34968
Approximations, transfer function, and stability considerations for model of heat exchanger consisting of two concentric tubes
[SGAE-RT-11/1967] 20 p3747 N67-34985
Dislocation dynamics applied to impact induced deformation under uniaxial strain through use of mathematical models
[SC-DC-67-1402] 20 p3741 N67-34991
Theoretical solar flare model to satisfy thermal equilibrium conditions in plasma 20 p3723 N67-35002
Mathematical model for shock wave propagation after projectile ejection from gun muzzle
[DLR-FB-67-50] 20 p3625 N67-35042
Mathematical model representing low temperature instability and phase transition in anharmonic chain
[LA-3670] 20 p3598 N67-35219
Mathematical theory for critical state of reactors
[JPRS-42067] 20 p3686 N67-35231
Mathematical model for designing glass fiber composition and structure in ablative-cooled rocket combustion chambers 20 p3719 N67-35250
Mathematical model for two-phase flow of high velocity vapor condensing in tube
[NASA-CR-87853] 20 p3636 N67-35253
Mathematical formulation of flow and flow characteristics of reacting gas mixtures
[DOC.-66SD259] 20 p3599 N67-35254
Comparison of some reliability growth estimation and prediction schemes
[NASA-CR-87993] 21 p3855 N67-35338
Mathematical models, experimental test cells, and theoretical studies of vibration effects on heat transfer in cryogenic fluids
[NASA-CR-87996] 21 p3944 N67-35395
Motor mechanisms and theoretical model studied for perception and identification of visual images
[FTD-TT-65-1743] 21 p3770 N67-35430
Model derived for human eye positioning mechanism
[SRL-67-0005] 21 p3771 N67-35543
Second gradient of strain in linear elasticity - Mindlin theory
[AROD-5642-1-MC] 21 p3940 N67-35548
Comprehensive mathematical analysis of numerical integration techniques for real time digital flight simulation
[AMRL-TR-67-4] 21 p3877 N67-35630
Mathematical models of multichannel radio engineering devices affected by radio noise 21 p3798 N67-35634
Identification procedure for mathematical

models of unknown nonlinear, nonstationary objects 21 p3799 N67-35627
Fortran IV computer program for solving mathematical model of p-n diode operating under extreme doping approximation [PA-TR-3536] 21 p3804 N67-35869
Mathematical model for auditory perception of musical stimuli [TR-II] 21 p3773 N67-35873
Mathematical model for computing noise variance matrices for radar tracking systems [RO-S-67-2] 21 p3799 N67-35887
Linvill modeling of integrated circuit diode and transistor [PA-TR-3525] 21 p3818 N67-35924
Lagrangian computer model analysis of long wave diocotron instability in crossed field electron beam [NASA-CR-88133] 21 p3902 N67-36036
Theoretical models for examining mechanism governing rapid electric discharge - neutron source by plasma focus [LA-TR-67-43] 21 p3911 N67-36048
External burning in supersonic combustion engines [TG-912] 21 p3948 N67-36072
Vibration analysis of shipboard rotating machinery using mathematical model [AD-654196] 21 p3943 N67-36183
Model treatment of dilute helium 3 solution in liquid helium 4 [TUEP-67-16] 21 p3905 N67-36418
Analytical containment leakage model and prototype design for sodium cooled fast breeder reactor [EURFNR-289] 21 p3893 N67-36619
Generalized four-dimensional unitary relativistic model for quantum field theory without ultraviolet divergence [JINR-P2-3270] 21 p3908 N67-36627
Mathematical model for dynamic response of mammal thorax to environmental pressure changes [DASA-1857] 21 p3769 N67-36656
Statistical model of temperature field at supersonic aircraft altitudes [AFCRL-67-0274] 22 p4006 N67-36748
Open-cycle fuel cell development - space radiator optimization, techniques, mathematical models and reliability [NASA-CR-86387] 22 p3962 N67-36752
Time delay magnetic damping of spacecraft librations in near synchronous equatorial orbits [TG-916] 22 p4138 N67-36787
Optimum allocation of transportation terminals in urban areas [R66-60] 22 p4168 N67-36919
Predictive horizontal temperature gradient model of upper 750 feet of ocean [NEL-1445] 22 p4035 N67-36925
Classification of map surfaces based on structure of polynomial and Fourier coefficient matrices [AD-655445] 22 p4004 N67-36951
Mathematical models and performance assessment tradeoff studies on interplanetary guidance system requirements [NASA-CR-80018] 22 p4068 N67-37180
Multivariate logarithmic and exponential regression models [RM-4879-PR] 22 p4082 N67-37189
Mathematical model for predicting rotor dynamic motion phenomena associated with rotor whirl using computer simulation [NASA-CR-72302] 22 p4133 N67-37213
Dynamic programming model for optimal combination of transportation modes over multiperiod planning horizon [RM-5250-PR] 22 p4083 N67-37343
Mathematical model and rate coefficient measured for iron ore reduction in blast furnace [BM-RI-7031] 22 p3968 N67-37417
Mathematical model for hematopoietic recovery after irradiation [RM-5273-PR] 22 p3971 N67-37462
Response mode analysis and control of multivariable chemical processes, and three mathematical models to determine distillation modes [UCRL-17480] 22 p3988 N67-37481
Reconnection model of geomagnetic tail 22 p4144 N67-37822
Physical interpretation for static parameters of neutron scattering model [UCRL-17566] 22 p4166 N67-37845
Mathematical model of monopulse excitation for maximal gain antenna radiation patterns with sidelobe constraints [AFCRL-67-0323] 22 p4001 N67-37859
Analytical model for describing combustion chamber disturbances during start transient and steady state operations of hypergolic liquid rocket engines [NASA-CR-88865] 22 p4167 N67-37886
Operating characteristics of stainless steel heat pipe, and analytical model for predicting operating limits of capillarity limited heat pipes [TID-23809] 22 p4167 N67-37896
Creation, annihilation, angular momentum, and mechanical spin used in algebraic model of elementary particles based on infinite component fields - baryon state [TUEP-67-15] 22 p4112 N67-38044
Collisional model of meteoroids [NASA-CR-88864] 22 p4145 N67-38048
Dichroism and birefringence of polymers containing polyene segments [ONR-TR-91] 23 p4269 N67-38112
Optimum maintenance of systems with randomly decreasing performance levels assessible only by costly imperfect inspection [RM-5390-PR] 23 p4257 N67-38117
Warm-up characteristics of inertial components, and development of thermal error model equation used for predicting errors in system alignment and gyrocompassing [NADC-AM-6721] 23 p4283 N67-38196
Elastic membrane effect on stability of time independent soil [ARPA-E47] 23 p4355 N67-38243
System for distributing radio frequency energy to linear accelerator from adjacent manifold [UCRL-17566] 23 p4232 N67-38309
Silvers model for saturated water flow through nozzles [AEEW-M-733] 23 p4235 N67-38335
Dynamics of water rejection from hydrogen-oxygen fuel cell to hydrogen stream [NASA-TN-D-4201] 23 p4181 N67-38425
Systems analysis of mechanical properties of veins [NASA-CR-88978] 23 p4187 N67-38431
Deduction of Pontryagins principle [ELDO-TM-103] 23 p4274 N67-38437
Concepts of dimensional analysis used for examination of reliability physics, mathematical models, and statistics on failure 23 p4274 N67-38462
Spherical shell equations and inertia terms for dynamic behavior of eye globes [NASA-CR-89004] 23 p4188 N67-38492
Applied mathematics, computers, and information models - cybernetics [JPRS-42527] 23 p4369 N67-38594
Mathematical models of man and world system, and control of systems by training and education 23 p4369 N67-38596
Plasma sheet model with two-dimensional motion and emitted radiation 23 p4222 N67-38754
Physical-numerical model for inferring tropospheric structure from satellite radiation measurements - rain relationship to surface dew point, and atmospheric energetics 23 p4290 N67-38801
Physical numerical model for inferring tropospheric structure from satellite radiation measurements 23 p4290 N67-38802
Mathematical model for fission product release during water-reactor accidents 23 p4227 N67-38821
Mathematical model to determine containment size effect on iodine desorption from fission product 23 p4289 N67-38899
Diffraction model for strong interactions and shrinkage of diffraction peak [COO-1112-104] 23 p4310 N67-38906
Evaluation of neutron cross sections on basis of optical and statistical models [BARC-270] 23 p4312 N67-39059
Crack propagation theories [NASA-CR-901] 23 p4359 N67-39068
Reliability mathematical model established from failure modes and effects for generator, power conditioning unit, telemetry, ejection system, and other units - prediction [MND-3607-123] 23 p4227 N67-39148
Derivation and solution of equations of hydrodynamic flow in tires [NASA-CR-89234] 23 p4380 N67-39165
Analytical model for prediction of hydrodynamic instability in parallel heated channels [AECL-3461] 23 p4340 N67-39215
Mathematical models of semiconductor devices for computer aided circuit analysis [SC-DR-67-479] 23 p4231 N67-39216
Test flight to obtain balloon gas and air temperature measurements for mathematical model of vertical motion of high altitude zero pressure balloons 23 p4180 N67-39283
Sensitivity analysis of radial distribution model in terms of weapon yield, fission type, and difference in solidification temperature of carrier material [USNRDL-TR-67-70] 24 p4488 N67-39448
Magnetic core data storage for IBM 360 computer system [AFOSR-67-1568] 24 p4413 N67-39588
Mathematical model of haze effect on Umkehr ozone distribution curves based on Mie scattering function [AFCRL-67-0367] 24 p4485 N67-39599
Mathematical model of distortions in seismic waves due to crustal layers [AFOSR-67-2977] 24 p4437 N67-39601
Mathematical model of transient natural convection in vertical tubes with non-axisymmetric wall temperature calculated with finite transforms [FTAS/TR-67-18] 24 p4550 N67-39606
Computer programming - algebras and mathematical models [NWL-K-45/67] 24 p4480 N67-39721
Mathematical model of anomalous gravitational field of earth [ACIC-TC-1295] 24 p4438 N67-39797
Scaling theory and energy balance analysis of six-level model equations 24 p4486 N67-39813
Synoptic results from general atmospheric circulation model 24 p4486 N67-39817
Synthesis and identification of mathematical models which characterize discrete control behavior of human operators [NASA-CR-89634] 24 p4390 N67-39898
Simple electromagnetic models for describing behavior of lasers in axial magnetic fields, and distribution of radiation of plane diffraction gratings [AFOSR-67-1766] 24 p4462 N67-39919
Mathematical model constructed to measure recall and relevance in ABC information storage and retrieval systems [HDL-TR-1334] 24 p4543 N67-39935
Mathematical model for obtaining real height information about F-region electron density distribution from routine ionospheric data 24 p4442 N67-39976
Human controller behavior in multivariable control systems [NASA-CR-975] 24 p4390 N67-39978
Impedance formula for short cylindrical dipole antenna in magnetoplasmas from electromagnetic theory [NASA-CR-89785] 24 p4487 N67-39992
Design equations for large angle three-axis attitude servomechanism for controlling spacecraft [NASA-TM-X-66562] 24 p4434 N67-40000
Mathematical model for secondary electron emission and radiation induced conductivity in insulating materials [AFCRL-67-0459] 24 p4517 N67-40110
Experimental verification of mathematical model performance predictions for gamma ray atmospheric density sensors [NASA-CR-66476] 24 p4432 N67-40152
Control system optimization and extension of Pontryagin maximum principle [REPT.-3] 24 p4434 N67-40189
Decision model algorithm for planning economic activities [JPRS-42926] 24 p4482 N67-40191
Mathematical model for magnetohydrodynamic wave generation in case of high-altitude nuclear bursts [RM-5301-ARPA] 24 p4511 N67-40204
Mathematical model for thermal properties of decomposing lead azide between 210 C and 342 C [AD-656757] 24 p4551 N67-40249
Statistical mechanics of neural networks [AD-656800] 24 p4392 N67-40270
Mathematical model for calculating cyclotron wave propagation in hot cylindrical plasma with inhomogeneous magnetic field [IPP-6/90] 24 p4512 N67-40294

MATHEMATICAL STATISTICS
Application of cybernetics and mathematical statistics to determine state of erythrocytes in chronic leukoses 04 p0489 N67-13437
Empirical nonlinear prediction and

polyspectra
[AROD-2025-18] 06 p0905 N67-16651
Rational Chebyshev approximations for Fermi-Dirac integrals
[ANL-7200] 08 p1300 N67-18084
Probability methods and mathematical statistics for theory of plates and shells 09 p1521 N67-20022
Stability statistics in structural mechanics of plates and shells 09 p1521 N67-20023
Some problems in curve fitting
[ECOM-5079] 09 p1471 N67-20345
Acoustic reverberation at sea surface - wind driven sea surface statistics for determining scattering and reflection strength of surface and subsurface
[P-264] 11 p1928 N67-22540
Nonuniqueness of analytic functions 12 p2129 N67-23706
Abstracted technical reports on time series statistical tests, spectral characterization of nonstationary processes, and time-varying spectral estimates
[R-6904] 16 p2918 N67-29051
Theory and solutions for ranking problems in multivariate normal statistical populations
[NASA-CR-85594] 18 p3285 N67-31744
Neumann-Pearson-Wald statistical hypothesis for analysis of reliability and related parameters of structural materials 18 p3352 N67-32176
Central limit effect for samples from 24 populations and correlation with population moments
[AMRL-TR-66-242] 19 p3350 N67-32870
Topics related to effectiveness of distribution functions, transformations, and stochastic processes in mathematical and applied statistics
[ARL-66-0231] 19 p3479 N67-33066
Two theorems on solutions of differential difference equations and applications to epidemic theory 19 p3480 N67-33090
Error analysis associated with solution of Boltzmann difference equations for strong shock waves
[R-348] 19 p3432 N67-33151
Nonparametric selection procedure efficiency under various parametric alternatives
[TR-17] 19 p3481 N67-33180
Solutions of general equation for coagulation of heterogeneous aerosols
[NAA-SR-11997, VOL. I] 19 p3490 N67-33258
Mathematical/statistical method for determining maximum response of aerospace vehicle to wind
[KN-67-663/FR/] 22 p4152 N67-36930
Mathematical programming using generalized sequential unconstrained methods
[MEMO-178] 23 p4272 N67-38094
Analysis of variance, graphing methods, and regression analysis for statistical computer programs
[ORNL-TM-1863] 23 p4219 N67-38419

MATHEMATICAL TABLE
Table of periodic continued fractions for positive nonsquare integers computed by IBM 7090 digital computer
[AD-646524] 06 p0901 N67-15415
Tables for calculating plane galactic orbits of stars
[NASA-TM-X-53944] 07 p1193 N67-17976
Tables for elementary weights of Runge-Kutta formulas of first eight orders and for relations of explicit formulas through order seven
[NASA-CR-81862] 07 p1116 N67-18187
Supplement to tables for rapid evaluation of Debye characteristic temperature of cubic crystals from elastic constants
[LA-3615-MS, SUPPL.] 12 p2192 N67-24154
Theory, computation procedure, and tables of prolate radial functions of first and second type
[NRL-6565] 16 p2936 N67-29045
Sight reduction tables for air navigation
[AP-3270, VOL. 2] 17 p3102 N67-31412
Theory and tables for tests of hypotheses concerning mean and variance of Weibull population
[ARL-67-0050] 20 p3668 N67-34869
Diagonal sequences of power series summation table
[MRC-TSR-720] 24 p4479 N67-39704

MATHEMATICS
SA ALGEBRA
SA CALCULUS
SA COHOMOLOGY
SA GEOMETRY
SA TRIGONOMETRY
Nominalistic interpretation of mathematics
[JPRS-38190] 01 p0094 N67-10326
Summary reports of research projects in chemistry, biology, mathematics, and physics 01 p0169 N67-10574
Characterization of line graphs - combinatorial analysis
[MRC-642] 01 p0098 N67-11105
Significance tracing arithmetic for Fortran
[NASA-CR-86695] 02 p0241 N67-12155
Integration formulas to simplify evaluation of certain commonly used integrals
[NASA-CR-86696] 02 p0281 N67-12156
Mathematical programs and programming techniques for digital computer operations
[NASA-SP-5069] 04 p0518 N67-14111
Principles of control sciences applied to biology and medicine
[JPRS-38959] 05 p0639 N67-14375
Applicability of modern mathematical methods in biological theory and practice 05 p0639 N67-14377
Fluid mechanic and radiation pressure effects on satellite orbits and orbital decay, and space rendezvous maneuvers - mathematics conference
[NASA-CR-86673] 05 p0691 N67-14401
Mathematics of satellite orbital motion and three-body problem - conference
[NASA-CR-86674] 05 p0758 N67-14410
Regularization of relative many-body equations of celestial mechanics and relative three-body equations in case of binary collisions 05 p0737 N67-14415
Mathematics and computer programming research 05 p0737 N67-14618
Maximal consistent families of triples
[RM-5128-PR] 06 p0728 N67-14753
Proposed mathematical approaches to processing blurred signals 07 p1034 N67-16935
Applications of mathematical methods to nuclear engineering 07 p1122 N67-17042
Critical examination of equations for atmospheric number-density calculations, and computed values compared with observations
[GCA-TR-65-27-N] 07 p1072 N67-17382
Mathematics definition and relation to science
[NASA-CR-82008] 08 p1300 N67-18541
Method for multistep integer-preserving Gaussian elimination in systems of linear equations
[ANL-7213] 08 p1301 N67-18829
Associative memory systems and their application to picture and arithmetic processings
[TR-66-163] 09 p1421 N67-19684
Magic Paper on-line system for manipulation of symbolic mathematics
[R-165-1] 10 p1586 N67-20597
Recursive functions and consistency proofs considered in study of axiomatic systems for expressing classical mathematical truth
[TR-4] 10 p1665 N67-20617
Collection of Soviet articles on quantum mechanics and mathematics
[FTD-MT-64-557] 12 p2128 N67-23701
Outstanding values in sequence of random variables
[AD-645831] 12 p2130 N67-23873
Mathematical advances in theory of one-dimensional flow 12 p2097 N67-24274
Degenerate automata - relationships involving semigroup order and regular events
[REPT.-02105-45-T] 12 p2073 N67-24954
Solution of biharmonic problem for wide class of regions by method of summary representations
[NASA-TT-F-10463] 12 p2231 N67-25001
Group theoretical techniques for similarity solution of systems of partial differential equations with auxiliary conditions
[MRC-TSR-693] 13 p2347 N67-25408
TOCS, computer programming technique, for possible application to 360 computer 14 p2564 N67-27105
New methods for calculating celestial mechanics
[NASA-TT-F-451] 14 p2614 N67-27278
Programming research and development, numerical and mathematical analysis, computer utilization, computer engineering, and computer systems
[ANL-7200] 14 p2503 N67-27588
Linear programming approach to solution theorems in probabilistic programming
[AD-650284] 15 p2676 N67-28056
Cathode ray tube aided semiautomatic mathematics
[AFCRL-67-0167] 16 p2920 N67-29012
Rand Corporation mathematics research in linear programming, dynamic programming, flows in networks, and game theory
[P-3543] 16 p2923 N67-29777
Mathematical method for approximating velocity depth profile with segmented curve having continuous first derivatives
[USL-805] 17 p3119 N67-30303
Mathematical analysis of algorithm used in binary sequence generators
[GE/EE/67A-9] 17 p3039 N67-30368
Machine languages and problem oriented language related to computers 17 p3039 N67-30604
Research projects and applications of mathematics, statistics, and computer programming techniques in atomic energy facility
[ORNL-4063] 18 p3285 N67-31719
Maximization problem in theory of partitions
[NASA-CR-86613] 18 p3286 N67-32067
Mathematical analysis of reflection coefficient for plane shock wave reflected from rigid wall in water with pressure amplitude up to 6500 atmospheres 18 p3260 N67-32177
Mathematical methods for computing shock and Fourier spectra and filtering 19 p3409 N67-33124
Methods for solving problems in structural mechanics by digital computers
[FTD-HT-66-270] 19 p3548 N67-33418
General space-momentum commutation relation for applications to quantum mechanics
[P-336] 20 p3669 N67-34302
Algorithm to solve traveling salesman problem
[ORC-67-11] 20 p3669 N67-34306
Methods for constructing digram-balanced latin squares for all even n values
[TDCK-48396] 20 p3671 N67-34822
Solution of axially symmetric plane strain problem for thick-walled hollow viscoelastic cylinder subject to axially symmetric but otherwise arbitrary temperature field
[TR-1] 21 p3942 N67-35886
QR algorithm applied to Hessenberg matrices
[ITR-12] 21 p3880 N67-36113
Equations for flow of compressible or heated rotating jet, and expressions for axial and radial distributions of velocity and enthalpy
[TAE-65] 21 p3833 N67-36173
Dynamic programming model for optimal combination of transportation modes over multiperiod planning horizon
[RM-5250-PR] 22 p4083 N67-37242
Programming language for transcendental functions in applied mathematics
[NASA-TM-X-55943] 22 p4006 N67-37297
Computer program for applied mathematics to aid in approximate solution of differential equations using series expansion techniques
[MAC-TR-36] 23 p4218 N67-38174
Limit theorems for additive-multiplicative random sequences
[ORNL-4144] 23 p4273 N67-38186
Linear programming formulation of problem of pattern separation in study of pattern recognition
[BRL-MR-1656] 23 p4273 N67-38194
Review of theory of oblate spheroidal wave functions and formulas and tables for numerical calculation of oblate radial functions of first and second type
[NRL-6543] 23 p4293 N67-38287
Application of mathematics to electronic computers and to technological growth in general 23 p4275 N67-38585
Complimentary polynomials in lossless ladder network
[AFCRL-67-0376] 23 p4230 N67-38867
Statistical analysis and physical interpretation of scattering from surfaces with different roughness scales
[NASA-CR-89230] 23 p4215 N67-38991
Mathematical investigation of structural relations between endomorphisms, automorphisms, and all congruence relations of an arbitrary, not necessarily finite automaton
[D1-82-0692] 23 p4231 N67-39260
Mathematical characterizations of relative optima to nonlinear programming problems
[RAC-TP-360] 24 p4475 N67-39527
Mathematical analysis of pressure drop

across curved interfaces
[CRREL-SR-109] 24 p4436 N67-39433
Realistic error bound determination for class of imperfect nonlinear controllers synthesized using Liapunov techniques
[NASA-CR-89633] 24 p4423 N67-39530
Convergence of certain noncommutative continued fractions
[MRC-TSR-750] 24 p4479 N67-39633
General properties of collectively compact sets of linear operators
[MRC-TSR-740] 24 p4480 N67-39705
Mathematical proof of solar sail feasibility for spacecraft propulsion
[NASA-TM-X-60560] 24 p4524 N67-40314
MATHIEU FUNCTION
S RAYLEIGH EQUATION
MATRIX
SA GRID
SA LATTICE
SA S-MATRIX
SA SCATTERING MATRIX
Nonnegativity of polarization matrix of density
[REPT.-394] 01 p0124 N67-10667
Transfer matrices and stiffness matrices for uniform beams in steady state vibration
[NASA-CR-79533] 02 p0315 N67-11686
Search for cyclic Hadamard matrices from difference set - combinatorial communications 03 p0237 N67-12141
Geometric theory of unitary equivalence of matrices 04 p0569 N67-14143
Sampling theory derivation, and sampling functions for linear matrix equation solution
[TR-505] 05 p0729 N67-14992
Gamma spectrometric determination of trace contaminant in active matrix 06 p0621 N67-16225
Beta particle backscattering method of determining heavy elements in samples of variable matrix 06 p0638 N67-16389
Matrix methodology for comparing simplified space mechanisms using subliming solids with conventional aerospace devices 07 p0997 N67-16921
Greville method for building up generalized inverse of matrix - numerical examples and comments 07 p1111 N67-17238
Algorithm for form of problem Av equals lambda Bv - vector and scalar factors
[ORNL-3960] 07 p1112 N67-17548
Visual effects on multiparameter displays of different matrix spot intensity modulation techniques
[LA-DC-7968] 10 p1594 N67-21569
Matrix element calculation of particle decay in internal symmetry group
[JINR-P2-2957] 10 p1730 N67-21518
Transition matrix elements effects on two-phonon absorption in crystal models with zinc blende structure, and nearest neighbor interactions 12 p2188 N67-23785
Orthogonalization algorithm for producing pseudo inverse of matrix, and realization of algorithm with Fortran program
[NASA TM-X-55757] 12 p2059 N67-23971
Numerical integration, matrix solutions, and other calculations for wave diffractions, transition wave processes, oscillatory functions, and electromagnetic wave excitations 13 p2365 N67-25216
Basic aspects of Markov chains
[NASA-CR-84155] 14 p2562 N67-26500
Matrix isolation technique for trapping positive ions involved with cyclopropane reactions
[AFOSR-67-0688] 14 p2477 N67-27106
General purpose matrix interpretive computer routine written to operate with Univac 1107
[REPT.-19] 14 p2502 N67-27689
Instruction manual for Selma interpretive code to facilitate programming problems in matrix notation
[REPT.-26] 14 p2504 N67-27690
Finite rotation matrix represented as sum over Clebsch-Gordon coefficients
[NP-16567] 15 p2761 N67-28347
Time-weighted minimum energy discrete-data control system design with derived matrix to determine control sequence
[NASA-CR-87339] 19 p3422 N67-33494
Testing for equality of covariance matrices against certain alternatives when underlying populations are multivariate normal
[ARL-67-0044] 19 p3483 N67-33872
Realization of Boolean function of n variables by means of network of threshold elements with n inputs 20 p3614 N67-34554
Correlation error matrix of parameter evaluation in signal measurements 21 p3799 N67-35831
Selection procedures based on covariance matrices of multivariate normal populations 24 p4476 N67-39468
Theorem application to companion matrix of polynomial
[NASA-CR-89579] 24 p4483 N67-40494
MATRIX ALGEBRA
Complex number and other extensions to Clifford matrix algebra with application to continued fractions theory
[MRC-TSR-646] 01 p0093 N67-10330
Methods for inverting positive definite matrices and solving simultaneous linear equations
[RM-4952-PR] 01 p0094 N67-10379
Reduction of matrix with positive elements to doubly stochastic matrix
[MRC-TSR-658] 01 p0094 N67-10403
Generalization of Polya theorem on unicity of polynomial solutions of Hermite-Birkoff interpolation problems
[MRC-TSR-659] 01 p0095 N67-10514
Indirect measurement of bound magnitudes - matrix algebra solution
[NT-147] 01 p0095 N67-10576
Mass formulas for particle spin in SU/3/ broken symmetry
[REPT.-398] 01 p0123 N67-10641
Group theory SU/3 algebra of currents and P-wave non-leptonic hyperon decays
[IC/66/73] 01 p0126 N67-10717
Family of sum rules based on algebra of currents
[IC/66/86] 01 p0116 N67-10730
Matrix elements in class 1 representation operators of SL/n/,C group
[IC/66/89] 01 p0117 N67-10640
Steady state, transport operator, and comparison with T-matrix
[USNRDL-TR-1057] 01 p0118 N67-11178
Accurate eigenvalues of symmetric tridiagonal matrix
[CS-41] 01 p0090 N67-11197
Linear equation solutions and computing symmetric and asymmetric matrix eigenvalues
[CS-46] 02 p0280 N67-11240
Two working algorithms for eigenvalues of symmetric tridiagonal matrix
[CS-43] 02 p0280 N67-11248
Relaxation iterations for semi-definite algebraic systems
[CS-45] 02 p0280 N67-11296
Technique for matrix inversion - submatrix iterative process
[NASA-CR-79624] 02 p0280 N67-11689
Negligible off-diagonal elements of symmetric matrices
[CS42] 02 p0280 N67-11936
Propagation of comma-free properties of component codes of iterative codes - code matrices 02 p0238 N67-12145
Near-field behavior of Green matrix in anisotropic wave motion
[MRC-661] 03 p0428 N67-12440
Basic algorithms for matrix manipulations by computer for network analysis 04 p0522 N67-13346
Consistent relativization of SU-6 for two-particle reactions
[JINR-E-2826] 04 p0563 N67-13358
Coefficients of SU-3 and SU-6 mass formulas calculated for normed orthogonal systems of operators
[JINR-E-2771] 04 p0563 N67-13359
Derivation of expression for matrix elements of Lorentz transformation in case of unitary concept based on canonical concept executed in Hilbert space
[JINR-P-2777] 04 p0591 N67-14073
Parallel analog matrix multiplier for large capacity matrices using optical storage of elements
[AFCRL-66-619] 04 p0519 N67-14333
Analytical study of ordinary and partial differential equations, illustrating initial value problem and large matrix inversion 05 p0727 N67-14407
Matrix switches and error correcting codes from block designs in magnetic core storage
[R-314] 05 p0627 N67-14723
Matrix methods for solving field problems using digital computer techniques
[RADC-TR-66-351, VOL. I] 05 p0728 N67-14730
Identifiability of countable mixture of discrete probability distributions using infinite matrices methods
[ARL-66-0146] 05 p0730 N67-15018
Local theory developed for analytic linear systems of differential equations in implicit form
[NASA-CR-81078] 05 p0731 N67-15149
Lorentz transformation in Pauli algebra matrix set
[AD-639651] 06 p0691 N67-15405
Optimal transportation bases and cost matrices
[AD-640068] 06 p0688 N67-16151
Generalized inverse of matrix, and numerical solutions of large approximately singular linear systems of equations
[MRC-TSR-644] 07 p1110 N67-17221
Basic properties of generalized inverse of matrix for solving linear systems of equations 07 p1110 N67-17222
Computing generalize inverse of matrix 07 p1110 N67-17223
Direct and iterative methods for computing generalized inverse of matrices 07 p1110 N67-17224
Matrix tearing and partitioning for solving large systems of linear or nonlinear equations 07 p1111 N67-17225
Least squares method applied to orthogonal matrix 07 p1111 N67-17229
Numerical solution of simultaneous linear algebraic equations 07 p1111 N67-17230
Unitary representations of U-2,3 and massless fields
[NASA-CR-82369] 08 p1343 N67-18961
Lecture notes on weak interactions and current algebra
[CERN-66-29, VOL. I] 08 p1344 N67-19213
Numerical stability of iterative procedures for solving linear systems of equations
[MRC-TSR-663] 09 p1487 N67-19694
Explicit formula derived for invariant associated with epsilon algorithm
[MRC-TSR-675] 09 p1488 N67-19747
Spectral factorization of matrices by algebraic procedure
[SEL-66-066] 09 p1489 N67-19789
Current algebra research
[CALT-68-102] 10 p1701 N67-20784
Scattering amplitude analysis for symmetry group with infinite multiplets
[JINR-E2-2932] 10 p1702 N67-20902
Numerical construction of space bases for symmetric groups
[JINR-P-2874] 10 p1705 N67-20870
Sum rule for four pion coupling constant derived from matrix algebra
[NP-496/PL] 10 p1717 N67-21486
Relativistic SL/4,C/ symmetry
[JINR-E2-2951] 10 p1719 N67-21488
Breaking as consequence of interaction of hadron currents in SU-3
[JINR-E2-2971] 10 p1727 N67-21644
Current-field equal-time commutation relations in SU-6 group
[JINR-E2-3006] 10 p1728 N67-21645
Collinear production of vector mesons and SU-3 symmetry
[JINR-P2-2967] 10 p1728 N67-21656
Effective algorithm for minimization
[D1-82-0568] 10 p1667 N67-21701
Unitarity representations of similitude group of space-time - explicit construction of Wigner spin matrixes and new formulation of Bargmann-Wigner analysis
[IC/67/7] 11 p1908 N67-22481
New formulation of Bargmann-Wigner analysis, and explicit construction of Wigner spin matrixes 11 p1908 N67-22483
Matrix solutions for electronic two-port networks
[RAE-TR-66253] 11 p1845 N67-22487
Matrix formulation for time response of time invariant linear systems to discrete inputs
[RAE-TR-66038] 11 p1908 N67-22702
Neel temperature of manganese fluoride in two spin cluster variation limit
[NOLTR-66-193] 11 p1962 N67-23148
Dynamical group of scalar SU/3/ symmetric strong coupling theory
[JINR-E2-2944] 11 p1962 N67-23182
Optical processing system to perform matrix transformations of large dimensional vectors at wide processing bandwidths
[AFCRL-66-702] 11 p1822 N67-23269
Matrix elements for irreducible representations of U/6,4/ group in harmonic function Hilbert space
[IC/66/104] 11 p1943 N67-23282
Partially balanced association scheme useful in application of multivariate statistical analysis
[ARL-66-0166] 12 p2129 N67-25823

Functions and capabilities of large capacity structural analysis and matrix interpretive system digital computer program to analyze frame and shell structures
[NASA-CR-83742] 12 p2062 N67-25072
Methods for solving large linear systems
[NASA-CR-83789] 13 p2347 N67-25495
Algorithms for computer solution of matrix algebra problems 13 p2348 N67-25732
Algorithm for constructing finite automata for stochastic matrix 13 p2296 N67-25735
Noncompact symmetry groups, unitary S-matrix, and quantum field theory
[IFA-FT-62] 13 p2376 N67-25906
Topological formulas used to eliminate subgraphs in signal flow graph
[R-339] 13 p2299 N67-25970
Pole assignment in multi-input controllable linear systems
[NASA-CR-83979] 13 p2299 N67-26019
Algorithm for optimal fixed-lag smoothing of continuous linear systems, and matrix differential equation for covariance matrix of fixed-lag smoothing error
[TR-67-105] 14 p2508 N67-26748
Solutions for differential equation system with continuous dependence on parameter
[TG-230-T504] 14 p2563 N67-26898
Serial decomposition of sequential machine into specified classes of submachines
[R-338] 14 p2501 N67-26910
Monte Carlo generation of random samples from Wishart distribution used in verification of asymptotic properties of estimation procedure
[AROD-4721-S-M] 14 p2563 N67-26945
Generation of random samples from Wishart distribution - matrix algebra
[AROD-4721-7-M] 14 p2563 N67-26946
Optimal assignments in ordered set - application of matroid theory
[ORC-67-9] 14 p2564 N67-26973
Sum rule algebra for weak axial production of pions in neutron beta-decay amplitude
[ISS-67/6] 14 p2564 N67-27133
Matrix conversion of direction cosines into equivalent Euler sequence of rotation
[NASA-TM-X-1384] 14 p2562 N67-27284
Algorithm for identifying ergodic subchains and transient states of Markov chain
[RM-5269-PR] 15 p2733 N67-28094
Green matrix applied to steady state wave propagation in homogeneous anisotropic media
[MRC-TSR-702] 15 p2753 N67-28241
Synthesis of linear dynamical control systems from prescribed weighting patterns
[RADC-SP-66-11] 15 p2684 N67-28269
Systems of Fredholm integral equations solved with Green matrix kernels
[MRC-TSR-714] 15 p2734 N67-28279
Some mathematical properties of multichannel variational synthesis equations and two-dimension numerical studies
[KAPL-M-6588] 15 p2764 N67-28454
Method of potential functions used to construct algorithms for reconstructing characteristic of functional converter according to randomly observed points
[FTD-MT-64-534] 15 p2736 N67-28695
Asymptotic directions of n-dimensional optimum gradient method
[CS-61] 16 p2918 N67-29107
Characterization of class of nonlossless scattering matrixes by biorthonormal step-up vectors
[SEL-67-005] 16 p2871 N67-29240
Survey of method of initial parameters
[ITRI-M6157-1] 16 p2979 N67-29511
Transformation to phase variable canonical form
[NASA-TN-D-3872] 16 p2923 N67-30125
Spectral characterization of stochastic matrices
[MRC-TSR-724] 17 p3088 N67-30184
Relationship among sigma T, matrix T, and matrix 1/T for linear operators in normed finite dimensional vector spaces
[MRC-TSR-737] 17 p3089 N67-30251
Asymptotic distribution of eigenvalues of random matrices
[MRC-TSR-736] 17 p3089 N67-30279
Decomposition method for large structured quadratic programming problems
[MRC-TSR-716] 17 p3090 N67-30428
Spectral properties of operator associated with pair of non-negative matrices
[MRC-TSR-785] 17 p3090 N67-30432
Matrix analysis for calculating electron spectra of large molecular systems from atomic values
[DISS-3843] 17 p3131 N67-30758
Theory and application of convergence in sectional inverses of special infinite matrices
[DISS-3756] 17 p3093 N67-30897
Computational considerations on calculation of Chebyshev solutions for overdetermined linear equation systems using exchange method
[CS-67] 18 p3284 N67-31541
Differential invariants of vectors and second order tensors, integrity bases for vector forms, and electromechanical field equations
[TDM-67-6] 18 p3304 N67-31638
Algorithm for determining minimal cost symmetric assignment
[ORC-67-12] 18 p3286 N67-32637
Canonical bases for subgroups of Abelian group
[MRC-TSR-727] 19 p3480 N67-33093
Computation of bounds for invariant subspaces of general matrix operator
[CS-66] 19 p3481 N67-33274
Critical evaluation of Markov matrix method for treating neutron diffusion through slabs of materials such as shield or inside wall of fallout shelters
[R-329] 20 p3691 N67-34115
Role of certain problems in mathematical programming - linear and quadratic programming, and bimatrix game theory
[TR-67-3] 20 p3668 N67-34124
Formulas for investigating transient processes in nonlinear automatic control systems 20 p3617 N67-35302
Mathematical model for computing noise variance matrices for radar tracking systems
[RO-S-67-2] 21 p3790 N67-35887
Representations for likelihood functions of separable stochastic processes to aid in signal detection, classification, waveform recognition, and parameter extraction
[TR-9] 21 p3823 N67-35943
QR algorithm applied to Hessenberg matrices
[ITR-12] 21 p3880 N67-36113
Positive real functions and matrices of several variables for design of electric networks
[RADC-TR-67-365] 22 p4016 N67-37300
Weinberg sum rules generalized by including scalar meson states to obtain predictions for decay widths
[AFOSR-67-1630] 23 p4197 N67-38173
Complimentary polynomials in lossless ladder network
[AFCRL-67-0376] 23 p4230 N67-38867
Fubini-Furian method applied to problem of q squared dependence of K sub l3 form factors - group symmetry and matrix algebra
[TH/211] 23 p4313 N67-39146
Order preserving functions application to majorization and order statistics
[D1-82-0563] 23 p4276 N67-39264
Symmetry matrix for construction of nucleon wave functions for mixed particle configurations
[UJV-1634] 23 p4314 N67-39309
Optimum processing of coherent variable spaced radar pulse trains, and clutter variations expressed in terms of covariance matrix
[P-3657] 24 p4402 N67-39457
Stochastic process of linking rows to columns in matrices
[MRC-TSR-651] 24 p4477 N67-39488
Incidence matrices used to sequence row and column permutations in designing computer switches
[RM-107] 24 p4478 N67-39542
Optimal scaling of matrices with respect to vector norms, matrix bounds, and condition numbers of matrices
[ITR-15] 24 p4482 N67-40034
Faddeev three-body kernel constructed from examination of Coulomb T-matrix in two and three body Hilbert space
[SRCC-53] 24 p4501 N67-40057
Linear nonsymmetric eigenvalue equations for sum-over-points approach and application to hydrogen ion
[D1-82-0644] 24 p4503 N67-40467
MATRIX ANALYSIS
SA JACOBI MATRIX METHOD
Partial conservation of tensor currents and Pauli interaction
[IC/66/70] 01 p0127 N67-10733
Response matrices in double P sub N approximation of neutron transport theory
[AAEC-E-149] 01 p0128 N67-10778
Matrix analysis of axisymmetric shells under general loading
[GAM/MC/66B-7] 01 p0161 N67-11638
Transfer matrix method applied in analysis of complex structural networks
[NASA-CR-79507] 02 p0315 N67-11730
Perfect gas, flow stability, and matrix analysis concepts
[TP-366/1966/] 02 p0252 N67-11978
Matrix solutions of shells of arbitrary shape subjected to arbitrary dynamic loading
[NASA-CR-80114] 02 p0319 N67-12383
Effective residual interaction for shell model calculations - matrix analysis and angular momentum 03 p0435 N67-12568
Representation of spinors in n-dimensional space by complex and real systems of tensors
[NASA-CR-80146] 03 p0416 N67-12907
Matrix-Holzer analyses for predicting free vibration modes of clustered launch vehicle configurations including Titan IIIC and uncoupled Saturn I cases
[NASA-CR-592] 03 p0471 N67-13178
Structural analysis of S-matrix in non-compact symmetry groups and collinear particle subgroups
[JINR-E-2754] 03 p0446 N67-13311
Matrix isolation studies of products of gamma radiolysis of heterocyclic molecules
[PRNC-88] 04 p0806 N67-13999
Fortran IV matrix and vector operations programming system 06 p0848 N67-15906
Linear system of very large size - matrix topology, handling large matrices as continuous functions, and projection type and separation type of iterative schemes
[NASA-CR-81239] 06 p0902 N67-16086
Infrared spectrum of matrix isolated vapors from solid lithium oxide investigated in low frequency region
[TR-5A] 06 p0820 N67-16135
General computer program and computation tables for linear wire antennas and scatterers with arbitrary excitations and loads - matrix methods for solving field problems
[RADC-TR-66-351, VOL. II]
06 p0842 N67-16307
Matrix analysis of boom extension devices for spacecraft configuration design 07 p1189 N67-16902
Matrix analysis of longitudinal and torsional vibrations in nonuniform multibranch beams
[NASA-TN-D-3844] 07 p1205 N67-18149
Proper rotations of three-dimensional orthogonal frame
[NASA-TN-D-3308] 08 p1298 N67-18357
Transfer functions of linear control systems obtained by use of matrix method
[RAE-TR-66284] 08 p1290 N67-18361
Homogeneous functions for unitary representations of symmetry groups
[JINR-P-2886] 08 p1331 N67-18526
Comparisons between on-shell and off-shell methods for two-body T-matrix
[UCSD-10P10-9] 08 p1334 N67-18604
Mathematical derivations and descriptions of two methods for computing generalized matrix inverse
[K-1641] 08 p1300 N67-18676
Digital computer program for through-flow fluid mechanics in arbitrary turbomachine using matrix method
[NGTE-R-282] 09 p1392 N67-19973
Two matrix forms of estimating spacecraft motion parameters 10 p1758 N67-20385
Total-partial width ratios defined by S-matrix theory for beryllium 7 resonance levels
[IC/66/105] 10 p1715 N67-21183
Calculation of matrix elements in quantum mechanical problem of three bodies interacting according to Coulomb law
[JINR-P4-3011] 10 p1721 N67-21537
Phase-variable canonical form for single input linear dynamical systems applied to linear control theory 11 p1842 N67-22316
Linear transformation of arbitrary, completely controllable, single-input, time-variant linear dynamical system to canonical form 11 p1842 N67-22317
Fortran subroutines for Householders method in complex case and eigensystems of Hermitian matrices
[ANL-7231] 11 p1827 N67-22319
Relations between tree branches and links of electrical network of SCEPTRE transient

analysis program established by using F matrix 11 p1947 N67-23630
Matrix methods in structural mechanics and conference papers relating to design of aerospace vehicles
[AFFDL-TR-66-80] 11 p1967 N67-22801
Technological developments in field of matrix methods of structural analysis 11 p1967 N67-22802
Matrix structural analysis and application to large order system optimization 11 p1967 N67-22805
Matrix displacement method applied to shells of revolution under loading 11 p1968 N67-22807
Linear elastic dynamic analysis of shells of revolution by matrix displacement method 11 p1968 N67-22808
Equivalence of force and displacement methods in matrix analysis of elastic structures 11 p1968 N67-22809
Generation of interelement compatible stiffness and mass matrices by use of interpolation formulas 11 p1968 N67-22812
Element stiffness matrices for boundary compatibility and for prescribed boundary stresses 11 p1969 N67-22814
Dynamic stiffness matrix formulation by means of Hermitian polynomials 11 p1969 N67-22815
Flat triangular shell element stiffness matrix 11 p1969 N67-22816
Finite element stiffness matrixes for analysis of plate bending 11 p1969 N67-22817
Matrix analysis methods for inelastic structures 11 p1990 N67-22820
Matrix displacement method applied to plane elastoplastic problems 11 p1990 N67-22821
Matrix analysis of creep and plasticity problems 11 p1990 N67-22822
Nonlinear structural analysis, and tensor formulation 11 p1990 N67-22823
Stiffness matrixes for analysis of large deflection and stability problems 11 p1990 N67-22824
Computation of dynamic response time histories of system using matrix iterative technique 11 p1991 N67-22826
Matrix of impulse response function with special reference to applications in random variable problems 11 p1991 N67-22827
Quadratic matrix equations for determining vibration modes and frequencies of continuous elastic systems 11 p1991 N67-22829
Vibration analysis of cantilevered square plate by stiffness matrix method 11 p1992 N67-22832
Matrix error analysis for engineers 11 p1992 N67-22834
Solution accuracy examples in large simultaneous equation systems 11 p1989 N67-22835
Communication systems research in block coding and synchronization, cyclic Hadamard matrixes, range-grated autocorrelation function, and information processing 12 p2050 N67-23661
Concept and behavior of Toeplitz matrix forms, and applications to classical function theory, prediction theory, quantum statistical mechanics, thermodynamics, and random theory 12 p2131 N67-24232
Toeplitz, Hankel, Wiener-Hopf, bounded, and other operators for Hilbert space matrices statistical mechanics and von Neumann spectral theorem 12 p2131 N67-24235
Synthesis of time-varying passive networks
[SEL-66-099] 12 p2073 N67-24989
Local one particle approximations and locally conserved currents constructed for matrix elements
[DESY-66/31] 13 p2378 N67-25968
Five-dimensional quasispin formalism used to factor out n, T-dependent parts of shell model matrix elements in seniority scheme and derive reduction formulas
[AD-648581] 14 p2585 N67-26675
Mathematical matrix method used to improve dynamic model of structure - transient response 14 p2634 N67-27042
ARGMAT programming language derived from ALGOL for computer processing of hypermatrices 14 p2566 N67-27682
Application of A-P algorithm to non-proportion damped vibration problems represented by non-selfadjoint matrix differential equation 14 p2628 N67-27711
Fortran IV program subroutines and A-P algorithms for finding eigenvectors and eigenvalues of complex normalizeable matrices
[REPT.-32] 14 p2566 N67-27776
Mass operators and particle mixing equations used to obtain mass matrices for meson mass regularity and 486 multiplet of SU/6/
[TUEP-67-5] 14 p2594 N67-27777
Numerical method for simultaneous computation of eigenvectors and eigenvalues of arbitrary dynamical matrices 15 p2733 N67-27874
Algorithm for recovery of pulse code telemetry data, and simulation program to determine matrix characteristics 17 p2829 N67-30376
Computer programs and matrix analysis for three factor analyses
[ORNL-TM-1798] 17 p3096 N67-31238
Two-phonon matrix elements and absorption for crystal models with zinc blende structure - nearest neighbor interaction through noncentral harmonic and central third order potentials 18 p3316 N67-31683
Algorithms for construction of tree graph with aid of distance matrix, and evaluation of tree measuring properties 18 p3285 N67-31866
Direct and iterative methods for determining eigenvalues and eigenvectors in vibration and flutter calculations
[REPT.-66-046] 19 p3543 N67-32737
Digital computer program based on matrix formulation for analysis and design of linear state variable feedback systems
[NASA-CR-850] 19 p3422 N67-33455
Stable methods of matrix factorization for block tri diagonal matrices and application to multigroup diffusion equations
[GA-7164, PT. 2] 19 p3511 N67-33919
Matrix method for obtaining transient response of filter
[RAE-TR-66372] 20 p3614 N67-34647
Matrix methods for analytic determination of output autocorrelation functions of linear systems for stationary random inputs
[RAE-TR-66387] 20 p3615 N67-34801
Matrix multiplication and simultaneous linear equations for finding kernel of impulse response train
[NASA-CR-88206] 21 p3822 N67-35662
Physical chemical nature of plastic matrix reinforcement interface
[AFML-TR-65-303, PT. III] 22 p4075 N67-37065
Application of Kalman filter to sequential optimal parameter estimation via Householders matrix inversion method
[RO-S-67-1] 22 p4017 N67-37430
Algorithm to determine definiteness of real square matrix
[NASA-TM-X-53844] 22 p4085 N67-37723
Generalization of Cabibbo-Radicati relation to case of nonminimal electromagnetic interactions
[JINR-E2-3329] 23 p4110 N67-37913
Matrix calculations and Laplace transform used in mathematical analysis of elastic mass-spring system
[REPT.-149] 22 p4158 N67-38084
Computer program for calculating neutron cross sections with R-matrix formalism and with complex pole expansion of collision matrix
[COO-1546-4] 23 p4302 N67-38365
Extension of Pontryagin maximum principle and application of matrix minimum principle in solving simple optimal linear regulator problem
[NASA-CR-89628] 24 p4478 N67-39574
Extension of matrix formulation of nonlinear statistical mechanics to Bogoliubov gas - perturbation solutions for plasma electron distribution and correlation functions
[ARL-67-0103] 24 p4508 N67-39644
Gauge invariance properties for interacting Bose system extended to finite temperature case
[ISS-67/15] 24 p4501 N67-40031
Integrated cockpit research program - function flow diagrams and matrix analysis for logistics, firepower and reconnaissance missions
[AD-658753] 24 p4375 N67-40233
MATRIX STRESS CALCULATION
Effective forces in nuclei from nucleon-nucleon force
[PUC-937-229] 16 p1701 N67-30787
Finite element dynamic stiffness matrix for two-dimensional panel flutter calculations
[LR-476] 20 p3738 N67-34429
Triangular finite sandwich element for direct stiffness matrix determination of bending in plates and shells
[NASA-CR-85357] 23 p4358 N67-38815
MATTER
S ANTIMATTER
S EXTRATERRESTRIAL MATTER
MAXIMUM PRINCIPLE
SA COMPLEX VARIABLE
SA PONTRYAGIN PRINCIPLE
Optimal nonlinear control system selected according to maximum probability criterion 03 p0377 N67-12524
Pursuit problem and theory of differential games 04 p0667 N67-12967
Variation method and maximum principle for calculating optimal conditions of heating metal 05 p0710 N67-14304
Control of nuclear rocket absorption cross section 07 p1122 N67-17951
Charged particle motion parameters in stopping and scattering matter placed in inhomogeneous magnetic field determined by maximum likelihood method
[JINR-P-2829] 07 p1157 N67-17982
Maximum principle, and differential operator performance in game theory for N players 11 p1907 N67-23403
Hamiltonian equations for describing variation in dynamic variables in place of Pontryagin equations - control and operations theory 12 p2069 N67-24202
Pontryagin maximum principle relationship to basic mathematical programming theorems - control of dynamic system 12 p2070 N67-24203
Maximum principle established as necessary condition for optimal control of nonlinear system of partial differential equations with distributed parameters 12 p2071 N67-24224
Formulae and tabulation of estimator biases for negative binomial distribution
[ORNL-4005] 15 p2735 N67-28519
Maximum a posteriori estimate of random process state vector in interval 16 p2863 N67-29904
Pontryagin maximum principle and optimal control
[MDC-TR-66-116] 17 p3040 N67-30483
Variational calculus, gradient methods, maximum principle, and dynamic programing methods of optimal control theory of space vehicles
[NASA-CR-820] 20 p3735 N67-35169
Maximum principle theory applied to production and inventory control
[RR-168] 24 p4482 N67-40062
MAXIMUM USABLE FREQUENCY
Maximum usable frequency computation for short wave radio transmission, and communication at higher frequencies in presence of E-layer scattering
[JPRS-39413] 06 p0632 N67-15827
Accuracy of maximum usable frequency computations for short wave radio communication links 06 p0632 N67-15828
Short wave radio communication at frequencies exceeding maximum usable frequency caused by E-layer scattering 06 p0632 N67-15829
Panoramic ionosonde recordings of maximum usable frequency characteristics of F-2 layer 16 p2894 N67-29814
Ionospheric propagation predictions for August 1967 and related maximum usable frequency and optimum traffic frequency data
[RRC-B131] 21 p3640 N67-36052
Ionospheric propagation predictions for September 1967 and related maximum usable frequency and optimum traffic frequency data
[RRC-B132] 21 p3641 N67-36054
Maximum usable radio frequency over Bangkok
[TR-38] 22 p3998 N67-37963
Computer ray tracing techniques to determine effect of ionospheric tilts on maximum usable frequencies 24 p4497 N67-39814
Short-term prediction of F-2 layer maximum usable frequencies from local magnetic activity 24 p4458 N67-39831
MAXWELL DISTRIBUTION
Kinetic equation derived for electron gas in magnetic field - relaxation time for

establishing Maxwell distribution
[NASA-TT-F-479] 14 p2594 N67-36597
Bound-free and free-free continuous absorption coefficients for complex atoms and positive ions using Boltzmann and Maxwell distributions 18 p3326 N67-31828
Numerical analysis of rarefied flows considering detailed molecular motion
[TAE-69] 21 p3633 N67-36179

MAXWELL EQUATION
Dipole radio signal from nuclear explosion computed using Maxwell equations
[RM-4968] 01 p0116 N67-11041
Equations for dispersion relations of magnetoactive finite temperature plasma
[NASA-CR-80014] 05 p0744 N67-14817
Reformulation of Maxwell equations for linear media through linear operator and general transform techniques into equivalent matric integral equation 07 p1132 N67-17083
Derivation of simple formula for ionospheric Faraday rotation at frequencies above 100 Mc/s starting from Maxwell equations
[NASA-TM-X-55682] 08 p1277 N67-18736
Nonlinear mixed frequency generation in anisotropic plasma studied by Maxwell and fluid equations
[AFCRL-67-0067] 12 p2186 N67-34494
Maxwell electromagnetic equations for determining basic relationships of polarized light reflection from metallic absorbing surfaces
[UCRL-11813] 12 p2155 N67-34554
Tensor Green functions of Maxwell equations, heat conduction and nonlinear oscillation equations for anisotropic bodies, and wave propagation in elastic nonuniform media 13 p2346 N67-35215
Equations for diffusion and physiochemical processes in multiple gas mixture
[NASA-TT-F-10025] 14 p2519 N67-37539
Generalized Maxwell equation applied to theoretical processing of experiments on short range direct and reverse creep of glass plastics 14 p2558 N67-37722
Geometric interpretation of CP-violating interaction in Maxwell field
[JINR-E2-3069] 15 p2769 N67-38536
Hydrodynamic and Maxwell equations for describing plane wave propagation through compressible inhomogeneous plasma
[AFCRL-67-0299] 20 p3705 N67-34695
Maxwell equations, parameters, and elements of complex waveguide systems and resonators
[FTD-MT-64-366] 21 p3614 N67-35555

MAXWELL FLUID
Time dependent deflection of floating ice sheet, and solution for viscoelastic plate that obeys Maxwell model
[CRREL-RR-198] 01 p0070 N67-11106

MCDONNELL MILITARY AIRCRAFT
S F-4 AIRCRAFT

MEAN FREE PATH
Attenuation of transverse and longitudinal ultrasonic waves in presence of magnetic field for various values of phonon wave number and electron mean free path
[NASA-TN-D-3723] 03 p0294 N67-11810
Continuum and Boltzmann equation governing sound propagation in rarefied gas - molecular collision frequency, mean free path, and particle number density 12 p2155 N67-34237
Theory and tabulated numerical values of viscosity and mean free paths as function of temperature for argon and nitrogen
[DLR-MITT.-67-06] 17 p3048 N67-30702

MEASURE THEORY
Spectral families of measures and spectral representation theorem
[AROD-5254-10] 06 p0904 N67-16347
Finite and infinite sequences of exchangeable events - statistics
[TR-44] 09 p1470 N67-30016
Quantum theory of measurement in relation to general theory of observation and control, and triality in structure of field theory
[AFCRL-66-646] 12 p2173 N67-34796
Two-dimensional representation of complex nonplanar graphs
[TN-1967-1] 14 p2564 N67-37013
Axiomatic foundation for continuum thermodynamics
[REPT.-67-5] 16 p2985 N67-29688
Table of exact critical values of information for case of equiprobable alternatives
[REPT.-689] 16 p2922 N67-29767
Properties of bounded internal functions determined by use of measure theory and number theory
[TR-3] 18 p3289 N67-32666

MEASUREMENT
S ACTINOMETRY
S ASTROMETRY
S BODY MEASUREMENT
S BODY MEASUREMENT /BIOL/
S CALORIMETRY
S DENSITY MEASUREMENT
S DEPTH MEASUREMENT
S DOSIMETRY
S DRAG MEASUREMENT
S ELECTRIC MEASUREMENT
S ELECTROMAGNETIC MEASUREMENT
S FLOW MEASUREMENT
S FREQUENCY MEASUREMENT
S FRICTION MEASUREMENT
S GONIOMETRY
S GRAVIMETRY
S HIGH ALTITUDE TARGET AND BACKGROUND MEASUREMENT
S HUMIDITY MEASUREMENT
S IMPEDANCE MEASUREMENT
S MAGNETIC MEASUREMENT
S METROLOGY
S NOISE MEASUREMENT
S OPTICAL MEASUREMENT
S PHOTOGRAPHIC MEASUREMENT
S PHOTOMETRY
S PLASMA FLUX MEASUREMENT
S POLARIMETRY
S PRECIPITATION PARTICLE MEASUREMENT
S PRESSURE MEASUREMENT
S PROFICIENCY MEASUREMENT
S PSYCHOMETRICS
S RADAR MEASUREMENT
S RADIATION MEASUREMENT
S RADIOMETRY
S RANGE MEASUREMENT
S RAWINSONDE MEASUREMENT
S ROCKET MEASUREMENT
S SATELLITE MEASUREMENT
S SIGNAL MEASUREMENT
S SOUND MEASUREMENT
S SPECTROMETRY
S SPECTROPHOTOMETRY
S STOICHIOMETRY
S STRESS MEASUREMENT
S SYNOPTICAL MEASUREMENT
S TEMPERATURE MEASUREMENT
S THRUST MEASUREMENT
S TIME MEASUREMENT
S TRAJECTORY MEASURING SYSTEM
S VELOCITY MEASUREMENT
S VIBRATION MEASUREMENT
S WIND MEASUREMENT
S WIND VELOCITY MEASUREMENT

MEASURES
Volumetric fraction measurement of vapor by gamma attenuation method
[RT/ING/66/12] 16 p2850 N67-29705

MEASURING APPARATUS
SA DISTANCE MEASURING EQUIPMENT
SA FLOW METER
SA FLUXMETER
SA HYGROMETER
SA INTERFEROMETER
SA ION GAUGE
SA IONIZATION GAUGE
SA MACH-ZEHNDER INTERFEROMETER
SA MAGNETOMETER
SA MANOMETER
SA MASS SPECTROMETER
SA MICROMETER
SA MOISTURE METER
SA NEPHELOMETER
SA NOISE METER
SA OPTOMETER
SA PENETROMETER
SA PHOTOMETER
SA PIEZOELECTRIC PRESSURE GAUGE
SA PIRANI GAUGE
SA PLASTOMETER
SA POLARIMETER
SA POTENTIOMETER
SA PRESSURE GAUGE
SA PYCNOMETER
SA PYRHELIOMETER
SA PYROMETER
SA RADAR ALTIMETER
SA RADIO ALTIMETER
SA REFLECTOMETER
SA REFRACTOMETER
SA RESISTANCE THERMOMETER
SA SHOCK MEASURING APPARATUS
SA SONIC ANEMOMETER
SA TORQUE MEASURING APPARATUS
SA TURBULENCE MEASURING APPARATUS
SA VIBRATION MEASURING APPARATUS
Measuring internal friction, elastic modulus, and rate of sound propagation of solids in frequency range from 6 to 60 kilocycles 01 p0071 N67-10085
Machine test method for measuring inspired carbon dioxide with self-contained breathing apparatus
[BM-RI-6865] 01 p0023 N67-10445
Measuring apparatus for instant density determination of uranium ore
[CEA-R-2910] 01 p0129 N67-10855
System for measuring vector magnetic fields from sounding rockets
[AFCRL-66-565] 01 p0069 N67-10951
Amplitude-phase measuring device without phase sensitive detectors
[FTD-TT-66-9] 01 p0076 N67-11109
Design and development of high resolution nighttime cloud-cover radiometer
[NASA-CR-79366] 02 p0223 N67-11790
Comparison of nephelometric instrumental technique and gravimetric method for analysis of nonvolatile residue level in hydrocarbon cleaning solvents
[NASA-TM-X-53520] 03 p0228 N67-11983
Research in instrumentation - monitoring and measuring devices, micrometers, semiconductor triodes, transducers, coaxial resonators, gyroscopes, and regulators
[JPRS-38133] 03 p0292 N67-12401
Method of determining maximal errors of multielement automatic measuring devices 03 p0292 N67-12407
Devices for measuring heat and temperature conductivity in continual heating range 03 p0293 N67-12428
Device for plotting perspective of points according to coordinates in space 03 p0293 N67-12430
Modifications to prevent freezing at arctic temperatures of instrument to measure energy expended by man over long periods 03 p0352 N67-12442
Apparatus for measuring thermoconductivity of liquid organic coolants used in nuclear reactors
[AEET-245] 03 p0472 N67-12634
Simple instrument for measuring focal length of long focal length lenses
[WRE-TN-ISD-75] 03 p0294 N67-12639
Instrumentation - radio electronics, electrical measuring devices, automation and telemechanics, computing instruments, gyroscopes and navigation aids, and optical, thermal, and bionic devices
[JPRS-38750] 03 p0295 N67-12761
Automatic measurement of signal frequency by system of detuned resonators and amplitude detectors 03 p0378 N67-12763
Physical nature of errors obtained in measuring frequency of electrical oscillations using electronic counters 03 p0295 N67-12767
Capacitance transducers with cross-bent plates for use in electrical measuring devices 03 p0295 N67-12769
Device to measure residual stresses by method of electrochemical etching and vibration to reduce friction effects in moving joints 03 p0296 N67-12782
High speed computing circuits used to measure rpm of electric motors 03 p0296 N67-12783
Effect of air temperature on accuracy of measuring machines under unstable temperature conditions 03 p0296 N67-12790
Improved apparatus for measuring heat balance of soils 03 p0296 N67-12807
System for measuring phase and frequency fluctuations of high precision oscillators
[NASA-CR-80364] 03 p0296 N67-12998
Measuring apparatus, astronomical coordinates, visual tracking, and artificial satellite research 04 p0508 N67-13545
Form of directional rulers and errors of ocular micrometers of two KIM-3 measuring instruments 04 p0509 N67-13554
Time delay and study of UIM 21 measuring device 04 p0509 N67-13555
Measuring and calibration apparatus for optical and electrical adjustment of infrared image converter tubes
[REPT.-66-0-2] 04 p0552 N67-13236
Bibliography on instrumentation and measuring techniques in nuclear physics
[AED-C-66-14] 04 p0587 N67-13969
Impacting soil measuring device for predicting resistance to dynamic, repetitive

loading 05 p0778 N67-14530
Theoretical and experimental studies in aeronomy dealing with direct measurements of ionospheric density and drifts by Nike-Apache and other rockets
[NASA-CR-80855] 05 p0699 N67-14641
Conference on aerodynamic measuring techniques in Germany - multiplex telemetry of free flight test data, analog-to-digital data conversion, and automatic data processing systems and methods
[DLR-MITT.-66-04] 05 p0678 N67-14661
Comparison of analog and digital measuring techniques and apparatus 05 p0678 N67-14662
Instrument, using principle of direct electroheating, to measure outer friction and relative displacement modulus of hard-to-melt metals
[FTD-TT-65-1637] 05 p0709 N67-15041
Instruments for measuring altitude dependent physical properties of Venus atmosphere from entry capsule 06 p0971 N67-15764
Airport runway surface traction measuring device
[FAA-ADS-55] 06 p0660 N67-15772
Design, construction, and field testing of device to measure magnitude of Poynting vector associated with electromagnetic field
[REPT.-67-05] 06 p0916 N67-15999
Liquid density meter based on gamma radiation from cesium 137 06 p0680 N67-16321
Microstrain apparatus for work in compression at helium temperatures in determining effect of structural variables
[AD-641359] 06 p0977 N67-16426
Measuring system for aerodynamic, electrical, and electromagnetic parameters in performance of MHD augmented shock tunnel
[R66SD53] 06 p0663 N67-16595
Conference on precision electromagnetic measurements
[AD-642776] 07 p1060 N67-17361
Conference papers on radio frequency measurement techniques and equipment 07 p1056 N67-17366
Abstracts from conference papers on microwave measuring instruments and techniques 07 p1060 N67-17367
Symposium presentation abstracts on microwave measurement instruments and techniques 07 p1060 N67-17370
Error reduction techniques and instrumentation for measuring amplitude of kilovolt pulses
[SLAC-PUB-199] 07 p1061 N67-17436
Conference papers on advanced aerospace technology measurement techniques and instrumentation
[NASA-SP-132] 07 p1063 N67-17781
Aerospace measuring instrumentation technology trends and requirements 07 p1064 N67-17782
Mossbauer effect applied to measuring technology, and nuclear hyperfine structure phenomena 07 p1156 N67-17783
Acoustic techniques for measuring properties of solids, liquids, and gases in high temperature environment 07 p1139 N67-17786
Calculations and reactor experiments to improve shielding materials, geometry, and radiation measuring devices
[EUR-2966.D] 07 p1136 N67-18065
Lectures on methods of high speed recording of quickly transpiring processes in nonstationary gas dynamics and in plasma physics studies
[JPRS-39657] 07 p1068 N67-18114
Experimental analysis of infrared analysis between earth and space 08 p1276 N67-18666
Supersonic airfoil calculation, design, and measurement techniques 08 p1317 N67-18683
Decimeter wave method to measure dielectric constants of aqueous solutions that is independent of detector characteristics or disturbances in field due to probe
[TIL/T-5694] 08 p1239 N67-19071
Permalloy data units for magnetic measurements in accelerators 09 p1483 N67-19368
Measuring apparatus for tensile strength of electrostatic generator belt 09 p1430 N67-19374
Resonance measuring apparatus for diaphragmed waveguide used in linear electron accelerator systems 09 p1423 N67-19376
Automatic device for determination and measurement of form changes of electrically conducting spheres exposed to reactor radiation
[JUL-257-RG] 09 p1481 N67-20212
Apparatus for measuring ion cyclotron resonance at difference frequency - nonlinear phenomena in plasma waveguide 09 p1497 N67-20242
Automatic self-integrating thermal conductivity method for simultaneous determination of carbon, hydrogen, and nitrogen in organic compounds
[TIL/T-5689] 09 p1413 N67-20355
Measurement of carbon dioxide in surface waters of Puget Sound, Washington 10 p1618 N67-20455
Chronotron alpha meter development
[EGG-1183-1285] 10 p1630 N67-20600
Ultrasonic measurement of nonlinearity parameters of copper single crystals
[ORNL-TM-1573] 10 p1748 N67-20652
Neutron cross sections and related measurements
[ORNL-P-2493] 10 p1708 N67-20923
Measuring apparatus for neutron flux densities and neutron dosimetry standardization
[JUL-156-ST] 10 p1715 N67-21091
Fluidic absolute measuring system
[E3] 10 p1611 N67-21125
Radioactive meter and reflection gauge for measuring component thicknesses in engine plant 10 p1640 N67-21225
Higher productivity, lower rejection rates, and closer tolerances in metal rolling processes through use of measuring devices with radioisotopes 10 p1640 N67-21226
Beta radiation gauge for measuring thicknesses of coatings, paints, and varnishes 10 p1642 N67-21240
Radioactive instruments and measuring devices that have practical applications in blast furnace operations 10 p1644 N67-21252
Radioactivity methods for prospecting petroleum, gas, coal, and ore deposits 10 p1621 N67-21282
Device for recording gamma-gamma ray logs of cement distribution in annulus of cased wells 10 p1775 N67-21296
Measuring apparatus for quantitative analysis of beryllium ore powder samples, concentrates, and products of metallurgical processing 10 p1634 N67-21303
Apparatus for measuring electric transients from vehicular or aircraft power sources integrated with electronic equipment
[ECOM-3776] 10 p1633 N67-21276
Measurements of large magnetic flux derivatives by means of closed resistive loop
[RT/FI/66/3] 10 p1634 N67-21494
Bridge using Wheatstone circuit to measure high-megohm resistors
[SC-TM-66-550] 10 p1594 N67-21500
Techniques for measurement of impurities in sodium
[MSAR-66-221] 10 p1655 N67-21522
Automatic device for measurement of spark chamber photographs
[DESY-66/25] 10 p1635 N67-21572
Comparison of measuring apparatus for oxygen concentration determination in liquid sodium
[LA-DC-7743] 10 p1580 N67-21657
Instrument for measuring thickness of thin nonmagnetic nonmetallic coating on ferromagnetic base
[FTD-HT-66-96] 10 p1636 N67-21866
Meteorological measuring methods and instruments, and requirements of Soviet economy for meteorological data 11 p1910 N67-21985
Factors influencing computer selection for automatic integrating fluctuation meters, and automatic gradient recorders 11 p1874 N67-21991
Instrumentation for automatic meteorology station 11 p1874 N67-21995
Radioactive isotope techniques and instrumentation for hydrometeorological measurements 11 p1911 N67-21996
Calculating temperature and heat flow measurements in soil in relation to heat flow meters 11 p1911 N67-21998
Heat flow meters for heat flow measurements in soil, and snow and ice covers 11 p1883 N67-21999
Electrometeorograph device for meteorological measurements from helicopters 11 p1874 N67-22002
Interpretation of data recorded by high speed measuring device in upper air layers 11 p1911 N67-22003
Direct measurement of electrostatic field strength near surface of craft flying in upper atmosphere or interplanetary space 11 p1876 N67-22026
High temperature chemical and physical properties of metallic and nonmetallic solids, and measuring apparatuses - bibliography 11 p1882 N67-22035
Soviet techniques and instruments for measuring temperature, optical density, salt content, electric conductivity, depth, and current velocity of sea water
[JPRS-39681] 11 p1876 N67-22358
Shipboard adjustment techniques and operation of contactless laboratory meter for measuring salinity of salt water 11 p1879 N67-22363
Induction salinity meter for measuring sea water salinity and transmitting data to ship in binary code 11 p1879 N67-22364
Low inertia apparatus for measuring ocean surface temperature from moving ship 11 p1879 N67-22366
Industrial application of interferometry for measuring linear distance, straightness, surface finish, and flatness
[Y-1559] 11 p1881 N67-22380
Measuring apparatus to probe plasma conductivity 11 p1900 N67-22706
Cone radiometer evaluation, and its application as measuring apparatus of incidence light flux 11 p1883 N67-22772
Multiplex measuring system allowing transmission of different slowly varying values over coaxial cable
[EUR-3256.D] 11 p1885 N67-23021
Apparatus to measure ocean currents using small turbine as sensor
[WRE-ISD-73] 11 p1886 N67-23096
Hoop test apparatus to measure tensile strength of ferroelectric ceramic materials
[SC-DR-66-593] 11 p1904 N67-23187
Measuring projector for bubble chamber pictures
[CEA-R-3046] 11 p1887 N67-23313
Performance characteristics of electronic apparatus for measuring stable reactor period 12 p2097 N67-23504
Methods for measuring natural radioactivity at high altitudes
[NP-16438] 12 p2091 N67-23721
Calculations and measurements of 30 MeV Brookhaven linear accelerator 12 p2075 N67-24065
Stanford Linear Accelerator Center injector emittance measurements 12 p2075 N67-24069
Pneumatic equipment for powder density measurement
[K-1684] 12 p2102 N67-24564
Decimeter wave method of measurement independent of detector characteristic for determining complex dielectric constants of water and aqueous solutions
[TIL/T-5695] 12 p2102 N67-24584
Measurement of quantity of blood in lungs using iodine-125 polyvinyl pyrrolidine
[FPRC/1241] 12 p2098 N67-24589
Apparatus and techniques for measuring plate glass thickness, using Americium 241 gamma radiation
[EUR-2369.D] 12 p2125 N67-24590
Multivariable measuring instrument for use with cardiovascular system
[AD-647290] 12 p2095 N67-24689
Equipment to obtain atmospheric stability data to determine capacity of atmosphere to dilute and disperse contaminants 12 p2311 N67-25494
Collimated neutron beams measured with remmeter 12 p2319 N67-25497
Functional and operating characteristics of time measuring devices
[UCRL-12250] 12 p2319 N67-25511
Mechanical resistance measurements of Montivel film exposed to gamma rays
[ISS-66/94] 13 p2264 N67-26981
Scintillation counter, and magnetic field intensity measurements at Adonis facility
[LNF-67/3] 13 p2269 N67-26129
Apparatus for measuring mid-infrared spectral emission from cold powders in vacuum
[NASA-CR-84158] 14 p2329 N67-26504
Optimal control in presence of measurement uncertainties and application to spacecraft midcourse trajectory correction 14 p2311 N67-26528

Low level acceleration measurement apparatus 14 p2571 N67-26536
Hierarchy of measurements derived from national standards and disseminated through engineering support facility
[AEDC-TR-67-18] 14 p2521 N67-26669
Time and space variability of wind derived from tower-mounted anemometers and triple-theodolite pilot-balloon observations at Green River, Utah
[ECOM-5095] 14 p2521 N67-26672
Observations of heterogeneous structure and kinematics of solar atmosphere, and engineering development of instrument for measuring local displacements on spectrogram
[AFCRL-67-0064] 14 p2600 N67-26785
Design and development of instrument for measuring and recording local displacements on spectrogram 14 p2522 N67-26787
Soviet meteorological research on radiation distribution, flux measurement devices, random error of pyrgeometer, and related topics 14 p2534 N67-27108
Measuring methods and instrumentation for study of long wave radiation fluxes 14 p2535 N67-27112
Operation of Yanishevsky double balancemeters with stable forced ventilation 14 p2535 N67-27113
Random errors of Laikhtman Kucherov differential net pyrgeometer 14 p2536 N67-27117
In-core instrumentation for measuring fuel pin and coolant temperatures, coolant flow rates in fuel element assemblies, fission gas buildup pressure in fuel pins, and neutron and gamma fluxes
[ANL-7161] 14 p2576 N67-27345
Geodetic and geophysical measuring apparatus and methods - conference review
[JPRS-40110] 14 p2536 N67-27352
Soviet articles on design and operation of instruments and measuring apparatus
[TT-67-31045] 15 p2707 N67-27621
Conductivity tests in development of boron concentration meter
[WCAP-3690-1] 15 p2708 N67-27905
Spatial coordinates of noctilucent clouds measured by microscope 15 p2699 N67-28027
Design and performance characteristics of radio electronic, electric measurement, automatic control, and computer instruments in U.S.S.R.
[JPRS-39996] 15 p2710 N67-28101
Phase shift measuring method in dual light beam ultraviolet analyzer for high speed analysis of oil in solid petroleum paraffins 15 p2710 N67-28102
Scintillation-type detector for measuring low energy and low activity beta radiation
[NP-16534] 15 p2711 N67-28203
Apparatus for measuring electric resistivity of irradiated graphite
[NP-16536] 15 p2712 N67-28346
Calibration standards and procedures for RF field intensity measuring apparatus
[RADC-TR-66-687] 15 p2713 N67-28400
Compton effect apparatus for measuring gamma-gamma linear polarization correlations
[BMWF-FBK-66-37] 15 p2713 N67-28540
Apparatus for measuring and controlling thickness of thin film deposited on quartz in vacuum
[NASA-TT-F-10461] 16 p2891 N67-29001
Apparatus for gas flow temperature measurements
[NASA-TT-F-11023] 16 p2891 N67-29012
Geodetic radio range finding equipment containing high precision tellurometer, phase recorder, and phase difference measuring unit
[FTD-HT-66-694] 16 p2892 N67-29071
Equipment for measuring tunnel diode parameters
[FTD-HT-66-696] 16 p2892 N67-29075
Soviet patent data on correlation function measurement and infralow frequency devices
[JPRS-40074] 16 p2894 N67-29472
Device for measuring envelopes of normalized correlation functions 16 p2894 N67-29473
Automatic measurement of normalized current mutual correlation and autocorrelation functions of random electric and acoustical signals 16 p2895 N67-29476
Meteorological measurement system for studying correlation of lower atmospheric constituents with propagation of electromagnetic energy
[RADC-TR-67-58] 16 p2925 N67-29520
Methods for determining surface areas of selected solids
[MEL-27/67] 16 p2849 N67-29664
Engineering development of boron concentration meter for determining boron concentration in coolant of closed cycle, water moderated and cooled power reactor
[WCAP-3690-2] 16 p2934 N67-29834
Sonic boom measurement with limited frequency response instrumentation
[WR-66-20] 16 p2819 N67-29892
Electronic equipment for measuring nuclear radiation effects in silicon p-n junctions
[COO-1634-6] 17 p3035 N67-30320
Mixed radiation measurements for dose equivalence and quality factor
[REPT.-777/XIX/D] 17 p3129 N67-30645
Sensitivity and precision of apparatus used in continuous measurement thermal neutron flux of gaseous circuits
[CONF-651154-5] 17 p3112 N67-31091
Remotely-operated measuring apparatus for determining freezing point curves for solutions of ammonium perchlorate in hydrazine
[NASA-CR-84856] 17 p3020 N67-31369
Operation and performance of microcalorimeter for in-pile nuclear energy measurements
[CONF-651154-3] 17 p3119 N67-31470
Terrain geometry measuring equipment for off-road vehicle locomotion studies 18 p3270 N67-31931
Current preamplifier for high performance tape recorder, cavity-type coaxial frequency meters, and measuring techniques and devices for diodes, and standing wave ratios in coaxial systems 18 p3248 N67-31996
Wideband cavity-type wavemeters for measuring frequencies in coaxial transmission lines 18 p3249 N67-31999
Methods, systems, and instruments for measuring impedance of components and circuits 18 p3250 N67-32161
Instruments for measuring impedance magnitudes and phase angles of components and circuits over broad frequency range 18 p3250 N67-32163
Soviet advances in electronic digital measuring devices, and experimental instrument models
[JPRS-40928] 18 p3271 N67-32402
Recording spectrophotometer for ground and balloon measurements of daytime sky brightness
[T-R-698] 18 p3269 N67-32898
System components for measuring yield and angular distribution of gold sputtered by protons
[ORO-3557-1] 19 p3500 N67-32768
One-point sampler for determining amplitude of fast transient pulse during brief time increment compared to total pulse duration
[SCL-TN-66-113] 19 p3498 N67-32932
Apparatus for weighing heavy loads to accuracy of 0.001 percent
[RFP-839] 19 p3454 N67-33508
Proposed experiments and apparatus for satellite measurements in magnetosphere 20 p3724 N67-34153
Comparison of vertical heat flux measuring instrument performance 20 p3635 N67-34183
Instrument for measuring surface slope of underwater hydraulic structures using hermetically enclosed gravitational pendulums 20 p3639 N67-34231
Borehole deformation gage for determining stresses in rocks
[BM-RI-7015] 20 p3641 N67-34578
Comparative dust measurements from various dust collectors and measuring instruments 20 p3751 N67-35062
Comparison of dust particle size measuring instrumentations for industrial safety 20 p3643 N67-35084
Automatic measurement of air gap flux densities by using search coil and converting voltage-time area into sequence of pulses to determine large surface magnetic fields
[UCRL-TRANS-1347] 20 p3644 N67-35125
Period measurement of neutron flux during reactor startup using logarithmic integrator
[CNEA-161] 20 p3685 N67-35156
Suitability of filter materials for measurement of radioactive aerosols
[EUR-3178.D] 20 p3652 N67-35373
Evaluation of separable tubing connector and manufacturing tooling 21 p3857 N67-35576
Leakage measurement techniques for use in spacecraft propulsion systems applications 21 p3857 N67-35578
Methods for rapid measurement of decaying luminescence processes of scintillators
[BMWF-FBK-67-17] 21 p3917 N67-36093
On-line bubble chamber measuring system 21 p3807 N67-36251
Time sharing operations of Purdue University SMP measuring system for bubble chamber film analyses 21 p3807 N67-36252
Glasgow measuring machines for spark chamber film analyses 21 p3807 N67-36253
Heidelberg SMP measuring system for analyzing bubble chamber photographic film 21 p3807 N67-36254
Design performance and integration of Brookhaven flying spot device measurement facility and bubble chamber research program 21 p3808 N67-36257
Improvements to Brookhaven real time flying spot device computer program 21 p3808 N67-36258
Performance and quality of measurements of CERN Hough-Powell Device /HPD-1/ road guidance system 21 p3808 N67-36259
Prototype and production version of POLLY bubble chamber film measuring system 21 p3810 N67-36272
Surface tension measurement apparatus for determining impurities in sodium
[MSAR-67-80] 21 p3785 N67-36296
Tensile creep irradiation equipment for zirconium alloy creep rate measurements 21 p3892 N67-36549
Cyclotronic mass spectrometer with non-accelerating synchronous ion
[IFA-18-41] 21 p3853 N67-36557
Beam profile measurements with silver phosphate glass plates
[DESY-67/12] 21 p3907 N67-36568
Redesign of long range azimuta laying theodolite
[NASA-CR-88276] 21 p3854 N67-36635
Measuring apparatus for signal phase displacement and coherent loss in colliding storage rings
[NP-16690] 21 p3829 N67-36652
Design and construction of low pressure calibrator for use with transducers at subatmospheric pressures and comparison with shock tube and static calibration methods
[ARC-CP-947] 22 p4044 N67-36882
Instruments for gravity measurements
[ACIC-TC-1191] 22 p4045 N67-36899
Upper atmosphere measuring techniques and reaction kinetics of atmospheric gases
[AFCRL-67-0371] 22 p4039 N67-37597
Gravitational clinometer for measuring terrain inclination angle corrections
[ACIC-TC-1218] 22 p4049 N67-37642
Thermistorized ebulliometry system for determining molecular weights of fluorocarbon compounds
[K-1690] 22 p3989 N67-37671
Improved beta spectrometer arrangement for measuring conversion electron spectra from /n, gamma/ reactions at Swedish research reactor
[LF-16] 22 p4050 N67-37898
Pressure distribution measurements in wind tunnels for aerodynamic application
[TP-451] 22 p4033 N67-37960
Dynamics and thermodynamics of viscoelastic media including construction of experimental measuring apparatus
[AD-656042] 23 p4363 N67-38241
Pulse detection system for measurement of transport properties of photoexcited carriers in insulating crystals
[AROD-4928-6-P] 23 p4227 N67-38270
System for measurement and detection of insoluble plutonium 239 in lungs
[AEEW-R-494] 23 p4185 N67-38338
Measuring epithermal neutron spectra with resonance monitors 23 p4310 N67-38983
Collectrons - self powered detectors for continuous measurement of neutron fluxes
[EUR-3567.F] 23 p4313 N67-39135
Experimental apparatus for measuring sessile drop contact angles at elevated temperatures
[AFML-TR-67-152] 24 p4495 N67-39656
Videometer for measuring solar flare area, peak intensity, and integrated intensity as functions of time 24 p4450 N67-39810

Interaction between measuring instrument cavity and rarefied gas flow
[T-R-659] 24 p4432 N67-39845
Gas chromatography for quantitative oxygen content determination in refractory oxides
[DP-1115] 24 p4397 N67-39855
MECHANICAL DRAWING
Computer method for automatic control of systems and mechanical drawing changes
[DOUGLAS PAPER-3875] 01 p0043 N67-10446
Mechanical design features of prototype facsimile scanner using fiber optics
[QR-7] 09 p1448 N67-19758
Roller calibration system with settling of wavy billet for reduced metal thinning at bending points of plate
[FTD-HT-66-361] 12 p2110 N67-24801
Three plane concept for precise and standardized mechanical drawings
[SC-DC-67-1745] 20 p3646 N67-34438
Fortran computer program developed for plotting projections on three-dimensional surfaces
[TR-1001/2230-46/-9] 24 p4413 N67-39805
MECHANICAL ENGINEERING
Research in mechanical and aerospace engineering and materials science 05 p0780 N67-14845
Astron program mechanical engineering design of experimental apparatus, chamber, and accelerator
[UCRL-70027] 07 p1157 N67-17688
Mechanical and industrial engineering programs to study gas dynamics, transport properties, hypervelocity, wind tunnel testing and other problems 14 p2542 N67-26606
Use of human factors information by engineers
[AD-651076] 15 p2653 N67-28604
Program controlled aircraft model contour measuring machine - automatic three-dimensional model
[RAE-TR-66329] 19 p3400 N67-33967
Mechanical engineering projects on optimal extremal controller design, aerial forest fire control, and lubrication systems
[DME/NAE-1967/1] 21 p3952 N67-35995
Cost factor and structural design of optimal extremal controller 21 p3823 N67-35996
MECHANICAL IMPEDANCE
Motion of human center of mass and its relationship to mechanical impedance
[AMRL-TR-65-50] 01 p0022 N67-10278
Fundamental concepts of mechanical impedance and mobility
[NRL-6406] 02 p0315 N67-11926
Mechanical impedance of human body in transient acceleration environment
[AMRL-TR-66-94] 03 p0353 N67-13671
Structural impedance and vibration measurement
[MEL-360/66] 10 p1766 N67-21374
Procedure for computing mechanical drive-point impedance of cylindrical shells of effectively infinite length
[U-223-165] 11 p1935 N67-23577
Simulation of heat shield pyrotechnic shock impedance 13 p2412 N67-25168
Mechanical impedance effects on dynamic response of multi-degree of freedom/multi-dimensional linear systems
[NASA-TN-D-3865] 13 p2417 N67-25794
Mechanical impedance/admittance testing of Saturn S-IV thrust structure /Boattail/ and correlation with tests on dummy aluminum beam
[DOUGLAS PAPER-4046] 20 p3742 N67-35217
MECHANICAL OSCILLATOR
Traveling surface waves in system of mechanical oscillators moving over elastic surface and in gas flow over finite elastic surface with thin plate 12 p2191 N67-24149
Device for excitation of torsional sinusoidal oscillations
[FTD-HT-66-703] 15 p2717 N67-28261
MECHANICAL PROPERTY
SA BRITTLENESS
SA COMPRESSION
SA CREEP
SA DEFORMATION
SA DUCTILITY
SA ELASTICITY
SA FAILURE
SA FATIGUE
SA FRACTURE
SA HARDNESS
SA PERMEABILITY
SA PHOTOELASTICITY
SA PLASTICITY
SA RUPTURE
SA SHEAR STRAIN
SA STRESS
SA THERMAL STRESS
Scientific data and results of lunar surface exploration by Surveyor I spacecraft
[NASA-CR-79150] 01 p0150 N67-10061
Lunar surface mechanical properties as determined from photographs and landing dynamics of Surveyor I spacecraft 01 p0150 N67-10067
Mechanical properties determined of steel armor plate from four tanks
[TDCK-46113] 01 p0062 N67-10155
Orientation of secondary neck in anisotropic titanium sheet tensile specimens
[AMRA-TR-66-17] 01 p0063 N67-10282
Mechanical and thermal properties of tungsten and molybdenum alloy sheets for aerospace applications
[REPT.-7563-1479-XII] 01 p0082 N67-10380
Oxygen influence on mechanical properties of niobium-zirconium alloys
[IS-T-93] 01 p0084 N67-10690
Mechanical properties of lungs and thorax measured by use of expiratory flow-volume curves
[AMRL-TR-66-13] 01 p0018 N67-10998
Statistical and metallographic analysis of ferritic magnesium cast iron
[FTD-TT-65-1823] 01 p0067 N67-11063
Changes in structure and mechanical properties due to loss of interstitials to reactive metal coatings studied in dispersion strengthened niobium alloys
[NASA-CR-79546] 02 p0269 N67-11737
Conference on titanium reaction with metals and gases and titanium alloy structure, corrosion, mechanical, and technological properties
[NASA-TT-F-363] 02 p0269 N67-11761
Effect of gas saturated layers on strength and plastic properties of titanium alloys 02 p0271 N67-11777
Mechanical properties of heat treated titanium alloys 02 p0274 N67-11788
Temperature dependence of mechanical properties of high strength alpha-phase titanium alloy containing aluminum 02 p0274 N67-11791
X-ray analysis of multicomponent titanium alloy to provide data for production of sheets with uniform mechanical properties 02 p0274 N67-11793
Influence of metastable structural transformations on mechanical properties of alpha-beta phase titanium alloys 02 p0275 N67-11800
Mechanical properties of Ti-Fe-Cr titanium alloys with varying amounts of iron 02 p0275 N67-11801
Mechanical properties, corrosion resistance, and time to failure of forgings of several titanium alloys 02 p0276 N67-11804
Mechanical property test methods for beryllium
[MAB-205-M] 02 p0277 N67-11962
Physical and mechanical properties of tantalum carbide and niobium carbide composites
[NASA-CR-79757] 02 p0277 N67-12072
Effect of grain boundaries and impurities on mechanical behavior of polycrystalline ceramics 02 p0278 N67-12107
Effect of preferred orientation on mechanical properties and deformation behavior of Zircaloy-2 fuel sheathing
[AECL-2837] 03 p0435 N67-12890
Effect of metallic additives on mechanical properties and chemical composition of steel 03 p0410 N67-12811
Test program to investigate physical and mechanical properties of wood-plastics materials 04 p0564 N67-13365
Equations for mechanical properties of singly reinforced strip of glass fiber with polymer binder
[NASA-TT-F-10979] 04 p0618 N67-13784
Materials data handbook on 7075 aluminum alloy
[NASA-CR-80764] 04 p0560 N67-13879
Constituent material properties effect on strength of fiber reinforced composite materials
[U-3502] 04 p0620 N67-13908
Mechanical property changes in Zircaloy 2 Inconel and Incoloy for fast neutron exposures above 1 MeV
[GEAP-5100-9] 04 p0561 N67-14066
Approximation method for determining mechanical properties of oriented fiberglass under tension 04 p0567 N67-14144
Mathematical model for improved prediction of mechanical properties of glass fiber resin composite materials
[RAE-TR-66345] 04 p0621 N67-14277
Strength criteria for anisotropic materials 04 p0621 N67-14315
Effect of size and amount of NaCl filler on mechanical properties of polyurethane rubber 05 p0723 N67-14525
Influence of plasticizer added to pure cold setting epoxy polymer studied by testing copolymers in creep and relaxation at various temperatures 05 p0724 N67-14548
Mechanical properties of mammalian connective tissue 06 p0647 N67-14598
Analyses and techniques to determine mechanical and chemical properties of uranium, thorium, aluminum oxide, and magnesium fluoride metals and compounds
[NLCO-920] 06 p0664 N67-14628
Dry process divalent silver oxide electrodes and electrode mechanical strength, for guided missile zinc-silver oxide batteries
[ECOM-2749] 05 p0636 N67-14716
Strain rate effects on mechanical properties of structural aluminum alloys
[R-478] 05 p0717 N67-14755
Effect of deformation rate and temperature on as formed and heat treated mechanical properties of titanium alloys
[AMRA-TR-66-23] 05 p0713 N67-14956
Vacuum heat treatment for improved mechanical properties of high strength steel castings
[AMRA-TR-66-24] 05 p0714 N67-15022
Mechanical property and production of nonferrous metal sheet manufacturing 06 p0685 N67-15513
Mechanical properties, plastic deformation, and tensile creep rate in carbon and graphite 06 p0696 N67-15713
Mechanical properties of styrene-butadiene rubber glass bead composites, and theoretical model on isothermal volume dilatation and stress-strain relationship in filler concentration 06 p0697 N67-15720
Mechanical properties of chromium, chromium rhenium, and derived alloys
[NASA-CR-81225] 06 p0692 N67-15823
Mechanical properties and crystal structure of mica investigated to obtain ideal ductile ceramic - bibliography
[AMRA-CR-66-07/1] 06 p0690 N67-16452
Hypervelocity impact testing of aluminum spheres on targets for determining role of mechanical strength properties on spallation phenomena
[NOLTR-66-43] 06 p0978 N67-16480
Conference on small point defects, observation by electron microscopy, nature in irradiated metals and nonmetals, and effect on mechanical properties of metals
[AERE-R-5269, VOL. 2] 07 p1172 N67-16751
Vacancy clusters and mechanical properties as determined from quenching studies 07 p1000 N67-16767
Mechanical properties of Mylar polyester and buckling of Mylar conical shells 07 p1198 N67-16869
Mechanical and structural properties of high temperature nickel alloy during cooling
[ATD-66-106] 07 p1000 N67-17020
Mechanical and flow characteristics of hydrodrive with throttle speed adjustment 07 p1001 N67-17284
Mechanical properties of electric motor and power reducer transmission ratio selection 07 p1001 N67-17287
Mechanical properties and motion equations of relay track drive 07 p1001 N67-17289
Mechanical property and heat resistance of alloy EI-437 - plasticity and strength of tungsten
[FTD-MT-65-383] 07 p1000 N67-17291
Heat resistance and mechanical properties of alloy EI-437 07 p1199 N67-17292
Stainless steel used in testing irradiation effects on high temperature mechanical properties of structural materials
[ORNL-TM-1544] 07 p1199 N67-17422
Mechanical properties of chromium-molybdenum steel and stainless steel exposed to air, helium, and high temperature sodium
[MSAR-66-174] 07 p1194 N67-17982
Mechanical properties of spot welded joints containing corrosion defects in

Centaur aft bulkhead - tank 1D
[ZZL-66-008] 07 p1694 N67-17938
Neoprene and PVC ship cable sleeve samples tested to determine physical and mechanical properties when exposed to diesel oil
[TDCK-46587] 07 p1107 N67-17945
Test equipment for determining composition and properties of Dutch black gunpowder for purpose of standardization
[TDCK-46449] 07 p1181 N67-18073
Physical and mechanical properties of Dutch black gunpowder evaluated to establish military specifications
[TDCK-46450] 07 p1181 N67-18180
Carbon concentration effects on corrosion and mechanical properties of austenitic stainless steel
[EUR-3868] 08 p1289 N67-18476
Room temperature mechanical behavior of various chemical and experimental graphites
[NASA-CR-62398] 08 p1296 N67-18977
Effects of hydrostatic pressure on mechanical behavior of body centered cubic refractory metals and alloys
[NASA-CR-62477] 08 p1292 N67-19033
Physical and mechanical properties of butyl and neoprene mixtures evaluated for application in marine cable sleeves and insulation
[TDCK-46586] 08 p1297 N67-19160
Sodium environment effects on mechanical properties of austenitic and ferritic steels 09 p1458 N67-19593
Dielectric and mechanical properties of fluorinated high purity aluminum oxide
[QR-8] 09 p1453 N67-19670
Mechanical properties of titanium alloy plate evaluated after heat treatment
[MEL-265/66] 09 p1461 N67-19729
Stability statistics in structural mechanics of plates and shells 09 p1521 N67-20023
Shear strength, polymorphism, and mechanical behavior of olivine, enstatite, diopside, labradorite, and pyrope garnet
[AFCRL-66-543] 10 p1618 N67-20460
Stress distributions in fiber reinforced plastics analyzed after process shrinkage and external loading
[USAAVLABS-TR-66-62] 10 p1650 N67-20613
Mechanical properties of pyrolytic and single crystal graphite examined to determine effects of neutron damage
[TID-23388] 10 p1661 N67-20751
Mechanical properties of reactor materials - neutron induced changes in body centered cubic metals
[GA-7233] 10 p1653 N67-21005
Interstitial nitrogen effects on mechanical properties of iron after neutron bombardment
[EUR-2393.E] 10 p1654 N67-21157
Crystalline structure of spherulites examined for calculation of mechanical properties of polymer
[ONR-TR-66] 10 p1662 N67-21439
Mechanical properties of molding material
[SCL-CR-66-91] 10 p1663 N67-21528
Neutron damage in reactor metal studied by liquid helium temperature resistance measurements, mechanical property measurements, and stored energy measurements
[GA-7436] 10 p1657 N67-21654
Hydrogen embrittlement effects on mechanical properties of Charpy V notched low carbon steel
[SU-DMS-66-5] 10 p1657 N67-21699
Electropolishing effect on tensile properties and fracture characteristics of boron filaments
[RE-370] 10 p1663 N67-21723
Effect of high temperature sodium on austenitic and ferritic steels
[MSAR-66-230] 10 p1658 N67-21786
Mechanical behavior of two grades of graphite
[REPT.-7744-1691-VI] 10 p1664 N67-21821
High-temperature materials program for reactor applications - radiation effects, mechanical properties, refractory metal alloy research, cladding and fuel elements, and pressure vessels
[GEMP-61] 11 p1919 N67-22081
Metallurgical studies on melting point of carbides reactor fuel, and physical and mechanical properties of certain metals
[USBM-RC-1264] 11 p1888 N67-22286
Mechanical properties of tungsten and rhenium in W Re Mo alloy development 11 p1889 N67-22292
Mechanical properties of dilute uranium alloys at elevated temperatures - tensile strength and hardness
[MCW-1505] 11 p1896 N67-22391
Thermal and mechanical properties of cellular plastic materials
[RAE-TN-CPM-54] 11 p1903 N67-22701
Thermal and mechanical properties of elastomers and sealants
[RAE-TN-CPM-52] 11 p1903 N67-22711
Thermostability and high temperature mechanical properties of polymer materials
[RAE-TN-CPM-34] 11 p1904 N67-22716
Computer programs for calculating mechanical and elastic properties of cylindrical shells, fiber reinforced composites, and laminated plates
[AFML-TR-65-220, PT. II] 11 p1906 N67-22730
Mechanical properties of chromium molybdenum steel
[NASA-CR-72207] 11 p1897 N67-22893
Effect of fast neutron irradiation on tensile properties of cold worked zirconium-niobium pressure tubes
[AECL-2625] 11 p1924 N67-22985
Effects of dissolved oxygen on mechanical properties of zirconium-2.5 weight percent niobium alloy
[AECL-2623] 11 p1898 N67-22994
Mechanical properties of thick plate titanium aluminum vanadium alloy
[MEL-266/66] 11 p1899 N67-23115
Effects of fast neutrons on mechanical properties of Fe-Ti and Fe-N-Al alloys before and after isothermal annealing
[EURAEC-1727] 12 p2115 N67-23590
Evaluation of Hastelloy X as nuclear cladding - oxidation and mechanical property studies, metallography, X-ray analysis, and tensile testing
[AGN-8205] 12 p2144 N67-23596
Property characterization of ductile tungsten base sheet alloy
[AD-645143] 12 p2115 N67-23602
Mechanical properties and corrosion behavior at high temperatures of zirconium niobium tin alloy used for cladding in water cooled reactors
[EURAEC-1725] 12 p2116 N67-23689
Thermodynamic principles of rheology, and thermal and mechanical processes in medium 12 p2221 N67-23792
Thorium alloys studied for effects of submicron thoria additions and temperature on mechanical, electrical, and corrosion properties 12 p2117 N67-23955
Mechanical and physical properties of tungsten-rhenium alloys prepared by powder techniques for extrusion drawing 12 p2107 N67-23958
Mechanical and electric properties of molybdenum and molybdenum alloys - pressing and sintering properties of molybdenum powder - diffusion of molybdenum powder onto steel alloy surfaces
[FTD-TT-65-835] 12 p2117 N67-23972
Performance characteristics of new high duty cycle Saclay electron linac 12 p2060 N67-24125
Vibrations of laminated structure under localized flow conditions
[TP-12] 12 p2223 N67-24311
Notch tensile strength and mechanical properties of aluminum, titanium, uranium, and steel alloys
[AMRA-TR-66-13] 12 p2119 N67-24412
Temperature and notch radius effects on mechanical properties of titanium alloyed aluminum, vanadium, tin, and zirconium
[AMRA-TR-66-26] 12 p2120 N67-24653
Mechanical behavior of strontium zirconate
[AD-646925] 12 p2125 N67-24754
Mechanical properties and crystal structure of mica
[AMRA-CR-66-0712] 13 p2368 N67-25153
Effects of transformation products and morphology, mechanical strain, aging reactions, and heat treatment and fabrication procedures on properties of superconducting materials 13 p2290 N67-25523
Neutron irradiation effects on mechanical properties on structural alloys 12 p2330 N67-25361
Pure bending tests to determine mechanical properties of materials in elastoviscoplastic domain
[NT-99/1966/] 13 p2416 N67-25578
Heat treatment and testing to improve mechanical properties of strippers from feeder mechanism of H-61 cannon, F-104G aircraft
[M-66-1071] 13 p2302 N67-25738
Mechanical properties and fission product retention capabilities of beryllium oxide matrix fuel concepts
[GA-7062] 13 p2361 N67-25905
Correlation between thermal and mechanical properties of extraterrestrial materials
[NASA-CR-83895] 13 p2402 N67-25952
Support facilities and transportation equipment for missile and space systems - Annotated bibliography
[BM-RI-6929] 13 p2341 N67-26350
Electrical and mechanical properties of broadband Dicke type chopper, bandpass filter, and sealed broadband harmonic mixer for use in radiometer system
[AD-646732] 14 p2531 N67-26749
Mechanical, chemical, thermal, and electrical properties of polyolefin resins used for electric wire and cable insulation
[AD-646547] 14 p2539 N67-26903
Explosive ring test for determining flow laws of rate sensitive plastic and strain hardened materials
[REPT.-3] 14 p2552 N67-26998
Reactor technology on nuclear materials and propulsion operation
[GEMP-43] 14 p2574 N67-26961
Mechanical and physical properties determined in high temperature reactor materials research 14 p2574 N67-26962
Physical and chemical studies of clad uranium dioxide in potential meltdown environments 14 p2575 N67-26991
Influence on microstructure and mechanical properties of titanium alloys 14 p2554 N67-27027
Mechanical properties and microstructure of titanium containing oxygen and hydrogen 14 p2554 N67-27030
Effects of magnesium and silicon content, and of manganese, copper, and zinc additions on mechanical properties of aluminum alloy AV 14 p2555 N67-27035
Effects of added material during automatic arc welding on structure, strength, and plasticity of welded joints 14 p2555 N67-27037
Mechanical properties of epoxy resins and glass filament-wound composites at cryogenic temperatures
[NASA-CR-84451] 14 p2560 N67-27217
Cladding and temperature effects on extrudability and mechanical properties studied with powder metallurgy tungsten
[NASA-TN-D-3941] 14 p2556 N67-27226
Mechanical and physical properties of elastomers used in spacecraft launching equipment, propellant system, electric insulation, and as sealant for capsules
[NASA-TT-F-10951] 14 p2561 N67-27313
Aluminum alloy 2014 materials data handbook, covering metallurgy, manufacturing, and physical and mechanical properties
[NASA-CR-84454] 14 p2557 N67-27430
Optical and mechanical properties of monochromator with high precision directional control of spectrum 15 p2706 N67-27848
Materials testing facility for determining mechanical properties for specific transient load applications
[AD-634666] 15 p2797 N67-27949
Corrosion resistance, tensile strength, and mechanical properties of titanium, 8 aluminum, 1 molybdenum IV alloy sheet
[RAE-TR-66003] 15 p2722 N67-28040
Polyurethane resins for structural laminate systems possessing simultaneous high thermal and mechanical properties
[NAEC-AML-2593] 15 p2658 N67-28394
Sorption kinetics and mechanical properties of dilute niobium-hydrogen solutions
[ORO-2570-10] 15 p2725 N67-28344
Heat treatment effects and mechanical properties of uranium alloy determined in rolled and forged conditions
[M67-1-1] 15 p2726 N67-28510
Crystal structure and growth, synthesis, and mechanical properties of mica
[AMRA-CR-66-07/3] 15 p2732 N67-28897
Fabricating dense fine grained ceramic materials by high pressure hot pressing, and mechanical properties
[AMRA-CR-67-04/F/] 16 p2914 N67-29106
Mechanical and heat treatments for precipitation hardenable stainless steels and effects on mechanical properties

[NASA-TM-X-53578] 16 p2906 N67-29173
Mechanical properties and nitrogen tetroxide stress corrosion resistance of Ti-6Al-4V alloy with different heat treatments
[NASA-CR-65635] 16 p2906 N67-29174
Mechanical problems associated with gas turbines required by military aircraft of future 16 p2963 N67-29195
Mechanical, thermal-hydraulic, and nuclear characteristics of low enriched PM replacement core
[HIT-3583-43, VOL. I] 16 p2930 N67-29339
Mechanical mechanisms controlling metals and alloys deformation and fracture 16 p2979 N67-29466
Electronic structure method from standpoint of inhomogeneous electron gas used for determining mechanical and thermodynamic properties of metallic alloys and compounds
[TR-44] 16 p2944 N67-29633
Long term mechanical properties of metals subjected to mechanical stress at high temperature and neutron irradiation
[EURAEC-1803] 16 p2909 N67-29736
Sodium components development program - shell-side heat transfer, once-through steam generator, mechanical properties, carbon analysis, Na mass transfer, and impurity analysis for Na
[ORNL-3955, VOL. II] 16 p2909 N67-29746
Long term mechanical properties of metals subjected to mechanical stress at elevated temperatures and neutron irradiation
[EURAEC-1714] 16 p2910 N67-29823
Evaluation study of Hastelloy X as nuclear cladding
[AGN-8214] 16 p2911 N67-29871
Neutron irradiation effect on mechanical properties of iron and steel
[SORIN-99] 16 p2911 N67-29928
Neutron irradiation effect on mechanical property and grain size in iron
[SORIN-100] 16 p2911 N67-29929
Chemical composition and mechanical properties of nickel maraging steel plate, forged, and weld wire materials for 260 inch diameter motor chamber and nozzle shell
[NASA-CR-72126, V. V, APPEND. C] 16 p2964 N67-30035
Polymeric materials for spacecraft application tested after curing and thermal vacuum exposure for weight loss and mechanical properties
[NASA-CR-85261] 16 p2917 N67-30078
Nitrogen effect on mechanical properties of neutron irradiated pure iron - interstitial atoms
[SORIN-87] 16 p2913 N67-30096
Aluminum, silicon, and titanium additive effects on mechanical properties of neutron irradiated iron
[SORIN-83] 16 p2913 N67-30097
Conference papers on mechanical properties and thermal stability of cobalt and other high temperature alloys for aerospace application
[DLR-MITT.-66-11] 16 p2913 N67-30113
Fabrication and mechanical properties of sintered zirconium yttrium oxide dispersions - morphology and powder metallurgy
[AECL-2633] 16 p2913 N67-30118
Stress concentration effects, fatigue testing, and mechanical properties of aluminum alloys
[FTD-MT-64-91] 17 p3077 N67-30219
Mechanical properties of aluminum alloys during compression and tension 17 p3077 N67-30225
Ductile failure mechanisms, metal forming limits, and mechanical property changes by plastic strain cycling
[MAB-206-M/5/] 17 p3071 N67-30467
Lunar surface mission planning 17 p3159 N67-30611
Effect of test bar design on mechanical properties in cast lead-tin bronze
[RIA-67-535] 17 p3078 N67-30674
Qualification test to determine thermal and mechanical properties of two base heat shield panels
[NASA-CR-84857] 17 p3173 N67-30688
Time dependent mechanical strength of fully oriented solids
[NASA-CR-85767] 17 p3173 N67-31095
Prototype nickel cadmium cells for future meteorological satellite
[NASA-CR-84867] 17 p2998 N67-31137
Physical and mechanical properties of heat resistant concrete composites 17 p3086 N67-31283
Physical and mechanical properties of concrete with serpentine fillers 17 p3087 N67-31284
Mechanical high transmission selector of neutron velocities
[INP-527/PS] 17 p3070 N67-31296
Mechanical and thermal properties and oxidation resistance of high temperature niobium base alloys
[BM-RI-6988] 17 p3083 N67-31375
Chemical and mechanical properties of cryogenic epoxy resin/glass filament wound composite structures
[NASA-CR-72163] 18 p3283 N67-31856
Change in mechanical properties of stainless steel initially water quenched and cold-rolled influenced by time and aging temperature
[INR-770/XIV/PS] 18 p3279 N67-31877
Irradiation effects in reactor cladding materials and long-term thermal stability of stainless steel 18 p3293 N67-31983
Radiation effects on mechanical properties of reactor cladding materials and stainless steel thermostability 18 p3295 N67-32356
Oak Ridge research reactor experimental facilities for conducting mechanical property tests of instrumented capsules
[ORNL-P-2163] 18 p3296 N67-32410
Instrumentation problems associated with measuring mechanical and nuclear energy during burst irradiation capsule experiments 18 p3303 N67-32454
Sputtering procedure for yielding Alfesil thin magnetic coating materials - mechanical, electric, and magnetic properties of Alfesil
[NASA-CR-86994] 18 p3281 N67-32520
Lunar soil sampler test results and mechanical properties of lunar surface materials 18 p3347 N67-32584
Mechanical properties of lunar surface at Surveyor III landing site 18 p3337 N67-32585
Fatigue, creep, and strain rate of glass reinforced epoxy composite materials used in aircraft structures
[IITRI-M6104] 18 p3284 N67-32662
Mechanical properties of high-manganese low-carbon steel for welded heavy-section ship plate
[SSC-175] 19 p3469 N67-33035
Compressive surface layers affecting strength of polycrystalline ceramic bodies
[AD-652299] 19 p3478 N67-33066
Test method for determining shear modulus and shear strength of unidirectional fiber-reinforced composites
[AFML-TR-66-372] 19 p3545 N67-33107
Steel, iron, and niobium samples examined for effects of radiation on mechanical properties and crystal structure
[ORNL-4097] 19 p3479 N67-33262
High temperature tensile testing machine for determining mechanical property of sintered refractory carbides of tantalum, titanium, and zirconium
[NASA-TT-F-11174] 19 p3471 N67-33287
Physical and mechanical property data for tungsten rhenium molybdenum alloys
[GEMP-497] 19 p3474 N67-33918
Mechanical properties of large engine compressor disk in IMI titanium 679 19 p3529 N67-33963
Mechanical properties and bonding efficiency of steel composites
[AMRA-TR-67-12] 19 p3475 N67-33979
Physical metallurgy of titanium - effects of ternary alpha-soluble and beta-stabilizing additions on Ti-Al primary alpha, mechanical properties and precipitation kinetics
[IITRI-B6041-12] 19 p3475 N67-33998
Mechanical properties of tubular bones of animals analyzed in relation to position and load 20 p3574 N67-34506
Extensive testing of elevated temperature mechanical and physical properties of beryllide composition 1
[MP-5843-R] 20 p3685 N67-34626
Metal erosion in acid and alkaline solutions and mechanical properties of welded seams
[FTD-HT-66-373] 20 p3648 N67-34561
Mechanical properties of welded low alloy seams by chemical composition of metals 20 p3657 N67-34562
Neutron irradiation effects on mechanical properties and corrosion behavior of zirconium alloy and Zircaloy 2
[EUR-3235.E] 20 p3656 N67-34696
Room and high temperature tensile properties of Vascojet 90 steel sheet and recrystallization temperature and tensile properties of titanium zirconium molybdenum alloy sheet
[MGRT-304] 20 p3659 N67-34713
Neutron irradiation effects on high temperature tensile properties of nickel-containing alloys
[AECL-2677] 20 p3662 N67-35256
Mechanical and detonation properties of rubber bonded sheet explosives containing PETN
[ISL-T-36/65] 20 p3667 N67-35269
High temperature nickel-base alloy mechanical properties, metallography, and workability testing for jet engine turbine blade application
[NASA-CR-54507] 21 p3667 N67-35348
Fine oxide particle dispersion strengthened alloy structures and mechanical properties and splat cooling process for alloy development
[NASA-CR-57992] 21 p3667 N67-35349
Dendrite structure, grain size, and mechanical property of iron and nickel base alloys solidified at large degree of undercooling
[AMRA-CR-64-07/3] 21 p3667 N67-35355
Mechanical properties of polyethylene terephthalate at cryogenic temperatures
[NASA-CR-83270] 21 p3674 N67-35696
Physical and mechanical properties of Teflon film by X-ray diffraction, differential thermal analysis and infrared spectrophotometry
[NASA-CR-86126] 21 p3661 N67-36115
Mechanical design and properties of Surveyor star tracking guidance system and Scanner project dual radiometer 21 p3653 N67-36213
Mechanical properties of lubrication system components in vacuum environment 21 p3662 N67-36217
Weld-alloy technique for overlaid weld of specific metal to produce predictable alloy with predictable mechanical properties 21 p3670 N67-36223
High temperature sodium effects on mechanical properties of liquid metal cooled reactor structural materials
[MSAR-67-79] 21 p3670 N67-36298
Deformation mechanism and dislocation motion resistance in neutron irradiated reactor materials
[GA-7661] 21 p3693 N67-36618
Effect of mold-steel interface reactions on casting surface and properties
[AMRA-CR-64-03/3] 22 p4000 N67-36745
Oceanographic effects on plastic engineering materials
[NAEC-AML-2628] 22 p4075 N67-36976
Mechanical properties of Montana alpine snow
[CRREL-RR-237] 22 p4036 N67-37049
Inelastic redundant force method for stress and strength analysis of mechanically fastened joints
[NAEC-ASL-1108] 22 p4154 N67-37101
Tensile properties of gamma quenched and aged uranium rich niobium alloys
[RFP-989] 22 p4061 N67-37112
Physical and mechanical properties of poly-m-carboranylene siloxane copolymers
[ONR-TR-RLT-98] 22 p3985 N67-37117
Physical properties of titanium metallurgy - phase transformation and hardness effects, alloy compositions and lattice structures, creep and temperature resistance, and manufacturing
[FTD-HT-66-354] 22 p4062 N67-37121
Alloying effects on electrical resistivity, linear expansion, and oxidizability of titanium 22 p4064 N67-37124
Properties of titanium alloys with alpha and beta structure in relation to composition and heat treatment 22 p4066 N67-37145
Mechanical properties of aluminum containing titanium alloys at room and high temperatures 22 p4067 N67-37153
Effects of plastic deformation and subsequent cooling on mechanical properties of titanium alloys 22 p4068 N67-37158
Ductility, power, and deformation parameters of titanium alloy rolling process at varying pressures and temperatures 22 p4068 N67-37159
Control of grain size in steel castings - effect of structure and nonmetallics on properties
[AMRA-CR-64-04/3] 22 p4076 N67-37239
Effects of stretch temperature, heat set time, and heat set temperature on cryogenic mechanical properties of polyethylene

terephthalate film
[NASA-TM-X-52351] 22 p4077 N67-37255
Effects of composition and shear rate on mechanical stability of greases
[RIA-67-1075] 22 p4078 N67-37548
Influence of filler content and temperature on ultimate tensile properties of highly filled elastomers
[CL-67/34] 22 p4078 N67-37549
Test evaluation for mechanical properties of aluminium - aluminium oxide alloys at elevated temperatures
[ORNL-TM-1802] 22 p4073 N67-37767
Static mechanical properties of beryllium wire reinforced plastic composites
[AFML-TR-66-404, PT. I] 23 p4368 N67-38060
Lunar surface mechanical properties determined by landing impacts, telemetry data from Surveyor III, and comparison of data collected by Surveyor I and Surveyor III 23 p4342 N67-38165
Systems analysis of mechanical properties of veins
[NASA-CR-88978] 23 p4187 N67-38431
Fore-and-aft stiffness characteristics of pneumatic tires
[NASA-CR-900] 23 p4357 N67-38534
Effect of carbide content on physical and mechanical properties of niobium carbide graphite and tantalum carbide graphite composites
[NASA-CR-89079] 23 p4365 N67-38851
Austenization and mechanical properties of steels
[EURAEC-1861] 23 p4366 N67-38949
Soviet encyclopedia of contemporary engineering structural materials - Part II - Corrosion fatigue through Hastelloy
[FTD-TT-66-22, PT. II] 23 p4358 N67-38996
Soviet encyclopedia of contemporary engineering structural materials - Part III - Heat and sound insulating loose fiber materials through nichrom
[FTD-TT-66-22, PT. III] 23 p4358 N67-38997
Soviet encyclopedia of contemporary engineering structural materials - Part IV - Nickel through soft magnetic materials
[FTD-TT-66-22, PT. IV] 23 p4359 N67-39002
Soviet encyclopedia of contemporary engineering structural materials - Part V - Solder through zircon
[FTD-TT-66-22, PT. V] 23 p4359 N67-39003
Neutron irradiation effect on mechanical properties of nickel chromium iron alloy 600, nickel chromium iron weld metal, and Type 347 stainless steel
[KAPL-3161] 23 p4366 N67-39025
High temperature sodium effects on mechanical properties of austenitic and ferritic steels
[MASR-67-103] 23 p4366 N67-39028
Relation between solid propellant mechanical properties and explosion effects
[NASA-CR-89321] 23 p4335 N67-39029
Mechanical testing procedures and specifications for iron and steel products
[NEL-348] 23 p4366 N67-39031
Indentation creep of soft metals
[ORNL-TM-1862] 23 p4367 N67-39067
Mechanical behavior of CVD tungsten at elevated temperatures
[ORNL-P-3159] 23 p4367 N67-39069
Physical metallurgy, fabrication, and mechanical properties of Phoebus 2 rocket nozzle materials
[NASA-CR-89512] 23 p4392 N67-39229
Materials in electromagnets and their properties
[SLAC-PUB-330] 23 p4388 N67-39255
Dynamic stability - mechanical properties of composite materials
[MML-8] 24 p4472 N67-39793
Effect of some fabrication variables on mechanical properties of sintered aluminum powder shapes for heavy water organic cooled reactor
[AI-CE-36] 24 p4466 N67-39909
Mechanical properties of refractory niobium alloys
[JPRS-43171] 24 p4467 N67-39940
Mechanical testing of brittle materials
[AMRA-CR-67-09/1] 24 p4472 N67-39952
Mechanical, physical, and dielectric properties of ceramic and insulating materials
[JPRS-42628] 24 p4473 N67-40072
Gamma radiation effects on mechanical and dielectric properties of solids 24 p4517 N67-40076
Design criteria and evaluation of 7001-T75 aluminum alloy to obtain improved strength and corrosion resistance
[TR-101] 24 p4469 N67-40215
Mechanical behavior of materials in presence of medium strength magnetic fields
[NASA-CR-89660] 24 p4496 N67-40216
Mechanical and optical properties of epoxy resins employed in photoelastic techniques
[EUR-3604.F] 24 p4474 N67-40297

MECHANICAL SYSTEM
Equations for determining the response of mechanical systems to combined force and motion excitation
[ADN-66-16-66.1] 01 p0160 N67-10597
Mechanochemical energy conversion
[AFOSR-66-1475] 01 p0035 N67-11040
Feasibility of combining wavelength dispersing and optical-mechanical line scanning techniques
[NASA-CR-79916] 02 p0259 N67-11848
Mariner IV spacecraft mechanical operations summary including flight and test configuration photographs
[NASA-CR-80519] 03 p0467 N67-13194
Analytical representation of lateral sloshing in tank by equivalent mechanical system 06 p0866 N67-15891
Mechanical resonance neutron velocity selector system operating on time of flight measurement principle 06 p0912 N67-16313
Air Force scientific and engineering programs in mechanical systems control, nuclear spectrometry, aircraft guidance, fuels and supersonic test facilities, and thermodynamic processes
[AD-641921] 07 p1211 N67-16941
Adaptive bang-bang controller for switching rod hinged to motorized cart 07 p1054 N67-16942
Torque to weight and torque to volume ratios, actuating power requirements, and heat transfer considerations related to application of mechanical contact clutches in space
[NASA-CR-85773] 17 p3072 N67-30864
Reliability theory for complex technical systems-evaluation tests methods, failure analyses, and statistical control probabilities
[JPRS-41634] 18 p3274 N67-32193
Evaluation method for functional effectiveness of temporary and prolonged action systems and their components 18 p3274 N67-32195
Mathematical methods of reliability theory for damage and repair problems of mechanical components 18 p3275 N67-32199
Statistical reliability and failure estimation for components of complex systems 18 p3275 N67-32205
Reliability estimation for complex systems during serial production 18 p3275 N67-32206
Mechanical system design concepts for high voltage electron microscope research facility 19 p3428 N67-33798
Mechanical design and testing of thermal storage resistojet
[NASA-TM-X-55884] 20 p3718 N67-35068
Miyatas synthesis procedure applied to linear mechanical vibration systems 20 p3742 N67-35152
Machine-oriented first-order logic system as basis for design of mechanical procedures
[ORO-2572-12] 23 p4230 N67-38465

MECHANICAL TWINNING
Mechanical twinning for improving creep strength and low temperature ductility of refractory metals
[NASA-CR-79716] 01 p0086 N67-10893

MECHANICS
SA BIOMECHANICS
SA CELESTIAL MECHANICS
SA CLASSICAL MECHANICS
SA CONTINUUM MECHANICS
SA ELECTROMECHANICS
SA FAULT MECHANICS
SA FLIGHT MECHANICS
SA FLUID MECHANICS
SA FRACTURE MECHANICS
SA HYDRODYNAMICS
SA KINETICS
SA ORBITAL MECHANICS
SA PHOTOMECHANICS
SA QUANTUM MECHANICS
SA SPACE MECHANICS
SA STATISTICAL MECHANICS
SA THERMOMECHANICS
Mechanics, supersonic and hypersonic flows, shell stability, plasma acceleration, and airfoils
[FTD-TT-65-1322] 01 p0112 N67-10041
Basic mechanics of freezing, frozen, and thawing soils
[NRC-TT-1239] 01 p0067 N67-10482
Global method applied to vibration problems
[TP-405] 04 p0569 N67-14198
Lagrange-Hamilton-Jacobi mechanics and application to two-body problem 05 p0727 N67-14413
Mechanochemistry and energy conversion systems 05 p0841 N67-14468
Mechanics of consolidation theory, and component behavior and coupling between water and soil 05 p0899 N67-14904
Aerodynamics, flutter analysis, theoretical and applied mechanics, and hydrodynamics - collected works
[FTD-MT-64-386] 10 p1553 N67-21874
Matrix methods in structural mechanics and conference papers relating to design of aerospace vehicles
[AFFDL-TR-66-80] 11 p1987 N67-22801
Technological developments in field of matrix methods of structural analysis 11 p1987 N67-22802
Elastic shells analyzed by displacement method 11 p1987 N67-22804
Numerical approach for wave motions in nonlinear media 11 p1991 N67-22838
Improved linear axisymmetric shell fluid model for launch vehicle longitudinal response analysis 11 p1991 N67-22831
Bending and stretching of plates, and special models for upper and lower bounds 11 p1992 N67-22833
Applied mechanics research on cyclic plastic strain effects on metal fatigue, and thermodynamic principles of rheology
[FTD-TT-65-1375] 12 p2221 N67-23790
Mechanics of fiber reinforced composite materials
[AFML-TR-66-149, PT. I] 12 p2222 N67-24003
Mechanical design of drift tubes and quadrupole magnets for Alvarez linear accelerator 12 p2078 N67-24005
Aeronautical and astronautical engineering research on propulsion, flight dynamics, and related topics 14 p2635 N67-26802
Theoretical and applied mechanics research programs for mathematical analyses of stresses, vibrations, fluid flow and materials behavior 14 p2832 N67-26812
Unloading line slope and Bauschinger yield in mechanical hysteresis loops
[TR-42] 19 p3542 N67-32728

MECHANISM
Conference papers on spacecraft mechanism design and development
[NASA-CR-81563] 07 p1189 N67-16901
Design and performance of Nimbus satellite mechanisms and subsystems 07 p0996 N67-16902
Mechanism for measuring degradation of reflective materials after space environment exposure 07 p1076 N67-16906
Gemini/Agena docking mechanism design and function 07 p1195 N67-16908
Low temperature effects on materials for aerospace mechanisms 07 p1137 N67-16916
High impact resistant mechanisms for surviving spacecraft landing 07 p1199 N67-16917
Matrix methodology for comparing simplified space mechanisms using subliming solids with conventional aerospace devices 07 p0997 N67-16921
Ground tests and design studies of satellite inspection mechanisms for docking systems 07 p1195 N67-16922
Conference proceedings on design and performance of aerospace mechanisms and mechanical components in space environment
[NASA-CR-87990] 21 p3997 N67-36203
Design and development of lunar orbiter photo-subsystem mechanisms 21 p3957 N67-36206
Design considerations and performance features of yo-yo despinning mechanisms 21 p3957 N67-36209
Analytical and structural characteristics of BI-STEM mechanism for erecting unfurlable structures in space 21 p3943 N67-36221

MECHANIZATION
Mechanized bookkeeping and accounting operations in railroad transportation
[JPRS-38395] 01 p0045 N67-11128
Mechanized evaluation of neutron cross sections 06 p1325 N67-18809
Mechanized nondestructive testing for steel quality control 11 p1898 N67-23434

MEDICAL ELECTRONICS
Theoretical problems in biocybernetics, simulation of nervous system physiological processes using mathematical models, and use of cybernetics and electronic methods in medicine
[JPRS-37900] 04 p0486 N67-13441
Medical cybernetics and diagnostic problems, bionics, and cybernetic aspects of medical electronics
[NASA-TT-F-459] 19 p3361 N67-33159
Research in biomedical electronics, information systems, physical, quantum, and plasma electronics, and space, atmospheric, and earth radio sciences
[AFOSR-67-1115] 22 p4017 N67-37447
Problems in automation of operative medical control in space flight 23 p4190 N67-39007
MEDICAL EQUIPMENT
SA SURGICAL INSTRUMENT
Bioastronautics laboratory research tool for developing techniques to monitor, analyze, and display biomedical telemetry data from astronauts 07 p1019 N67-16992
Portable sonomicrometer for measuring heart dimensions
[NASA-CR-81559] 07 p1020 N67-17255
Neutron and high energy particle dosimeter for medical dosimetry applications
[BNWL-SA-619] 07 p1061 N67-17591
Blood flow distribution in human skin
[AD-647559] 12 p2025 N67-24401
Laboratory applications of bioinstrumentation
[NASA-CR-84338] 13 p2265 N67-26246
Soviet review of physiological measurements in space involving animals and cosmonauts
[NASA-TT-F-10678] 15 p2851 N67-28746
Modified stethoscope acceptability and effectiveness for use in areas of high noise levels on aircraft carrier
[NAEC-ACEL-543] 16 p2934 N67-29637
Terrestrial applications of aerospace medical equipment and techniques 21 p3770 N67-35366
Electronic stethoscope for use aboard aeromedical evacuation flights
[SAM-TR-67-39] 21 p3771 N67-35550
Evaluation of calcium ion electrode for use in measurement of serum ionic calcium
[SAM-TR-67-43] 21 p3788 N67-36427
Biomedical applications of new techniques and equipment from aerospace technology
[NASA-CR-89265] 23 p4187 N67-38439
Apollo space suit technology applied in conceptual designs of collapsible hyperbaric chamber for medical therapy
[NASA-CR-89671] 24 p4393 N67-40458
MEDICAL PERSONNEL
SA PHYSICIAN
Operational plan for emergency medical command and communication system for use in post-nuclear attack environment
[TR-44-67-1] 18 p3233 N67-32474
MEDICAL PHENOMENON
Zero minimum arterial pressure phenomenon for functional evaluation of cardiovascular system in astronauts 02 p0304 N67-11619
Preflight and postflight clinical and physiological observations of Voskhod manned spacecraft crew members 10 p1559 N67-30397
MEDICAL PROGRESS
Medical and biological applications of space telemetry
[NASA-CR-80967] 05 p0860 N67-14889
Anatomy, experimental medicine, pathology, physiology, and psychobiology studies on chimpanzee - Biology
[ARL-TR-67-4] 12 p2023 N67-24390
Medical applications of NASA supported science and technology - abstracts and tech briefs
[NASA-CR-84050] 13 p2280 N67-26285
Information retrieval efforts by biomedical applications team to supply clinical and research personnel with NASA science and technology
[NASA-CR-83603] 17 p3006 N67-31399
Basic and applied science related to medical progress, and program management and planning in applied research 23 p4188 N67-38514
Medical benefits resulting from utilization of devices and techniques of space research within NASA program
[NASA-EP-46] 24 p4386 N67-40287
MEDICINE
SA AEROSPACE MEDICINE
SA ANESTHESIOLOGY
SA BIOLOGY
SA CASE HISTORY
SA CLINICAL MEDICINE
SA DENTISTRY
SA HISTOLOGY
SA IMMUNOLOGY
SA NEUROSCIENCE
SA PSYCHIATRY
SA RADIATION MEDICINE
SA RADIOLOGY
Experimental investigations of biological, physiological, and psychological factors in aviation and space flight environments
[JPRS-38272] 02 p0178 N67-11401
Speed of recovery from Coriolis stimulation in sickness with relation to pilots and nonpilots
[SAM-TR-66-63] 02 p0212 N67-11884
Diagnostic applications of biocybernetics in medicine and biology 04 p0487 N67-13442
Symposium papers on needs and applications for remote sensor data
[REPT.-4864-11-X] 04 p0547 N67-13461
Remote sensor data requirements in medicine 04 p0489 N67-13470
Cybernetics in biology, medicine, biopotential control systems, disease diagnosis, and simulation of consciousness and emotion
[JPRS-39023] 05 p0840 N67-14381
Applicability of cybernetics to theory and practice of biology and medicine 05 p0840 N67-14382
Electrical phenomena in humans and biopotential control systems and apparatus for medical research 05 p0840 N67-14384
Uses of radioisotopes and ionized radiation in biology, agriculture, and medicine
[JPRS-39418] 05 p0840 N67-14397
Large-scale application of radioactive isotopes to medical product sterilization 06 p0911 N67-15543
Application of radioactive isotopes and nuclear radiation to construction of building materials industry, light industry, and medicine in U.S.S.R. - Conference
[AEC-TR-6466/2] 12 p2150 N67-24557
Statistical analysis techniques compatible with individual organism methodology
[USAMRL-716] 13 p2029 N67-24890
Laboratory animal medicine and technology, bibliography with abstracts
[ANL-7360] 13 p2254 N67-25297
Concepts and facilities for programming biomedical data
[ORNL-TM-1692, PT. I] 14 p2502 N67-27237
Computer program for plotting biomedical data
[ORNL-TM-1692, PT. IV] 14 p2503 N67-27338
Computer program for processing biomedical data
[ORNL-TM-1692, PT. VI] 14 p2503 N67-27339
Decompression sickness treatment, and safety measures for its prevention
[JPRS-40325] 14 p2463 N67-27356
Applicability of automatic activation analysis facilities of Texas A and M University to problems involving public benefit and interest 16 p2943 N67-29393
Applications of cybernetic modeling in surgery, general medicine, and sociology 16 p2823 N67-29667
Nuclear energy studies in Chinese Peoples Republic - technician training, nuclear chemistry, and applications in medicine 17 p3127 N67-30394
Quantitative and spectral analyses of human Korotkov sounds
[NASA-CR-86609] 18 p3211 N67-32163
Biomedical technology transfers of NASA science and technology
[NASA-CR-85969] 18 p3214 N67-32617
Biomedical problem abstracts for identifying advanced technology for application to medical problems 18 p3214 N67-32618
Aerospace technology transferred to medical and biological applications
[NASA-CR-86990] 19 p3273 N67-33906
Medical cybernetics and diagnostic problems, bionics, and cybernetic aspects of medical electronics
[NASA-TT-F-459] 19 p3361 N67-33159
BIORPG - system for automatic management of biomedical data
[ORNL-TM-1693, PT. 5] 19 p3568 N67-33944
Applications of aerospace technology to medicine and biology
[NASA-CR-87407] 20 p3580 N67-34923
Methods for transferring applicable aerospace technology to fields of medicine and biology
[NASA-CR-88469] 22 p3971 N67-37450
MEDIUM
S CONDUCTING MEDIUM
S ELASTIC MEDIUM
S GYROTROPIC MEDIUM
S ISOTROPIC MEDIUM
S MAGNETOELECTRIC MEDIUM
MEISSNER EFFECT
Identities, infinite conductivity, and Meissner effect of electron-phonon gas
[NIJS-R-496] 15 p2771 N67-28670
MELAMINE
Temperature effects on strength of phenol formaldehyde, phenol phosphorus, melamine formaldehyde, and organosilicon resins
[NASA-TT-F-10054] 15 p2781 N67-28238
Analytical and experimental studies of chemical bonding in resin-treated cellulose
[REPT.-66-15-PR] 24 p4470 N67-39416
MELLIN TRANSFORM
S LAPLACE TRANSFORM
MELTING
SA ARC MELTING
SA LIQUEFACTION
SA VACUUM MELTING
SA ZONE MELTING
Basic mechanics of freezing, frozen, and thawing soils
[NRC-TT-1229] 01 p0687 N67-10482
Problems and developments in primary processing of refractory metals 05 p0711 N67-14813
Low voltage motor-generator power supply for induction furnace used for melting reactive metals 12 p2157 N67-23956
Optimal control of process of obtaining monocrystal from melt - quality control 12 p2071 N67-24128
Electron beam melting equipment for purification of vanadium
[CEND-3742-293] 13 p2271 N67-25981
Torque test for evaluating quality of aluminum alloy melts
[R-1833] 14 p2542 N67-28712
Effect of natural convection on melting rate of ice
[CRREL-RR-211] 14 p2521 N67-26980
Radiation factors contributing to melting of ice determined for glaciers in Polar Urals 14 p2523 N67-27149
Weather conditions and synoptic situations investigated for effects on glacier melting in Polar Urals 14 p2524 N67-27151
Seasonal conditions and factors affecting melting process of glacier ice and snow in Polar Urals 14 p2524 N67-27152
Radiation and temperature equations applied to calculate snow and ice melting of glaciers in Polar Urals 14 p2524 N67-27154
Melting phenomena to simplify measurement of thermoconductivity
[RAE-TR-66238] 15 p2896 N67-28864
Melting range of natural gabbro determined at pressures up to 45 kilobars
[NASA-CR-86627] 18 p3261 N67-31830
Melting phenomena in axisymmetric stagnation region of thermally high conducting copper and iron
[NAL-TR-130T] 20 p3747 N67-34877
Mathematical model and rate coefficient measured for iron ore reduction in blast furnace
[BM-RI-7031] 22 p3968 N67-37417
Hydrodynamic stability of thin liquid layer on small body reentering atmosphere - free molecular flow
[SC-CR-67-3036] 22 p4022 N67-37734
Analytical expressions for compositional changes in composite materials caused by sudden change in freezing rate of off-eutectic melt
[TR-1001/2350-10/-11] 24 p4468 N67-39766
MELTING POINT
Melting points of hypostoichiometric uranium dioxide
[BNWL-234] 04 p0536 N67-13622
Metallurgical studies on melting point of carbides reactor fuel, and physical and mechanical properties of certain metals
[USBM-RC-1364] 11 p1868 N67-22260
Physical properties of high melting point carbides 11 p1868 N67-22269
Tabulated data on eutectic compositions and melting points of fused salt mixtures
[SC-R-65-950, VOL. 2] 14 p2476 N67-26980
Pressure effect on melting points of silver and copper and eutectic point in binary

phase diagram
[CEA-R-3007] 19 p3471 N67-33257
Computed thermodynamic property data for potassium from melting point to 2100 Kelvin
[NASA-TN-D-4165] 21 p3947 N67-35776
MEMBRANE
SA DIAPHRAGM
SA EARDRUM
SA ION EXCHANGE MEMBRANE
Semipermeable membrane technology for commercial and industrial applications
[NASA-SP-5061] 07 p1000 N67-17822
Computation of proper values of membrane by finite-difference method
[MRC-TSR-664] 09 p1467 N67-19697
Electric properties of semipermeable membranes and bipolar flow between symmetric electrolytes
[AD-645161] 11 p1928 N67-32687
Solid hydrogen purification membranes - permeation rate of hydrogen through tantalum coated with thin film of palladium at high temperatures
[ITR-2] 17 p3014 N67-30359
Membrane frequencies for spherical shell vibrations
[NLABS-TR-67-74-OSD] 17 p3172 N67-30730
Water insoluble enzyme derivative preparations, artificial membranes with enzyme activity, polyamino acids for cell membrane study, and interaction of polyamines with viruses
[AFOSR-67-1206] 20 p3570 N67-34016
Electrical conductance of semipermeable membranes
[AD-655127] 21 p3894 N67-35410
Permselective composite techniques applied to atmosphere thermal control of emergency and extravehicular manned space assemblies
[AMRL-TR-66-234] 21 p3770 N67-35433
Barrier properties of membrane separators for silver oxide-zinc and silver oxide-cadmium spacecraft batteries
[NASA-CR-86131] 21 p3763 N67-36033
Immobilized liquid membranes for continuous carbon dioxide removal from manned spacecraft
[S-67-1076] 22 p3979 N67-37546
MEMBRANE FORCE
Integral stress function for state of membrane stress in shells of revolution formed by second-order surface 09 p1529 N67-20060
Membrane stresses, bending state, and end effect for elliptical paraboloid ceiling resting on series of columns 09 p1534 N67-20111
Membrane stresses in elliptical shells of revolution with several cuts 09 p1534 N67-20112
Membrane stresses and equilibrium of orthotropic cylindrical shells with large deformations 09 p1537 N67-20154
MEMBRANE STRUCTURE
Membrane deflections in automatic manometer gas pressure measurements 07 p0994 N67-16863
Influence of variations in membrane curvature and effective surface on operation of pneumatic regulators constructed on force compensation principle 07 p0995 N67-16864
Stiffness in elastic membranes of rubberized cloth under load and pressure variations 07 p1197 N67-16881
Free vibrations of shallow spherical membrane shells
[NASA-CR-82525] 08 p1378 N67-19651
Photoperiod effects on efficiency and internal structure of chloroplast membranes 09 p1396 N67-19523
Integrated research and training in space molecular biology involving electron microscopy studies of meteorites, membrane structures, and cryogenics
[NASA-CR-82952] 09 p1402 N67-19947
Doorman speech membrane influence Dutch gas mask to improve speech intelligibility
[A65/KM/661] 13 p2364 N67-36157
Tensor equations of equilibrium for nonlinear membrane shell theory and small perturbations of pressurized membrane shells
[NASA-CR-86656] 18 p3350 N67-31737
Energy conversion and light in control of conformational changes in spinach chloroplasts and their grana membrane system 18 p3396 N67-31767
Creep of conical membrane shells under aerodynamic heating and loading
[REPT.-18] 24 p4541 N67-38322
Biharmonic boundary value problem applied to membrane having irregular shape
[OSU-AS-67-F-5] 24 p4543 N67-39728
Separation of membrane and bending shears in shells with two birefringent coatings
[ARPA-E45] 24 p4544 N67-39941
MEMBRANE THEORY
Qualitative analysis of membrane solution to circular thin plate problem 09 p1532 N67-20102
Splitting state of stress in paraboloid or cylindrical shallow shell into membrane and bending stresses 09 p1533 N67-20108
Elastic membrane effect on stability of time independent soil
[ARPA-E47] 23 p4355 N67-38343
MEMORY
SA KINESTHESIS
SA LEARNING
SA MAGNETIC MEMORY
SA PLASTIC MEMORY
SA TRAINING
Memory process reaction to limited mobility, partial isolation, and noise 02 p0221 N67-11641
Effect of actinomycin on stabilization of conditioned reflexes and on transition from short-term to long-term memory in white mice
[JPRS-39060] 04 p0494 N67-14156
Short term memory retention influence on learning performance during acquisition of paired associate list
[TR-106] 05 p0803 N67-16201
Semantic memory model
[AFCRL-66-189] 06 p0850 N67-16657
Stimulus variation and repetition in testing recall of noun-adjective combinations
[TR-43] 09 p1399 N67-19564
Paced rehearsal in sequential short-term memory
[TM-12-66] 09 p1404 N67-19787
Diffusion model of perceptual memory
[NASA-CR-83958] 09 p1402 N67-19902
Lithium fluoride thermoluminescent dosimeter with memory effect
[CLOR-56/D] 10 p1685 N67-21407
Neuroscience research on correlations between human brain lesions and memory changes, and on hysteresis and macromolecular memory
[NASA-CR-83422] 11 p1791 N67-22581
Literature survey on correlations between human brain lesions and memory changes, clinical case histories, and psychological tests of memory functions 11 p1791 N67-22582
Hysteresis and macromolecular memory, and memory device requirements as part of cybernetic self-organizing systems 11 p1792 N67-22583
Variables affecting information processing in short-term memory as reflected by strategies used in visual search task
[REPT.-3] 12 p2033 N67-34728
Necessary and sufficient conditions for finite memory machines
[EE-671] 13 p2291 N67-36342
Psychology of human memory related to information theory 14 p2469 N67-36693
Learning and memory of skilled performance
[NASA-CR-84473] 14 p2473 N67-37507
Soviet research on human brain memory mechanisms
[JPRS-40357] 14 p2466 N67-37723
Effect on memory of mode of studying paired associates, and mathematical model employing short term rehearsal buffer and long term memory
[NASA-CR-87507] 20 p3562 N67-34286
Mathematical model for both memory and learning
[NASA-CR-87409] 20 p3571 N67-34288
Two-process models for memory and learning
[NASA-CR-87446] 20 p3585 N67-34714
Algorithms for automata synthesis with least mean frequency of memory element use 21 p3823 N67-35820
Domain tip propagation logic push down list memory shift register ferromagnetic thin film design
[AFCRL-67-0265] 21 p3818 N67-36020
Memory problem in neurophysiological and biocybernetic aspects 21 p3767 N67-36131
Resettable memory circuit with pulse generator for sampling and measuring galactic X-ray
[NASA-TM-X-55905] 21 p3819 N67-36482
Spaceborne memory organization, associative data acquisition system design, and data compression techniques
[NASA-CR-88001] 22 p4006 N67-37343
Digital coherent memory filter for Saturn V S-IC stage bending mode identification
[NASA-CR-88219] 23 p4316 N67-38228
MEMORY STORAGE UNIT
Ferrite core memories for information processing systems
[FTD-TT-65-1307] 01 p0045 N67-11068
Random access memory core for space-borne pulse height analyzer 02 p0262 N67-12127
Average search time evaluation for word in dictionary using compressed codes as memory address 03 p0370 N67-12516
Theory and design techniques for magnetic core memories for special purpose digital computers and control systems
[NASA-CR-80353] 03 p0371 N67-12983
Theory and design techniques for magnetic core memories for special purpose digital computers and control systems
[NASA-CR-80366] 03 p0371 N67-12990
GEOS optical memory and control unit for controlling operation of optical beacon - digital delayed command system with high accuracy real time clock
[NASA-CR-80476] 03 p0371 N67-13105
Methods for development of storage memory in mathematical models with search strategy similar to human brain 04 p0487 N67-13446
Magnetic memory storage unit for linking digital computers with telegraph communications channels at computation center 04 p0517 N67-13732
Sterilization of spacecraft telecommunications system - pressure transducers, magnetic tape recorders, and magnetic core memories 05 p0674 N67-14709
Thermally stable ferrite materials tailored to laminated memory arrays operated at low current levels
[NASA-CR-81162] 06 p0846 N67-15391
Abstracts on computer components, design, applications, and associated systems
[ATD-66-120] 06 p0847 N67-15774
Cellular arrays for logic and storage
[AFCRL-66-613] 06 p0850 N67-16659
Magnetic core memory unit for GEOS A satellite - memory unit design and circuit description
[TG-839] 07 p1044 N67-17016
Nondestructive readout data memory unit
[NASA-CR-81650] 07 p1048 N67-17998
Addressing and memory storage unit in electronic computers
[JPRS-39450] 07 p1049 N67-18112
Search for information on sensual codes and methods of selecting multivalent answer from associative memory
[FTD-TT-65-1880] 09 p1420 N67-19470
Methods of selecting multivalent answer from associative memory 09 p1420 N67-19472
Associative memory systems and their application to picture and arithmetic processings
[TR-66-103] 09 p1421 N67-19684
Computer memory storage unit design with preliminary writing winding
[FTD-HT-66-98] 09 p1422 N67-20004
Design, development, and fabrication of feasibility model of magneto-optic memory with gadolinium iron garnet platelets
[NASA-CR-83539] 11 p1832 N67-22266
Solid state phenomena considered for use in nondestructive readout from thin magnetic film memories
[NADC-AE-6640] 12 p2061 N67-24847
Algorithm for numerical evaluation of small memory storage multiphase logic circuit reliability 13 p2287 N67-25716
Vacuum system, remote controlled substrate changer and associated apparatus used for production of magnetic film memory elements
[TN-1967-4] 14 p2496 N67-26500
Memory storage unit used in digital differential analyzer 14 p2499 N67-26848
Memory unit of digital integrator 14 p2499 N67-26852
Large capacity laser memory for spaceborne computers
[SDC-SP-2665] 14 p2502 N67-26977
Fluidic memory device with associated fluidic alpha numerical display
[NASA-CR-783] 14 p2518 N67-27269

Powder and slurry preparation, and sheet and conductive line fabrication for laminated ferrite memory array
[NASA-CR-84457] 14 p2507 N67-27543
Magnetic core shift register for increased memory capacity
[FTD-HT-67-12] 15 p2678 N67-28194
Pneumatic memory cell with pressure to shift conversion for discrete signal transmission
[FTD-HT-67-13] 15 p2673 N67-28195
Accelerated information exchange between digital computer memory units by combined modes of group information transmissions
[FTD-MT-67-93] 15 p2673 N67-28198
Buffer memory device based on ferrite cores with quadratic matrices for data storage
[FTD-HT-67-7] 15 p2673 N67-28360
Memory storage device based on multiple-orifice ferrite plates containing number plates and decoder plate
[FTD-HT-67-6] 15 p2673 N67-28364
Fast logic circuit achieved by connecting switches and memory components in n-dimensional network
[FTD-HT-67-4] 15 p2673 N67-28366
One way real time list storage languages for digital computers
[SDC-TM-738/029/00] 15 p2674 N67-28545
Design of memory device containing matrices of magnetic multiple orifice elements with interrogation windings and bias windings passing through openings of elements
[FTD-HT-67-5] 15 p2675 N67-28894
Fabrication of optical memory with ferrimagnetic storage elements 18 p2343 N67-31579
Soviet cybernetics - automatic pattern recognition and text reading, digital computers, magnetic memory storage unit, production control, redundancy, and heuristic programming
[P-3606/3] 18 p2336 N67-32605
Type-Z ferrite memory storage unit 18 p2339 N67-32610
Design and operation of linear selection magnetic memory storage unit 18 p2339 N67-32611
Potential and utilization of push-down type computer memories examined using digital simulation and hardware studies
[REPT.-67-19] 19 p2466 N67-32735
Thin film and dielectric film fabrication, crossed-film cryotron as logical and memory storage unit, and associative memory design and programming technique
[TRW-09903-6001-R000] 20 p2666 N67-34606
Video film converter for data processing, linear feedback shift registers, and woven plated wire memory storage units for science missions 20 p2668 N67-34774
Erasable memory research in wire plating, solenoid coils, circuit design, and electronic instrumentation
[NASA-CR-65713] 20 p2699 N67-35251
Cathode ray tube with flat electron beam and memory target for visual presentation of parallel binary codes
[FTD-HT-66-722] 21 p2815 N67-35559
Remote control console and memory protection system for on-line real time PDP-7 data taking system
[UCRL-17229] 21 p2805 N67-36059
Memory storage unit based on biax core
[FTD-HT-67-39/1+2+4] 22 p4006 N67-37315
Sequential machines realized with trigger or set-reset flip-flop memory elements
[NASA-CR-89531] 24 p4412 N67-39517
Three-dimensional elasticity theory for flat plate memory elements under space variable traction
[TR-9] 24 p4414 N67-39629
Magnetic core, destructive and nondestructive readout memories, plated wire film, ferrites, and other component characteristics of guidance computer main memories
[NASA-TN-D-4234] 24 p4421 N67-40319
Feasibility of Domain Tip Propagation Logic /DTPL/ push down list memory for thin-film ferromagnetic storage devices
[AFCRL-67-0266, REV.] 24 p4320 N67-40625
MENDELEVIUM
Production of fermium and mendelevium nuclides by thermonuclear device
[LA-DC-8108] 10 p1710 N67-30949
MENTAL PERFORMANCE
SA PSYCHOMOTOR PERFORMANCE
Human thought process and thermodynamic modeling
[JPRS-36540] 02 p0226 N67-12004
Philosophy of mental performance, observational behavior, and mathematical information theory
[NASA-CR-80117] 02 p0230 N67-12372
Validity of tests on laboratory animals to determine effects of psychotropic drugs on human mental processes 05 p0640 N67-14379
Geographic and astronomic distance responses of rated pilots and navigators for evaluating mental status
[AD-644155] 10 p1561 N67-30654
Logic network of human brain used to identify environmental contingencies by use of sensory perceptors 11 p1798 N67-23466
Data generating model used in complex probability estimation tasks by human subjects
[P-3579] 16 p2825 N67-29136
Additional follow-up criterion for validating predictor scores for measuring psychological characteristics of sample of Air Force scientists
[AFOSR-67-0896] 16 p2834 N67-29665
Error repetition and student response confidence estimates during spelling drills in computers-assisted instruction program
[NASA-CR-87483] 20 p3562 N67-34432
Transfer of mental abilities at different stages of practice in solving concept problems
[RB-67-20] 21 p3773 N67-36814
Vibration and noise effects on human performance in timed work situations
[NASA-TT-F-11142] 22 p3970 N67-37353
Effect of vibration and noise on mental faculty of man under time stress 23 p4192 N67-39022
MENTAL STRESS
SA ANXIETY
Psychological testing of mental stress in pilot performance
[NAL-TR-165] 01 p0013 N67-10160
Buffer conditions in experimental stress studied by means of plasma free fatty acid level
[TR-21] 09 p1490 N67-19771
Experimental analysis of large fallout shelter management, environmental threat, and small shelter habitability under conditions of stress
[AIR-D95A/1AND3/-9/66-FR] 11 p1796 N67-23815
Human reaction to mental stress
[AFOSR-67-0530] 12 p2021 N67-23969
Psychophysiological reaction patterns to single stress learning task studied in chimpanzee, man, and monkey
[ARL-TR-66-16] 13 p2254 N67-28230
Cost-reward analysis of human reactions to extreme stress based on data from Sealab project
[TR-1] 15 p2851 N67-28989
Psychological stress and justification effects on performance of dull task by students
[TR-3] 16 p2825 N67-29127
Drug effects on human performance under conditions of task induced stress
[ONR-H-67-1] 16 p2833 N67-29662
Human perception in anticipatory physical threat stress 19 p3383 N67-33313
MENTOR AIRCRAFT
S T-34 AIRCRAFT
MERCAPTAN
Effects of mercaptans and disulfides on photochemical and high energy radiation induced reactions
[NYO-2499-20] 12 p2040 N67-23740
MERCAPTO COMPOUND
Preparation, analysis, and properties of mercaptides of mercury, titanium, nickel, cobalt, copper, and zinc
[AD-642139] 10 p1549 N67-30361
Preparation and analysis of mercaptides of mercury, cobalt, nickel, copper, zinc, and titanium - thermal stability and tendency to act as coordination polymers 10 p1562 N67-30562
Crystal structure of mercury methyl mercaptide 10 p1549 N67-30563
X-ray structural analysis of mercury methyl mercaptide 10 p1549 N67-30564
X-ray structural study of mercury ethylmercaptide 10 p1549 N67-30565
Preparation, analysis, and chemical reactions in relation to titanium tetramercaptides and dialkylaminotitanium mercaptides
[TR-4] 10 p1570 N67-30934
Preparation and some properties of mercaptides of cobalt, nickel, copper, and zinc
[TR-5] 10 p1570 N67-30937
MERCURIC OXIDE
Testing and performance evaluation of primary zinc alkaline - mercuric oxide cells and batteries
[ECOM-72330-F] 16 p2820 N67-29053
MERCURY /MA-7/ FLIGHT
Orbital mission Mercury-Atlas 7, spacecraft 18 - prelaunch and launch, flight control, recovery, aeromedical analysis, astronaut activities, and spacecraft performance and description
[NASA-TN-D-3814] 07 p1197 N67-18145
MERCURY /MA-8/ FLIGHT
Astronaut radiation exposure on Mercury missions MA-8 and MA-9 measured with nuclear emulsion
[NASA-CR-83574] 08 p1229 N67-19149
MERCURY /MA-9/ FLIGHT
Astronaut radiation exposure on Mercury missions MA-8 and MA-9 measured with nuclear emulsion
[NASA-CR-83574] 08 p1229 N67-19149
MERCURY /METAL/
Photographic study of mercury droplet parameters including effects of gravity
[NASA-TN-D-3705] 01 p0071 N67-10227
Inlet pressure and pressure drop characteristics for nonwetting mercury flow in single, tapered diameter tube cooled by NaK, and comparison to Lockhart-Martinelli correlation predictions
[NASA-TN-D-3691] 01 p0166 N67-10745
Blistering behavior of liquid and solid gallium on mercury at room temperature, and mechanism of dissolution
[NYO-2983-4] 01 p0665 N67-10886
Sputtering yields, angular and energy distribution of atoms, and implanted ion distribution in cesium and mercury surface interactions
[NASA-CR-73012] 03 p0443 N67-13184
Design, fabrication, and life test of ion engine system using oxide cathode mercury electron bombardment thruster
[NASA-CR-86515] 03 p0456 N67-12289
High pressure sonic velocity experiments on liquid mercury as function of temperature for volume determination
[TR-8] 05 p0729 N67-14729
Structure of mercury by quantitatively studying variation of energy with tetragonal and rhombohedral distortion of face centered cubic crystal
[AD-642307] 06 p0895 N67-16411
Theoretical and measured oscillator strengths for atomic transitions in zinc iodine, cadmium iodine and mercury iodine 07 p1141 N67-16947
Angular distributions of gamma rays emitted in /gold 197-mercury 197/ and /gold 197-mercury 194/ reactions
[UCRL-16987] 07 p1188 N67-17300
Development of fast mercury-jet switch for electrolytic capacitor bank
[UCRL-70014] 10 p1691 N67-30899
Mercury corrosion and evaluation of corrosion products found in separators of three chromium molybdenum alloy boiling thermal convection loops
[NASA-CR-72260] 11 p1822 N67-22960
Heat transfer coefficient for turbulent mercury flow in narrow annular channels 12 p2232 N67-23512
Thermodynamic properties of liquid metal solutions in sodium-mercury system at high temperature
[NASA-TN-D-3951] 12 p2043 N67-24476
Mercury-Rankine program boiler development
[NAA-SR-12233] 12 p2159 N67-24583
Conceptual and mechanical design analyses, and fabrication of noncondensing radiator for environmental testing of space power mercury Rankine system
[NASA-TM-X-1372] 12 p2043 N67-24625
Mercury ion propulsion system with electrodeless, self-sustaining gas discharge 13 p2296 N67-26133
Critical temperature for usual and anomalous lead, mercury superconductors - Fermion interaction
[RRE-TRANS-168] 13 p2295 N67-26350
Local heat transfer and static pressure data for mercury condensing single tube heat exchangers cooled by sodium potassium
[NASA-TN-D-3908] 14 p2513 N67-26662
Atomic absorption spectrophotometric

method for determining submicrogram quanties of mercury in water and lithium hydroxide solutions
[Y-1372] 16 p2850 N67-39771
Thermodynamic properties of solution of mercury metal
[IS-T-119] 17 p3177 N67-30846
Cathode durability tests in mercury electron bombardment ion thrustor
[NASA-TN-D-4055] 17 p3153 N67-31234
Contact angle hysteresis, wetting of solidified rare gases, and surface properties of mercury
[NASA-CR-72369] 18 p3224 N67-32280
Pressure drop and heat transfer in laminar and turbulent tube flow of mercury
[BMWF-FBK-67-05] 20 p3744 N67-34136
High temperature liquid mercury cathodes for ion thrusters - thermal design analysis
[NASA-CR-67560] 20 p3718 N67-34988
Conditioning and steady state performance of SNAP-8 tube-in-shell mercury boiler
[NASA-TM-X-1441] 21 p3761 N67-35615
High sensitivity neutron and proton flux detector using spallation of mercury to terbium 149
[UCRL-17505] 21 p3848 N67-35654
Embrittlement of copper aluminum alloys by liquid mercury
[TR-9] 23 p4264 N67-38611
MERCURY /PLANET/
Trajectory and guidance analyses of Earth-Venus-Mercury mission in 1973
[NASA-CR-61636] 07 p1193 N67-17827
Atmosphere of Mercury
[NASA-TM-X-57322] 06 p1360 N67-18273
Numerical solutions for librational motion of Mercury obtained by applying Runge-Kutta integration
[NASA-TM-X-57295] 06 p1363 N67-18711
Bibliography and author on Mercury surface, atmosphere, rotation, temperature, and terrain
[NASA-CR-84113] 13 p2486 N67-28454
Certain explanations of rotation of planet Mercury 14 p2611 N67-28535
Magnetosphere of planet Mercury as scattering center for solar flare protons
[R67SD4] 14 p2612 N67-27049
Fortran IV language extensions, syntactic processors, and perihelion motion of planet Mercury 16 p2918 N67-29143
Venus/Mercury swingby with Venus capsule - preliminary science objectives and experiments for use in advanced mission studies
[NASA-CR-88488] 22 p4148 N67-37258
MERCURY ALLOY
Particle-particle interaction theory to explain mechanical properties of dental amalgam 02 p0277 N67-12122
Magnetic susceptibility of mercury-indium liquid alloy system measured by Curie method
[F-B1900] 10 p1651 N67-20638
Steel alloy pump tested in mercury corrosion loop to establish feasibility of design
[NASA-CR-72201] 11 p1890 N67-22842
MERCURY ARC
Analysis of ion beams from mercury pool arc source designed for electrostatic accelerator
[RHEL/R-115] 01 p0127 N67-10735
New far infrared lamp compared with mercury lamps and arcs as light sources
[AFCRL-67-0950] 21 p3813 N67-35463
VHF surface wave electron density measurements in positive column of sustained mercury vapor arc 22 p4114 N67-36956
MERCURY CAPSULE
Afterbody heating by Mercury spacecraft during reentry determined from skin temperatures
[NASA-CR-649] 16 p2973 N67-29369
Full-scale flight test from sea level of abort-escape system for manned Mercury capsule
[NASA-TM-X-422] 18 p3338 N67-31527
Compilation of wind-tunnel heat-transfer measurements on afterbody of Mercury capsule reentry configuration
[NASA-TM-X-495] 18 p3338 N67-31529
Static longitudinal stability characteristics of Mercury escape configurations and alternate escape configuration for Mach numbers 0.05 to 9.60
[NASA-TM-X-494] 18 p3339 N67-31531
Surface flow, heat transfer, pressure distribution, and static longitudinal stability of Mercury capsule model at Mach 6.9 and 9.6
[NASA-TM-X-456] 18 p3340 N67-31728
Convective heat transfer and surface pressure measurements for reentry configuration of Mercury capsule model
[NASA-TM-X-647] 18 p3340 N67-31809
Afterbody pressure and heat transfer distribution, shock wave shapes, and photographs of local flow conditions for Mercury type capsule at Mach number 15 in helium
[NASA-TM-X-783] 18 p3341 N67-31920
Trim effectiveness of aerodynamic control flaps on Mercury-type capsule
[NASA-TM-X-579] 18 p3343 N67-32136
Static aerodynamic characteristics of scale model of escape and exit configurations of Mercury spacecraft
[NASA-TM-X-701] 18 p3343 N67-32146
MERCURY COMPOUND
X-ray analysis method during synthesis of lead, zinc, mercury selenites, and mercury selenide
[FTD-TT-65-1535] 01 p0035 N67-11072
Toxicity and pathological effects of mercury and organic mercury compounds on cardiac function 03 p0338 N67-12394
Crystal structure of mercury methyl mercaptide 10 p1569 N67-20503
X-ray structural analysis of mercury methyl mercaptide 10 p1569 N67-20504
X-ray structural study of mercury ethylmercaptide 10 p1569 N67-20505
Synthesis of organometallic compounds by exchange of mercury group
[FTD-HT-66-478] 12 p2046 N67-24738
Intrinsic photoconductivity and infrared quenching regularity in mercury sulfide crystals with copper and silver impurities within framework of semiconductor model
[NASA-TT-F-10920] 15 p2761 N67-28233
Crystal structure studies of aluminum carbonitride and teroxycarbide, germanium selenide, and mercuric iodide
[AROD-3975-7-P] 24 p4518 N67-40340
MERCURY LIGHT
Mercury beam used in ionic propulsion studies 04 p0605 N67-13890
MERCURY PROJECT
Technological and managerial history of Mercury project, including bibliography
[NASA-SP-4201] 05 p0766 N67-14934
Minimal energy ballistic trajectories for manned and unmanned space flights to Mercury
[NASA-TN-D-3960] 11 p1978 N67-23291
Mercury Rankine Program integrated system test - data correlation
[NAA-SR-11945, VOL. II] 11 p1927 N67-23448
Flight test of Little Joe boosted full-scale spacecraft model and escape system for Mercury project
[NASA-TM-X-629] 18 p3341 N67-31979
Static aerodynamic characteristics of modified Mercury exit and escape capsule configurations at Mach numbers 3.0 to 6.8
[NASA-TM-X-334] 18 p3342 N67-32016
Mercury-Redstone project development history, and contributions to future manned spacecraft design and operation
[NASA-TM-X-53107] 22 p4151 N67-37935
Technical history of Project Mercury environmental control system
[NASA-TN-D-4126] 23 p4353 N67-39066
Personnel management in research and development organization - phasedown analysis of Gemini Program Office at Manned Spacecraft Center
[NASA-TM-X-60470] 23 p4348 N67-39239
MERCURY TELLURIDE
Photovoltaic effects in cadmium telluride-mercury telluride heterostructures
[NASA-CR-51144] 05 p0753 N67-15278
Vacuum evaporation studies of mercury and cadmium tellurides
[NOTS-TP-4186] 06 p0950 N67-16416
Galvanomagnetic properties of mercury telluride monocrystals - Fibrous magnesium oxide crystals obtained by condensation in vapor phase
[FTD-HT-66-218] 08 p1350 N67-18497
Hall coefficients and trasverse magnetoresistance of n-type and p-type single crystals of mercury telluride grown by zone crystallization 08 p1351 N67-18498
Hall coefficient and transverse magnetoresistance in HgTe single crystals
[ESD-TR-67-484] 24 p4513 N67-39406
MERCURY VAPOR
Nonlinear interaction between plasma waves on low pressure mercury vapor discharge surrounded by cylindrical waveguide
[SR-7] 01 p0122 N67-10287
Plasmas of mercury in pressure driven shock tube
[AFOSR-66-1939] 05 p0749 N67-15275
Mercury droplet size and distribution in glass condenser tube in one and zero gravity environments
[NASA-TM-X-1338] 07 p1065 N67-17510
Accelerated wet mercury vapor erosion testing of candidate SNAP-8 turbine rotor and nozzle materials in close pump loop
[NASA-CR-72199] 11 p1922 N67-22855
Mercury condenser inventory control system for regulating condensing pressure in SNAP-8 system
[NASA-CR-72216] 11 p1922 N67-22858
Dynamic pressure relative to inlet vapor flow rate disturbance for mercury vapor condenser
[NASA-TM-X-1373] 12 p2019 N67-24620
Flow meter and prototype mercury propellant feed system
[NASA-CR-54713] 13 p2220 N67-25857
High speed motion picture study of condensing mercury vapor in glass tubes in ground and zero gravity test facilities
[NASA-TN-D-4023] 15 p2906 N67-28739
Expansion of mercury vapor
[NAA-SR-12049] 16 p2880 N67-29078
Power conditioner for control of mercury ion electric thrustor engine
[NASA-CR-72112] 17 p2909 N67-31341
MERIDIONAL FLOW
Solar differential rotation and large-scale meridional currents investigated with axially symmetric time-independent hydrodynamic equations of motion
[TR-1001/2260-01/-2] 19 p3537 N67-33685
MESA PROJECT
Identification of organic trace contaminant generated by contaminant control system of closed ecological system 14 p2470 N67-28719
MESON
SA BARYON
SA ETA-MESON
SA KAON
SA MUON
SA PHION MESON
SA PION
SA VECTOR MESON
Quark model derivation of meson-baryon coupling constant relations
[IC/66/80] 01 p0121 N67-10614
Cross sections for proton annihilation reactions in flight to meson and electron pairs
[CALT-68-70] 01 p0125 N67-10687
Data analysis program for high energy physics particle interaction events - recoil proton polarization in pion-proton elastic scattering
[COO-1428-16] 01 p0126 N67-10719
Meson-nucleus reactions study for estimating cross sections of various processes involving elementary particles - tests of unitarity symmetry in nuclei
[BNL-10420] 01 p0128 N67-10818
Total cross section of double charge exchange of 50 to 176 MeV pion mesons in photo emulsions
[JINR-P-2906] 01 p0129 N67-10819
Pion meson capture by helium 3, nuclear decay reactions, and pulse spectra of secondary charged particles
[JINR-P-2895] 01 p0129 N67-10845
Measurement of interactions after exposure of liquid hydrogen bubble chamber to separated beam of pion mesons
[UR-875-151] 01 p0130 N67-10907
Cascade time of negative pions in gaseous helium-3 measured by using diffusion chamber in magnetic field
[JINR-P-2838] 03 p0444 N67-12281
Observation of radiative decays of resonances with lambda hyperons in propane bubble chamber exposed to high energy negative pions
[JINR-E-2858] 03 p0444 N67-12284
Experimental photoproduction of neutral pseudoscalar mesons
[CALT-68-92] 03 p0446 N67-12314
Stopping power and range tables for protons, mesons, and electrons in lithium fluoride, silicon, germanium, liquid hydrogen, propane, and freon
[NASA-SP-3036] 04 p0582 N67-14099
One-dimensional dispersion relations in meson and nucleon scattering

amplitudes 07 p1144 N67-17204
Effective mass distributions and cross sections of multi-pion final states from pion proton interactions at 3.2 and 4.2 BeV/c
[UCRL-16881] 07 p1147 N67-17409
Operating characteristics of 800 MeV proton linear accelerator - Meson factory projects
[LA-DC-8144] 07 p1659 N67-17571
Determination of energy dependence of form factor in positive K meson decay - Behr-Mittner method for calculation of momenta and errors of tracks from particle decay
[CONF-660606-12] 08 p1334 N67-18618
Radiative decay of neutral bosons studied in xenon bubble chamber exposed in pion meson beam
[JINR-P1-2948] 10 p1701 N67-20782
Magnitude of kaon mass difference measured by time dependence of strangeness produced by neutral kaons originating from positive kaon reaction with deuteron
[BNL-10606] 10 p1704 N67-20829
Energy spectra and angular correlations of electron and pi-meson particles in K/sub e 3/sup 0/decay
[JINR-P-2856] 10 p1707 N67-20903
Linear accelerator for generating proton beam for meson production
[LA-DC-7642] 10 p1710 N67-20962
Low energy behavior of 7 equals zero, S-wave, pion-pion scattering phase shift and possible scalar meson nonet 11 p1939 N67-22951
Two-nucleon emission process in negative pion meson absorption
[RIFP-59] 11 p1939 N67-22952
Mu-meson scattering in thin copper and iron plates 12 p2157 N67-23510
Polarization characteristics of cosmic positive mu-mesons at sea level, based on decay positrons 12 p2157 N67-23511
Streamer chamber triggered by proportional counters designed to register stopping mesons
[JINR-P13-2998] 12 p2164 N67-23788
Mesons as Regge dipole 12 p2166 N67-24266
Electromagnetic meson-baryon polarizability in Quark model
[JINR-P2-3073] 12 p2172 N67-24694
Parity SU/3/ mixing in meson resonance decays
[UR-875-157] 12 p2375 N67-25644
Eta meson cusp effect in pion photoproduction at eta threshold
[LNF-66/67] 13 p2375 N67-25654
Decay probabilities of tungsten nucleus matrix into two negative parity mesons
[JINR-E2-3102] 13 p2376 N67-25913
Internuclear cascades in solid body - Radionuclid production cross sections in copper - Meson spallation of copper - Angular distribution of nuclear reaction fragments
[COO-1167-1] 13 p2371 N67-25964
Currents and symmetry breaking in field theoretical model of fermion triplet field coupled to pseudoscalar, scalar, vector, and axial vector meson nonets 13 p2380 N67-26144
Double charge-exchange cross sections of 50 to 170 MeV pion mesons measured on photoemulsion nuclei
[NASA-CR-84123] 13 p2382 N67-26445
PP annihilation at rest into two mesons in covariant U/8/ theory
[CIC-66-107] 13 p2383 N67-26470
Application of no-recoil approximations to functional preliminaries, soft photons in quantum electrodynamics, and soft mesons
[NYO-2262TA-147] 14 p2590 N67-27448
Cross section for photoproduction of charged pions in Regge pole model related to vector meson production in pion-nucleon collisions
[TH/191] 14 p2592 N67-27559
Mass operators and particle mixing equations used to obtain mass matrices for meson mass regularity and 405 multiplet of SU/6/
[TUEP-67-5] 14 p2594 N67-27777
Physics and applications of meson factories
[LA-DC-8598] 15 p2768 N67-28533
Four body final state of protons and mesons from proton proton interactions at 8 GeV/c
[COO-1195-78] 15 p2770 N67-28597
Mass distributions of proton meson and neutron pion combinations for 114 cases of neutron proton reactions
[JINR-P1-3146] 15 p2770 N67-28598
Advanced proton linear accelerators - meson factories and injectors for synchrotrons
[LA-DC-8383] 16 p2873 N67-29697
Nonrelativistic quark model and radiative transitions of mesonic and baryonic states
[TH/201] 17 p3131 N67-30606
Streamer chamber with multiple wire proportional counter for registering stopped mesons 17 p3133 N67-30970
Divergences of vector and axial-vector currents in strong interactions and application to meson photoproduction
[JINR-E02-3196] 19 p3501 N67-32931
Proton proton and meson proton interactions with polarized proton targets
[UCRL-17423] 19 p3504 N67-33098
Exchange of tensor mesons in neutron-neutron scattering
[JINR-P02-3188] 19 p3505 N67-33436
Instrumentation and facilities planning for meson physics program
[LA-3712-MS] 22 p4107 N67-37585
Negative pion capture by carbon, photoemulsion, and tetraneutron nuclei
[JINR-P1-3306] 22 p4108 N67-37730
Bubble chamber and emulsion methods to study pion decay of K-plus mesons and high energy interactions, electromagnetic processes induced by electrons, and hypernuclei of K-neg mesons
[UCR-P107-45] 22 p4111 N67-37971
Electromagnetic current vertex and axial current divergence examined to determine limitations of pion pole dominance
[AFOSR-67-1652] 23 p4297 N67-38158
Weinberg sum rules generalized by including scalar meson states to obtain predictions for decay widths
[AFOSR-67-1630] 23 p4297 N67-38173
Seasonal and annual variations in cosmic ray bursts and meson component 23 p4338 N67-38230
Coupling coefficients for mesons passing through atmosphere taking into account nuclear interactions 23 p4298 N67-38225
Photon meson productions and electromagnetic couplings of baryonic resonances
[TH/210] 23 p4298 N67-38256
Mass operator used to obtain mass formulas for baryons and mesons
[JINR-P2-3407] 23 p4309 N67-38796
Nuclear structure determined by electromagnetic and weak interactions, force models, atomic phenomena, and meson interactions
[ORO-2915-79] 23 p4309 N67-38836
Energy dependence of form factor in positive kaon decay to positron, pion, and neutrino
[PPAD-631F] 23 p4313 N67-39153
Least squares method for determining tensor meson exchange in nucleon-nucleon scattering phase shifts
[JINR-E1-3420] 23 p4314 N67-39219
Coincidence of Regge trajectories and Su/3/ symmetry for nucleon-meson interaction
[FTI-LA-1] 24 p4504 N67-40478

MESON-BARYON RESONANCE

Similarity of A sub 1 and K resonant state phenomena - assignment of kinetic enhancements or mesons to resonant states of elementary particle phenomena
[UCRL-16744] 01 p0126 N67-10720
Phenomenological symmetries of baryon-antibaryon-meson vertices
[BNL-10327] 01 p0127 N67-10766
Newly established baryon resonances
[UCRL-16968] 10 p1710 N67-20848
Resonance poles in simple model of S-wave pseudoscalar meson baryon scattering
[AD-646614] 12 p2174 N67-24905
Resonance production and characteristic behavior of mesons and baryons from polarized proton interactions
[ITF-66-3] 21 p3905 N67-34396
Superconvergent sum rules derived for meson baryon scattering, and relationship to U/6,6/
[ICTP/67/17] 22 p4106 N67-37489
Strong decays of baryonic resonances in baryons, pseudoscalar mesons, and SU/3/ symmetry
[TH/214] 23 p4312 N67-39052

MESON-NUCLEON INTERACTION

High mass electron-positron pairs and very low mass pairs observed during experiment of pion-nucleon interactions
[AERE-R-5287] 03 p0442 N67-13154
Analysis of strange particle resonant states from negative pion-proton interactions
[UCRL-16788] 04 p0586 N67-14013
Inelastic negative pion-proton interaction at high energy - four-prong events with protons
[JINR-P-2773] 04 p0588 N67-14015
Resonance production and decay and elastic scattering in negative pion-proton two prong interactions
[UCRL-16877] 10 p1725 N67-21695
Elementary particle physics research on negative kaon-nucleon interactions
[NYO-2178-3] 10 p1736 N67-21661
Energy dependence of differential cross section of elastic backward positive pion-proton scattering
[JINR-P1-3006] 10 p1739 N67-21673
Inelastic negative pion-proton interactions - four prong events with neutrons
[JINR-P1-2963] 10 p1739 N67-21679
Characteristics of positive pion-proton momentum reaction
[JINR-P1-2997] 10 p1739 N67-21680
Omega production and gyromagnetic ratio of quarks
[TH/186] 13 p2373 N67-25571
Production of negative omega hyperons in negative kaon proton interactions at high energy
[COO-1195-79] 15 p2764 N67-28459
Model of weak interactions and applications to pi-and K-meson decays
[NUP-67-4] 16 p2951 N67-30012
Meson-nucleon and nucleon-nucleon collision cross sections at high energies in model unifying Regge poles and broken SU/3/ symmetry
[JINR-P2-3251] 20 p3700 N67-34941
Perturbation theory analysis of sum rules derived from isotopic spin current algebra
[DESY-67/11] 21 p3904 N67-36196
Methodical problems of positive kaon proton yields kaon neutron pion reactions in liquid hydrogen bubble chamber
[JINR-P1-2313] 22 p4109 N67-37908
Eta-meson production and decay in pion-deuterium interactions
[CEA-R-3105] 23 p4302 N67-38457
Production of isobar N 33 resonance from negative pion proton reaction
[CEA-R-3035] 23 p4313 N67-38994

MESOSPHERE

Ice particles in noctilucent clouds, and low air humidity in mesosphere
[NASA-TT-F-10302] 01 p0065 N67-10212
Small scale features of wind field in upper stratosphere and lower mesosphere
[AFCRL-66-371] 01 p0066 N67-10274
Sounding rocket measurements of temperature in stratosphere and mesosphere
[ECOM-5056] 02 p0233 N67-11294
Temperature and wind profiles in stratosphere and mesosphere from acoustic grenade soundings
[NASA-TM-X-55431] 03 p0391 N67-13165
Temporal solutions of photochemical equations describing distribution of ozone and atomic oxygen in oxygen atmosphere and application to auroral events
[NASA-TM-X-55451] 06 p0676 N67-16552
Use of Fresnel reflection coefficient for studying reflections from mesosphere
[NASA-CR-70283] 07 p1073 N67-17768
Stratospheric and mesospheric wind and temperature measurements at Sardinia, autumn 1963 and spring 1964 - tables
[DLR-FB-66-80] 09 p1474 N67-20313
Kinematic interpretation and statistical analysis of cloud cover in mesosphere 11 p1914 N67-22596
Temperature, pressure, density, and wind measurements in upper stratosphere and mesosphere - tables
[NASA-TM-X-55760] 14 p2230 N67-26594
Mesospheric wind data obtained with high altitude Loki system during summer over Fort Greely, Alaska
[ECOM-5105] 16 p2822 N67-29985
Diurnal variations of atmospheric density near mesopause
[NASA-CR-85966] 17 p3058 N67-31121
Coupling between mesospheric electron density and collision frequency, and stratospheric temperature or constant pressure heights
[SR-297] 17 p3058 N67-31131
Ozone measurement in stratosphere and lower mesosphere by rocket sonde

[NASA-TM-X-55732] 19 p3447 N67-33732
Radiant heat fluxes for 15-micron carbon dioxide band in mesosphere determined by single line approximation method
[P-3596] 20 p3627 N67-34116
Approximation of single line for radiant energy transfer in mesosphere and upper stratosphere
[P-3595] 20 p3630 N67-34331
Kirchhoff law used for calculation of thermal radiation in mesosphere in 15 micron band of carbon dioxide
[P-3597] 20 p3636 N67-34969
Rocket sounding data from upper stratosphere and mesosphere
[NASA-TR-R-263] 21 p3838 N67-35777
Heat transfer characteristics of spherical bead thermistors in stratospheric and mesospheric environments
[ECOM-5125] 22 p4036 N67-37007
Seasonal, diurnal, and 27-day variations of mesospheric temperature determined by underground cosmic ray measurements 23 p4242 N67-38226
Dynamic model used in study of mesoscale wave phenomena in lee of Rocky Mountains 23 p4280 N67-38839
Mesospheric ozone measurements during solar eclipse by chemiluminescence
[ECOM-5131] 24 p4436 N67-39519
Literature review on energetics of middle atmosphere
[P-3679] 24 p4445 N67-40070

METABOLIC WASTE
SA WASTE DISPOSAL
Endogenic formation of carbon monoxide and importance in closed ecological systems - literature survey 10 p1566 N67-20396
Transformation of products of human metabolism and biological complex during recirculation of substances in life support system
[NASA-TT-F-10405] 14 p2451 N67-26576
Seasonal variations of endocrine-metabolic indices for men in subtropics
[AD-647820] 19 p3373 N67-33033
Changes in human water-salt metabolism during sixty two day hypokinesia
[NASA-TT-F-11141] 22 p3973 N67-37885

METABOLISM
SA ADRENAL METABOLISM
SA CALCIUM METABOLISM
SA CARBOHYDRATE METABOLISM
SA ELECTROLYTE METABOLISM
SA ENERGY REQUIREMENT
SA ENZYME ACTIVITY
SA HORMONE METABOLISM
SA LIPID METABOLISM
SA OXYGEN CONSUMPTION
SA OXYGEN METABOLISM
SA PHOSPHORUS METABOLISM
SA PHOSPHORYLATION
SA PHOTOSYNTHESIS
SA PROTEIN METABOLISM
Fructose metabolism of Hydrogenomonas
[NASA-TT-F-10300] 01 p0013 N67-10217
Relation of gaseous metabolism of higher plants to concentration of carbon dioxide in air-hydroponics 02 p0302 N67-11602
Metabolic problems of high altitude operations 03 p0340 N67-12451
Synthesis of steroid labeled radioisotopes, automation of steroid analysis, steroid biogenesis and metabolism, and radiation effects on steroid metabolism
[NYO-918-15] 03 p0349 N67-13339
Thermal balance between heat removal and metabolic rate in pressurized Gemini G3-C full pressure suit at two barometric pressures
[NASA-CR-81183] 06 p0606 N67-15630
Characteristics of metabolism and conditioned reflex activity of mice during prolonged stay in helium-oxygen atmosphere
[NASA-TT-F-10617] 07 p1011 N67-17516
Radiation dose, and effect of radioactive isotopes on metabolism 11 p1791 N67-22434
Nucleotide metabolism in repair of radiation injury
[NASA-CR-83540] 11 p1795 N67-22267
Protein extraction from unicellular algae and effect of 50, 100, and 150 gram diets of dry algae biomass on human metabolism
[JPRS-39943] 12 p2019 N67-23535
Longevity and metabolic rate in Drosophila melanogaster at different population densities
[NASA-TT-F-466] 12 p2021 N67-23720
Metabolic rate and lifespan of Drosophila
[NASA-TT-F-468] 12 p2021 N67-23789
Metabolic changes in humans following total-body irradiation
[DASA-1844] 12 p2028 N67-24764
Monamines and sleep in polygraphic, neuropharmacological, and histochemical study of sleep in cat
[AFOSR-67-0511] 12 p2029 N67-24988
Energy metabolism of rats born and raised in low pressure pure oxygen environment
[SAM-TR-66-113] 13 p2253 N67-25183
Metabolic costs of astronaut locomotive activities and performance capabilities based on lunar gravitational effect studies
[NASA-TN-D-3934] 14 p2466 N67-26542
Amino acids of l and d configuration used by B brevis cultures
[NASA-TT-F-10687] 14 p2451 N67-26580
Sensible and latent heat exchange rates for clothed and nude individuals occupying survival shelters at three metabolic rates
[AD-648467] 14 p2464 N67-27541
Dietary modifications of cold-induced metabolic effects in rats
[AAL-TR-66-12] 15 p2650 N67-28323
Toxicity and metabolism of transuranium elements
[ORNL-TR-1463] 16 p2844 N67-29279
Microspectrophotometer, M-5, for study of biosynthesis and various metabolic processes in living cells
[NASA-CR-85601] 17 p3006 N67-31178
Relationship between function and metabolic activity of heart during steady state of prolonged cooling
[AD-652221] 19 p3376 N67-33496
Low molecular weight dextran effects on cardiovascular and metabolic parameters in dogs
[AAL-TR-67-8] 21 p3768 N67-36407
Role of nucleotide metabolism in repair of radiation injury
[NASA-CR-86379] 22 p3968 N67-35769
Determining maximum allowable toxicity concentrations of natural human metabolism
[NASA-TT-F-11358] 22 p3974 N67-38010
Method for evaluation of body response to applied stimuli 23 p4191 N67-39012
Human water-salt metabolism with prior exposure to accelerations in 62-day bed-rest experiment 23 p4192 N67-39021
Nitrogen metabolism in rats exposed to hypokinesia 23 p4194 N67-39107
Mass metabolism in closed life support systems 23 p4194 N67-39106

METAL
SA ACTINIDE
SA ALKALI METAL
SA ALKALINE EARTH METAL
SA ALLOY
SA ANTIMONY
SA BARIUM
SA BERYLLIUM
SA BISMUTH
SA BORON
SA CADMIUM
SA CALCIUM
SA CERIUM
SA CESIUM
SA CHROMIUM
SA COBALT
SA COPPER
SA CURIUM
SA DYSPROSIUM
SA EUROPIUM
SA FUSED METAL
SA GADOLINIUM
SA GALLIUM
SA GERMANIUM
SA GOLD
SA HAFNIUM
SA HOLMIUM
SA INDIUM
SA IRIDIUM
SA IRON
SA LANTHANIDE
SA LANTHANUM
SA LEAD
SA LIGHT METAL
SA LIQUID METAL
SA LITHIUM
SA MAGNESIUM
SA MAGNETIC METAL
SA MANGANESE
SA MERCURY /METAL/
SA MOLYBDENUM
SA NEODYMIUM
SA NEPTUNIUM
SA NICKEL
SA NIOBIUM
SA NOBLE METAL
SA NONFERROUS METAL
SA NONMETAL
SA NOTCHED METAL
SA OSMIUM
SA PALLADIUM
SA PLATINUM
SA PLUTONIUM
SA POLISHED METAL
SA POLONIUM
SA POTASSIUM
SA POWDERED METAL
SA PROMETHIUM
SA RADIUM
SA RARE EARTH
SA REFRACTORY METAL
SA RHENIUM
SA RHODIUM
SA RUBIDIUM
SA RUTHENIUM
SA SAMARIUM
SA SCANDIUM
SA SHEET METAL
SA SILVER
SA SODIUM
SA STRONTIUM
SA TANTALUM
SA THORIUM
SA TITANIUM
SA TRANSITION ELEMENT
SA TUNGSTEN
SA URANIUM
SA VANADIUM
SA YTTERBIUM
SA YTTRIUM
SA ZINC
SA ZIRCONIUM
Failure modes of metallic components in unmanned spacecraft and rocket boosters during simulated service testing
[NASA-TM-X-55907] 03 p0468 N67-13223
New metal and metal-ceramic composite materials
[NASA-SP-5060] 04 p0554 N67-13531
Variation method and maximum principle for calculating optimal conditions of heating metal 05 p0710 N67-14364
Automatic forging machine for high speed stamping out of metal shapes
[FTD-TT-65-1372] 05 p0712 N67-14976
Angular distribution measurements for elastic scattering of 400 KeV neutrons on Cd, In, Mo, Nb, Se, Sn, Zn, and Zr 06 p0925 N67-15597
Dynamic yield point of metals at high impact velocities and comparison of stress measurement methods 06 p0892 N67-15939
Spectrographic, electron diffraction, and specific gravity analyses to determine origin of metallic matte
[NAEC-AML-2488] 06 p0828 N67-16357
Basic properties of helicon waves in metals
[NYO-2150-19] 07 p1179 N67-17089
Crystalline imperfections in metals
[SU-DMS-66-16] 08 p1292 N67-19063
Evaluation of method for calculating thermal conductivities of metals
[NASA-CR-82479] 08 p1384 N67-19090
Experimental measurements of lattice vibration modes in transition metals 10 p1749 N67-21024
Electronic effects on lattice vibrations in metal 10 p1749 N67-21027
Stability coefficients of complexes, and indirect measurement of free metal concentration applied to beryllium acetate complexes
[CNEA-191] 10 p1575 N67-21145
Microscopic distribution of oxygen and carbon in metals by helium-3 activation
[LA-3515] 11 p1895 N67-22301
Wear rates of metals, ceramics, carbides, and oxides in 80 deg and 160 deg F high purity water
[AECL-2602] 11 p1896 N67-22476
Thermal emission characteristics of transition metals, alloys, and compounds with nonmetals
[FTD-HT-66-178] 11 p1967 N67-22725
Comparative ductility of brittle metals by elongation technique
[BDX-613-92] 12 p2114 N67-23588
Electron transmission measurements for aluminum and gold, and backscattering measurements on targets of iron, tin, aluminum, and gold
[NASA-CR-750] 12 p2162 N67-23717
Diffusion of nuclear reaction recoil products in metals and oxides
[JINR-P13-3019] 12 p2163 N67-23764
Shock wave data for electronic configuration calculations on metals
[UCRL-50152] 13 p2391 N67-25512

Kinetic theory of surface ionization on glowing metals
[NASA-TT-F-478] 13 p2434 N67-25850
Electron theory of metals based on Fermi statistics and Bose-Einstein statistics - general data, flow processes, and work functions
[NASA-TT-F-10671] 14 p2601 N67-26570
Application of many-electron theory of solids to theory of metals
[NASA-TT-F-10670] 14 p2601 N67-26622
Radiation effect on heat resistant metals and alloys 14 p2552 N67-26988
Infrared spectral and total reflectances for metals at cryogenic temperatures - literature data compilation and bibliography
[NBS-TN-348] 14 p2634 N67-27774
Parent metal for use in researching brittle fracture of large weldments
[EURAEC-1490] 15 p2721 N67-27920
Hydrodynamic elastoplastic theory for shock wave effects on metal strength
[AD-634630] 15 p2796 N67-27980
Rates and mechanisms of solvent exchange reactions studied with paramagnetic transition metal ions in solution
[AFOSR-67-0663] 15 p2658 N67-28256
Review of early stage plastic deformation in metals
[AD-649168] 15 p2726 N67-28569
Analytical characterization of metallic and ceramic materials
[ARL-67-0002] 16 p2905 N67-28995
Elastic constants for metals of hexagonal close packed structure
[INR-762/II/PS] 16 p2945 N67-29684
Long term mechanical properties of metals subjected to mechanical stress at high temperature and neutron irradiation
[EURAEC-1803] 16 p2909 N67-29736
Long term mechanical properties of metals subjected to mechanical stress at elevated temperatures and neutron irradiation
[EURAEC-1714] 16 p2910 N67-29923
Pulsed constant current generator for studies of electrical resistance of Manganin and other metal wire shock pressure transducers
[SC-TM-67-30] 16 p2897 N67-29838
Thermoconductivity in metals, alloys, and semiconductors, as well as in contacts and junctions
[ECOM-2799] 17 p3175 N67-30190
Effects of organic additives on intensities of metallic element spectral lines
[T67-8-1] 17 p3012 N67-30262
Plastic deformation in metal 18 p3350 N67-31805
Origin of low-temperature macroscopic elastic limit of body-centered cubic metals
[NASA-TT-F-11048] 18 p3317 N67-31841
Electron induced cascade showers in copper, tin, and lead
[HEPL-495] 19 p3500 N67-32777
Particle theory, and thermodynamic properties of matter 19 p3551 N67-33208
Metal erosion in acid and alkaline solutions and mechanical properties of welded seams
[FTD-HT-66-573] 20 p3648 N67-34561
Metal erosion of liquid friction bearings in acid and alkaline solutions 20 p3648 N67-34562
X-ray stress analysis of Bauschinger effect in metals
[PA-TR-3564] 20 p3740 N67-34929
Faint and bright prominences comparisons based on analyzing hydrogen and metal lines 20 p3722 N67-35044
Bonding and reaction behavior of methyl methoxycarbenes in transition metal-carbene complexes 21 p3783 N67-35949
Use of research reactors in radiation damage studies and in solid state and metal physics
[ORNL-P-3038] 21 p3886 N67-36008
Metal casting manufacturing process manual 21 p3861 N67-36119
Quantum theory of thermogalvanomagnetic phenomena in metals and semiconductors
[NASA-TT-F-11156] 21 p3917 N67-36176
Recrystallization effect on sliding friction of metals in single-crystal polycrystalline form
[NASA-TN-D-4143] 21 p3863 N67-36391
Measurement of heat capacities of metals and semiconductors in Bridgman opposed-anvil apparatus
[UCRL-17454] 21 p3923 N67-36426
Quantum theory of thermogalvanomagnetic phenomena in metals and semiconductors - heat flux and space density
[NASA-TT-F-11154] 21 p3924 N67-36529
Quantum theory of thermogalvanomagnetic phenomena in metals and semiconductors - heat density and electric currents
[NASA-TT-F-11155] 21 p3924 N67-36553
Reactions of metal-metal couples during thermal cycling and static testing
[BNWL-421] 22 p4071 N67-37472
Handbook on thermodynamic properties of metallic elements and binary alloys 22 p4071 N67-37562
Electrical erosion of metallic electrodes in low voltage spark
[NASA-TT-F-11267] 24 p4497 N67-40374
METAL ALLOY
SA ALLOY
METAL BONDING
Device for gluing electric resistance tensometers to metal constructions
[FTD-TT-65-1942] 01 p0079 N67-11151
Strength of overlapped metal bonded lap joints under fatigue loading
[DLR-FB-66-47] 02 p0316 N67-11973
Pressure bonding of Zircaloy cladding components to reactor core fuel plates
[WAPD-306] 03 p0406 N67-13315
Intermolecular bonding of metals and alloys by thermochemical vapor deposition
[NASA-CR-80721] 04 p0559 N67-13671
Hot and cold bond-rolling techniques for metal hardening 06 p0885 N67-15518
Bonding of Inconel and titanium alloy structural panels by roll-welding process
[AMRA-CR-66-02/3] 06 p0887 N67-16183
Survey of NASA supported metals joining research having industrial applications
[NASA-SP-5064] 07 p1093 N67-17823
Hot press bonding of dissimilar metal combinations to produce high strength diffusionless bonds
[AECL-2563] 08 p1286 N67-19161
Nondestructive impedance techniques to test adhesive bonded composite materials used in launch vehicles and aircraft 12 p2105 N67-23669
Ultrasonic emission detector for nondestructive determination of bond strength 12 p2106 N67-23673
Titanium-deoxidized steel used for support material in high strength skin-to-rib bonding of composite rolled structural metal panels
[AMRA-CR-66-02/3] 14 p2542 N67-26759
Cold welding of copper and cohesion coefficient in ultrahigh vacuum
[SA-B2368-4] 14 p2543 N67-26940
Organic and inorganic adhesive bonding of stainless steels
[NASA-TM-X-53574] 15 p2719 N67-28756
METAL CARBIDE
High temperature tensile testing machine for determining mechanical property of sintered refractory carbides of tantalum, titanium, and zirconium
[NASA-TT-F-11174] 19 p3471 N67-33287
Partial molar free energies, enthalpies, and entropies of carbon dissolved in solid molybdenum, tungsten, niobium, and tantalum
[NASA-CR-88526] 22 p4128 N67-37421
Effect of carbide content on physical and mechanical properties of niobium carbide graphite and tantalum carbide graphite composites
[NASA-CR-89079] 23 p4265 N67-38851
METAL COATING
Sprayed metal coatings for protection of aluminum alloy aircraft parts
[M-66-441] 01 p0078 N67-10543
Changes in structure and mechanical properties due to loss of interstitials to reactive metal coatings studied in dispersion strengthened niobium alloys
[NASA-CR-79546] 02 p0289 N67-11737
Osmium dispenser cathodes 04 p0520 N67-13722
Cadmium plated notched high strength steel specimens load tested to determine size effect on embrittlement
[RAE-TR-66168] 04 p0562 N67-14116
Temperature measurements in free atmosphere by thermistors with antiradiation coatings of silver, aluminum, and caromium 05 p0732 N67-14396
Oxidation resistance tests of protective coatings for tantalum alloy
[NASA-CR-54578] 05 p0718 N67-14924
Performance tests of single ceramic protected metallic accelerator grid for direct current electron bombardment thrustor
[NASA-TM-X-1342] 07 p1182 N67-17512
Increased cohesive strength of metallic coatings by preliminary passivation
[NASA-TT-F-10666] 08 p1282 N67-19029
Multilayer metal deposition technique to provide electrical contacts for cadmium sulfide single crystals
[NASA-CR-82441] 08 p1352 N67-19140
Intermediate layers of chromium, nickel, and iron sputtered on titanium substrates to improve adhesion of electrodeposited chromium
[SA-TR18-1097] 09 p1461 N67-19811
Metallic coating materials evaluated for use in transition joints for SNAP-8 transformer reactor assembly
[NASA-CR-72195] 11 p1890 N67-22894
Plastic adhesive layer process for creating surface roughness on dielectric materials prior to metallic coating
[FTD-HT-66-681] 13 p2366 N67-25972
Fused salt electrodeposition and examination of iridium protective coatings on tungsten, molybdenum, and niobium
[NASA-CR-84124] 13 p2541 N67-26443
Application of welded thin metal in new communication cable designs
[AD-646538] 14 p2504 N67-26788
Techniques and evaluation of particle bombardment for crystal growth welding and bonding
[ECOM-00429-F] 24 p4458 N67-39927
METAL COMBUSTION
SA SOLID PROPELLANT IGNITION
Aluminum combustion in solid composite propellants 08 p1353 N67-18670
Spectrographic studies on exploding wires and infrared spectra of adsorbed combustion products
[UCRL-12298] 20 p3590 N67-34313
Metal combustion in tripropellants as chemical means to increase temperature and propulsion efficiency of hydrogen 21 p3948 N67-36106
Combustion experiments of aluminum with oxygen in porous-plug configuration
[ME-RT-67007] 22 p4163 N67-37265
Reactions of sulfur hexafluoride with electrically exploded metals to form sulfur tetrafluoride and metal fluoride
[TR-1001/2210-10/-4] 22 p3987 N67-37377
METAL COMPOUND
SA ORGANOMETALLIC COMPOUND
Two three-metal chemical compounds
[NASA-TT-F-10444] 06 p0818 N67-15557
Fabrication of metal carbide-graphite composites by hot pressing at high temperatures
[NASA-CR-82527] 08 p1293 N67-19058
Spectrographic analysis of element concentrations applied to metallic and refractory samples
[JEN-163-DQ/I-56] 10 p1580 N67-21653
Metallic acetate fixation on anion exchange resin
[CEA-R-2994] 10 p1582 N67-21805
Preparation and thermal characterization of metal carbamate compounds
[REPT.-3778] 11 p1866 N67-22127
Preparation and properties of transition metal complexes with tetradentate ligand series
[AROD-4486-5] 11 p1811 N67-22693
Electronic structure method from standpoint of inhomogeneous electron gas used for determining mechanical and thermodynamic properties of metallic alloys and compounds
[TR-44] 16 p2944 N67-29633
Synthesis and characterization of volatile rare earth and Sc, Cr, and Al chelates of 1,1,1,2, 2,2,3-heptafluoro-7,7-dimethyl-4,6-octanedione
[ARL-67-0094] 19 p3391 N67-32232
Neutron diffraction for studying chemical binding of atoms in crystals and molecules and nature of ferromagnetism
[PRNC-94] 20 p3692 N67-34311
Chemical properties of berkelium and preparation and crystallographic characterization of berkelium oxides, trichloride, oxychloride, and fluorides
[UCRL-17327] 20 p3591 N67-34350
Metal analysis by spectrophotometry, neutron activation, spectrography, spectroscopy, spectrometry, and potentiometry, instrument design, and solution preparations
[NBL-237] 20 p3598 N67-35210
Metal complex formation studied on 1,3,5, triaminocyclohexane and 1,3 diaminocyclohexane

[DISS-3917] 24 p4395 N67-39616
METAL CORROSION
Impregnated papers tested for corrosion-preventive properties when used with metal parts
[TDCK-46179] 01 p0069 N67-10154
Supplemental annotated bibliography on lubrication, corrosion, and wear
[NASA-SP-7020/01/] 02 p0265 N67-11944
Metal corrosion tests conducted to evaluate protective properties of temporary agents
[TDCK-46171] 02 p0266 N67-11997
Informal study and recommendations regarding corrosion
[MAB-227-M] 04 p0563 N67-14326
Metal corrosion studied for industrial safety 06 p0691 N67-15502
Prevention of hot corrosion in marine gas turbines
[MEL-392/66] 06 p0694 N67-16409
Hydrogen corrosion effects on tensile strength and bending property of nickel-copper alloy
[ZZL-65-027] 07 p1099 N67-17069
Corrosion and service life of carbon and alloy steels in sea water
[ORNL-TM-1612] 07 p1102 N67-17635
Dynamic corrosion tests of metals and alloys used for High Flux Isotope Reactor /HFIR/
[ORNL-TM-1030] 07 p1135 N67-17697
Mechanical properties of spot welded joints containing corrosion defects in Centaur aft bulkhead - tank 1D
[ZZL-66-008] 07 p1094 N67-17938
Corrosion and oxidation defects on stainless steel surfaces
[EURAEC-1701] 08 p1289 N67-18523
Electrochemistry of metal corrosion resistance and polarization in chloride solutions 08 p1243 N67-19347
Static and thermal convection loop tests for refractory alloy corrosion in lithium 09 p1458 N67-19596
Component design for refractory metal-alkali metal corrosion test system 09 p1459 N67-19599
Evaluation of refractory alloys for containing liquid and boiling sodium 09 p1459 N67-19600
Factors affecting corrosion of structural metals by liquid cesium - solubility of carbon in cesium, reflux capsule studies, and dissimilar metal tests 09 p1460 N67-19605
Refractory metal and alloy corrosion in cesium vapor at high temperatures 09 p1460 N67-19607
Corrosion effects of boiling potassium and liquid sodium-potassium on refractory metal alloy tubing of power reactor 09 p1460 N67-19610
Boiling alkali metal corrosion research for Rankine cycle and thermionic power conversion systems 09 p1460 N67-19611
High strength niobium alloy corrosion testing and evaluation of alkali metal containment
[NASA-CR-82995] 09 p1463 N67-20013
Effects of deep ocean environment on corrosion of alloys
[R-564] 09 p1464 N67-20173
Surface state influence on various types of corrosion in stainless steels
[EUR-2891.E] 10 p1654 N67-21055
Comparison of measuring apparatus for oxygen concentration determination in liquid sodium
[LA-DC-7743] 10 p1580 N67-21657
Effects of notches and saltwater corrosion on flexural fatigue properties of steels for hydrospace vehicles
[MEL-420/66] 10 p1658 N67-21723
Experiments in deep ocean environments to determine whether unusual corrosion phenomena exist at great depths that are not present in water near surface
[MEL-429/66] 10 p1659 N67-21875
Crevice galvanic corrosion of aluminum
[ANL-6236] 11 p1895 N67-23335
Corrosion of stainless steels in high temperature water and steam
[EUR-3857.E] 11 p1898 N67-23906
Corrosion resistance of structural metals in sodium loop for operation at 800 deg C
[GAE-RE-6/1966] 11 p1924 N67-22979
Corrosion of copper and copper alloys in tropical environments
[NRL-6456] 11 p1898 N67-23102
Stainless steel corrosion in high temperature water and steam
[EUR-3304] 11 p1900 N67-23186
Titanium stress corrosion in nitrogen tetroxide
[NASA-TM-X-59615] 11 p1900 N67-23277
Seawater corrosion measurement of SNAP container alloys using radioactive tracer techniques
[USNRDL-TR-1092] 11 p1927 N67-23380
Corrosion by alkali metals
[BNL-10800] 12 p2115 N67-23594
Mechanical properties and corrosion behavior at high temperatures of zirconium niobium tin alloy used for cladding in water cooled reactors
[EURAEC-1725] 12 p2116 N67-23689
Hydrogen reaction kinetics for evaluating surface treatment effects on corrosion of carbon steel and stainless steel in high temperature water and steam
[EURAEC-1764] 12 p2130 N67-24591
Oxygen movement direction of corrosion of niobium system, fast neutron activation analysis, and molecular distillation rig 13 p2335 N67-25356
Zircaloy corrosion in high pressure boiling water and steam
[JAERI-1116] 13 p2339 N67-25911
Light and electron microstructure analyses of crack initiation and stress corrosion mechanisms in aluminum alloys
[NASA-CR-84850] 15 p2729 N67-28834
Nitrogen tetroxide-stainless steel cryopanel corrosion and coating degradation
[AEDC-TR-66-236] 16 p2906 N67-29070
Corrosion of steels and alloys by high temperature water and steam
[EURAEC-1796] 17 p3083 N67-31467
Iron corrosion by microorganisms
[AD-653388] 18 p3214 N67-32519
Copper corrosion with chlorine trifluoride
[CEA-R-2790] 19 p3389 N67-33080
Corrosion tests with superalloys and refractory metals conducted in high temperature flowing helium
[BNWL-SA-1137] 19 p3470 N67-33201
Corrosion of niobium and niobium alloys in flowing liquid sodium between 400 deg and 600 deg C
[CEA-R-3023] 19 p3489 N67-32212
Hydrogenated and oxygenated impurities in liquid sodium
[TRG-552/C/] 20 p3593 N67-34486
Zinc paints and galvanizing for corrosion prevention 20 p3657 N67-34538
Brazing and corrosion tests on braze alloys for brazing Zircaloy-clad fuel elements for pressurized water reactor application
[ITRI-578P29-11] 20 p3658 N67-34679
Neutron irradiation effects on mechanical properties and corrosion behavior of zirconium alloy and Zircaloy 2
[EUR-3335.E] 20 p3658 N67-34696
Literature survey on corrosive effects of liquid and vapor cesium on structural materials, and compatibility of cesium as working fluid for Rankine cycle space power plant
[NASA-CR-87504] 20 p3660 N67-34838
Metal and alloy corrosion by liquid sodium
[BNL-11365] 21 p3868 N67-35636
Performance of prototype portable beta radiation corrosion detector gauge
[REPT.-0-6663-FR] 21 p3849 N67-35900
Corrosion resistant materials for electrochemical cells
[TRW-05660-6002-R000] 21 p3869 N67-36041
Formation of alkali iron sulfates and other compounds causing corrosion in boilers and gas turbines
[AD-656366] 22 p3984 N67-37044
Corrosion stability of sheet, bar, and forged titanium in sulfuric acid solutions 22 p4065 N67-37140
Corrosion stability of titanium in organic acids 22 p4065 N67-37141
Mechanisms of microbial corrosion in metals and alloys - literature survey and bibliography
[RIA-67-534] 22 p3970 N67-37251
Colloidal graphite and colloidal alumina effects on corrosion rate of aluminum alloys by flowing high temperature water
[ANL-7227] 22 p4073 N67-37733
Corrosion and hydrogen generation of aluminum under tungsten water-moderated reactor operating conditions
[NASA-CR-899] 23 p4262 N67-38141
METAL CRYSTAL
Recrystallization kinetics and tension relaxation relation using temperature and time dependency of metal crystal internal friction
[FTD-TT-65-1872] 01 p0068 N67-11097
Electron microscopy method for direct observation of high amplitude ultrasonic stress wave effects on metal crystal dislocations
[NAVWEPS-9059] 02 p0267 N67-12283
Dense packing of hard spheres with five-fold symmetry and observations in metal crystal lattice
[TR-5] 03 p0428 N67-12594
Environmental effect on creep and tensile behavior of metal single crystals and polycrystalline metals 04 p0560 N67-13851
Mathematical model for determining precursor memory effect and shock wave propagation in crystalline solids
[NOLTR-66-175] 06 p0977 N67-16136
Work hardening mechanism in face-centered cubic metal crystals
[AD-641029] 06 p0694 N67-16206
Energy calculations for clusters of point defects in metals 07 p1170 N67-16741
Methods for studying crystal imperfections of dimensions between point defects and large clusters in metals 07 p1171 N67-16744
Damage produced on surface of metal single crystals during ion bombardment
[NASA-CR-82470] 08 p1351 N67-19989
X-ray and microstructure studies of single crystal recrystallization of pure metals after annealing and weak and strong deformations
[FTD-HT-66-179] 10 p1651 N67-20691
Theoretical study of radiation damage in crystals using computer techniques
[AI-66-252] 10 p1747 N67-20668
Reflectivities of several metallic crystals used in neutron spectrometers
[AEET-259] 10 p1693 N67-20798
Lattice vibrations in non-Bravais metal crystals treated by thermodynamic Green function methods
[INR-709/II/PS] 10 p1717 N67-21469
Interaction between neutral molecule or atom and metal crystalline surface
[AROD-3313-1] 14 p2482 N67-27474
Low and high amplitude internal friction measurements in single crystal and polycrystal metal and relation to imperfection motion
[TR-46] 18 p3251 N67-32533
Fcc solid solutions of silver and niobium-base bcc solid solutions
[TID-23747] 19 p3468 N67-32769
Classification of deformation microcontours at elevated temperatures in polycrystalline metals having face-centered cubic lattice
[AERE-TRANS-1069] 20 p3656 N67-34319
Electrochemical measurement of corrosion and film growth rates of crystal-bar zirconium in oxygenated potassium sulfate solution
[ORNL-TM-1834] 20 p3591 N67-34228
Sliding friction of ruthenium, rhodium, osmium, and iridium crystals
[NASA-TN-D-4152] 20 p3656 N67-34384
Low temperature thermally activated dislocation mechanisms for polycrystalline Mg-Li-Al alloy
[UCRL-17449] 20 p3660 N67-34891
Low angle boundaries in large single crystals of zinc
[INR-663/II/PS] 20 p3715 N67-34967
Mossbauer effect study of magnetic structure of single crystal erbium
[IS-T-117] 21 p3913 N67-35456
Crystal growth and structure of silicon carbide investigated by traveling solvent method
[AFCRL-67-0271] 21 p3782 N67-35773
Statistical thermodynamic models for estimating clustering effects on equilibrium concentration of vacancies in binary alloys
[UCRL-17463] 21 p3916 N67-35858
Plutonium single crystal growth
[NUMEC-3428-32] 23 p4366 N67-38971
Harmonic and combination amplitudes, and mass values for de Haas-van Alphen effect in high purity lead crystals
[IS-T-170] 23 p4333 N67-39117
Resistance furnace for preparation of high melting point metal single crystals
[INP-797/II] 24 p4469 N67-40389
METAL CUTTING
Spiral point drill geometry
[RIA-TR-66-2930] 10 p1647 N67-21283
Machining and chemical finishing processes for high strength, fine grain beryllium structural components
[Y-1551] 10 p1647 N67-21611

Metallographic and thermal study on cutting and grooving with oxyacetylene blow pipe
[EUR-2849.F] 14 p2543 N67-27123
METAL FATIGUE
Fatigue crack propagation in low carbon steels
[TID-23138] 01 p0085 N67-10712
Nondestructive methods for determining residual stress and fatigue damage in metals
[NASA-CR-79304] 02 p0318 N67-12227
Low endurance fatigue behaviour of low-carbon austenitic stainless steel at 25, 650, and 750 degrees Centigrade
[TRG-1347/S/] 03 p0411 N67-12831
Metal fatigue under cyclic loading
[FTD-TT-65-1402] 05 p0719 N67-15309
Steel and aluminum alloys tested for fatigue resistance 06 p0891 N67-15519
Irradiation effect on high-strain fatigue behavior of low-carbon high-manganese and low-alloy steel
[TRG-1277/C/] 07 p1104 N67-17940
Method for studying plastic strain propagation under dynamic loading 08 p1374 N67-18204
Effects of temperature, test interruption, and residual gas pressure on fatigue properties of aluminum
[NASA-CR-82446] 08 p1294 N67-19133
Load acceleration method for fatigue strength analysis of overlapped metal bonded joints
[DLR-FB-66-67] 08 p1294 N67-19268
Statistical dislocation model for fatigue failure probability analysis of metallic alloy exhibiting heterogeneity
[TRG-1294/S/] 08 p1294 N67-19269
Stress-wave emission in fatigue crack propagation of nickel maraging steel, and of low alloy steel
[NASA-CR-66303] 09 p1461 N67-19864
Effect of oxygen and water vapor on fatigue properties of titanium alloy and 4340 steel
[NASA-CR-82971] 09 p1463 N67-19962
Pin fretting fatigue in aluminum alloy lugs
[S+T-MEMO-11/65] 09 p1454 N67-19969
Fatigue properties of titanium aluminum vanadium tin alloy
[KAPL-3158] 09 p1464 N67-20217
Fretting fatigue of pin joints in steel lugs, and effect of various jointing compounds
[S+T-MEMO-12/65] 10 p1639 N67-21060
Cyclic stress of bolts and studs for nuclear vessels
[KAPL-M-6561] 10 p1638 N67-21650
Cumulative metal fatigue damage predicted by double linear damage rule with formulas for crack formation and propagation
[NASA-TN-D-3829] 11 p1994 N67-23284
Empirical equation relating fatigue limit of axially loaded metals and mean stress
[NASA-TN-D-3883] 11 p1994 N67-23286
Cyclic loading effects on metal fatigue in homogeneous and inhomogeneous state of stress 12 p2116 N67-23791
Fatigue crack propagation in aluminum alloy sheet
[ARC-CP-896] 13 p2340 N67-26044
Stress-notch tests of effects of prestresses on fatigue strength of notched and unnotched steel bars
[FB-53] 13 p2340 N67-26192
Fatigue and crack propagation of large scale uniformly loaded tee-fillet loaded welded rectangular rib-stiffened plates
[TM-7] 14 p2626 N67-27180
Frequency and temperature effects on deformation and fatigue rupture behavior of chromium martensitic steel
[NGTE-R-278] 15 p2721 N67-27792
Low-cycle metal fatigue ruptures in reactor primary coolant system
[GEAP-5279] 16 p2929 N67-29332
Failure analysis of beryllium copper tie rods used to constrain forces in magnet of baseball seam geometry
[UCID-15101] 19 p3475 N67-33945
Structural energy theory of metal fatigue, and magnetic hysteresis and eddy current losses in high carbon and alloy steels
[FTD-MT-65-431] 20 p3655 N67-34233
Structural energy theory for metal fatigue - plastic deformation, destruction, and fusion 20 p3655 N67-34233
Magnetic hysteresis and eddy current losses used to determine fatigue of high carbon and alloy steels 20 p3655 N67-34234
Nondestructive evaluation of metal fatigue
[REPT.-15-1688-2] 20 p3660 N67-34967
Current concepts in metal fatigue testing and research with summary of results of recent investigations
[ARL/SM-305] 20 p3661 N67-35135
Survey on deformation processes in difficult to form metals
[AD-656623] 23 p4061 N67-36975
Fatigue mechanisms of copper covered with electrodeposited nickel, chromium, or gold and of copper containing embedded wires of tungsten
[TR-51] 22 p4070 N67-37235
Fatigue behavior of annealed 70-30 copper-nickel alloy
[REPT.-3445] 22 p4071 N67-37237
METAL FILM
SA THIN FILM
Properties of thin gold films on oxide substrates
[MT-68-1] 01 p0129 N67-10600
X-ray studies of evaporated metal films in high vacuum X-ray diffractometer attachment
[F-B2196] 01 p0129 N67-10605
Formation and life histories of transfer films of self-lubricating retainer materials on ball bearings operating in hydrogen gas at 33 deg K
[NASA-TN-D-3730] 02 p0365 N67-11812
Characteristics of Schottky barriers and development of semiconductor-metal cathode
[AFCRL-66-479] 05 p0684 N67-15119
Semiconductor/metal hot electron cold cathodes
[NASA-CR-81136] 05 p0685 N67-15200
Magnetic properties of thin films of nickel-iron-molybdenum
[NOLTR-66-101] 06 p0948 N67-16177
Failure mechanisms in metal thin film resistors
[RADC-TR-66-495] 06 p0855 N67-16370
Metal films in superconductive and normal phases, and thermal conductivity of films
[ECOM-90621-F] 07 p1174 N67-16996
Production facilities for manufacturing multiturn metal film trimmer resistors
[AD-640711] 09 p1494 N67-19979
Electric and optical properties of metals and semiconducting materials
[NEL-1397] 09 p1501 N67-19777
Determination of metal, thickness, and fabrication techniques for obtaining usable base film for metal base transistor
[REPT.-4] 10 p1590 N67-20536
Plating of uniform nickel film on glass fiber cemented with epoxy resin
[K-L-2338] 10 p1639 N67-20950
Electronic structure of liquid metals, internal stress and annealing of Fe films, pressure derivatives of elastic constants of calcium fluoride, and energy gaps in disordered fields
[COO-633-115] 10 p1753 N67-21681
Partially permeable metal film of interference reflector as photoelectrically sensitive film
[ERDL-T-1879-66] 11 p1837 N67-23448
Pulsed ruby laser evaporation method for preparation of germanium and gallium arsenide crystalline films
[R66SD66] 11 p1893 N67-23535
Investigation of defective electrical contacts of aluminum interconnecting films to polycrystalline silicon resistors
[NASA-CR-84144] 14 p2504 N67-26520
Optical properties of metal, semiconductor, and dielectric thin films - plasma oscillations in silver film
[SAR-14] 14 p2668 N67-27009
Vacuum deposition methods for placing soft, thin metal gold film on metal surfaces for lubrication purposes - vapor deposition, sputtering, and ion plating
[NASA-TM-X-52305] 14 p2544 N67-27219
Fabrication method for high resistance film resistor based on vacuum sublimation of alloy and dielectric
[FTD-HT-66-705] 15 p2678 N67-28251
Optical reading and writing on magnetic metal films, phototropic media, and thermoplastic materials for use in high information packing density tape recording systems
[AERE-R-5003] 15 p2714 N67-28659
Surface electric properties of oxidized clean single crystal and polycrystalline chromium films
[TM-502] 17 p3026 N67-30235
Formation of thin metallic layer on cathode during electrolytic of chromic acid
[NASA-TT-F-11047] 17 p3019 N67-31317
Improved spatterproof vacuum evaporation source for use in depositing thin solid films on substrate 18 p3343 N67-31570
Performance characteristics of thin metal film portable sensor used for detecting low concentrations of nitrogen tetroxide, fluorine, and unsymmetrical dimethyl hydrazine propellants
[TRW-6302-6001-R0000] 19 p3380 N67-32974
Acceleration factors for determining reliability and failure modes for metal film resistors
[NASA-CR-87307] 19 p3417 N67-33475
Lubrication of bearing steels with electroplated gold under heavy loads
[AFML-TR-67-61] 19 p3464 N67-33573
Anomalous stripe domain structures in thin ferromagnetic films
[F-B3463] 19 p3526 N67-33925
Spectrophotometric analysis of thin antimony/arsenic alloy films
[AERE-M-1886] 20 p3590 N67-34310
Plane wave shielding effectiveness of vacuum deposited thin metal films
[ECOM-2798] 21 p3818 N67-35969
Changes in electric resistance of gold thin films measured after argon ion bombardment 22 p4124 N67-36796
Liquid and solid cesium deposition on rhenium substrates by vapor deposition
[S-67-1665] 23 p4125 N67-36811
Theory of epitaxial zirconium - zirconium oxide crystalline film
[AECL-2751] 23 p4071 N67-37259
Ferromagnetic resonance of thin metal films irradiated with helium 3
[NRL-6512] 22 p4126 N67-37503
Oxide barrier effect on exchange and gettering kinetics for reactions between erbium deuteride films and hydrogen gas
[AWRE-O-50/67] 24 p4402 N67-40567
METAL FOIL
Stainless steel flange design using aluminum foil for bakeable ultrahigh vacuum systems
[UCID-4548, REV. 4] 01 p0079 N67-10917
Bladder development and metal foil pinhole simulation - advanced liquid propulsion systems research 02 p0236 N67-12116
Thermal radiation shielding from metal foils
[ALO-3622-4] 04 p0561 N67-14025
Techniques for fabrication of thin film polycrystalline cadmium sulfide solar cells on plastic and metal foil substrates
[RAE-LIB-TRANS-1162] 04 p0484 N67-14240
Targets of free thin metallic foils of enriched isotopes for study of elastic scattering of protons 06 p0822 N67-15865
Optimum experimental conditions for obtaining strain contrast images from small defects 07 p1172 N67-16752
Diffraction contrast from small defect clusters in irradiated copper 07 p1172 N67-16754
Electron microscopic observations of point defect agglomerations in copper 07 p1172 N67-16755
Electron microscopic studies of defect clusters in xenon ion bombarded aluminum and nickel 07 p1172 N67-16760
Krypton ion irradiation damage in thin foils of zirconium 07 p1173 N67-16761
Diffusion controlled climb of dislocation loops in thin aluminum metal foils 07 p1174 N67-16765
Spectral distribution of transition radiation and low energy bremsstrahlung from silver and aluminum foils bombarded by grazing incidence electrons
[ORNL-TM-1571] 07 p1147 N67-17488
Time resolved and time integrated measurements of plasma produced by Q-switched laser beam focused on surface of metallic solid
[NOLTR-66-93] 07 p1097 N67-17986
Lead foils and filters for improving industrial inspection methods by gamma flaw detection 10 p1643 N67-21244
Oxidation rate of praseodymium foil in pure oxygen
[AWRE-O-72/66] 10 p1578 N67-21512
Thermal insulation - material testing of refrasil quartz fiber paper, metal foil, quartz cloth composite, and metal foil glass fiber paper composite
[ALO-3623-11] 15 p2804 N67-28418
Two-dimensional activation analysis using neutron activation and scanning methods for

studying localization of impurities in irradiated aluminum foil 16 p2943 N67-29394
Method for preparing thin chromium foil [AERE-R-5430] 17 p3119 N67-30420
Magnetically imploded metal foils, and lumped parameter model for electromechanical system [SC-RR-66-423] 17 p3121 N67-30954
Spectrometric determination of angular distributions and energy spectra of electrons transmitted through and reflected from carbon, aluminum, copper, silver, and gold foils [NASA-CR-85978] 18 p3308 N67-31766
Reliability testing of hermatically sealed tantalum foil capacitors [QR-6] 18 p3251 N67-32655
Thermal insulation of metal foil for circular pipe flow [NAL-TR-129] 20 p3745 N67-34564
Hydrogen-deuterium exchange reaction on clean nickel surface using modulated molecular beam techniques [GA-7927] 23 p4200 N67-38062
Intensification of front lead screen for gamma ray radiography [NSJ-TR-08] 23 p4312 N67-39042

METAL FORMING
SA EXPLOSIVE FORMING
Magnetic pulse metal forming process [Y-1483] 02 p0264 N67-11720
Forming method for curved advanced test reactor fuel plates [ORNL-3983] 03 p0426 N67-12875
Production engineering and metal forming methods for possible application in Latin America 06 p0895 N67-15516
Shock hardening, strain effects, and ductility examined during studies of explosive forming of metals - bibliography [AMRA-CR-66-05/6] 06 p0888 N67-16590
Determination of maximum force on static sheet of aluminum subjected to magnetic field of hammer coil [NASA-CR-82942] 09 p1454 N67-19957
Forming process for fiber reinforced metal matrix composites [BNWL-SA-550] 10 p1647 N67-21564
Relation of flow stress of aluminum to strain, strain rate, and temperature for solving metal forming problems [LA-3544] 11 p1890 N67-22330
High energy rate metal forming processes [CR-66-05/7] 11 p1891 N67-22169
Age forming of aluminum alloy using technique of restraint to shape skins [NASA-CR-83824] 13 p2325 N67-25668
Machine tools and metal fabricating technology developments [NASA-SP-5065] 13 p2326 N67-25855
Consolidation, joining, metal removal, and forming techniques used in fabricating gas turbine components 16 p2899 N67-29200
Ductile failure mechanisms, metal forming limits, and mechanical property changes by plastic strain cycling [MAB-206-M/5/] 17 p3071 N67-30467
Maximum static force acting on material placed in magnetic field of beryllium coil assembly [NASA-CR-85755] 17 p3074 N67-31191
Design, development, and manufacture of improved magnetic hammers and flaring tools [NASA-CR-86579] 18 p3276 N67-32378
Structural damage in metal-forming processes particularly hydrostatic component of stress during deformation [AD-653361] 19 p3464 N67-33340
High speed forming machines, and semihot pressing of steels and other alloys [FTD-HT-66-375] 20 p3651 N67-35144
Machine design for high speed metal forming with open die upsetting, upsetting with efflux, and backward and forward extrusion 20 p3652 N67-35145
High speed, semihot sheet metal pressing 20 p3652 N67-35147
Cast ductile iron forming into ammunition components [REPT.-1002] 22 p4056 N67-37850

METAL FUEL
Combustion of mixtures containing potassium perchlorate oxidizer and metal fuels in vacuum [ATD-66-70] 06 p1280 N67-18215
Properties of cobalt 60 and cobalt metal fuels - compatibility of cobalt with encapsulating materials [DP-1051, REV. 1] 06 p1319 N67-18899
Metal-fueled fast power breeder reactor [ANL-7001] 10 p1690 N67-21792

METAL-GAS SYSTEM
Thermodynamic properties of matter 11 p1985 N67-22132
Harmonic approximation of isotope effects in diffusivity and solubility of hydrogen and deuterium in nickel, and quantum mass effects in diffusion [TR-5] 13 p2366 N67-25444

METAL HALIDE
SA TUNGSTEN HALIDE
Thermochemical properties of gases, thermodynamic properties of Be and alkali metal halides, and thermochemical mass spectrometry - bibliography [ORNL-TM-969, SUPPL. 1] 01 p0020 N67-10634
Condensed phase and vaporization equilibria in vanadium halide-iodine systems [IS-T-41] 01 p0032 N67-10811
Literature search on deposition of molybdenum, tungsten, and rhenium by thermal decomposition of their carbonyls [BMWF-FBK-66-09] 03 p0361 N67-13277
Thermochemical deposition processes to prepare fuel compounds and refractory alloys from volatile halides 13 p2354 N67-25380
Oxygen determination in metal fluorides and refractory nitrides and carbo-nitrides by inert gas fusion technique [AERE-R-4850] 20 p3591 N67-34341
Vapor pressures measured of selected mixtures in binary system stannous chloride-zinc chloride [RI-7023] 21 p3792 N67-36474

METAL ION
Cesium ion separation by inorganic ion exchange 04 p0500 N67-13568
Coordination chemistry of chelate compounds with organometallic ion substitution for central metal ion [AROD-5200-6] 06 p0829 N67-16482
Cesium ion and neutral emission from pure and alloyed porous metal ionizers measured as function of noncosine angular distribution [NASA-CR-72348] 06 p0895 N67-16572
Reaction kinetics of metallic ions [AF-133-65] 09 p1410 N67-19785
Photolysis of metal ion complexes of olefins, heavy metal acetates, carboxylic acids and synthesis of ceric acetate [AFOSR-67-0396] 14 p2477 N67-27080
Rates and mechanisms of solvent exchange reactions studied with paramagnetic transition metal ions in solution [AFOSR-67-0663] 15 p2656 N67-28256
Effect of structural factors on thermostability of metal chelates of 8-quinolinols [AD-654735] 21 p3776 N67-35485
Structure and coordinate bonding of complex rare earth metal ions 21 p3787 N67-36342
Oxidation-reduction reactions and electron transfer between metal ions in solution [COO-1601-14] 22 p3993 N67-37961

METAL JOINT
SA SOLDERED JOINT
SA WELDED JOINT
Aging effects on dissimilar metal welded joints with multipass welding of Hastelloy X and Hastelloy W filler metal [BNWL-290, PT. I] 06 p0895 N67-16582
Surface-plateauing techniques, and flexible surface membranes for improved thermal conductance of mechanical joints in vacuum [NASA-CR-81712] 07 p1005 N67-18050
Joining techniques and structural stability of beryllium alloys for fabricating aerospace vehicles [NASA-TM-X-53453, VOL. VI] 10 p1647 N67-21520
Strength of bonded single-lap metal joints at low and high temperatures and after temperature cycling [RAE-LIB-TRANS-1139] 10 p1648 N67-21744
Welded tubular tee connections made by drawing die of circular cross section through elliptical cutout in wall of main tube followed by butt welding of extension tube to opening [LA-3517] 11 p1889 N67-22388
Tension, torsion, and reverse bend testing of coldwelded copper to aluminum butt joint transition piece [NASA-CR-72204] 11 p1897 N67-22851
Deformation characteristics of adhesive bonded joints and metal adhesive interfaces [NASA-TM-X-59058] 13 p2418 N67-26076
Metallization and hard soldering techniques for obtaining vacuum tight cermet joints through infusion of molybdenum manganese paste and nickel [FTD-HT-66-711] 15 p2717 N67-28265
Diffusion bonding of dissimular metals 16 p2899 N67-29582
Moire fringe technique for analysis of structural knee 20 p3742 N67-35202
Inelastic redundant force method for stress and strength analysis of mechanically fastened joints [NAEC-ASL-1103] 22 p4154 N67-37181
Ultrasonic testing method for wing spar attachment joints and lugs of Viscount aircraft [REPT.-6606.253] 22 p4057 N67-37789
Microstrain techniques for measuring shear modulus in thin film joints bonded with epoxy adhesives [PA-TR-3591] 23 p4257 N67-38169
Stress relaxation in steel, nickel alloys, and iron alloys - thermomagnetic effects on metal friction, heat treatment and work hardening, and loading curves for steel joints [FTD-MT-65-262] 24 p4468 N67-40111
Experimental and calculated relaxation curves for steel and corresponding loading diagram for steam turbine joints 24 p4468 N67-40114

METAL-METAL BONDING
Failure modes of thermocompression bonds in integrated circuits 01 p0050 N67-10128
Electrophoretic deposition of metal bonded molybdenum disulfide for gear lubrication [NASA-CR-81133] 05 p0714 N67-15255
Nondestructive testing of metal-metal bonds and honeycomb core laminates by ultrasonic pulse echo test apparatus [TIL/T-5680] 08 p1284 N67-18376
State-of-art of metal-metal bonding in space environment - bibliography [NASA-TM-X-59395] 08 p1285 N67-18509
Compatibility of explosively bonded refractory austenitic bimetal composites after isothermal and cyclic thermal exposure [NASA-CR-72150] 08 p1291 N67-18742
Dissimilar metal joining by solid state welding [NASA-CR-82460] 08 p1296 N67-19276
Tension and torsion tests, and metallurgical evaluation of aluminum-nickel bonded joints [NASA-CR-72196] 11 p1897 N67-22889
Refractory bimetallic tubing bond quality testing by metallographic and ultrasonic inspection [NASA-CR-72202] 11 p1890 N67-22891
High yield processes for bonding fine wires in hybrid microcircuits [HSER-3160] 12 p2067 N67-24998
Adhesion and cohesion efficiency of polycrystalline copper [NASA-CR-85864] 17 p3081 N67-31207
Plating parameters for depositing adherent electroplate of platinum directly on Hastelloy C capsules [NUMEC-3731-4-5-4] 19 p3487 N67-32908
Metallic adhesion strength of silver and tungsten junction [NASA-CR-87474] 20 p3661 N67-35088
Bibliography of aluminum nickel uranium bonding - bonding processes, plating, and diffusion [BNWL-CC-1185] 23 p4260 N67-38998

METAL OXIDE
SA ALKALINE EARTH OXIDE
Separation and determination of trace metal impurities in rare earth sesquioxides [IS-T-88] 01 p0032 N67-10811
Metal-oxide-silicon capacitor and radiochemical analyses of anion in sodium contamination failure mode [NASA-CR-79727] 02 p0296 N67-13228
Infrared spectra of 52 metal oxides, including stable rare earth oxides [NASA-TN-D-3750] 03 p0358 N67-13778
High temperature oxidation of metals [TID-23268] 04 p0600 N67-14689
Physical and chemical properties of rare earth compounds and crystals [ECOM-01304-5] 06 p0819 N67-16049
Physical and chemical properties of tellurium, tellurium oxides, tellurium fluorides, and tellurium oxyfluorides for use in support of fluid bed fluoride volatility processes [ANL-7142] 07 p1134 N67-17788

Rates and activation energies for sintering alumina containing metal oxide
[TIL/T-5639] 08 p1296 N67-19070
Refractory oxide insulated thermocouples for measuring fast reactor fuel pin temperatures 09 p1478 N67-19034
Thallium isotope production by irradiation of thallium oxide
[DP-1033] 10 p1574 N67-21006
Mathematical approach to physiochemical process of oxide precipitation from sodium flow
[SM-85/48] 15 p2657 N67-28176
Radiation effects seen in solids of metal oxides, alkali axides, and bifluorides by electron spin resonance
[NYO-2947-58] 16 p2852 N67-29076
Bibliography on arc, spark, and grating spectra of iron, band spectra of metallic oxides, thorium spectra, and atomic spectra in vacuum ultraviolet 17 p3017 N67-30696
High temperature reaction kinetics of tungsten and tungsten-cobalt alloy with oxygen and microstructures of metal oxides for oxidation resistant coating applications
[BM-RI-6998] 20 p3566 N67-34130
Small model powder mixer for blending ceramic fuel materials of uranium oxide/thorium oxide and uranium oxide/plutonium oxide
[AERE-M-1884] 20 p3591 N67-34329
Fuel particle size effect on dynamics of reactor fuelled with oxide particles dispersed beryilia
[AAEC/E167] 20 p3682 N67-34683
Electric conductivity of metal oxides in radiation fields and voltage breakdown in Lucalox
[NASA-CR-87912] 20 p3714 N67-34704
Fine oxide particle dispersion strengthened alloy structures and mechanical properties and splat cooling process for alloy development
[NASA-CR-87992] 21 p3867 N67-35349
Tetrahedron linkages in rare earth oxides and oxysalt structures 21 p3788 N67-36343
Ion exchange elution for purification of promethium, and preparation of promethium oxide 21 p3788 N67-36347
Preparation, characterization, and thermodynimic properties of lanthanum oxide carbide
[COO-716-027] 21 p3789 N67-36349
Rare earth oxides precipitated from anhydrous molten nitrate salts 21 p3789 N67-36350
Growth and agglomeration behavior of ultra-small colloid metal oxide particles
[AFOSR-67-0933] 22 p4163 N67-37394
State-of-the-art survey on oxide dispersion strengthened alloys for use as high temperature materials
[NASA-SP-143] 22 p4071 N67-37477
Irradiation behavior of europium oxide stainless steel dispersions - reactor control rod assembly
[ORNL-4164] 22 p4095 N67-37902

METAL OXIDE SEMICONDUCTOR /MOS/

Surface and bulk leakage resistances of silicon oxide in humid ambients determined from charging and discharging curves of metal oxide semiconductor capacitors 01 p0049 N67-10119
Effect of phosphorus diffusion in thermal oxides on high temperature stability of metal oxide semiconductor structures 01 p0137 N67-10123
Solid state electrometer for portable radiation detector using metal oxide semiconductor field effect transistor in high impedance input stage
[ECOM-2736] 02 p0258 N67-11256
Space radiation effect on MOSFET devices
[NASA-TM-X-55597] 02 p0243 N67-11373
Fabrication, testing, and implementation of metal oxide field effect transistors in Anchored Interplanetary Monitoring Platform D and E telemetry encoder
[NASA-TM-X-55653] 06 p0645 N67-16626
Transient gate current produced in metal oxide semiconductor integrated circuit by ionizing radiation pulse
[MND-2364-4] 07 p1050 N67-17091
Interface problems between plated wire magnetic memory and MOS
[NASA-CR-81700] 07 p1048 N67-18022
Measured and predicted harmonic distortions produced by nonlinearity of metal oxide semiconductor
[AFOSR-66-1340] 08 p1256 N67-18299
Fourier comb filter, and metal oxide semiconductor field effect transistor in electrometer applications 09 p1423 N67-19426
Technology and fabrication of integrated logic networks - Metal oxide semiconductor transistor circuits
[AFCRL-67-0606] 12 p2072 N67-34456
Metal-oxide semiconductor field-effect transistors evaluated for use in digital circuits
[TG-875] 12 p2066 N67-34945
Characterization plan for testing of amplifier, micropower, MOS, and dielectrically isolated circuits - space radiation effects on silicon integrated microcircuits
[NASA-CR-83962] 13 p2292 N67-25482
Magnetic memory circuitry using metal oxide semiconductor field effect transistors interfaced with plated wire memory
[NASA-CR-83792] 13 p2292 N67-25489
Nonlinear model of field effect transistor for computer aided transient analysis of complementary metal oxide semiconductor-field effect transistor NAND gate 18 p2245 N67-31587
Phenomenological study of radiation damage and recovery of metal oxide semiconductor field effect transistors 18 p2246 N67-31601
Decontamination of lunar orbiting AIMP-D spacecraft electronic circuit board and MOSFET circuitry
[NASA-TM-X-55670] 19 p3540 N67-32474
Electronic engineering developments on heterojunction interface, noise measurements, switching, and related areas 19 p3417 N67-33615
Fabrication of thin film hafnium-dioxide capacitors and P channel Metal Oxide Semiconductor /MOS/ transistors with hafnium dioxide gate insulators
[ECOM-01230-8] 21 p3814 N67-35491
Guide for using capacitance-voltage method to investigate metal oxide semiconductor structures
[ECOM-2821] 21 p3819 N67-36163
Radiation induced charge migration in metal oxide semiconductor, field effect transistors
[BNWL-SA-1101S] 21 p3819 N67-36481
Piezoresistance and piezo-Hall effect in semiconducting strontium titanium oxide
[NASA-CR-86484] 22 p4134 N67-36724
Ionizing radiation effects in silicon dioxide passivated bipolar transistors
[NASA-CR-86482] 22 p4069 N67-36726
Ionizing radiation effects on oxidized silicon semiconductor surfaces
[AFCRL-67-0381] 22 p4134 N67-36754
Tunneling between metal and silicon separated by thin polymer film insulator
[NASA-CR-86716] 22 p4127 N67-37339
Positive and negative ion motion in thermal oxide on silicon by radiochemical and MOS analysis 23 p4303 N67-38472
Sodium contamination of metal oxide semiconductor systems associated with silicon surface preparation and oxidation 23 p4229 N67-38474
Surface effects of radiation on metal oxide silicon field effect transistors 23 p4234 N67-38476
Proton irradiation effects in MOS and junction field effect transistors and integrated circuits 23 p4234 N67-38478

METAL PARTICLE

Polymers with metal particle additives
[FTD-HT-66-343] 01 p0092 N67-11172
Multivariable analysis of mechanics of penetration of high speed particles
[NASA-CR-884] 06 p0978 N67-16664
Impingement damage to spacecraft from rocket exhaust gases and micron sized metal particles
[NASA-CR-81697] 07 p1196 N67-18024
Heat transfer, oxidation, and vaporization rates for metal particles during hypersonic reentry
[R665D52] 10 p1659 N67-21600
Vacancy formation from diffusion of metal atoms through surface oxide film and medium effect on dislocation structure
[NASA-TT-F-11660] 15 p2781 N67-28236
Diamagnetic metal particle interaction with rapidly changing magnetic field studied for energy conversion devices
[DLR-FB-67-38] 20 p3708 N67-34030
Ablation of small metal particles during simulated atmospheric reentry
[SC-CR-67-2563] 23 p4294 N67-38710

METAL PLATE

SA FLANGE

Mechanical properties determined of steel armor plate from four tanks
[TDCK-44113] 01 p0062 N67-10155
Gas flow velocity measurement in inflammable medium and zonal method of calculating asymmetric radiative heating of infinite plate
[FTD-MT-65-184] 02 p0234 N67-11301
Zonal method of calculating asymmetric radiative heating of infinite plate 02 p0234 N67-11303
Flow and brittle fracture propensity of notched steel plates using photoelastic model
[AD-638458] 03 p0469 N67-12439
Derivation of refined theory of plates 04 p0617 N67-13398
Vacuum system apparatus for experimental determination of radiative heat transfer between parallel flat metal plates
[ARL-66-0103] 06 p0981 N67-16455
Pressure calculation for plane detonation front impingement on metal plate 07 p1063 N67-17023
Matched inductive plate radome design for microwave and millimeter wave regions
[REPT.-6341U1] 09 p1415 N67-19078
Explosive forming of wrought beryllium ingot plate
[SC-RR-66-2070] 10 p1638 N67-20944
Electrostatic spectometric measurements of electron currents emitted from metal plates bombarded with gamma rays
[EGG-1183-2110] 10 p1725 N67-21609
Fatigue and crack growth of large scale uniformly loaded simply supported tee-fillet welded rectangular rib-stiffened plates
[NASL-TM-6] 10 p1767 N67-21876
Chromium alloy sheet and plate produced by rare gas induction melting, hot extrusion, and warm rolling
[NASA-CR-72184] 11 p1886 N67-22175
Analysis techniques for orthogonally stiffened flat rectangular plates under various loading and support condition combinations
[REPT.-67-1] 11 p1986 N67-22898
Mechanical properties of thick plate titanium aluminum vanadium alloy
[MEL-266/66] 11 p1899 N67-23115
Stress concentration and creep flow in aluminum alloy plates 12 p2230 N67-23838
Roller calibration system with settling of wavy billet for reduced metal thinning at bending points of plate
[FTD-HT-66-391] 12 p2110 N67-24981
Nondestructive testing of metal plates for pressure vessel application 14 p2582 N67-26909
Qualification test of BACN10EL self-locking nut plate used on Saturn S-IC
[NASA-CR-84662] 14 p2548 N67-27301
Memory storage device based on multiple-orifice ferrite plates containing number plates and decoder plate
[FTD-HT-67-6] 15 p2873 N67-28264
Ultrahigh strength low density aluminum sheet and plate composites
[NASA-CR-85863] 17 p3081 N67-31181
Transient and harmonic responses of plate with attached viscoelastic layer
[ATA-115] 18 p2347 N67-31512
Moire fringe technique for determining transient displacement distributions in centrally notched aluminum plates with propagating cracks
[TR-2A] 19 p3544 N67-32981
Ultrasonic inspection method for steel plate nets
[REPT.-6701.281] 22 p4057 N67-37770
Ultrasonic testing method for steel plate inspection
[REPT.-6008.364] 22 p4057 N67-37777
Bending tests with plate strip in pure bending and square plate in pure shearing stress, and determination of modull of elasticity and plate rigidity
[NASA-TT-F-11347] 24 p4545 N67-40139

METAL POWDER

S POWDERED METAL

METAL REINFORCEMENT

Electroforming of nickel composites reinforced with high strength filaments
[WVT-6706] 13 p2122 N67-24962
Reinforcement of ductile metals with strong high modulus discontinuous brittle fibers
[NASA-CR-84872] 15 p2720 N67-28265
Reinforcement of ductile metals with

strong high-modulus discontinuous fibers
[NASA-CR-87868] 20 p3658 N67-34669
Metalloceramic thermoemissive converters for conversion of solar radiant energy 21 p3760 N67-35472
Stress rupture evaluation of refractory metal fiber nickel alloy composites at high temperatures
[NASA-TM-X-52342] 22 p4000 N67-36793
Tungsten cable for internal prestressing of chemically consolidated zirconia
[NASA-CR-99607] 24 p4457 N67-39851
METAL SHELL
Fortran IV computer program for design and structural analysis calculations of filament-reinforced metal shell pressure vessels
[NASA-CR-72134] 02 p0318 N67-12097
Pressing metal shells from high strength beryllium powder
[SCL-DC-66-57] 04 p0556 N67-14024
Effects of geometrical variations in shape of explosive device on direction of projection of metal casing parts in guided missile warheads 19 p3548 N67-33379
Quality control testing of 81 mm mortar shell 20 p3646 N67-34468
METAL SPRAYING
S PLASMA ARC METAL SPRAYING
METAL SURFACE
Phosphate films evaluated for use as protective coating for metal surfaces
[M-66-656] 01 p0028 N67-10544
Polymeric coating application to metal surfaces of ships and railroad cars
[FTD-TT-65-1878] 01 p0079 N67-11090
Fatigue crack initiation on cubic metal surfaces
[EMRL-RM-1012] 03 p0408 N67-12653
Interference microscopic study of thin fluid films on metal surfaces for corrosion prevention
[RIA-66-2048] 05 p0725 N67-14676
Suppression of outgassing in metallic and nonmetallic coatings by surface treatment for reducing damage resulting from cavitation
[AD-642843] 09 p1461 N67-19744
Theory and experiments to determine mechanism of liquid drop impact erosion on metal surfaces
[NASA-CR-82957] 09 p1530 N67-19941
Initial steps in oxidation of nickel surface studied using low energy back-reflection electron diffraction
[NASA-CR-82951] 09 p1462 N67-19948
Erosion mechanism of solid metals
[NYO-3477-8] 10 p1657 N67-21675
Penetration and reflection of plasmoid from plane and conical metal surfaces in presence of magnetic field 11 p1954 N67-21933
Particle emission measurements on metal surface absorption of radiation pulses from Q-switched ruby laser
[AD-645473] 11 p1894 N67-22737
Irreversible fixing of cadmium on metallic surfaces, and cadmium sulfate poisoning of EL 4 reactor moderator
[AECL-2496] 11 p1924 N67-22960
Chemisorption of oxygen on molybdenum and niobium surfaces in ultrahigh vacuum
[SRIA-425-9] 12 p2039 N67-23685
Maxwell electromagnetic equations for determining basic relationships of polarized light reflection from metallic absorbing surfaces
[UCRL-11813] 12 p2155 N67-24554
Perturbation analysis to determine atom interaction with free metal electrons
[NASA-TT-F-10645] 13 p2376 N67-25811
Gas desorption from copper and stainless steel surfaces under electron bombardment
[CTO-311] 13 p2377 N67-25922
Electron microscope study of proton irradiated metal surfaces
[NASA-CR-84422] 14 p2558 N67-27701
Toxicity of metal surface to biological cultures, and millimeter-wave astronomy
[PB-172834] 16 p2969 N67-29577
Toxicity of metal surface to mass cultures of Chlorella pyrenoidosa 16 p2834 N67-29978
Review of methods for studying adsorption of organic compounds on solid metal electrodes
[NRL-6481] 16 p2851 N67-29773
Dry heat resistance of Bacillus subtilis spores in and on various materials and effect of water activity on dry heat resistance of encapsulated spores
[NASA-CR-85236] 16 p2834 N67-30005
Yield, energy, and angular distributions of sputtered atoms ejected from metal surfaces under ion bombardment 17 p3122 N67-30670
Mossbauer effect study of hydrogen adsorption onto metal surface by cathodic charging
[NASA-CR-84864] 17 p3082 N67-31353
Electron energy of chemical adsorption on semiconductors and metal surfaces
[NASA-TT-F-11086] 17 p3083 N67-31441
Properties of refractory alloys and surface cold working
[NASA-TT-F-11116] 17 p3084 N67-31493
Cold molecular welding characteristics of metal pellets on stainless steel wear plates
[NASA-CR-65661] 18 p3273 N67-31501
Activation growth, and detachment of boiling bubbles in water from artificial nucleation sites of known geometry and size drilled in polished metal surface
[NASA-TN-D-4101] 18 p3357 N67-32560
Coil impedance calculations for use in nondestructive control of nonferromagnetic metal sheets by means of eddy currents
[EUR-3483.F, VOL. 1] 19 p3496 N67-33084
Surface interactions between carbon monoxide and transition metals
[CEA-R-3123] 19 p3393 N67-33495
Formation of new metal phases on surfaces of metals in contact with liquid sodium at high temperatures
[KFK-466] 20 p3655 N67-34158
Streak interferometric measurement of transient deformation on metallic solid surfaces during wave propagation in solids and application to elastic-plastic wave propagation studies
[BRL-R-1362] 20 p3737 N67-34346
Thermal conductivity data on various metals, nonmetallic solids, liquids, and gases
[NSRDS-NBS-8] 20 p3745 N67-34492
Schematic tunneling model for studying field emission through atoms adsorbed on metal surface
[REPT.-66-C-325] 21 p3916 N67-35705
Determination of work function distribution on metal surfaces from surface ionization
[UCRL-17437] 21 p3923 N67-36433
Indentation creep of soft metals
[ORNL-TM-1862] 23 p4267 N67-39067
Specific surface measurements of sintered uranium oxide samples by BET method using xenon 133
[EURAEC-1863] 23 p4270 N67-39221
Procedures for use of ellipsometer for measuring corrosion and corrosion inhibition in thin films - light polarization
[RIA-67-1859] 24 p4449 N67-39962
Electric properties of monomolecular films adsorbed on metal surface
[NASA-TT-F-11153] 24 p4517 N67-39981
METAL VAPOR
Surface tension and liquid pressure variation effects on growth of vapor bubble in superheated liquid metal
[ORNL-TM-1413] 01 p0085 N67-10710
Electron collision cross section in metal vapors
[NASA-CR-72053] 02 p0291 N67-12094
Filling and covering for potassium, rubidium, and cesium vapor absorption chambers of radiooptical resonance magnetometers
[NASA-CR-81874] 08 p1236 N67-18404
Optical pumping technique for studying magnetic properties of rubidium vapor magnetometer
[NADC-AE-6714] 17 p3142 N67-30727
Repetitively pulsed, xenon propellant, plasma accelerator, and metal vapor propellant injector development
[NASA-CR-72271] 17 p3153 N67-30803
Vapor species identification, structural data, thermodynamics, and chemical properties of gaseous ternary salts of alkali metals
[AROD-606-34-C] 19 p3387 N67-33369
Core temperature regulation, control rod operation and heat transfer effects of liquid metal cooled reactor elements
[JPRS-42913] 20 p3684 N67-35075
Thermal resistance during surface condensation of potassium, sodium, and lithium vapors 20 p3748 N67-35080
Condensation in rapidly expanding metal vapor inert gas mixture
[ARL-67-0071] 22 p4024 N67-36986
METAL WORKING
SA BRAZING
SA CUTTING
SA FINISH
SA FORGING
SA FORMING
SA GRINDING
SA HARDENING
SA MELTING
SA SMELTING
SA SPRAYING
Semicontinuous pressure sintering of fine-grained ceramic bodies
[AD-638453] 01 p0078 N67-10414
Pressure distribution on metal rolls during rolling process
[NASA-TT-F-10422] 04 p0555 N67-13795
High energy forming studies metal shock hardening, dynamic deformation, high velocity displacement measurements, and high intensity short duration pressures
[CR-65-77] 04 p0556 N67-13903
Latin American conference on process metallurgy and metal working
[AFOSR-66-2001, VOL. I] 05 p0717 N67-14901
Conference papers on metallurgy techniques, manufacturing processes, materials research, and national programs in metal working
[AFOSR-66-2001, VOL. II] 06 p0691 N67-15501
Force calculation in metal working operations 06 p0884 N67-15504
Plastic deformation in metal working and forming problems 06 p0884 N67-15507
Military technology and armed forces coordinated metal working and processing program 06 p0884 N67-15508
Military technology and United States Metalworking Processes and Equipment Program 06 p0884 N67-15509
Explosive forming metal working techniques 06 p0885 N67-15515
Hot and cold bond-rolling techniques for metal hardening 06 p0885 N67-15518
Metal wire drawing under ultrasonic energy radiation
[NOTS-TP-4170] 07 p1089 N67-17187
Radius generation in vibratory deburring determined from graphs representing generation versus running time
[BDX-613-85] 07 p1091 N67-17437
Superheating and cooling of PM-21 austenitic steel
[EURAEC-1686] 07 p1101 N67-17408
Performance characteristics of cutting fluid in extreme pressure, water-base metal working lubricant program
[SA-TR16-1062] 09 p1453 N67-19815
Workability, heat treatment characteristics, and corrosion resistance for pressurized water of zirconium molybdenum chromium and zirconium molybdenum nickel alloys
[NSJ-TR-24, REV.] 12 p2119 N67-24319
Forming processes for fabrication of beryllium aerospace vehicle structures
[NASA-CR-77824] 13 p2327 N67-25908
Stress effects on workability of metals
[NEL-216] 13 p2340 N67-26199
Electron beam remelted tungsten technetium alloys forged while encapsulated in molybdenum cans - surface appearance and edge cracking properties
[NASA-CR-84071] 13 p2341 N67-26371
Recrystallization, elevated temperature strengthening, and mechanical working effects on tensile strength of TD nickel
[NASA-CR-84160] 14 p2550 N67-26584
High velocity electromagnetic, electrohydraulic, explosive, and pneumatic mechanical methods of metal working
[NASA-SP-5063] 14 p2541 N67-26560
Stress determination during rotational pressing of precision parts
[FTD-MT-66-138] 15 p2716 N67-28197
Al-Zn-Mg system alloys heat treated and studied for phase precipitation, decomposition, and mechanical properties of thin films
[T-1991-67] 16 p2907 N67-29638
Deformation processing of stainless steels using metal working techniques
[NASA-TM-X-53569] 18 p3274 N67-32021
Warm working to improve toughness of armor plate
[MRL-508-PT] 18 p3277 N67-32079
Brief survey of use of magnetic force welding techniques on ferrous, nickel-base, reactive, and refractory metals
[BNWL-423] 20 p3649 N67-34705
Hungarian development of cooling and lubricating fluids for metal working applications
[JPRS-41817] 20 p3649 N67-34879

High speed pressing of semihot steels 20 p3652 N67-35146
Advanced forming, welding, and machining processes 21 p3654 N67-35305
High temperature nickel-base alloy mechanical properties, metallography, and workability testing for jet engine turbine blade application
[NASA-CR-54507] 21 p3867 N67-35348
Forces in axisymmetric extrusion of metals through conical dies
[AFML-TR-67-83] 21 p3839 N67-35926
Laser and maser research abstracts and indexes related to ranging and communication systems, astronomy and optics, and metal working
[NASA-SP-7009/02/] 22 p4059 N67-37699
Electron beam melting furnace with drop casting technique for high purity molten metal shapes
[ORNL-P-3123] 22 p4057 N67-37840
Metallographic preparation techniques for vacuum cast rolled ingot beryllium sheet
[RFP-962] 24 p4457 N67-39681
METALLOGRAPHY
Role of metallography in analyzing microelectronic component failures 01 p0046 N67-10102
Statistical and metallographic analysis of ferritic magnesium cast iron
[FTD-TT-65-1823] 01 p0067 N67-11063
Metallographic and X-ray analyses of titanium alloys 03 p0371 N67-11770
Metallographic studies of fracture and plastic deformation in billet during transverse-helical rolling 06 p0983 N67-15397
Qualitative analyses, mass spectrometry, metal impurity determination, gas chromatography, and trace element detection studies
[UCID-15014] 07 p1031 N67-17899
Metallographic techniques for uranium sample preparation, and electron microscopy of uranium structures
[NCW-1501] 09 p1291 N67-19875
Metal removal techniques for beryllium in spacecraft structure application
[NASA-TM-X-53453, VOL. III] 09 p1453 N67-19657
Metallography of curium 244 oxide
[DP-MS-66-8] 10 p1679 N67-20940
Nondestructive electrical resistance measurements on metals for purity control
[JUL-317-RW] 10 p1654 N67-21066
Mechanical testing and metallographic examination of aluminum to copper coldwelded joints after thermal exposure - SNAP-8 electrical terminal
[NASA-CR-72194] 11 p1897 N67-22856
Metallographic and X-ray analysis of tungsten-molybdenum-zirconium ternary system isothermal section at 1200 deg C
[JPRS-39737] 11 p1900 N67-23408
Conference papers pertaining to electron probe microanalysis, electron microscopy, X-ray diffraction, and optical metallographic methods
[RFP-658] 12 p2116 N67-24341
Color metallography technique for optically identifying carbon, iron, aluminum, and silicon particles in uranium metal 12 p2166 N67-24344
Post-irradiation metallographic examination of arc-cast hypostoichiometric uranium monocarbides 12 p2166 N67-24346
Metallographic preparation of irradiated zirconium 10 w/o uranium hydride 12 p2148 N67-24347
Metallography of scandium, thulium, and erbium targets before and after irradiation 12 p2148 N67-24348
Metallographic facility for analyzing curium 244 oxides 12 p2149 N67-24350
Design and construction features of alpha-gamma metallographic facility for handling nuclear fuels and radioactive isotopes 12 p2149 N67-24352
Design details on custom polishing table for large metallography laboratory 12 p2082 N67-24353
Modifications to improve utility of optical metallographic apparatus 12 p2101 N67-24354
Basic metallographic laboratory filing and data handling system 12 p2082 N67-24356
Color staining metallographic technique for phase identification in sigma-bearing type 304 stainless steel 12 p2118 N67-24360
Metallographic and Laue X-ray diffraction studies of strain in large grains of alpha plutonium 12 p2119 N67-24365
Simplified metallographic techniques for uranium alloys, beryllium, and stainless steel
[RFP-862] 12 p2120 N67-24551
Vacuum evaporation of oxide films on polished metal surfaces and other metallography studies 13 p2325 N67-25375
Heat treatment and metallographic examination of iridium deposited on tungsten and molybdenum as high temperature protective coating
[NASA-CR-83867] 13 p2339 N67-25961
Destructive and metallographic testing of plasma arc welded titanium alloy joints
[GDC-ERR-AN-953] 14 p2544 N67-27219
Metallographic and X-ray diffraction analyses, stress rupture and low cycle fatigue testing, nitrogen gradient and loop analyses, and kinetics of bimetallic liquid metal systems
[GMAD-3943-8] 14 p2556 N67-27343
Topological study of sintering process
[ORO-2561-1] 16 p2853 N67-29880
Alloy 718 applied to components of M-1 rocket engine
[NASA-CR-768] 16 p2913 N67-30122
Bimodal fatigue endurance distributions in OFHC copper correlated with Wood's H, F and S ranges
[NASA-CR-66425] 18 p3279 N67-31847
Allotropic transformations in plutonium determined by metallography, dilatometry, thermal analysis, resistivity measurements, and hot stage microscopy
[CEA-R-3062] 19 p3471 N67-32226
Metallographic preparation and decontamination of plutonium containing samples for electron probe microanalysis
[AERE-M-1989] 20 p3663 N67-34098
High temperature nickel-base alloy mechanical properties, metallography, and workability testing for jet engine turbine blade application
[NASA-CR-54507] 21 p3867 N67-35348
Metallography used for examining allotropic phase transformations in cerium 21 p3871 N67-36355
Differential thermal, metallographic, and X-ray analyses for establishing ytterbium lead and europium lead phase diagrams 21 p3871 N67-36357
Synthesis and identification of intermetallic compounds in iron-holmium system 21 p3871 N67-36356
Phase equilibria in cerium-iron and cerium-nickel binary systems from differential thermal analysis, metallography and X-ray diffraction 21 p3871 N67-36359
Powder metallurgy of sintered uranium plutonium carbides
[LA-DC-8675] 22 p4005 N67-37668
Metallographic preparation techniques for vacuum cast rolled ingot beryllium sheet
[RFP-962] 24 p4457 N67-39681
METALLOSILOXANE POLYMER
Thermal stability of metallosiloxane compounds
[ZB/106/64] 09 p1413 N67-20371
METALLURGY
SA FRACTOGRAPHY
SA POWDER METALLURGY
SA SMELTING
Automatic correlation in metallurgical tests using autoradiography
[INR-649/XX/I] 01 p0070 N67-10026
Biochemistry, organic and inorganic chemistry, molecular and nuclear physics, and metallurgy
[AR-53] 01 p0028 N67-10453
Microplasticity experiments, metallurgical investigations, and fork optimization for design of gyroscope or accelerator cover design
[NASA-CR-80059] 02 p0317 N67-12049
Engineering and metallurgical evaluation of irradiated control rod
[WCAP-6974] 04 p0573 N67-13390
Porous refractory materials related to cesium contact ionizers 04 p0605 N67-13823
Application of adiabatic chlorimetry to metal systems
[ORO-3291-3] 04 p0561 N67-14065
Chemistry, engineering, metallurgy, physics, and reactor technology
[IS-1500] 05 p0779 N67-14612
Metallurgical studies of high temperature materials 05 p0716 N67-14615
Latin American conference on process metallurgy and metal working
[AFOSR-66-2901, VOL. I] 05 p0717 N67-14801
Sao Paulo Technological Research Institute and its contributions to development of metallurgy in Brazil 05 p0780 N67-14804
Activity plan of Metallurgical Department of National Atomic Energy Commission of Argentina 05 p0780 N67-14805
Activities of Service of Technical Assistance to Metallurgical Industry 05 p0780 N67-14806
Review of metallurgical research in Chile 05 p0780 N67-14807
Physical metallurgy of iron and steel 05 p0717 N67-14808
New ultrahigh strength steels 05 p0717 N67-14809
Metallurgy and materials science technological developments
[MAB-206-M/4/] 05 p0718 N67-15823
Conference papers on metallurgy techniques, manufacturing processes, materials research, and national programs in metal working
[AFOSR-66-2901, VOL. II] 06 p0891 N67-15561
Fabrication of porous plate filters 06 p0883 N67-15803
Force calculation in metal working operations 06 p0894 N67-15594
Fire refining of alpha copper and brass 06 p0894 N67-15595
Residual properties of molding sand after its contact with liquid metal 06 p0894 N67-15596
Design optimization through materials research 06 p0895 N67-15514
Production engineering and metal forming methods for possible application in Latin America 06 p0895 N67-15518
Methodology and economic planning of metallurgical research in Latin America 06 p0894 N67-15520
Research plans and technological developments in metallurgy 06 p0894 N67-15521
Titles of reports presented at Yugoslav-Polish uranium technology and metallurgy conference 06 p0913 N67-16312
Radiation hardening and embrittlement in metals and alloys
[ORNL-4020] 07 p1100 N67-17469
Metallurgical characteristics of high strength structural materials
[NRL-6454] 07 p1103 N67-17711
Influence of radiation on metallurgical processes
[BNL-10543] 08 p1233 N67-18585
Pack carburization of iron under vacuum conditions
[IS-T-106] 08 p1230 N67-18586
Computer system for metallurgic industry control processes
[FTD-HT-66-613] 09 p1421 N67-19778
Methods of improving heat-resistant properties of steels and alloys
[FTD-TT-65-111] 09 p1461 N67-19823
Thermal conductivity of rhenium and problem notes in chemistry, electricity, aluminum alloy fracture toughness, metallurgy and ceramics, nuclear and atomic physics, and optical physics
[PB-172549] 09 p1486 N67-19883
Diffusion theory and effects for metals in general and aluminum in particular - bibliography
[RAE-LIB-BIBL-285] 09 p1484 N67-20000
Research in chemical and solid state physics, electronic, magnetic, and optical properties of materials, and metallurgy
[AD-642096] 10 p1745 N67-20004
Metallurgical analysis of bellows failure in heat transfer loop of sodium components
[NAA-SR-MEMO-11970] 10 p1670 N67-20008
Radioisotopes and nuclear radiation methods in metallurgy and mining operations and research 10 p1654 N67-21247
Radioisotopes used in blast furnaces, coking plants, production of refractories and agglomerates, and chemical analysis of steel 10 p1643 N67-21248
Circuit for accurate pulsing of high temperature anneals of defects quenched in metals
[COO-1456-3] 10 p1656 N67-21573
Sintered carbide processing for tools, effects of additives, and capabilities of carbide tools
[Y-DA-1413] 10 p1648 N67-21639
Physical properties, metallurgical processes, and applications of magnesium-lithium alloys
[NASA-SP-5068] 11 p1895 N67-22972
Metallurgical studies on melting point of carbides reactor fuel, and physical and mechanical properties of certain metals
[USBM-RC-1264] 11 p1899 N67-23209

Preparation and refining of CrFe alloys
[NRL-6487] 11 p1896 N67-23676
Conditions necessary for plane front growth of two phase solids from single phase melt
[TR-2] 12 p2115 N67-23630
Metallurgical characteristics of high strength structural materials
[NRL-6513] 12 p2121 N67-24914
Metallurgical evaluation of beryllium powdered metal, and electron microscope studies of agglomerate particle sizes
[NASA-CR-84116] 13 p2274 N67-26451
Metallurgical engineering technological advancements in areas of fatigue damages, magnetic measurement techniques, corrosion control, mining, petrology and other subfields 14 p2601 N67-28609
Metal purity, and physical metallurgy of refractory metal alloys 14 p2552 N67-26985
Effects of welding, heat treatment, and aging methods and of added metals on physical properties of alloys
[FTD-MT-64-90] 14 p2553 N67-27021
Metallurgy of stress-relief annealing for nuclear reactor vessel
[EUR-3317.F] 14 p2576 N67-27138
Standard identification symbols adopted by metallurgical industry of Chinese Peoples Republic for iron and steel, nonferrous metals, and alloy products
[JPRS-40131] 14 p2557 N67-27382
Aluminum alloy 2014 materials data handbook, covering metallurgy, manufacturing, and physical and mechanical properties
[NASA-CR-84454] 14 p2557 N67-27420
Metallurgical analysis of hermetic electric connector spring clips
[NASA-CR-84496] 14 p2567 N67-27651
Extrusion and cold drawing fabrication of zirconium niobium pressure tubes, and metallurgical evaluation
[AECL-2652] 14 p2547 N67-27764
Metallurgy of fuel elements for power and research reactors, and of steels for pressure vessels
[RISO-139] 15 p2747 N67-28345
Roller stability using synthetic lubricants with surface active substances
[FTD-HT-66-376] 15 p2719 N67-28633
Fundamental and applied research and development in metallurgy - development of fabrication process for Zircaloy-aluminum composite pressure tubing
[NMI-2309.11] 16 p2910 N67-29761
Method for preparing thin chromium foil
[AERE-R-5430] 17 p3119 N67-30420
Metallurgical methods for detection and analysis of failure mechanisms in microelectronic devices 18 p3241 N67-31566
Metallurgical reduction processes and equipment for vacuum electrothermy
[JPRS-41540] 18 p3223 N67-31894
Potassium reduction in vacuum furnaces with inside heaters and corresponding temperature and vacuum regimes 18 p3255 N67-31895
Potassium production by vapor condensation in vacuum furnace 18 p3223 N67-31896
High temperature methods of producing calcium and relative cost reductions 18 p3223 N67-31898
Silicon loss from volatilization in production of magnesium and calcium 18 p3223 N67-31900
Uranium fuel element fabrication processing
[RMI-7] 19 p3461 N67-32741
Plasma generators in chemical and metallurgical processing
[FTD-MT-65-527] 19 p3462 N67-33055
Manufacturing and metallurgical handbook
[FTD-MT-64-192] 19 p3464 N67-33410
Austenitization, expansion, and stress relief properties of steel
[EURAEC-1706] 19 p3473 N67-33819
Austenitic and austeno-ferritic steel high temperature research
[EURAEC-1800] 19 p3474 N67-33923
Physical metallurgy of titanium - effects of ternary alpha-soluble and beta-stabilizing additions on Ti-Al primary alpha, mechanical properties and precipitation kinetics
[IITRI-B6041-12] 19 p3475 N67-33996
Venturi tube separator for removing dust during metallurgical processes 20 p3651 N67-35107
Electric furnace smelting of complex lead zinc sinter
[BM-RI-6999] 20 p3651 N67-35136
Cracking process for rare earth ores by direct chlorination at high temperatures 21 p3790 N67-36386
Production of rare earth metals by fused salt electrolysis 21 p3791 N67-36388
Vacuum evaporation and inert gas sputtering techniques and high current density tests for aluminum, chromium-gold, and molybdenum-gold metallization systems
[NASA-CR-85011] 22 p4069 N67-36771
Physical properties of titanium metallurgy - phase transformation and hardness effects, alloy compositions and lattice structures, creep and temperature resistance, and manufacturing
[FTD-HT-66-354] 22 p4083 N67-37121
Inorganic materials research in chemistry, metallurgy, ceramics, and solid state physics
[UCRL-17330] 22 p4129 N67-37646
Automatic processing of metallurgical abstracts for information retrieval
[NSF-4] 22 p4170 N67-38038
Historical approach to development of metallurgy and evolution of materials science 23 p4263 N67-38510
Materials science, physical chemistry, solid state physics, metallurgy, magnets, and instrumentations
[TID-23852] 23 p4333 N67-38877
Physical metallurgy, fabrication, and mechanical properties of Phoebus 2 rocket nozzle materials
[NASA-CR-89512] 23 p4292 N67-39229
Fracture criterion based on macroscopic ductility of metals
[NEL-340] 24 p4465 N67-39630
Mechanics of fuming of iron-carbon melts during top-blowing with oxygen
[BM-RI-7047] 24 p4457 N67-39744
Metallurgical properties of alpha-gamma uranium alloys from uranium molybdenum niobium vanadium titanium system
[AMRA-TR-67-16] 24 p4467 N67-39997
Metallurgical, electrical, and optical properties of gallium phosphide
[NASA-CR-89003] 24 p4518 N67-40312
Effects of metallurgical changes and geometrical discontinuities on fatigue strength of base metal and heat affected zone of mild steel welded joint
[MTB-010051] 24 p4469 N67-40375

METAMORPHISM
Impact metamophism studied for diagnostic criteria to distinguish meteoritic craters from other circular structures 19 p3441 N67-33170
Metamorphism and deep structure of norite and diorite granulitic series in Russian Lapland 19 p3447 N67-33684

METASTABLE ATOM
Metastable species in atomic and molecular beams produced by charge transfer in reentry physics studies
[AD-642525] 06 p0938 N67-16353
Mechanisms for formation and decay of energetic species of rare gases
[AFOSR-66-2280] 09 p1488 N67-19562
Thermal molecular beam technique to produce metastables by electron bombardment
[REPT.-9-66-13] 09 p1488 N67-19704
Control of helium and neon metastable atoms by optical pumping and application to gas laser
[REPT.-26] 09 p1456 N67-19738
Gravitation research - experimental test of Freundlich red-shift hypothesis and measurement of metastable vs ground-state electron exchange cross sections for helium and neon 11 p1937 N67-23649
Low density plasma tunnel status, small angle electron scattering for plasma diagnostics, and time of flight velocity analyser using metastable molecules
[AD-653366] 19 p3515 N67-33092
Formation and properties of metastable atoms, molecules, and ions
[CEA-BIB-69] 19 p3506 N67-33514
Role of metastable neutral electronically excited species in atmospheric deionization and reaction kinetics of important atmospheric constituents
[R67SD20] 20 p3630 N67-34340
Study of alloy theory - structure and properties of metastable phases of copper, zinc, and silver alloys
[F-C1869] 23 p4070 N67-37257
Metastable atoms and ions, atomic and molecular spectroscopy, radio astronomy, solid state physics, collision, and laser excitation
[PR-15] 22 p4099 N67-37381
Velocity distribution of metastable H atoms produced by dissociative excitation during electron bombardment
[COO-1112-120] 23 p4303 N67-38540

METEOR
SA ASTEROID
SA CEPHEID
SA RADIO METEOR
SA SPORADIC METEOR
Analysis of meteor luminous efficiency based on photographic data, taking into account fragmentation effects
[NASA-CR-80093] 02 p0306 N67-12182
Fragmentation mechanism of small meteors during atmospheric entry
[NASA-CR-80189] 02 p0463 N67-12910
Observational data on physics of meteors and comets
[NASA-TT-F-340] 06 p0959 N67-15441
Statistical characteristics of meteor radio echo in epoch of 1963 Geminids 06 p0960 N67-15442
General characteristics of comets, meteors, and zodiacal light 06 p0963 N67-15476
Simulated meteor entry tests in high enthalpy plasma jet to determine meteor ablation and radiation characteristics
[NASA-TN-D-3740] 09 p1543 N67-19681
Photometry of spectrograms of three artificial meteors
[NASA-TN-D-3930] 12 p2213 N67-25039
Production of geomagnetic micropulsations by meteors
[AFCRL-66-631] 14 p2521 N67-26671
Photographic determination of radiants, altitudes, and velocities of meteors
[NASA-TT-F-10968] 15 p2789 N67-28228
Photometric determination of masses and densities of meteoric bodies
[NASA-TT-F-10967] 15 p2789 N67-28229
Masses of meteors calculated from radiation, velocity, composition, and structural measurements
[NASA-TT-F-10690] 15 p2657 N67-28231
Comparison of photometric profiles of meteors and stars using images of stars on unguided negatives
[NASA-TT-F-10966] 15 p2789 N67-28239
Photograph evaluation for determining orbits of meteor bodies
[NASA-TT-F-10969] 15 p2790 N67-28286
Radar tracking of meteors at very high frequencies
[T-R-636] 17 p3157 N67-30189
Concentrations and orbital calculations of meteors and meteoritic and extraterrestrial dust particles - conference
[NASA-SP-135] 18 p3229 N67-32038
Atmospheric trajectory analysis of super-Schmidt photographic meteors, and physical properties of meteors 18 p3229 N67-32039
Meteor orbit distribution compared with comet and asteroid orbit distribution 18 p3229 N67-32040
Meteor orbit classification 18 p3229 N67-32041
Photographic interpretation of orbital element distribution of bright meteors 18 p3230 N67-32042
Meteor masses and distributions calculated from photographs 18 p3230 N67-32043
Meteor photographic recording with image orthicon tube 18 p3230 N67-32045
Seasonal variation, interstellar meteors, and sporadic meteor activity observed with radar 18 p3230 N67-32046
Radio observation of meteor incidence on earth 18 p3230 N67-32049
Radar observations of meteor deceleration when encountering atmospheric drag 18 p3231 N67-32051
Meteor radar echoes and visual observations 18 p3231 N67-32052
Radar measurements of meteors, meteor stream and comet connection, and orbital distribution of meteors 18 p3231 N67-32053
Radar echo measurements of increased meteor counts during middle months of 1963 18 p3232 N67-32057
Size distribution, concentration, and influx rate of meteoric particles in stratosphere determined by light scattering techniques 18 p3234 N67-32078
Temperature distribution in homogeneous opaque sphere traveling in space
[NASA-TN-D-4046] 18 p3268 N67-32351
Visible distribution of sporadic meteor radiants according to azimuth radar observations 19 p3439 N67-32838

Radar measurements, and observed meteor phenomena in earth atmosphere 19 p3537 N67-33666
Soviet geophysical studies, and radar observations of meteors 19 p3537 N67-33682
Automatic reduction procedure for photographic meteor data - star identification
[NASA-CR-862] 20 p3725 N67-34551
METEOR AIRCRAFT
Gap measurements between tire and runway during hydroplaning of Meteor aircraft, and flow pattern photographs under model tire
[ARC-CP-717] 11 p1782 N67-22791
METEOR HAZARD
Meteor fragmentation, photography, and relations with comets 06 p0961 N67-15452
METEOR SHOWER
Mass distribution of shower meteors determined from radar echo measurements
[NASA-CR-83328] 11 p1865 N67-22212
Physical and aerodynamic characteristics of meteor showers 18 p3330 N67-33046
Photographic analysis of minor meteor shower orbits 18 p3330 N67-33047
Space probe investigation of meteor showers with retrograde motion, and application to Halleys comet, 1986 18 p3330 N67-33049
Structure of major Northern Hemisphere meteor streams producing regular annual showers observed by radio 18 p3331 N67-33053
Radio echo duration distributions and underdense shower meteor trains 18 p3331 N67-33055
Synoptic measurements of field aligned data associated with radio aurora, shower meteor detection, and ionospheric electron content used for evaluating satellite radar system
[NRL-MEMO-1768] 19 p3400 N67-33877
Geographical distribution of Gibeon meteorites of Southwest Africa
[NASA-CR-87297] 19 p3533 N67-33017
Astronomical photometric data, lunar crater and Leonid meteor shower observations, polarization of stellar light by interstellar gas, and solid organic filter development
[NASA-CR-88749] 22 p4140 N67-37063
METEOR TRAIL
Drift measurements of ionized meteor trains 06 p0960 N67-15451
Turbulence in upper atmosphere according to radio echo observations of meteor trains 06 p0971 N67-15454
Addition of signal conditioning and data processing capability to unattended meteor trail wind and density set
[AFCRL-66-438] 12 p2140 N67-24780
Laboratory measurement of meteor luminous efficiency
[NASA-CR-787] 13 p2397 N67-25851
Height determination of radar echoes from meteor trails
[SEL-67-001] 14 p2527 N67-27476
Photo-electric detection instrumentation for observing meteor impacts on lunar surface using ground based telescope
[NASA-CR-85617] 17 p3163 N67-31351
Radioelectrical observations of meteor trails 18 p3270 N67-33044
Orbital distributions of meteors detected during radio survey in Southern Hemisphere 23 p4348 N67-39214
METEORITE
SA ACHONDRITE
SA ASTEROID
SA CARBONACEOUS METEORITE
SA CHONDRITE
SA ELEMENT ABUNDANCE
SA IRON METEORITE
SA IVUNA METEORITE
SA MICROMETEORITE
SA MICROMETEOROID
SA ORGUEIL METEORITE
SA TUNGUSK METEORITE
Upper atmospheric dimensions of meteorites
[NASA-CR-80177] 02 p0308 N67-12305
Chemical fractionation in silicate phase of meteorites
[NASA-TT-F-10416] 04 p0543 N67-13797
Neutron activation analysis of grains from enstatite achondrite meteorites - effect of proton damage on luminescence spectra of various meteorite classes - Lunar luminescence
[AFCRL-TR-66-665] 04 p0614 N67-14281
Extraterrestrial particles in sedimentary rocks
[AFCRL-66-628] 05 p0706 N67-15306
Meteoritic simulators using conical-shaped or hyperbolic-shaped charges that explosively propel metal jets
[NASA-CR-86215] 07 p1060 N67-17617
Calibration of flight guns for advanced shaped charge meteoritic simulators
[NASA-CR-86216] 07 p1060 N67-17618
Formation of hydrocarbons by Fischer-Tropsch reaction involving carbon monoxide, hydrogen, and meteorites
[NASA-CR-89926] 07 p1630 N67-17769
Gamma emissions of meteorites and terrestrial rocks and lunar soil radioactivity analysis
[CEA-R-3017] 10 p1621 N67-20777
Interrelationship of asteroids, meteorites, comets, and meteoric particles in solar system determined by magnitude of constant of Jacobi integral in limited circular three body problem
[NASA-TT-F-10985] 15 p2789 N67-28225
Primary cosmic radiation by tracks of nuclear particles in meteorites and tektites
[NASA-CR-86636] 18 p3322 N67-31988
Geologic structure, petrographic data, and suggested meteoritic impact origin of Canadian Manicouagan-Mushalagan Lakes area 19 p3441 N67-33166
Solar and meteoritic abundances or iron
[NASA-TM-X-60444] 23 p4346 N67-39076
Ecology of meteoritic material in solar system involving immediate origin and dissipation 23 p4347 N67-39211
Contents and isotopic composition of helium, neon, and argon in meteorites
[MPIH-1967/V/11] 23 p4349 N67-39225
METEORITE COLLISION
Planar shock wave test assembly for simulating meteoritic impact on planetary rock surface 19 p3442 N67-33172
Collisional model of meteoroids
[NASA-CR-88864] 22 p4145 N67-38048
METEORITE DENSITY
Evaluation of photographic meteor observations for density, temperature, and atmospheric pressure 04 p0545 N67-14228
Composition of terrestrial planets determined by densities of selected minerals, rocks, and silicates
[NASA-CR-88855] 17 p3163 N67-31374
METEORITIC COMPOSITION
Structural analyses of chondrules in chondritic meteorites
[NASA-TT-F-10129] 01 p0065 N67-10201
Experiment design for microbiological analysis of meteorites and detection of life on other planets
[JPRS-32015] 03 p0343 N67-12750
X-ray detection of disordered orthopyroxenes in meteorites
[NASA-CR-81376] 06 p0677 N67-16700
Elemental abundances in meteorites and terrestrial matter determined by neutron activation analysis
[NASA-CR-82505] 08 p1278 N67-19092
Isolation and identification of organic components of meteorites, and ancient sediments
[NASA-CR-82659] 08 p1340 N67-19120
Occurrence and origin of lamellae in troilite bodies in iron meteorites 09 p1440 N67-19504
Micrometeoroid composition determined using spectrographic analyzer to measure emission spectra of heated particles
[NASA-CR-85607] 11 p1897 N67-23325
Rare earth and barium abundances in Bununu howardite
[NASA-TM-X-55753] 13 p2092 N67-25920
Plots of chondrite normalized abundances of rare earths in anorthosite and mangerite
[NASA-TM-X-55755] 13 p2092 N67-25976
Radioactive dating of meteorites and tektites, cosmic dust and radiation studies, and mass spectrometry of atmosphere conducted in German facility 18 p3326 N67-32243
METEORITIC CRATER
Geographic and geologic methods of studying lunar surface and meteoritic structure theory
[NASA-TT-F-9834] 01 p0151 N67-10180
Infrared spectral emittance of natural rock surface from Pisgah Crater and Mono Craters area in California
[NASA-CR-80479] 02 p0390 N67-13182
Astrogeologic studies - crater investigations
[NASA-CR-82745] 09 p1457 N67-19869
Diagnostic petrographic criteria for establishing progressive stages of hypervelocity meteorite impact 09 p1459 N67-19898
Meteoritic and projectile cratering, petrography, and geologic applications to lunar surface studies
[NASA-CR-87057] 19 p3440 N67-33163
Flynn Creek crater, Tennessee, geologic history and probable meteoritic impact origin 19 p3440 N67-33164
Impact metamorphism studied for diagnostic criteria to distinguish meteoritic craters from other circular structures 19 p3441 N67-33170
Nickel-iron spherules and glass from Aduelloul meteoritic crater 19 p3441 N67-33171
METEORITIC DAMAGE
Solid-solid impact at velocities in meteoritic range 04 p0619 N67-13859
Penetration of barriers by meteorites 05 p0771 N67-14872
Penetration of thin shield by meteorite 05 p0771 N67-14873
Numerical methods for calculating two-dimensional unsteady flows caused by meteoritic impact on solid material 07 p1200 N67-17621
Thermal, weightlessness, and corpuscular radiation environments, meteoritic damage, and vacuum equipment for spacecraft testing - conference
[ESRO-SP-12] 18 p3043 N67-32181
Meteoritic penetration and impact damage to earth satellites 18 p3235 N67-32186
METEORITIC DUST
Luna-10 measurements of meteor particle impacts in earth magnetosphere
[JPRS-30798] 02 p0095 N67-12310
Meteoritic dust studied by rockets and orbiting satellites
[NASA-CR-83363] 11 p1974 N67-22260
Concentrations and orbital calculations of meteors and meteoritic and extraterrestrial dust particles - conference
[NASA-SP-135] 18 p3229 N67-32008
Rocket and satellite measurements on meteoritic dust 18 p3322 N67-32063
Meteoritic dust penetration and charge detection techniques used on Skylark rocket and Ariel II satellite 18 p3322 N67-32065
High altitude Aerobee coronagraph and meteoritic dust tracks 18 p3323 N67-32074
Vertical distribution of stratospheric dust to determine total meteoric dust influx over earth surface 18 p3324 N67-32075
Meteoritic dust in lower ionosphere 18 p3324 N67-32079
METEORITIC IONIZATION
Computation of ionized meteor wake initial radius
[NASA-CR-81706] 21 p3923 N67-36619
METEORITIC MICROSTRUCTURE
Microstructure of nickel-iron spherules from Aouelloul glass 09 p1439 N67-19507
Microchemical analysis method for establishing chemical composition of troilite and pyrrhotite in meteorites
[NASA-TT-F-10809] 12 p2097 N67-25928
Petrographic evidence of meteorite impact in Canadian rock structure
[NASA-TM-X-55769] 14 p2528 N67-27974
METEOROID
Statistical analysis of Pegasus satellite measurements of meteoroid penetration
[NASA-TM-X-1316] 02 p0295 N67-12309
Detection, identification, and structural analyses of tektites
[NASA-CR-83961] 13 p2312 N67-25939
Meteoroid flux and puncture models for cislunar space 17 p3170 N67-30970
Meteoroid and hypervelocity impact criteria for spacecraft design study 17 p3171 N67-30612
Meteoroid penetration measurements by Explorer XVI and XXIII satellites and Pegasus satellites for application to spacecraft design 18 p3323 N67-32084
Pegasus satellite measurement of near earth meteoroid environment - Van Allen belt radiation, and earth albedo data
[NASA-TM-X-53529] 20 p3723 N67-34549
Hypervelocity impact studies of meteoroid-bumper interactions
[NASA-CR-84857] 20 p3741 N67-35081
METEOROID CRATER
Lunar cratering statistics, meteoroid impact hypothesis, and erosion
[NASA-CR-84183] 14 p2510 N67-26511

METEOROID HAZARD
Model of near-earth meteoroid environment from satellite observation data
[NASA-TN-D-3717] 01 p0068 N67-10794
Satellite instrumentation and data retrieval procedures for collecting meteoroid penetration data from Pegasus satellite
[NASA-TN-D-3585] 02 p0311 N67-11381
Meteoroid detector development, and hypervelocity impact and electron radiation test data 02 p0312 N67-11384
Satellite control station methods and facilities for evaluating Pegasus in-flight performance, and meteoroid penetration data 02 p0313 N67-11385
Data collection and analysis of meteoroid penetration recorded on Pegasus flights, and derived flux figures 02 p0312 N67-11386
Meteoroid hazard and high velocity impact studies with spacecraft structures 04 p0618 N67-13855
Meteoroid hazards to solid propellant rocket motors
[NASA-CR-83118] 10 p1756 N67-31168
Impact effects applied to meteoroid hazard
[NASA-CR-757] 18 p2966 N67-39028
METEOROID PROTECTION
Optimum lithium hydride shield vessel design for protection against meteoroid punctures
[NAA-SR-MEMO-11790] 10 p1689 N67-31788
Mathematical model for determining ballistic limit of double-walled meteoroid bumper systems
[NASA-TN-D-3916] 13 p2221 N67-33799
METEOROLOGICAL BALLOON
Climatological statistics of parameters affecting tethered balloon flights
[AFCRL-66-490] 01 p0101 N67-10405
Theoretical principles and preliminary experiments for world-wide meteorological weather balloon system
[NASA-TT-F-10297] 02 p0282 N67-11261
Balloon-borne mass spectrometer measurements of constituents of atmosphere to 28 km
[AFCRL-66-339] 05 p0702 N67-14726
Use of fast sampling rate for computing wind velocity from pilot-balloon data
[ECOM-5066] 05 p0732 N67-14744
Tracking radar for balloon path observations and atmospheric turbulence measurements 06 p1304 N67-18238
Flight profiles of meteorological balloons used for measuring cosmic ray intensities
[NCAR-TN-20] 10 p1690 N67-30594
Meteorological aspects of constant level balloon operations in southwestern United States
[AFCRL-66-706] 11 p1916 N67-23146
Wind profiles from meteorological balloons subjected to power spectral analysis
[ECOM-5009] 15 p2741 N67-36373
Comparison of jimsphere and rawinsonde wind shears
[AD-650636] 17 p3096 N67-36309
Comparison of pilot balloon observations, radiosonde, and rawinsonde measurements of wind
[ECOM-5116] 18 p3268 N67-32543
Comparison of automatic tracking pilot balloon wind measuring radar system with double theodolite systems
[ECOM-5121] 21 p3850 N67-36034
Nuclear emulsion stacks from high altitude balloons used to determine energy spectrum of cosmic ray nuclei
[CR-99] 22 p4135 N67-36896
Cinetheodolite balloon observations on wind magnitude and direction changes at missile range
[ECOM-5120] 22 p4067 N67-37474
Material, design, and instrumentation for balloons for meteorological and geodetic studies and atmospheric entry - conference
[AFCRL-67-0075] 23 p4179 N67-39261
Altitude and ascent rate tests of meteorological balloons 23 p4179 N67-39262
Electronic equipment for GHOST meteorological balloon 23 p4517 N67-39287
Meteorological tracking data from high altitude Robin balloon flights
[AFCRL-67-0433] 24 p4484 N67-39891
Mathematical model of haze effect on Umkehr ozone distribution curves based on Mie scattering function
[AFCRL-67-0267] 24 p4488 N67-39899
METEOROLOGICAL FLIGHT
Meteorological observations and aircraft measurements of clear air turbulence during routine flights in Australian jet stream - TOPCAT project
[RAE-TR-66122] 04 p0572 N67-14262
U.S.S.R. study results on atmospheric composition during International Geophysical Year /IGY/-meteorological flight over Antarctica, and circulation anomalies over both hemispheres
[REPT.-11] 15 p2738 N67-27856
Observational results from flight over antarctic inland region during International Geophysical Year /IGY/ 15 p2894 N67-27860
Clear air turbulence measurements during radioactive debris flights in Midwest area on 23 and 24 April 1963 17 p3055 N67-30686
Meteorological measurements over southern California using airborne medium resolution infrared radiometer
[NASA-TM-X-55918] 23 p4051 N67-38049
METEOROLOGICAL INSTRUMENT
SA ANEMOMETER
SA HYGROMETER
SA PYRHELIOMETER
Advanced meteorological balloon and rocket sounding system and instrumentation
[AFCRL-66-256] 01 p0040 N67-10972
Multitransmissometer systems evaluated on basis of visibility and climatic conditions
[RD-66-45] 01 p0104 N67-11113
Stratospheric ozonesonde that utilizes chemiluminescent principle to measure ozone concentration after deployment from Arcas rocket vehicle
[ECOM-5064] 05 p0706 N67-14728
Physical meteorology studies of satellite observations, cloud physics, and atmospheric ozone 06 p0906 N67-15422
Analysis of atmospheric electric and meteorologic data to evaluate accuracy of fog forecasts using atmospheric electric recordings
[NRL-6436] 07 p1117 N67-17013
Real time meteorological system providing impact prediction, prelaunch trajectory, and wind data for unguided rocket firing
[ECOM-5037] 07 p1118 N67-17069
Accuracy of short-range lightning counters 09 p1472 N67-19519
Boundary layer meteorology derived from reduction of climatographs in temperate zone
[ECOM-2729] 09 p1473 N67-19547
Apparatus, method, and measurement data on microstructure and spectral transparency of artificial fog
[FTD-HT-66-296] 09 p1474 N67-20018
Transponder dart for measuring atmospheric temperature and wind profiles
[REPT.-7603-1] 10 p1762 N67-30656
Wind shadow effect of meteorological tower on wind velocity around structure
[ECOM-5074] 10 p1672 N67-30672
Electromagnetic propagation range facility for obtaining meteorological data
[BRL-R-1331] 10 p1509 N67-30705
Conference proceedings on meteorological methods and instrumentation, automation problems, data processing, and hydrometeorology
[TT-65-50064] 11 p1910 N67-21984
Meteorological measuring methods and instruments, and requirements of Soviet economy for meteorological data 11 p1910 N67-21985
Electronic integrated circuit for determining totals and averages of meteorological elements 11 p1837 N67-21988
Instrumentation for automatic meteorology station 11 p1874 N67-21993
Improved versions of code type radiosondes for measuring temperature, pressure, and humidity 11 p1911 N67-22000
Electrometeorograph device for meteorological measurements from helicopters 11 p1874 N67-22002
Meteorological instrumentation for heat balance and evaporation measurements in forest 11 p1902 N67-22013
Elastic links for hydrometeorological measuring instruments 11 p1875 N67-22014
Air humidity measuring devices using thermistors 11 p1875 N67-22015
Thermoelectric temperature sensors for anisotropic turbulent air stream measurements in atmospheric ground layer 11 p1875 N67-22016
Daytime measurement errors of meteorological polarization visibility meters 11 p1875 N67-22017
Radiation balance and measurements by actinometry and meteorological radiometer in Arctic region 11 p1864 N67-22024
Calibration and testing meteorological instruments 11 p1877 N67-22029
Airborne precipitation water content meter
[FR-1004] 11 p1885 N67-23041
Proposal for secondary standard illumination meter
[ECOM-2750] 12 p2100 N67-23875
Analysis of tracking, height, pressure, temperature, and wind measuring capabilities of FPS-16-RADAR, GMD-2 rawin system, and transponder radiosonde instrument
[NASA-CR-61168] 12 p2102 N67-24480
Addition of signal conditioning and data processing capability to unattended meteor trail wind and density set
[AFCRL-66-438] 12 p2140 N67-24780
Raindrop spectrometer and automatic liquid water content meter design and performance
[AFCRL-66-762] 13 p2323 N67-26341
Double bolometer measurements of atmospheric radiator effects
[TR-30] 14 p2533 N67-26910
Runway visual range system for atmospheric transmittance over 500 feet
[RD-66-34] 14 p2571 N67-27184
Methods and instruments of aerological measurements used in U.S.S.R.
[NASA-TT-F-368] 16 p2926 N67-30157
Specifications and operational ranges of microbarographs for measuring atmospheric waves
[CU-161-67-ONR-266-PHYS.] 17 p3059 N67-30423
Doppler radar measurements of severe thunderstorms
[RRE-TN-713] 20 p3673 N67-34736
Meteorological instruments and methods for measuring humidity, temperature, and pressure, and for checking actinometric instruments
[JPRS-41176] 21 p3881 N67-35331
Improved method for checking actinometric instruments using constant voltage and high impedance galvanometer 21 p3845 N67-35335
Boundary layer meteorology for Arctic and Antarctic regions from frigorimeter data
[ECOM-2825] 22 p4066 N67-36812
Dynamic evaluation of radar and photo-tracking systems
[ECOM-5128] 22 p3907 N67-37032
METEOROLOGICAL PROBE
Telemetry systems for gun-launched upper atmosphere probes
[ERB-743] 02 p0234 N67-11866
Weak shock effects and chemistry of lower D region, and blunt supersonic probe theory and first order corrections
[NASA-CR-80374] 03 p0289 N67-12966
Utilization of gun systems to launch meteorological and upper atmospheric research probes - Project HARP
[BRL-MR-1771] 05 p0704 N67-15048
Communications, meteorological, and scientific experiments for applications technology satellite having passive gradient control system
[NASA NEWS RELEASE-67-71] 09 p1517 N67-20381
Muzzle velocity measurement for tube-launched meteorological probes
[ECOM-5063] 10 p1598 N67-29456
Interpolated meteorological sounding profiles of Northern Hemisphere for 15 micron carbon dioxide absorption band
[NASA-CR-723] 10 p1673 N67-21447
High altitude probing, earth orbit performance, reentry studies, and long range capabilities in relation to HARP vehicles
[R-SRI-H-R-13] 11 p1961 N67-22465
Planetary atmosphere structure determined from entry vehicle onboard measurements of pressure, temperature, and acceleration
[NASA-TN-D-3923] 11 p1872 N67-23361
Tabulated data of atmospheric density, pressure, and temperature from rocket and optical probes during period 1947 to 1965
[NASA-CR-85585] 17 p3055 N67-30688
Meteorological fluctuations in clouds, cirrus cloud seeding as trigger for storms, raindrop evaporation, natural ice crystals, and convective clouds - papers on cloud physics
[TN-96] 22 p4067 N67-37344
April 1967 daily radiosonde measurements and computed climatological data from

aerological station, Berlin, Germany 23 p4379 N67-39600
Lower ionosphere research, rocketborne ac conductivity probes, and radio wave propagation experiments, with bibliography [AFCRL-67-0425] 24 p4436 N67-39454
METEOROLOGICAL ROCKET
SA JUDI ROCKET
SA SOUNDING ROCKET
Diurnal temperature and wind variation measured by instrumentation aboard meteorological rockets - detection of possible errors in temperature measurements in upper stratosphere [NASA-TM-X-1296] 03 p0282 N67-11816
Southern Hemisphere stratospheric circulation as indicated by shipboard meteorological rocket observations [NASA-TM-X-1346] 08 p1305 N67-18952
Improved rocketsonde parachute derived wind profiles [ECOM-5086] 10 p1672 N67-21336
Wind and temperature measurements from meteorological sounding rocket firings and computed values for pressure, density, and speed of sound for July, 1966 11 p1917 N67-23417
Meteorological rocket data for stratospheric tidal circulation mapping over Northern Hemisphere [AD-634650] 15 p2896 N67-27904
Static stability of single-stage meteorological sounding rocket at Mach numbers from 6.0 to 12.0 [NASA-TN-D-4013] 16 p2973 N67-29379
Weekly synoptic analyses for 1964 of 5-mb, and 0.4-mb surface charts based on meteorological rocket network observations [WB-2] 17 p3006 N67-30679
Thumba Meteorological Rocket Launching facility - Kerala, India 18 p3256 N67-32567
Meteoriogical rocket network firings 21 p3883 N67-35690
Alaska cold weather testing of 5-inch high altitude research system and rocket for meteorological soundings [BRL-TN-1657] 22 p4146 N67-36825
Wind and temperature data measured by sounding rockets in meteorological rocket network 22 p4007 N67-37248
Cajun Dart vehicle for low cost meteorological soundings at 95 kilometers [NASA-CR-61175] 22 p4151 N67-38033
Ballutes for controlling descent of meteorological rockets 23 p4180 N67-39232
Wind and temperature measurements from meteorological sounding rocket firings and computed values for pressure, density, and speed of sound for January 1967 23 p4281 N67-39302
Tidal experiment based on 24 meteorological rocket soundings in equatorial stratosphere over Ascension Island [ECOM-5133] 24 p4436 N67-39520
METEOROLOGICAL SATELLITE
SA ESSA SATELLITE
SA NIMBUS SATELLITE
SA TIROS SATELLITE
International weather forecasting network using satellite and computer technology 02 p0283 N67-12037
Flight performance, system integration, and test program for Nimbus II and B spacecraft and launch vehicle [NASA-CR-80347] 03 p0467 N67-12961
Meteorological and geomorphological data acquired from Nimbus II satellite during period May 30 through June 30 1966 [NASA-CR-80343] 03 p0419 N67-13966
Manned meteorological satellite instrumentation and observation [DAC-59300] 04 p0571 N67-13562
Interpretation of mesoscale cellular convection patterns in cumulus clouds photographed from satellites [REPT.-37] 06 p0907 N67-16220
Satellite observed cloud cover in southeast Asia [REPT.-9G32-1] 06 p0907 N67-16588
Experimental use of satellite cloud photographs in numerical prediction [REPT.-36] 07 p1116 N67-16780
Space satellite application in communications, navigation, geodesy, and meteorology [NASA-SP-137] 08 p1371 N67-18724
Satellite meteorology based on televised cloud pictures, radiation measurements, and sounding rocket data 08 p1305 N67-18727
Table of contents and photograph figure captions for book on practical utilization of data from meteorological satellites [NASA-CR-82393] 11 p1913 N67-23457
Meteorological satellite data interpretation, and atmospheric radiation effects - U.S.S.R. [JPRS-39599] 11 p1913 N67-23594
Conference on satellite data techniques in meteorological research [NCAR-TN-11] 12 p2137 N67-24283
Meteorological satellite technology application development 12 p2137 N67-24284
Technical aspects of meteorological satellite photography 12 p2137 N67-24285
Meteorological satellite data use tropical weather analyses 12 p2137 N67-24286
Problems in using satellite observation data for specific meteorological projects 12 p2137 N67-24287
Computer program to extract meteorological data from satellite for geographic region in any orbit 12 p2137 N67-24288
Meteorological satellite photographic and radiation data use in severe storm studies 12 p2137 N67-24289
Meteorological satellite data application to thunderstorm research 12 p2137 N67-24290
Proposed uses of operational meteorological satellite data in weather analysis 12 p2137 N67-24291
Applicability of meteorological satellite observations to studies of general circulation 12 p2138 N67-24296
Weather bureaus meteorological satellite program objectives, and studies for improving TIROS operational satellite system 12 p2140 N67-24908
NASA meteorological flight program plans, procedures for participation in space flight programs, and requirements for meteorological research on Mars 12 p2214 N67-24309
Numerical interpretation of cloud data from meteorological satellites [TR-468] 12 p2140 N67-24920
Eole experiment - weather satellite used to follow ceiling balloons with radioelectric responder [NASA-TT-F-10984] 14 p2630 N67-27606
Meteorological satellites Cosmos 144 and 156 [NASA-CR-84836] 15 p2796 N67-28874
Shipboard station for receiving automatic picture transmission signals from meteorological satellites [NEL-1435] 16 p2924 N67-29086
Numerical interpretation of cloud information obtained from satellites, and determination of geopotential field [T-R-469] 17 p3050 N67-30200
Meteorological satellite photography and weather forecasting 17 p3052 N67-30406
Antenna, preamplifier, demodulator, and display, synchronization, copying, and data handling equipment subsystem requirements for low cost mobile meteorological satellite ground stations [AD-651395] 17 p3043 N67-30480
Prototype nickel cadmium cells for future meteorological satellite [NASA-CR-84867] 17 p2998 N67-31137
Use of meteorological satellites in cloud research [JPRS-41635] 18 p3262 N67-31906
Temperature of earth surface and clouds determined using meteorological satellites 18 p3262 N67-31909
Possibility of tracking cloudiness of night sky from meteorological satellites 18 p3263 N67-31912
Aircraft flight tests of electric scanning microwave radiometer designed for meteorological satellite [NASA-TM-X-55693] 21 p3947 N67-35540
Phased arrays for meteorological satellites [NASA-CR-80060] 22 p3963 N67-36755
Application of computer method for determining probability of cloud free line of sight for satellite reconnaissance in intermontane region of United States [RM-5365-PR] 22 p4097 N67-37361
International cooperation for using communication and meteorological satellites [FTD-MT-66-154] 22 p4169 N67-37292
Meteorological satellite measurements of lower atmosphere [NASA-TM-X-55842] 23 p4038 N67-37367
Weather satellite observation data for Europe during May and June, 1966 23 p4382 N67-39943
European weather satellite observations for March and April, 1966 24 p4484 N67-39683
Conference papers on meteorological satellite data interpretation, solar and upper atmospheric phenomena, tropical meteorology, and weather forecasting techniques [AWS-TR-196] 24 p4485 N67-39802
Meteorological satellite data interpretation of cloud photographs for weather forecasting and analyses 24 p4486 N67-39803
Surface and upper air analyses for sparse data regions based on meteorological satellite cloud photograph interpretations 24 p4486 N67-39804
Meteorological satellite cloud photograph interpretation key for regional use 24 p4450 N67-39805
Integration support equipment functions, operation, and physical characteristics for interrogation, recording, and location subsystem used in Nimbus B satellite [NASA-CR-89059] 24 p4426 N67-39834
Weather satellite picture pattern discrimination method [NASA-CR-89780] 24 p4419 N67-40271
METEOROLOGICAL SERVICE
Numerical weather forecasting methods used by U.S.S.R. meteorological service [JPRS-38409] 01 p0101 N67-10094
Microwave radiometer, horn antenna system, and techniques for collecting and analyzing meteorological data 04 p0570 N67-13487
Background discussion of drought in Australia and maps of annual rainfall for years 1885 - 1965 17 p3056 N67-31178
Wind and temperature measurements and pressure, density, and speed of sound values obtained by meteorological rocket network firings during Dec. 1966 22 p4008 N67-37304
May 1967 world weather summary, daily, and mean ground and 850-mb charts of Northern Hemisphere 23 p4378 N67-39554
World weather summary, daily, and mean ground and 850-mb charts of Northern Hemisphere, June 1967 23 p4379 N67-39590
March 1967 world weather summary and daily, mean, 850-mb, and ground charts for Northern Hemisphere 23 p4379 N67-39601
March through June 1966 daily and monthly weather charts for 100-mb level, and stratospheric circulation data for Northern Hemisphere [QR-2] 23 p4379 N67-39602
February 1967 weather charts and meteorological data for Berlin and Germany, and articles on storm phenomena, polar and arctic research, weather radar, and heat budget of earth 23 p4379 N67-39603
March through June 1966 stratospheric circulation and meteorological charts for Northern Hemisphere [QR-2] 23 p4379 N67-39604
June through September 1966 daily and monthly mean meteorological charts and data for Northern Hemisphere [QR-3] 23 p4380 N67-39605
Tabulated data and maps of precipitation and snow recordings during winter 1964-65 in Finland 23 p4382 N67-39060
Wind and temperature data measurements from meteorological sounding rocket firings during February, 1967 24 p4487 N67-39679
July 1967 weather charts, climatological data, and meteorological articles for Berlin, Germany, and central Europe 24 p4487 N67-39065
May and spring 1967 weather charts, climatological data, and meteorological articles for Berlin, Germany, and central Europe 24 p4482 N67-39069
June 1967 daily weather maps for Germany and synoptic meteorological data and articles for central Europe 24 p4485 N67-40060
Daily weather maps for Germany and synoptic meteorological data and articles for central Europe for April 1967 24 p4488 N67-40838
METEOROLOGICAL STATION
Atmospheric circulation and seasonal climatic variations, drifting radiometeorological stations, and heat balance measurements [JPRS-38779] 03 p0418 N67-12991
Radio beacons on drifting ice and drifting automatic radiometeorological stations in Arctic Ocean 03 p0280 N67-12995
Ionospheric data for January, 1966 from Woomera meteorological station [CPD-1966/1/W/] 03 p0282 N67-12991
Accuracy of position determination of

artificial satellites by photographs 04 p0509 N67-13550
Systematic research of world ocean through oceanographic surveys and construction of stations 04 p0544 N67-14234
Grid modifications in radio telemetered meteorological and radiation observation network 07 p1117 N67-17316
Meteorological observation data from Finland for 1964 06 p1305 N67-18717
Space receiver observations of Jovian decameter flux [NASA-CR-82854] 08 p1359 N67-19113
Measurement of ionospheric drifts by meteorological stations [FTD-HT-66-274] 10 p1621 N67-20662
Technical improvements in Soviet radiosonde station network for aerological observations 11 p1910 N67-21986
Automatic telemetering meteorological station, and its importance for comprehensive automation of hydrometeorological service 11 p1910 N67-21987
Data coding and processing principles applied to design of automatic telemetering meteorological stations 11 p1917 N67-21989
Problem of linking automatic telemetering meteorological stations to general Soviet telegraph circuit 11 p1917 N67-21990
Instrumentation for automatic meteorology station 11 p1974 N67-21993
Optimum location of meteorological network stations for data acquisition and weather forecasting 11 p1912 N67-22004
Primary processing of data from meteorological observations 11 p1912 N67-22032
Optimizing methods for making snow cover surveys by U.S.S.R. meteorological station network 11 p1864 N67-22033
Large-scale measurements of rate of snow melting made by meteorological stations 11 p1864 N67-22036
Processing results of meteorological data obtained by Soviet expedition to Antarctica 11 p1912 N67-22037
Data analysis of wind, temperature, roughness, and heat flux profiles recorded at Antarctica meteorological stations - Little America V micrometeorology program [TR-67-46-ES] 16 p2924 N67-29139
Wind conditions, state of sea, visibility, and air temperature data collected by meteorological stations along coastline of France [REPT.-59] 16 p2925 N67-29936
Whistler data registration for 1965 through 1966 in Germany 17 p3054 N67-30699
Activities of scientific stations and air and tractor sledge traverses to inner regions during fifth and initial stage of sixth Soviet Antarctic expeditions 1959 through 1961 [TT-65-50145] 18 p3266 N67-32168
Scientific stations, tractor sledge traverses, and activities of first, second, and third Soviet Antarctic expeditions from 1955 through 1959 [TT-65-50146] 18 p3266 N67-32170
Site selection for seismic array station and crustal studies in Norway 1965 [AFOSR-67-1379] 20 p3828 N67-34188
Atmospheric pressure measuring method for automatic meteorological stations 21 p3882 N67-35333
Extreme air temperature values determined by approximation method for automatic meteorological stations 21 p3882 N67-35334
Thunderstorm and lightning activity, and frontal passages over Hawaiian Islands - synoptic climatology [HIG-67-9] 21 p3883 N67-36522
Monthly and diurnal thunderstorm and lightning distributions for airport stations on Hawaiian Islands 21 p3883 N67-36524
Automatic Picture Transmission /APT/ use at Japanese weather station, and techniques for preparing APT pictures for facsimile transmission 24 p4488 N67-39006
North American meteorological station network surface observations of snow and ice for correlation with aircraft and satellite reconnaissance data 24 p4439 N67-39828

METEOROLOGY
SA AEROLOGY
SA AERONOMY
SA ATMOSPHERIC CONDITION EFFECT
SA ATMOSPHERIC ENERGETICS
SA CLIMATOLOGY
SA CLOUD PHYSICS
SA HYDROLOGY
SA HYDROMETEOROLOGY
SA MICROMETEOROLOGY
SA POLAR METEOROLOGY
SA RADIO METEOROLOGY
SA SYNOPTIC METEOROLOGY
SA TROPICAL METEOROLOGY

Atmospheric and meteorological data recorded at Italian facility - annual report 1965 [EUR-2986.I] 01 p0096 N67-10077
Research in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space [JPRS-38460] 01 p0068 N67-10383
Research in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space [JPRS-38230] 01 p0066 N67-10384
Daily and median meteorological data for Northern Hemisphere during June, 1965 01 p0101 N67-10462
Environmental air-sea data collected by automated data acquisition system [REF-66-9T] 02 p0283 N67-11927
Small laser radar applied to meteorological studies [PMR-TM-66-6] 02 p0268 N67-12294
Meteorological data for Lance missile launch [DR-67] 03 p0419 N67-13021
Meteorological data for Nike-Apache rocket launch [DR-72] 03 p0420 N67-13028
Meteorological rocket network sounding data from December, 1965, firings [IRIG-100-62, VOL. LII] 03 p0430 N67-13037
Meteorological data for Aerobee rocket launching and ballistic studies [DR-66] 03 p0430 N67-13040
Sino-Soviet research in astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmosphere and space research [JPRS-38937] 04 p0543 N67-14149
International cooperation on meteorological data exchange, and meteorological problems in aviation and supersonic aircraft [JPRS-39053] 04 p0571 N67-14154
Sino-Soviet publications in astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmosphere and space research [JPRS-39180] 04 p0543 N67-14159
Geophysical research in oceanography, meteorology, and glaciology [NASA-TT-F-283] 04 p0543 N67-14221
International Indian Ocean Expedition including studies in meteorology, geophysics, and mapping 04 p0544 N67-14223
Proposal for establishment of systematic meteorological studies in Soviet mountainous regions 04 p0572 N67-14231
Climatology research, cumulonimbus currents, meteorology, hydrology, grain crop yields from meteorological factors, and water properties of soils [JPRS-39061] 05 p0731 N67-14389
Three-dimensional structure of Santa Ana winds - California [PSW-30] 05 p0733 N67-15317
Geophysics review of achievements in meteorology, climatology, and seismology [NASA-TT-F-383] 06 p0870 N67-15421
Sound propagation prediction affected by meteorological parameters such as atmospheric variability [NASA-CR-61160] 06 p0906 N67-16681
Mean wind profiles for Hawaii and Central Pacific islands [HIG-66-13] 09 p1473 N67-19691
Performance evaluation of wind speed and wind direction recording instruments 11 p1975 N67-22010
Cold stratus precipitation, cloud seeding, long range weather forecasting, climatic element fields by orthogonal functions, wind perturbation, and Northern Hemisphere vorticity [JPRS-39884] 11 p1914 N67-22601
Ice and snow crystals in precipitation cold stratus of Kirin China area - April - June 1963 11 p1914 N67-22602
Statistical approach and two curve fitting approaches to analysis of 15 mu infrared horizon radiance profile variations over range of meteorological, and geographical conditions [NASA-CR-725] 11 p1916 N67-22776
Meteorological parameters for altitude intervals between mean sea level and 30 km altitude for guided missile range [IRIG-104-63, PT. 1] 11 p1916 N67-23133
Soviet research in geophysics, astronomy, meteorology, and oceanography [JPRS-39460] 11 p1873 N67-23434
Abstracted data on astronomy, meteorology, oceanography, and terrestrial geophysics [JPRS-39571] 11 p1873 N67-23435
Meteorological study of containment vessel temperatures on operating experimental breeder reactor [IDO-12055] 12 p2146 N67-23761
Idealized meteorological radar range equation [P-5] 12 p2050 N67-23831
Meteorological considerations for supersonic transport flights 12 p2014 N67-23981
Temperature distribution at altitudes flown by supersonic transports 12 p2014 N67-23982
Space meteorology, and details on Cosmos satellite [NASA-TT-F-10655] 12 p2140 N67-25306
Weather forecasting and statistical meteorology studies [SR-1] 13 p2350 N67-25508
Optical radar sensing of meteorological variables in atmosphere and ionosphere [NASA-CR-83869] 13 p2351 N67-25823
Meteorological data for Mars and Venus [NASA-CR-786] 13 p2402 N67-25881
Frequencies of certain meteorological conditions unfavorable for aeronautics at 39 airports [REPT.-57] 13 p2352 N67-26002
Abstracts of scientific articles in fields of astronomy, meteorology, oceanography, terrestrial geophysics, upper atmospherics, and space research [JPRS-40496] 13 p2316 N67-26356
Soviet meteorological research on radiation distribution, flux measurement devices, random error of pyrgeometer, and related topics 14 p2534 N67-27105
Operation of Yanishevsky double balancemeters with stable forced ventilation 14 p2535 N67-27112
U.S.S.R. radar techniques for meteorology and weather forecasting programs [JPRS-40459] 14 p2568 N67-27281
Abstracts and news summaries in geophysics, astronomy, meteorology, and upper atmosphere [JPRS-40106] 14 p2526 N67-27288
Abstracts and news summaries of Sino-Soviet Bloc activities in astronomy, oceanography, meteorology, upper atmospherics, and terrestrial geophysics [JPRS-40291] 14 p2526 N67-27289
Abstracts and news summaries of Soviet-Sino Bloc activities in astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmospherics [JPRS-40063] 14 p2526 N67-27290
Antarctic cases - meteorology [REPT.-14] 15 p2695 N67-27999
Meteorological research by Soviet Union during International Geophysical Year program [REPT.-12] 15 p2698 N67-28001
Rocket sounding data on noctilucent clouds 15 p2698 N67-28002
Climatology of noctilucent clouds 15 p2699 N67-28003
Determination of parameters of noctilucent clouds in 1964 15 p2699 N67-28004
Humidity measurements in upper atmosphere 15 p2699 N67-28005
Rocket sounding of noctilucent clouds 15 p2700 N67-28007
Morphology of noctilucent clouds 15 p2700 N67-28008
Meteorological conditions for noctilucent cloud formation 15 p2700 N67-28009
Meteorological and ionospheric conditions of occurrence of noctilucent clouds in Siberia 15 p2700 N67-28010
Latitude variations and polar motion studies during International Geophysical Year 15 p2700 N67-28011
Annotated bibliography of meteorological tower and mast studies pertaining primarily to wind [WB/BS-5] 16 p2924 N67-29135
Meteorological measurement system for studying correlation of lower atmospheric constituents with propagation of electromagnetic energy

[RADC-TR-67-58] 16 p2925 N67-29520
Soviet research in astronomy, meteorology, oceanography, geophysics, upper atmosphere, and space
[JPRS-41443] 16 p2889 N67-30038
Reviews and abstracts of Soviet-bloc research in meteorology, oceanography, upper atmosphere and space, terrestrial geophysics, and related subjects
[JPRS-41057] 16 p2890 N67-30076
Meteorological data of diurnal variation
[REPT.-51] 17 p3007 N67-30542
Characteristics of subtropical jet stream over Africa for space flight application
[REPT.-58] 17 p3007 N67-30646
Characteristics of atmospheric refractive index difference
[NASA-CR-85871] 17 p3121 N67-31116
Sintering process in snow
[CRREL-RR-236] 17 p3057 N67-31394
Finite difference method solution for second order differential equations arising in theory of mean atmospheric waves 18 p3262 N67-31810
Parameterization of cloud systems obtained with television cameras and digital computers 18 p3262 N67-31910
Doppler and dual beam incoherent radar spectra used for measuring wind
[AFCRL-66-501] 18 p3233 N67-32385
Frontal cloud characteristics following artificial initiation of precipitation
[T-R-526] 18 p3291 N67-32467
Electronic recording and interpretation of meteorological data
[JPRS-41615] 19 p3374 N67-33111
Quantitative relationship between mean monthly values of air humidity in time and space 19 p3374 N67-33112
Electronic graphing device for automatic processing of recorded meteorological information 19 p3452 N67-33114
Meteorologic and sound transmission data from from Sotran I and II
[ECOM-5094] 19 p3443 N67-33411
Tabulation of wind and temperature measurements from meteorological rocket network firings in September, 1966 19 p3485 N67-33592
Marine and continental climate of Point Conception to Morro Bay region of California - mesoclimatology of coastal region
[MRI67-IR-613] 20 p3627 N67-34110
Soviet research in geophysics, space sciences, astronomy, and related areas
[JPRS-41659] 20 p3630 N67-34361
Soviet research in space sciences, geophysics, astronomy, and related areas
[JPRS-42348] 20 p3631 N67-34362
Abstracts and bibliographies from Soviet-Bloc on astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmospherics
[JPRS-42041] 20 p3631 N67-34410
Comparison of experimental lidar observations of snow, clouds, fog conditions, and air stratification changes, with meteorological and radar data 20 p3672 N67-34516
Balloon or rocket-borne sensors for measuring meteorological properties of lower atmosphere
[ECOM-01919-F] 20 p3640 N67-34529
Soviet-Bloc research in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space science
[JPRS-41856] 20 p3634 N67-34814
Relationship between radar signal estimators and dynamic processes, and statistical method of meteorological radar
[FTD-MT-65-34] 21 p3883 N67-35416
Soviet open literature survey on astronomy, meteorology, oceanography, terrestrial geophysics and related space science topics
[JPRS-42481] 21 p3845 N67-36529
Telemetry and automatic data processing systems in meteorology - abstracts
[ATD-67-29] 21 p3883 N67-36832
Ocean station telemetering buoy for acquisition of oceanographic and meteorological data in experiments at sea
[GDC-66-003] 22 p3997 N67-37053
Laser probe techniques for sensing meteorological variables
[NASA-CR-88872] 22 p4060 N67-38030
Mesostructure and microstructure of wind field at 6 to 12 km, and turbulence induced aircraft buffeting in cumulonimbus cloud zone
[FTD-MT-65-304] 22 p4042 N67-38050
Compilation of Soviet articles on astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmosphere and space research
[JPRS-42874] 23 p4343 N67-38415
Abstracts on Soviet-Bloc activities in astronomy, meteorology, oceanography, upper atmospherics, and terrestrial geophysics - with accompanying bibliographies
[JPRS-42836] 23 p4349 N67-39147
Calculation of air vertical velocity rate over Finland on basis of precipitation rates
[REPT.-65] 23 p4383 N67-39245
Catalog of cosmic ray and meteorological data submitted to World Data Center 24 p4535 N67-39983
Research in astronomy, meteorology, oceanography, geophysics, upper atmosphere, and space science
[JPRS-43221] 24 p4443 N67-40005
Daily and monthly effect of moon on weather 24 p4498 N67-40100
News reports and abstracted data on Soviet-bloc research in geophysics, astronomy, meteorology, and space sciences
[JPRS-42909] 24 p4447 N67-40285
Formation and development of thermal low over southwest China and related weather forecasting
[EMM-66-141] 24 p4489 N67-40307

METER
S ACCELEROMETER
S ALTIMETER
S ANEMOMETER
S BAROMETER
S BOLOMETER
S CALORIMETER
S COULOMETER
S DENSITOMETER
S DIFFRACTOMETER
S DILATOMETER
S DOSIMETER
S DYNAMOMETER
S ELECTROMETER
S FIELD INTENSITY METER
S FLOW METER
S FLUXIMETER
S GALVANOMETER
S GAS METER
S GAUGE
S GRAVIMETER
S HYGROMETER
S INDICATOR
S LIGHT SCATTERING METER
S MAGNETOMETER
S MEASURING APPARATUS
S MICROMETER
S MOISTURE METER
S NEPHELOMETER
S NOISE METER
S OPTOMETER
S PLASTOMETER
S POLARIMETER
S POTENTIOMETER
S PYRHELIOMETER
S PYROMETER
S RADIATION METER
S RATE METER
S REFLECTOMETER
S REFRACTOMETER
S SEISMOMETER
S SPECTROMETER
S TACHOMETER
S VOLTMETER

METHACRYLATE
SA METHYL METHACRYLATE
SA POLYMETHYL METHACRYLATE
Gel permeation chromatography studies of molecular weights and molecular weight distribution of poly/isobutyl methacrylate/
[PA-TR-3511] 19 p3387 N67-33859
Glass transition temperatures and thermal cubical expansion coefficients determined for new galactose-derived acrylate and methacrylate polymers
[RAE-TR-67041] 20 p3683 N67-34002

METHANE
SA NITROMETHANE
Irradiation of carbon dioxide containing small amounts of hydrogen - formation of methane
[AERE-R-5286] 04 p0499 N67-13557
Low temperature oxidation of methane and molecular combustion by-products 04 p0504 N67-13827
Synthesis of bis/fluoroxy/ difluoromethane by reaction of fluorine with carbon dioxide in presence of cesium fluoride at room temperature
[TR-58] 08 p0828 N67-16356
Separation coefficients of carbon 13 and carbon 14 isotopes by equilibrium evaporation of methane
[BNL-TR-84] 07 p1028 N67-17542
Turbulent burning rates of methane-oxygen mixtures measured by burner with flat turbulent flame 10 p1708 N67-20447
Langevin equation in application to neutron scattering from liquid methane 10 p1714 N67-21042
Chemical reactions of trifluoromethane sulfenyl compounds
[TR-58] 10 p1578 N67-21373
Solid catalyst selection for formaldehyde synthesis by methane oxidation
[NASA-CR-72971-11] 11 p1804 N67-22174
Burning velocity, temperature, and burnt gas composition measurements for methane-perchloric acid flames premixed with excess methane
[RPE-TR-65/16] 11 p1900 N67-22706
Proton spin-lattice relaxation in liquid methane
[NP-500/PL] 11 p1812 N67-22910
Liquid natural gas as supersonic jet aircraft fuel
[NASA-TM-X-52282] 11 p1969 N67-23315
Exchange of hydrogen isotopes between methane and erbium tritide
[AWRE-O-93/66] 13 p2027 N67-23546
Consecutive ion-molecule reactions in methane studied by means of positive ion impact
[SR-6] 12 p2049 N67-24976
Stimulated Brillouin scattering effects in nitrogen and methane gases using giant pulse laser 14 p2548 N67-26707
Catalytic coil to oxidize carbon monoxide, hydrogen, and methane present as impurities in air
[NASA-CR-66360] 16 p2927 N67-29087
Liquid methane propulsion system concept for military and commercial supersonic transport applications
[NASA-TM-X-52109] 16 p2961 N67-29627
Optical spectra of molecular emissions during electron bombardment of methane 18 p3225 N67-32194
Gas phase radiolysis of dichlorodifluoromethane in presence of tritium
[AWRE-O-90/66] 19 p3394 N67-33554
Ionization processes in atmospheric methane-oxygen flames and chemi-ionization processes induced by flash photolysis
[ARL-67-0155] 22 p3984 N67-36908
Recalculation of heat of combustion of high purity methane sample for use as reference sample
[NBS-TN-299] 22 p4164 N67-37434

METHOD
S APPROXIMATION METHOD
S ASYMPTOTIC METHOD
S BATES METHOD
S BRIDGMAN METHOD
S CHAPMAN-ENSKOG METHOD
S CHARACTERISTIC METHOD
S COMPUTER METHOD
S CROCCO METHOD
S ELECTROMAGNETIC METHOD
S ENCKE METHOD
S FINITE DIFFERENCE METHOD
S FOUR-BODY METHOD
S GALERKIN METHOD
S HILL METHOD
S HODOGRAPH METHOD
S JACOBI MATRIX METHOD
S LEAST SQUARES METHOD
S LIGHTHILL METHOD
S MOIRE METHOD
S MOMENT METHOD
S MONTE CARLO METHOD
S NEWTON-RAPHSON METHOD
S OPTICAL METHOD
S POINT MATCHING METHOD
S RAYLEIGH-RITZ METHOD
S RELAXATION METHOD
S RITZ AVERAGING METHOD
S SCHMIDT METHOD
S TEST METHOD
S TRAVELING SOLVENT METHOD
S VARIATION METHOD
S VON KEMPEL METHOD

METHOXY SYSTEM
Oxidation resistance of hydraulic brake fluids - synthesis and characterization of methoxy butanol
[CCL-217] 13 p2042 N67-24869
Solubility of ternary mixtures of water/3-

methoxybutanol-1/sodium tetraborate-diol condensates applied to hydraulic brake fluids
[CCL-222] 14 p2475 N67-28668
METHYL
Potential hazard and movement through food chain of methyl iodide - test sampling, meteorological conditions, deposition on grass, milk analyses, and human uptake
[IDO-12063] 04 p0490 N67-13652
Reaction of diethylchlorophosphine with chloranhydride of crotonic acid and method for synthesis of chloromethylthiophosphonic and O-arylmethyl acids
[JPRS-39189] 05 p0668 N67-15161
Catalytic methyl cyclohexane dehydrogenation on alumina system for endothermic fuel scheme of hypersonic vehicle 07 p1181 N67-16951
Synthesis of indigotin from n carboxymethyl anthranilic acid
[CNEA-178] 10 p1563 N67-21152
Spectrophotometric study of chemical reaction of copper/II/ ion with 4-methyl-3penten-2-one
[NASA-CR-83537] 11 p1815 N67-23264
Synthesis of boron-permethyl closo-carborane
[TR-11] 12 p2049 N67-24982
Molecular elimination of hydrogen during methyl acetylene photolysis in vacuum ultraviolet 18 p3225 N67-32292
Impregnation of charcoal with amines and inorganic halides to improve retention of methyl iodide at high humidity
[TRG-1300/W/] 20 p3597 N67-35010
Preparation of methyl cellulose by nitration with 98-percent nitric acid dissolved in methylene chloride and in 98-percent nitric acid without solvent
[PA-TR-3476] 23 p4201 N67-38267
Design and development of triethylenediamine or potassium iodide impregnated charcoal filters for methyl iodide trapping 23 p4288 N67-38889
Radioactive methyl iodine removal from reactor environment by hydrazine spray 23 p4307 N67-38893
METHYL ALCOHOL
Kinetics of hydrogen formation in radiolysis of liquid methanol and ethanol
[UJV-1553] 01 p0033 N67-10623
Radiation-induced oxidation of methyl alcohol
[UJV-1457] 03 p0363 N67-13339
Stress corrosion cracking of titanium aluminum vanadium alloy in methyl alcohol
[NASA-TN-D-3668] 07 p1105 N67-18154
High yield strength 6Al-4V titanium alloy fuel tank material analyzed for stress corrosion cracking in methyl alcohol
[NRL-MR-1744] 15 p2724 N67-28245
Mechanism of hydrogen formation in gamma radiolysis of low temperature glassy methanol
[UJV-1739] 19 p3387 N67-33783
Adsorption of intermediates on platinized platinum electrodes during steady state oxidation of methanol, formic acid, and formaldehyde
[REPT.-66-C-427] 20 p3590 N67-34196
METHYL CHLORIDE
Kinetics of methanol dehydration and dimethyl ether hydrochlorination in catalytic vapor phase synthesis of methyl chloride
[NASA-TT-F-10997] 14 p3481 N67-27417
Hydrocarbon contamination of nuclear submarine atmospheres due to diffusion of methyl chloroform through insulating and decorative materials 19 p3396 N67-33783
Deleterious effects of commercial grades of methyl chloroform used in cements for insulating materials on closed environment atmospheres of nuclear submarines 19 p3385 N67-33763
Early detection of organic chemical toxic effects in exposed animals
[AD-657252] 23 p4196 N67-39136
METHYL HALIDE
Optical potential for potassium-methyl iodide system
[MIT-40-P] 22 p3986 N67-37286
METHYL HYDRAZINE
Behavioral program with monkeys to determine response to monomethyl hydrazine with and without pyridoxine
[ARL-TR-67-6] 13 p2284 N67-25331
Toxicology and pathology of repeated doses of monomethylhydrazine in monkeys
[AMRL-TR-66-199] 18 p3213 N67-32461
Monomethylhydrazine effect on in vitro frog cornea
[SAM-TR-67-22] 18 p3215 N67-32644
METHYL METHACRYLATE
SA POLYMETHYL METHACRYLATE
Thermal degradation of styrene and methyl methacrylate copolymers with pure m-divinylbenzene and p-divinylbenzene isomers
[TID-22364] 03 p0362 N67-13321
METHYL POLYSILOXANE
Thermostability of high temperature fluids and fluid intermixtures at 750 deg F - polyphenyl ether and phenyl methyl polysiloxane
[RIA-TR-67-1105] 21 p3945 N67-35594
METROLOGY
Summary reports of research in cryogenic metrology, physical properties of cryogenic fluids, cryogenic flow processes, liquid-solid hydrogen studies, and thermal conductivity
[NASA-CR-81265] 08 p0917 N67-16093
Estimation of transition matrix of finite Markov process, abelian groups, structure of near rings and near rings homomorphisms, and metrization of topological spaces
[NASA-CR-84514] 14 p2565 N67-27672
Metrizability and pattern recognition
[NASA-TM-X-1434] 23 p4275 N67-38790
Overall problem of thermal effects errors in machine tools and metrology
[UCRL-50285] 24 p4457 N67-39913
MEXAMINE
Mexamine effect on gaseous metabolism of animals under conditions of changed gaseous environment 02 p0194 N67-11533
Increasing resistance of organism to hypoxia by using antioxidants mexamine, BYe-57, and ambunol 02 p0194 N67-11535
MEXICO
Statistical analysis of cloud seeding operations in Necaxa and Lerma river basins of Mexico 24 p4488 N67-39977
MICA
SA VERMICULITE
Mechanical properties and crystal structure of mica investigated to obtain ideal ductile ceramic - bibliography
[AMRA-CR-66-07/1] 06 p0900 N67-16452
Fission fragment damage in glass and mica studied with uranium foil detector systems for application to neutron flux measurement
[AECL-2657] 11 p1936 N67-22478
Radiation effects on mica, Mylar, and polystyrene dielectrics
[REPT.-7] 11 p1841 N67-23360
Mechanical properties and crystal structure of mica
[AMRA-CR-66-07/2] 13 p2388 N67-25153
Procedure for recording, etching, and counting fission fragment tracks in mica and Mylar
[UCRL-17075] 14 p2586 N67-26823
Crystal structure and growth, synthesis, and mechanical properties of mica
[AMRA-CR-66-07/3] 15 p2732 N67-28397
Crystal structure and least squares refinement of fluorophlogopite mica using Hanson relative weighting scheme
[AMRA-CR-66-07/4] 20 p3663 N67-34304
Radiation effects on mica and polystyrene capacitor conductivity
[REPT.-9] 20 p3611 N67-34305
High temperature measurements of mica dielectric constant at various frequencies
[JPRS-42539] 22 p4129 N67-37713
MICHELL THEOREM
Michell theory of optimum structural design
[AGARD-543] 12 p2230 N67-23583
MICHELSON INTERFEROMETER
Michelson interferometer to obtain vertical temperature and humidity profile from Nimbus satellite
[NASA-TM-X-55678] 08 p1282 N67-18697
Digitizing noise effects on spectral signal to noise ratio in Fourier spectroscopy
[NASA-TM-X-55679] 08 p1248 N67-18748
Michelson interferometer and laser source for measuring oscillatory motion for calibration of miniature accelerometers 09 p1445 N67-19488
Electronic fringe detector for Michelson stellar interferometer
[TO-B-66-91] 10 p1633 N67-21339
Comprehensive review of theories, data handling, systems, and calibration in Fourier transform spectroscopy
[NASA-CR-84119] 13 p2370 N67-26448
Feasibility of electronic fringe detector for operation in conjunction with Michelson stellar interferometer
[AFCRL-67-0117] 16 p2895 N67-29517
Photomultiplier detectors for laser interferometry
[SC-DR-66-3689] 17 p3061 N67-30640
MICHIGAN PROJECT
Infrared stimulation of luminescence in zinc sulfide at wavelengths longer than 3.5 microns
[REPT.-6400-116-I] 11 p1988 N67-23141
MICROANALYSIS
Preparation of electron probe microanalyzer standards using rapid quench method
[NASA-TM-X-55598] 03 p0360 N67-13238
Sleeve tube combustion used to determine nitrogen in organic compounds
[FTD-TT-65-883] 07 p1020 N67-17688
Radioactive isotopes for analyzing concentration of microcomponents in natural waters 10 p1577 N67-21314
Conference papers pertaining to electron probe microanalysis, electron microscopy, X-ray diffraction, and optical metallographic methods
[RFP-656] 12 p2118 N67-24241
Electron beam microanalysis of mineral phases in chondrite meteorites
[AFCRL-66-730] 12 p2095 N67-24751
Microchemical analysis method for establishing chemical composition of troilite and pyrrhotite in meteorites
[NASA-TT-F-10893] 12 p2097 N67-23688
Atomic absorption spectrophotometric method for determining submicrogram quantities of mercury in water and lithium hydroxide solutions
[Y-1573] 16 p2850 N67-29771
Metallographic preparation and decontamination of plutonium containing samples for electron probe microanalysis
[AERE-M-1639] 20 p3663 N67-34808
Compact microbarograph system development and analysis
[SC-DCR-149] 20 p3643 N67-34981
Ultratrace analysis by coordination chain reactions
[AFOSR-67-1792] 22 p3985 N67-37084
Computed curves for correcting X-ray absorption in electron probe microanalysis
[AWRE-O-28/67] 23 p4313 N67-39217
MICROBALANCE
Vacuum microbalance and electron diffraction methods of studying fast oxidation reactions of refractory metals
[AROD-4067-3-MC] 15 p2729 N67-28977
Capture coefficient of highly directed flow of gaseous carbon dioxide and water vapor on cryogenic quartz crystal microbalance
[NASA-CR-83267] 21 p3831 N67-35868
MICROBE
S MICROORGANISM
MICROBIOLOGY
SA CULTURE TECHNIQUE
Mechanism of microbiological contamination of jet fuel and techniques for contamination detection
[APL-TDR-64-70, PT. III] 01 p0143 N67-10279
Experiment design for microbiological analysis of meteorites and detection of life on other planets
[JPRS-23015] 03 p0342 N67-13789
Extraterrestrial microbiology, planetary ecology, and photosynthesis on Mars 03 p0344 N67-13793
Conference proceedings on NASA spacecraft sterilization requirements, microbiological contamination control, and sterilization techniques
[NASA-SP-108] 05 p0660 N67-14765
Clean room environment for controlling microbial contamination in spacecraft sterilization program 05 p0650 N67-14767
Microbiological contamination barrier techniques for solving spacecraft sterilization problems 05 p0650 N67-14769
Visual monitoring techniques for microbiological contamination control to meet spacecraft sterilization requirements 05 p0650 N67-14770
Microbial surface sampling techniques for spacecraft sterilization program 05 p0650 N67-14772
Microbiological techniques for recovering trapped microorganisms from solids for use in spacecraft sterilization program 05 p0651 N67-14773
Microbiological indicator for dry heat spacecraft sterilization 05 p0651 N67-14774
Decontamination procedure with isopropyl alcohol for reducing microbial population from surfaces of Anchored Interplanetary

Monitoring Platform /AIMP/
[NASA-TM-X-55638] 05 p0766 N67-14911
Surface decontamination procedure for Anchored Interplanetary Monitoring Platform /AIMP/
[NASA-TM-X-55629] 06 p0972 N67-16051
Decontamination and microbiological monitoring of surfaces of Anchored Interplanetary Monitoring Platform spacecraft
[NASA-TM-X-55630] 06 p0972 N67-16052
Life detection systems based on phosphate and sulfur uptake for automated microbial metabolism laboratory
[NASA-CR-81363] 06 p0606 N67-16503
Experiments, evaluation, and monitoring of microbiological contamination of plastics, metal surfaces, spacecraft, and facilities
[NASA-CR-81775] 07 p1018 N67-18139
Nutrient deposition to surfaces by Rodac plates observed to evaluate microbial growth in clean environment
[NASA-CR-83053] 10 p1562 N67-20744
Microbiological studies of laminar flow clean rooms
[SC-DC-66-2377] 10 p1616 N67-21607
Abundance, photodissociation, and microbiological production of atmospheric nitrous oxide
[AFCRL-66-823] 10 p1627 N67-21695
Microbiological evaluation of high efficiency particulate air filters 12 p2074 N67-23844
Microbiological effects of oxygen atmosphere and space diet on human intestinal and skin flora
[NASA-CR-661] 12 p2634 N67-24421
Microbiological sterilization problems in support of planetary quarantine requirements
[NASA-CR-83833] 13 p2357 N67-25744
Reproductive death, and interpretation of microbial inactivation and recovery phenomena 14 p2457 N67-26772
X-ray irradiation of Escherichia coli B to determine sensitivity to minimum dosages 15 p2650 N67-28517
Microbiological flora of human subjects under simulated space environments
[NASA-CR-85813] 17 p3006 N67-31139
Ichthyology, biochemistry, and microbiology of deep zones of Kurile-Kamchatka depression
[JPRS-41170] 20 p3575 N67-34537
Identification of Chile Atacama Desert soil isolants
[NASA-CR-87881] 20 p3578 N67-34917
Microbiological survey of vertical laminar airflow surgical theater
[NASA-CR-87428] 20 p3578 N67-34949
Space hardware sterlization studies including clean rooms, hand contact contamination experiments, and vertical laminar flow room evaluation
[NASA-CR-890] 23 p4189 N67-38834
MICROCIRCUIT
SA PRINTED CIRCUIT
Lateral ion migration of sodium in insulating glass substrate for thin film microcircuits using autoradiographic techniques 01 p0650 N67-10124
High temperature storage, thermal cycling, and mechanical environmental stress testing of high reliability microcircuit modules
[HSER-3149] 01 p0651 N67-10227
High speed tunnel diode transistor micrologic circuits
[TN-1966-17] 01 p0652 N67-10350
Fabrication of ultrahigh-speed complex bipolar microcircuit arrays for digital computer
[QSR-5] 05 p0684 N67-14975
Design guidelines for monolithic circuits resistant to transient radiation effects
[REPT.-5] 06 p0650 N67-15500
High performance thin film capacitors for microcircuit networks
[CR-66-565-31] 07 p1051 N67-17251
Fabrication quality control of monolithic microcircuits
[NASA-CR-81723] 07 p1053 N67-18012
Electronic packaging, integrated circuits, circuit design, and microcircuit design - survey with bibliography
[NASA-TM-X-59418] 08 p1256 N67-19037
Qualification testing and failure analysis of integrated microcircuits
[NASA-CR-83573] 08 p1256 N67-19141
High speed infrared mapping for reliability assessment of microcircuitry
[NEL-1399] 11 p1636 N67-22652
Sputtering system to develop high performance thin films for microcircuits
[ECOM-01230-6] 12 p2064 N67-24490
Dielectric materials and planar coaxial circuit interconnection techniques
[F-058] 12 p2065 N67-24727
High yield processes for bonding fine wires in hybrid microcircuits
[HSER-3160] 12 p2067 N67-24992
Characterization plan for testing of amplifier, micropower, MOS, and dielectrically isolated circuits - space radiation effects on silicon integrated microcircuits
[NASA-CR-83962] 13 p2292 N67-25482
Thin film interfacial connections and microcircuit insulating crossovers
[ECOM-01462-F] 14 p2505 N67-26881
Radiation effects on junction-isolated microcircuits
[RADC-TR-66-718] 14 p2506 N67-27472
Deposition of hafnium films by sputtering system for use with microcircuits
[ECOM-01230-7] 15 p2681 N67-28905
Complementary heating of densely packaged microcircuits
[NEL-1423] 15 p2682 N67-28943
Microelectronics program to convert electronic equipment of Saturn launch vehicle 17 p3036 N67-30662
Evaluation of magnetic-core sensors, microcircuit techniques, electron-coupling techniques, and electro-optic and piezoelectric sensors for automatic checkout system
[SC-CR-66-2053] 17 p3037 N67-30835
Marshall Space Flight Center thin film microcircuit development program 18 p3242 N67-31568
New apparatus for depositing thin film electrical components and related microcircuitry 18 p3242 N67-31569
New thin film microdeposition unit for operating with various combinations of substrates, masks, and evaporation sources 18 p3242 N67-31571
Gap welding method and application to microcircuit interconnections 18 p3273 N67-31572
Properties of vacuum deposited thin film nichrome resistors for microelectronic circuit applications 18 p3242 N67-31573
Microcircuit masking techniques 18 p3242 N67-31574
Pilot process for fabrication of screened resistors on ceramic substrates 18 p3243 N67-31576
Desensitizing microcircuits to variations in temperature and performance parameters - computer aided sensitivity analysis 18 p3244 N67-31584
Desensitizing microcircuits to variations in temperature and production spread - tolerance in performance criteria due to production spread of parameters 18 p3244 N67-31585
Flow graph analysis method for examining interactions between thermal and electrical parameters of devices and associated microcircuits 18 p3245 N67-31588
Microcircuit design concepts applicable to Apollo television camera 18 p3245 N67-31590
Digital microcircuit test program 18 p3247 N67-31604
BRLESC I and III memory crossbar switch - microcircuit high speed digital communication switching system for multiprocessor computer system
[BRL-MR-1827] 19 p3490 N67-32922
Microbonds to improve reliability of hybrid microcircuits 23 p4235 N67-38429
MICRODENSITOMETER
Reduction of photographic film by scanning microdensitometer 07 p1084 N67-17789
MICROELECTRONICS
SA THICK FILM
Role of metallography in analyzing microelectronic component failures 01 p0646 N67-10183
Technique for controllable acceleration and prediction of degradation mechanisms of electronic parts 01 p0647 N67-10185
Failure mechanisms and detection methods for microelectronic devices
[NASA-CR-77141] 02 p0644 N67-11987
Microelectronic device data handbook
[NASA-CR-66926] 05 p0682 N67-14882
Hybrid microelectronic analog-to-digital converter for spacecraft use 06 p0632 N67-15747
Dielectric properties of polycrystalline barium titanate ceramic materials for microelectronic applications
[NASA-CR-66258] 06 p0690 N67-16506
Microelectronic device life tests and failure mechanisms
[NASA-CR-81726] 07 p1054 N67-18015
Reliability in microelectronics
[RADC-SP-66-3] 08 p1257 N67-19012
Integrated circuit amplifier and analog switching circuit for deep space probes
[NASA-CR-80017] 11 p1633 N67-22170
Test instrument and measurement technique to study electromagnetic shielding properties of vacuum deposited thin metallic films for applications in microelectronic circuitry
[ECOM-2775] 12 p2063 N67-23618
Fast scan infrared microscope to determine thermal and electromechanical parameters affecting reliability of microelectronic components 12 p2063 N67-23975
Design, testing, heat transfer theory, and layout of thin film circuits for microelectronic modules
[NAFI-TP-515] 12 p2111 N67-24090
Vacuum system, remote controlled substrate changer and associated apparatus used for production of magnetic film memory elements
[TN-1967-4] 14 p2496 N67-26380
Radiation effects on thin film microelectronics
[ECOM-01467-F] 14 p2505 N67-26905
History of microelectronics development, including applications, advantages, packaging, reliability, and future possibilities
[P-3-75/317] 14 p2507 N67-27750
Fast scan infrared microscope for inspecting microelectronic circuits 14 p2540 N67-27752
Microelectronics program to convert electronic equipment of Saturn launch vehicle 17 p3026 N67-30662
Proceedings of second NASA microelectronics symposium
[NASA-TM-X-55834] 18 p3241 N67-31562
Goddard Space Flight Center microelectronics program - integrated circuit block and semiconductor process development 18 p3241 N67-31563
Langley Research Center microelectronics program - systems, circuits and devices, and materials and components development 18 p3241 N67-31564
Marshall Space Flight Center microelectronics program implementation, hardware development, and research and development 18 p3241 N67-31565
Metallurgical methods for detection and analysis of failure mechanisms in microelectronic devices 18 p3241 N67-31566
Ion beam implantation method for fabrication of automatic transistors and integrated circuits 18 p3242 N67-31567
Microelectronic analog data and digital command control system for transonic dynamic wind tunnel tests of research aircraft models 18 p3246 N67-31588
Fast scan infrared microscope for measuring thermal and electromechanical parameters affecting reliability of microelectronic devices 18 p3246 N67-31590
Fabrication, packaging, and testing of microelectronic equipment for Applications Technology Satellite /ATS/ scientific experimental package 18 p3247 N67-31598
Design, fabrication, and testing of inverter module for closed loop advanced control signal processor - thin film circuit, and conformal coating and encapsulation
[NASA-CR-85972] 18 p3248 N67-31622
Microelectronics for air bearing gyro and accelerometer servo loops
[NASA-CR-86422] 18 p3250 N67-32269
Microelectronic design, fabrication, materials and packaging techniques
[NAFI-TP-502] 19 p3413 N67-32721
Cybernetics applications in sports training, and automated production of microcircuits by means of digital computer
[JPRS-41592] 19 p3420 N67-32155
Transistorized digital computer designed for automatic control of microcircuit production 19 p3418 N67-32157
Thin film and semiconductor microelectronics, radar scattering, reduced thermal stress, boundary layer phenomena, guided missile parts, turbulent mixing, antenna systems, and plasma dynamics

[NASA-CR-87061] 19 p3537 N67-33361
Hybrid assembly processes for packaging of thin film and semiconductor microelectronic devices 19 p3416 N67-33363
Plane wave shielding effectiveness of vacuum deposited thin metal films [ECOM-2798] 21 p3818 N67-35960
Design criteria handbook for microelectronic system packaging [RADC-TR-67-128, VOL. IIIA] 23 p4010 N67-36875
Handbook of design criteria for packaging microelectronic systems [RADC-TR-67-125, VOL. III] 23 p4014 N67-37448
Handbook of design criteria for microelectronic system packages [RADC-TR-67-125, VOL. I] 23 p4227 N67-39163
Handbook of design criteria for microelectronic system packages - Volume I packaging system methodology 23 p4228 N67-39163
Handbook of design criteria for microelectronic system packages - Volume II packaging system design and evaluation procedure 23 p4228 N67-39164

MICROFILM
Digitization of photographs with subsequent reproduction of data on computer controlled microfilm recorder [UCID-15144] 23 p4252 N67-38799

MICROGRAPHY
SA PHOTOMICROGRAPHY
Automatic scanning and computer processing of micrographs - computer application to quantitative analysis of image microstructures [NBS-9428] 04 p0551 N67-13717
Loading and optical systems of microtensile test machine modified for improved thin film and whisker testing [NASA-TM-X-1326] 04 p0557 N67-14112
Electron micrography to illustrate biological cell structure 07 p1003 N67-16705
Micrography of tubular-type battery plates [NRL-6428] 10 p1556 N67-20710
Microfractography studies of crack propagation under fatigue stresses [AGARD-541] 16 p2979 N67-29470
Microfractographical technique for determining sintering of ex carbonyl iron in alpha and gamma phases [CEA-R-2996] 19 p3471 N67-33260

MICROMEROGRAPH
S PARTICLE SIZE

MICROMETEORITE
Gemini IX experiments - zodiacal light and airglow horizon photography, micrometeorite collection, body fluid bioassay, astronaut maneuvering unit, and UHF-VHF polarization [NASA-TM-X-59315] 06 p0965 N67-16021
Agena micrometeorite collection experiment 06 p0965 N67-16022
Gemini IX experiment to determine flux and thin film penetration characteristics of micrometeorites, lethal space effects on microorganisms, and probability of life in space 06 p0965 N67-16025
Electron microscopic study of micrometeoritic material collected in upper atmosphere 09 p1509 N67-19505
Integrated research and training in space molecular biology involving electron microscopy studies of meteorites, membrane structures, and cryogenics [NASA-CR-82953] 09 p1462 N67-19947
Heat annealing tests of Luster rocket collected micrometeorites to determine whether radiation damage can distinguish extraterrestrial from terrestrial particles [NASA-CR-82941] 09 p1512 N67-19958
Possible antimatter nature of comets and stream micrometeors 10 p1750 N67-20327
Luminosity function of sporadic meteors and data extrapolation of influx rate to micrometeorite region 18 p3331 N67-32654
Collection analysis and impact measuring of microparticles obtained by sounding rockets, satellites, and space probes [ESRO-SN-18] 19 p3537 N67-33647

MICROMETEOROID
Performance of N/P silicon and cadmium sulfide solar cells bombarded by simulated micrometeoroids [NASA-TM-X-52273] 10 p1558 N67-21391
Micrometeoroid composition determined using spectrographic analyzer to measure emission spectra of heated particles [NASA-CR-65607] 11 p1867 N67-23325
Applicability of magnetic or integrated circuits to micrometeoroid sensor scanning 18 p3346 N67-31596
Micrometeoroid impact fracture rates in wire, flat tapes, and thin-walled hollow tubes [NASA-CR-869] 21 p3931 N67-35736
Design and construction of linear accelerator for accelerating micron size particles to micrometeoroid velocities [NASA-CR-66466] 21 p3828 N67-35971

MICROMETEOROID EXPLORER
S EXPLORER XVI SATELLITE
S EXPLORER XXIII SATELLITE

MICROMETEOROLOGY
Comparing nine profile models for diabatic boundary layer [ECOM-5054] 01 p0102 N67-11030
Meteorological data from micrometeorological instruments on 200-foot tower and from climatology ground station in Manitoba, Canada [AECL-2630] 07 p1119 N67-18106
Microbarometric leveling used during large scale gravimetric survey in mountain taiga terrain [ACIC-TC-1132] 09 p1473 N67-19719
Data analysis of wind, temperature, roughness, and heat flux profiles recorded at Antarctica meteorological stations - Little America V micrometeorology program [TR-67-46-ES] 16 p2924 N67-29139
Brownian motion under micrometeorite impact effects on accuracy of spacecraft measurements of Einstein light bending [NASA-CR-85836] 17 p3121 N67-31212
Floating devices for dynamic measurements on air and sea interaction [AD-655471] 22 p4037 N67-37207
Wind, temperature and Richardson numbers profiles from Project Windy Acres [AFCRL-67-0339] 24 p4485 N67-39796

MICROMETER
Research in instrumentation - monitoring and measuring devices, micrometers, semiconductor triodes, transducers, coaxial resonators, gyroscopes, and regulators [JPRS-38123] 03 p0392 N67-12401
Semiconductor frequency inductive micrometer with linear transformation function 03 p0392 N67-12405
Form of directional rulers and errors of ocular micrometers of two KIM-3 measuring instruments 04 p0509 N67-13554
Time delay and study of UIM 21 measuring device 04 p0509 N67-13555
Portable sonomicrometer for measuring heart dimensions [NASA-CR-81559] 07 p1029 N67-17255
Shipborne gravimeter with photoelectric micrometer [ACIC-TC-1114] 10 p1629 N67-20633
Modified micrometer method for dielectric constant and loss measurements at 100 MHz [HDL-TR-1329] 15 p2684 N67-28189
Star positions determined by combining micrometric observations with observed known star in vertical plane close to meridian [RN-30] 16 p2969 N67-29594

MICROMINIATURIZATION
Electronic equipment evaluation, epitaxial film measurement, and microelectronic power supply [AD-639091] 02 p0242 N67-11236
Microcellular techniques for application to modern batch fabrication processes [SR-1] 11 p1794 N67-23123
Basic circuitry for microminiature dc integrated-circuit, direct-coupled, signal-conditioning amplifier [NASA-TN-D-4091] 18 p3348 N67-31986
Circuit and fabrication of microminiature monolithic crosspoint interconnections [REPT.-329] 19 p3416 N67-33352
Literature survey and instrumentation evaluation to determine feasibility of developing microminiaturized devices for biostronautics monitoring and analysis [NASA-CR-89631] 24 p4388 N67-39500

MICROMINIATURIZED ELECTRONIC EQUIPMENT
Design and process contribution to inherent failure modes of microminiature electronic components for Minuteman II 01 p0051 N67-10131
Production engineering measure for subminiature transistor type potentiometers [QPR-20] 01 p1165 N67-18998
Fabrication of ultrahigh-speed complex bipolar microcircuit arrays for digital computer [QSR-8] 05 p0884 N67-14978
Low noise amplifiers, laser radar optics, gas lasers and holography, and microminiaturized solid state devices for radio electronics 06 p0852 N67-16009
Production engineering techniques for manufacture of microminiature crystal unit [QPR-4] 07 p1050 N67-17178
Production engineering measure for subminiature, transistor type potentiometer [AD-643778] 07 p1063 N67-17720
Microminiaturized telemetry system to monitor biological functions [NASA-CR-82795] 09 p1463 N67-19417
Microminiaturized multipiane interconnectors for electronic circuits [FR-66-11-295] 09 p1425 N67-19814
Production techniques and ability of pilot facility to manufacture microminiature crystal units [QPR-5] 09 p1425 N67-19832
Microelectronic intermediate frequency amplifier [RADC-SP-66-1] 10 p1593 N67-21221
Information on evaluation, application, availability, research and development, and standardization of microelectronic circuits, devices, and materials [NAD-CRANE-QE/C-66-843] 10 p1595 N67-21725
High yield processes for bonding fine wires in hybrid microcircuits [HSER-3160] 12 p2067 N67-24993
Methods and results of airborne microminiaturized electronic equipment testing [AD-650317] 16 p2867 N67-29067
Microminiature monolithic crosspoint control circuits using dc amplifiers and/or logic gates [CR-67-585-7] 16 p2867 N67-29237
Mode conversion methods for strip transmission line nonreciprocal devices [GE/EE/67A-5] 17 p3039 N67-30232
Langley Research Center microelectronics program - systems, circuits and devices, and materials and components development 18 p3241 N67-31564
Marshall Space Flight Center microelectronics program implementation, hardware development, and research and development 18 p3241 N67-31565
Marshall Space Flight Center thin film microcircuit development program 18 p3242 N67-31566
New apparatus for depositing thin film electrical components and related microcircuitry 18 p3242 N67-31569
Properties of vacuum deposited thin film nichrome resistors for microelectronic circuit applications 18 p3242 N67-31570
Hybrid analog-to-digital converter for spacecraft applications 18 p3244 N67-31580
Photon actuated solid state switch development 18 p3244 N67-31581
Adaptation of models for minority carrier devices, and applicability in computer design evaluation studies of integrated circuits 18 p3244 N67-31582
Development of electronic visual instrumentation for spacecraft applications 18 p3269 N67-31591
Packaging methods for electronic components encased in flat pack geometries and spacecraft applications of proposed methods 18 p3245 N67-31592
High-packing-density binary information storage mosaics consisting of regular array of elements of about micron dia [SRI-5444] 19 p3408 N67-32731
Molecular electronics technique of developing microminiature instrumentation amplifiers for use with high-impedance and low-impedance transducers 19 p3415 N67-33161
Micropower resistor preparation and electrical properties for electronic devices and circuits [SCC-27] 20 p3609 N67-34691
Electron beam addressable data storage elements and high-density regular arrays of micron-size elements [ECOM-01261-8] 21 p3802 N67-35825
Simulated redesign of existing electronic system to illustrate handbook of design criteria for microelectronic system packages [RADC-TR-67-125, VOL. IV] 22 p4012 N67-37179
Design, fabrication, testing, and operation of microminiature rate of turn vibratory sensor

[NASA-CR-86715] 22 p4046 N67-37352
Stress analysis to determine reliability of Cr-SiO cermet thin films used in fabrication of microminiature resistors 22 p4223 N67-38468
MICROORGANISM
SA ALGAE
SA BACTERIA
SA CULTURE /BIOL/
SA FUNGUS
SA PLANKTON
SA PROTOZOA
SA VIRUS
Ultrastructure skeletal-muscle mitochondria pathology and biochemical activity upon exposure to alpha toxin from human gas gangrene organism
[EATR-4026] 02 p0177 N67-11262
Rocket and balloon borne exposure experiments on survival of microorganisms in space environment
[NASA-CR-79911] 02 p0227 N67-11844
Microorganism growth control in manned spacecraft environment
[NASA-CR-65556] 03 p0344 N67-12818
Log-normal model for microbial survival in heat sterilization
[NASA-CR-86373] 03 p0346 N67-12997
Ecology and thermal inactivation of microbes in and on interplanetary space vehicle components
[NASA-CR-86484] 03 p0348 N67-13129
Literature survey and experimental observations of human skin microflora, including study of men confined in simulated spacecraft environment
[NASA-CR-662] 03 p0349 N67-13259
Microbiotank for quantitative study on shedding of microorganisms by humans, in relation to spacecraft sterilization program 05 p0650 N67-14769
Microbiological techniques for recovering trapped microorganisms from solids for use in spacecraft sterilization program 05 p0651 N67-14773
Spacecraft sterilization studies on microbial contamination transferred by human hands 05 p0651 N67-14779
Survey on microbial populations present within environmentally controlled areas 06 p0799 N67-15703
Gemini IX experiment to determine flux and thin film penetration characteristics of micrometeorites, lethal space effects on microorganisms, and probability of life in space 06 p0865 N67-16025
Upper atmospheric microorganism detection by modified dust collector on Aerobee rocket
[NASA-TM-X-55642] 06 p0866 N67-16545
Inverse relationship between retinal blood vessel caliber and oxygen level, creatinine level variations, and buildup in microorganisms during confinement of aviators in pure oxygen 07 p1011 N67-17603
Effects of diet and pure oxygen environment on types and frequency of microorganisms in humans 07 p1013 N67-17613
Biochemical testing and identification of culture plates to determine levels of microbial contamination in conventional and laminar flow clean rooms
[NASA-CR-81751] 07 p1017 N67-18081
Microorganism strain resistance to critical doses of ultraviolet rays
[NASA-TT-F-10720] 06 p1227 N67-18938
Parameter estimation in exponential decontamination models
[NASA-CR-83863] 06 p1229 N67-19107
Conference on NASA plans, lunar logistics and bases, lunar water detection and recovery, planetary material for food synthesis and life support systems, and biological exploitation
[NASA-TM-X-54077] 10 p1789 N67-20413
Conversion of planetary environment by earth microorganisms to support human life 10 p1559 N67-20420
Effects of intestinal flora changes due to space flight environment
[JPRS-39004] 11 p1796 N67-23402
Fluorometry, gas chromatography and optical resolution, mass spectrometry, computer managed instrumentation, and ultraviolet microspectrometry in exobiology studies
[NASA-CR-83896] 13 p2258 N67-25870
Planetary contamination by viable terrestrial microorganisms transported on spacecraft
[AD-642864] 14 p2612 N67-27043
Viability of microorganisms under conditions of extreme dryness, irradiation, and temperature approximating those on Mars
[NASA-TT-F-10721] 15 p2849 N67-28322
Resistance of flexible packaging materials to microorganism penetration, for protection of food against contamination
[TR-67-63-GP] 17 p3064 N67-30337
Engineering model of wolf trap Mars microorganism detection device
[NASA-CR-85589] 17 p3166 N67-30742
Planetary quarantine requirements research - microorganism release from solids on impact, recovery of microorganisms, and efficiency of culture media in recovering anaerobic spores
[NASA-CR-85557] 17 p3003 N67-30752
Unsteady flow of compressible media with shock waves, hydrocarbon microorganisms, diffusion theory of adhesion applied to elastomer bonding, and rare earth chalcogenides 18 p3256 N67-31666
Hydrocarbon utilizing microorganisms 18 p3202 N67-31668
Iron corrosion by microorganisms
[AD-653368] 18 p3214 N67-32510
Energy source and conversion for microorganism metabolism in Mars surface soil
[NASA-CR-87159] 19 p3372 N67-32993
Design parameters of microcalorimetric systems for detection of Martian microorganism
[NASA-CR-73944] 19 p3375 N67-33255
Survival of selected microorganisms exposed to high ultraviolet flux equivalent to Martian surface
[NASA-TM-X-55653] 19 p3376 N67-33408
Essence of life related to control of microorganism growth rate 20 p3377 N67-34822
Simple controlled nutrient supply in continuous cultivation of fodder yeasts 20 p3377 N67-34826
Improved ultrasonic cavitation methods for removing microorganisms from stainless steel strip surfaces
[NASA-CR-87429] 20 p3378 N67-34933
Desert soil fertilization research to determine ammonifying, nitrifying, and sulfur oxidizing capacities
[NASA-CR-88021] 21 p3766 N67-35869
Cytochemical studies of planetary microorganisms explorations in exobiology
[NASA-CR-88226] 21 p3769 N67-36527
Operating principles of vacuum probe microbiological sampler
[NASA-CR-88381] 22 p3975 N67-36710
Mechanisms of microbial corrosion in metals and alloys - literature survey and bibliography
[RIA-67-534] 22 p3976 N67-37251
Microorganism recovery experiments, and microbial contamination detection in various Apollo areas and on spacecraft surfaces
[NASA-CR-88663] 22 p3973 N67-37837
Life detection from phosphate and sulfur uptake and ATP production of microorganisms
[NASA-CR-88989] 23 p4188 N67-38660
Time, temperature, and microbial effects on terminal heat sterilization of spacecraft
[NASA-CR-89233] 23 p4198 N67-39251
Microorganisms trapping by colonization of sterile organic plant parts buried in Chile desert soil samples
[NASA-CR-89594] 24 p4385 N67-40091
Systematic description and key to microorganisms isolated from Hawaiian soils
[NASA-CR-89680] 24 p4386 N67-40237
Spacecraft sterilization standards and microbial contamination of Mars
[NASA-CR-89768] 24 p4533 N67-40436
MICROPARTICLE
Particle deposition and reentrainment in long vertical conduits 04 p0530 N67-12762
Microparticle and fiber reinforcement of epoxy resins
[NRL-6408] 05 p0725 N67-14723
Hypervelocity cratering by microscopic particles
[TRW-03246-6001-R000] 06 p0976 N67-16829
Separated flow of submicron condensate particles in reversed flow swirl chamber
[ARL-66-0218] 07 p1068 N67-17701
Light gas gun used to launch micron-size particles at velocities up to 18,000 ft/sec
[BRL-MR-1780] 10 p1590 N67-20555
Sol-gel preparation of lanthanum oxide microspheres, and characterization of sols and gels of lanthanide hydroxides, thoria, urania, and plutonia
[ORNL-TM-1592] 10 p1573 N67-20699
Collection analysis and impact measuring of microparticles obtained by sounding rockets, satellites, and space probes
[ESRO-SN-12] 19 p3527 N67-33647
Coprecipitation of microparticle impurities from liquid to solid phase 21 p3776 N67-35484
Lanthanide oxide microspheres prepared using hydroxide sols and gels
[ORNL-4009] 24 p4396 N67-39696
MICROPHONE
Electronic system design, ear enclosures, and speech pickup system for transducer and interphone system for operation in high ambient noise
[REPT.-6] 06 p0822 N67-15418
Lightweight portable microphone antitelegraph key used with military man pack radio equipment
[ECOM-01543-F] 11 p1819 N67-23549
Ultradirectional condenser microphones for television studio use 12 p2051 N67-24034
Design and construction of doughnut-shaped microphone for group talking 12 p2052 N67-24035
Variable direction microphone for television studio use 12 p2052 N67-24036
Comparison calibration of microphones in diffuse sound field
[REPT.-669] 16 p2908 N67-29071
Design formulation and microphone development for audio transducer helmet assembly
[ECOM-0294-1] 23 p4196 N67-38708
MICROPULSATION
SA GEOMAGNETIC MICROPULSATION
Electromotive forces induced in micropulsation coils analyzed to compute epicenter and obtain possible magnetic signals generated by Puget Sound earthquake of 29 April, 1965
[D1-82-0535] 06 p0875 N67-16404
Terrestrial magnetism studies using micropulsation detectors
[D1-82-0576] 11 p1886 N67-23168
Natural sub-audio fluctuation recordings of geomagnetic field
[DRI-2363] 12 p2096 N67-24857
Production of geomagnetic micropulsations by meteors
[AFCRL-66-831] 14 p2521 N67-26971
MICROSCOPE
SA ELECTRON MICROSCOPE
SA ION MICROSCOPE
Automatic cytogenetic analysis system with digital computer, scanning device, and microscope for mitotic cell detection and classification
[NASA-CR-79746] 01 p0017 N67-10823
Automatic microscope and computer program for chromosome analysis
[NASA-CR-82522] 08 p1228 N67-19048
Fast scan infrared microscope for inspecting microelectronic circuits 14 p2540 N67-27782
Raman effects, semiconductor oscillations, thin film electroacoustic amplifiers, acoustic microscope, geometrical optics of acoustic waves, and acoustic waves in semiconductors
[ML-1515] 17 p3094 N67-30238
Fast scan infrared microscope for measuring thermal and electromechanical parameters affecting reliability of microelectronic devices 18 p3346 N67-31609
Control system for plate movement of photometer television microscope
[UUIP-544] 24 p4482 N67-40105
MICROSCOPY
SA ELECTRON MICROSCOPY
SA MICROGRAPHY
SA PHOTOMICROGRAPHY
Microscopic identification of Antarctic algae 02 p0214 N67-12139
Fusing of gutta-percha crystals during microscope observation 03 p0414 N67-12794
Macroscopic and microscopic plasma concepts, disturbances during plasma wave propagation, and techniques for production and confinement of laboratory plasmas
[RAE-TR-66073] 04 p0536 N67-13053
Blood plasma flow pattern pertaining to vascular permeability observed by fluorescent microscopy 05 p0645 N67-14436
Interference microscopic study of thin fluid films on metal surfaces for corrosion prevention
[RIA-66-2648] 05 p0725 N67-14670
Reagent for simultaneous dispersion

staining microscopy and spot testing to distinguish halite from quartz in atmospheric dust samples
[ECOM-5065] 10 p1578 N67-21338
Optical model analyses of inelastic scattering
[ORNL-P-3570] 10 p1739 N67-31663
Microscopic distribution of oxygen and carbon in metals by helium-3 activation
[LA-3515] 11 p1895 N67-22301
Hydrous uranium dioxide precipitates and sols examined by electron microscopy, electron diffraction, and spectrophotometry
[ORNL-3963] 11 p1898 N67-22324
Interference contrast microscopy technique for obtaining three-dimensional, clear image of microstructural topography of surfaces 12 p2108 N67-24242
Microcuvettes for growing cultures and observation under microscopes and manufacture of thin glass strips, plates, and cover glasses
[NASA-TT-F-10728] 14 p2467 N67-26578
Wave optic aspects of defocussed and Foucault modes of Lorentz microscopy
[TN-1967-21] 19 p3497 N67-32713
Operating electron optical systems in various orientations, and comparison of vertical and horizontal beam columns 19 p3456 N67-33789
Luminescent microscopy of fixed and vital preparations of denervated frog muscle fibers stained with acridine orange
[JPRS-41904] 19 p3379 N67-33956
Thermal, microscopic, and X-ray analyses of yttrium lead alloy system 21 p3871 N67-36356
Phase relations for samarium-gadolinium system from X-ray diffraction, microscopy and thermal analysis 21 p3872 N67-36360
Application of holography to microscopy and realization of lensless microscope
[NASA-CR-88718] 22 p4100 N67-37560

MICROSEISM
Short period seismic noise studies on spectral moments, sources of microseisms, surface waves, and statistical analysis
[TR-66-80] 01 p0069 N67-11006

MICROSTRUCTURE
SA METEORITIC MICROSTRUCTURE
SA SYNTHETIC MICROSTRUCTURE
Microstructure and thermal expansion influence on transverse strength of crystallized glass
[AD-638336] 01 p0091 N67-10097
Microstructural and X-ray phase analysis of alloys of titanium niobium chromium system 02 p0270 N67-11766
Classification of titanium alloys according to microstructure 02 p0270 N67-11769
Tension testing of electroplated lead and tin composites - microstructural grain size effect on superplasticity 03 p0410 N67-12676
Influence of alloy and heat treatment variations on microstructure of permanent aluminum-nickel-cobalt-iron magnets 03 p0411 N67-12887
Silicon effect on microstructure and creep properties of titanium aluminum tin zirconium silicon alloys
[S+T-MEMO-9/66] 04 p0563 N67-14269
Fracture toughness of impure magnesium oxide single crystals for characteristics of multicomponent ceramics
[TR-3] 05 p0726 N67-15019
Microstructure of particles from volcanic deposits in Greenland and Japan
[SAO SPECIAL REPT.-226] 06 p0872 N67-15930
Effect of milling upon microstructure of uranium dioxide powder
[TRG-1261/S/] 07 p1136 N67-17963
Metallographic observations of hot junction systems of commercial thermocouples exposed to reactor irradiation 09 p1445 N67-19624
Microstructure, refining and heat treatment history, and nickel content influences on radiation embrittlement sensitivity of structural steels
[NRL-6430] 09 p1461 N67-19755
Apparatus, method, and measurement data on microstructure and spectral transparency of artificial fog
[FTD-HT-66-396] 09 p1474 N67-20018
Radiation effects on physical properties and microstructure of BeO 11 p1961 N67-22992
Microsegregation in dendritic solidification of ternary iron-carbon-chromium alloys
[AMRA-CR-63-04/4] 12 p2115 N67-23636
Interference contrast microscopy technique for obtaining three-dimensional, clear image of microstructural topography of surfaces 12 p2108 N67-24242
Microstructural phase discrimination by vacuum deposition of surface films 12 p2108 N67-24243
Twinning and low temperature mechanical properties of polycrystalline niobium, molybdenum, and niobium molybdenum alloys
[AD-646682] 12 p2121 N67-24756
Microstructure of drawn polymer single crystals studied by electron microscopy
[AFML-TR-67-6] 13 p2126 N67-24859
Component element microstructure of computer systems, and problems of structural homogeneity 13 p2286 N67-25714
Detection, identification, and structural analyses of tektites
[NASA-CR-83861] 13 p2312 N67-25830
Steel aircraft exhaust tail pipe examined after 500 flight hours to determine need for heat treatment
[M67-133] 13 p2338 N67-26038
Influence on microstructure and mechanical properties of titanium alloys 14 p2554 N67-27027
Mechanical properties and microstructure of titanium containing oxygen and hydrogen 14 p2554 N67-27030
Chemical microstructure of liquids and solids using nuclear techniques
[ORO-3345-2] 15 p2658 N67-28342
Phase diagram of titanium-rich aluminum alloys, using thermal, microstructural, dilatometric, and X-ray analyses
[NASA-TT-F-11011] 15 p2728 N67-28744
Light and electron microstructure analyses of crack initiation and stress corrosion mechanisms in aluminum alloys
[NASA-CR-84850] 15 p2729 N67-28834
Differential ultrasonic spectroscopy for defect and microstructure identification
[AMRA-TR-67-07] 15 p2715 N67-28950
Behavior of crystals and voids in centrally heated uranium dioxide green pellets
[WAPD-TRANS-47] 16 p2961 N67-29274
Measurements of interplanetary magnetic field performed on Pioneer VI satellite
[NASA-TM-X-55815] 16 p2971 N67-29969
Ingot structure effects on strength and ductility of high strength wrought aluminum alloys
[R-1825] 17 p3078 N67-30258
Characterization of defects, polycrystals, and polymer materials on basis of structure and composition
[MAB-219-M] 17 p3084 N67-30963
Ultrasonic creep test stand for high temperature materials, and ultrasonic effects on copper and aluminum alloy microstructures
[FTD-TT-65-1408] 18 p3281 N67-32563
Break zone microstructure of copper samples after ultrasonic deformation 18 p3281 N67-32564
Exaggerated grain growth in reactor-grade hafnium after small deformations
[KAPL-3193] 19 p3473 N67-33884
Synthesis, microstructure, and characterization of polycrystalline refractory aluminum and magnesium oxides
[AVSSD-0211-67-RR] 20 p3463 N67-34006
High temperature reaction kinetics of tungsten and tungsten-cobalt alloy with oxygen and microstructures of metal oxides for oxidation resistant coating applications
[BM-RI-6998] 20 p3508 N67-34130
Classification of deformation microcontours at elevated temperatures in polycrystalline metals having face-centered cubic lattice
[AERE-TRANS-1069] 20 p3656 N67-34318
Electron beam addressable data storage elements and high-density regular arrays of micron-size elements
[ECOM-01261-8] 21 p3902 N67-35328
Microstructure, flow behavior, transport, and storage of granular media - Continuum theory
[AROD-4878-4-E] 21 p3894 N67-35379
Deformation micro-contours on surface of commercial iron during fatigue testing under heating in vacuum
[AERE-TRANS-1070] 21 p3869 N67-36191
Samarium-cerium and samarium-gadolinium binary systems study by microstructural, X-ray and thermal analysis 21 p3872 N67-36361
Micro-dynamical description of plastic flow in solids
[COO-1198-445] 23 p4158 N67-37968
Application of spinodal theory to palladium-iridium alloy
[UCRL-17470] 23 p4265 N67-38962
Refining grains found in MIG welds of aluminum alloy
[DAC-59536] 24 p4466 N67-39915

MICROTHRUST
Design and performance characteristics of several electrothermal microthrust systems for spacecraft
[NASA-TM-X-55897] 21 p3936 N67-35825
Microthrust propulsion systems used for satellite and orbit control - thermodynamic and electric methods of acceleration 21 p3928 N67-36672
Nitrogen and propane cold gas systems used in microthrust propulsion for satellite attitude control - storage tanks, boilers, nozzles 21 p3928 N67-36674

MICROTRON
Electron acceleration calculated up to 30 MeV by rectangular resonators in microtron
[JINR-P-2706] 01 p0123 N67-10644
Microtron application as electron particle accelerator
[LNF-66/45] 11 p1930 N67-23016
High energy, high duty cycle racetrack microtron design
[HEPL-493] 21 p3827 N67-36073
Magnetic and vacuum properties and acceleration ring characteristics of Frascati microtron
[LNF-67/46] 23 p4228 N67-39233

MICROWAVE
Measurement of microwave power generated by Cerenkov interaction between electron beam and regenerative Cerenkov couplers
[RADC-TR-66-401] 01 p0053 N67-10436
Microwave generation using double stream instabilities in pyrolytic graphite and bismuth
[REPT.-9] 06 p0945 N67-15349
Microwave absorption in dysprosium single crystals
[NASA-CR-82851] 09 p1503 N67-20226
Fixed and multiple frequency angle measurements with 35-GHz microwaves
[REPT.-33-TR] 10 p1584 N67-20666
Microwave properties of manganese substituted zinc-yttrium single crystals as function of temperature
[ECOM-2762] 10 p1747 N67-20729
Plasma diagnostic techniques and microwave plasma diagnostics utilizing electromagnetic radiation
[MIT-1842-36] 11 p1959 N67-22546
Digital computer technique for ray-tracing diagrams based on geometric optics of microwaves 12 p2134 N67-23488
Electron density in Tokamak devices studied by microwave method 12 p2184 N67-24188
Behavior of non-Rayleigh statistics of microwave forward scatter from random water surface
[D1-82-0587] 12 p2055 N67-24873
Solid state microwave electronics developments on range techniques, high power varactor multipliers, and computer design of varactor circuits 14 p2560 N67-27086
Plasma power source, large amplitude Alfven waves, compression waves, and microwave reflection and propagation
[PR-12] 16 p2955 N67-29790
Microwave component development 17 p3026 N67-30713
Parametric analysis of microwave and laser for communications and tracking systems
[NASA-CR-74869] 18 p3229 N67-32164
Microwave techniques using basic transmission, reflection and scattering phenomena for nondestructive testing of nonmetallic materials
[FA-T67-9-1] 18 p3276 N67-32661
State of the art review and bibliography on aerospace-related microwave technology
[NASA-CR-87055] 19 p3402 N67-33865
Ophthalmic hazards of microwave and laser environments
[AD-654523] 21 p3765 N67-35327

MICROWAVE ANTENNA
SA LUNEBERG LENS
SA RADAR ANTENNA
High-performance microwave facility for experimental research in space communications, radar and radio physics 04 p0538 N67-12869

High power testing of S-band Cassegrain monopulse cone antenna 08 p0673 N67-14447
Microwave antenna studies of polarization control and its effect on radome boresight error
[REPT.-1804-7] 08 p0631 N67-15344
Antennas and waves in plasma
[NASA-CR-82529] 08 p1251 N67-19206
Azimuth angle measurement errors contributed by atmosphere, using short baseline microwave antenna systems
[ER-4-ITSA-4] 10 p1584 N67-20588
External noise and antenna noise temperature calculations for 136 and 400 MHz satellite frequency bands
[DLR-FB-67-12] 14 p2490 N67-27360
Nimbus breadboard microwave meteorological radiometer and scanning antenna evaluation
[NASA-CR-84485] 14 p2495 N67-27660
Antenna breakdown in high temperature air
[TR-1001/2220-10/-3] 22 p3995 N67-36779
MICROWAVE APPARATUS
Review of microwave plasma applications research
[SU-IPR-57] 01 p0135 N67-10922
Microwave correlation radiometer without RF switching
[AFCRL-66-534] 01 p0054 N67-10988
Microwave self-contained distance-measuring instrument with radial-line display on cathode ray tube or numerical display 01 p0075 N67-11119
Production engineering measure for microwave ferromagnetic materials and circulators
[SJ-220-3999-4] 02 p0295 N67-11924
Theory and experiments in microwave propagation and amplification using solid state devices, and calculations of electronic deflection of laser beams
[NASA-CR-80727] 04 p0596 N67-13665
Solution to equations governing circulation conditions for ferrite loaded stipline Y-junction circulators
[WPD-34] 04 p0523 N67-13767
Investigation of Penning ionization gauge discharge and lithium ion emission for plasma synthesis for microwave applications
[ECOM-2740] 05 p0685 N67-15273
Penning ionization gauge apparatus to investigate Bernstein plasma waves by scattered microwave detection 07 p1163 N67-17012
Stimulated emission and nonlinear absorption spectrometers for upper atmosphere measurements
[CARDE-TR-457/63] 10 p1594 N67-21416
Microwave spectrometer design and applications for chemistry and chemical kinetics
[UCID-5168] 10 p1635 N67-21693
Transmitter-receiver with increased sensitivity and resolution for electron resonance spectrometer
[REPT.-3574] 10 p1595 N67-21777
Measurements on beam-plasma microwave amplifier
[RADC-TR-67-51] 11 p1838 N67-23609
Strip transmission line characteristics and apparatus - bibliography
[RAE-LIB-BIBL-259] 11 p1839 N67-23963
Rate equations describing transient behavior of microwave maser oscillators
[TR-504] 11 p1894 N67-23044
Microwave elements based on avalanche transit diodes - rare earth element chelates as active laser materials 12 p2154 N67-23961
Millimeter and centimeter operational devices based on avalanche transit diode oscillators 12 p2064 N67-23962
Microwave polarimeter for radio emission measurements during 12 November 1966 solar eclipse 13 p2318 N67-25148
Microwave oscillators and amplifiers based on Gunn effect
[NASA-CR-84502] 14 p2605 N67-27662
Epitaxial GaAs varactor diodes for microwave avalanche oscillators
[AD-634689] 15 p2877 N67-27987
Microwave systems for superconducting radio frequency separators
[BNL-11661] 15 p2868 N67-28423
Design, fabrication, and performance of hot carrier microwave detectors using high resistivity silicon and bonded point contacts
[ECOM-3797] 15 p2715 N67-28609
Electronic interaction studies with optical resonators for microwave generation and amplification
[ECOM-01873-6] 16 p2868 N67-29513
Doppler optical radar and heterodyne measurement of oscillating systems
[AD-651822] 17 p3075 N67-30310
Microwave system to study effects of structure, processing, and impurities on superconducting behavior of metals
[ORO-2570-11] 17 p3080 N67-31140
Parametric analysis of microwave and laser systems for space communication and tracking
[NASA-CR-82161] 18 p3230 N67-32166
Microwave research - optical maser improvement, and generation of domain in cadmium sulfide by injected acoustic noise
[ML-1491] 18 p3252 N67-32189
Bibliography of biological effects and hazards resulting from use of microwave generating equipment
[AD-652788] 18 p3213 N67-32384
Computer programming of simple, two-dimensional, plasmas with ion and electron simulation, and dispersion relation for wave propagation for microwave
motors 18 p3314 N67-32502
Microwave refractometer for studying tropospheric refractive index structure 18 p3272 N67-32505
Coupled-mode analysis to determine electromechanical wave behavior of rotating and nonrotating electron beams
[MD-66-023] 19 p3414 N67-33001
Cold testing, brazing, and other test work on distributed ferrites for crossed-field microwave devices
[ECOM-02032-4] 19 p3418 N67-33728
Three-hundred milliwatt X-band triode oscillator
[QR-5] 19 p3419 N67-33976
Cyclotron microwave power converter
[EC-4] 20 p3810 N67-34066
Microwave duplexers for side-looking radar application
[R11-524] 20 p3800 N67-34083
Avalanche-drift diodes and applications in microwave engineering
[JPRS-47676] 20 p3612 N67-35276
Electrostatic focusing of hollow spiraling electron beams
[ECOM-0159-1] 23 p4229 N67-38123
Microwave plasma diagnostic technique for use with ion chambers 23 p4317 N67-38285
Broadband ferromagnetic power limiters and expanders as duplexing elements for microwave systems
[ECOM-03130-4] 24 p4418 N67-39638
Phase analysis of operation modes of octave band all pass with electronically tunable limiter ranges
[RADC-TR-67-453] 24 p4419 N67-39643
MICROWAVE ATTENUATION
Attenuation of Ka-band energy by snow and ice measured with interferometer
[NOLC-670] 01 p0037 N67-10299
Rain gauge and quantitative radar observations for determining rain microwave attenuation
[ESD-TR-67-341] 18 p3289 N67-31660
Definitions, standards, types, and measurement of microwave attenuation - waveguides
[NBS-MONOGRAPH-97] 23 p4230 N67-39167
MICROWAVE CIRCUIT
Integrated microwave circuit studies involving selection of optimum FM transmitter
[NASA-CR-80010] 08 p1259 N67-18419
Conjugate-pair microwave feed circuits developed for use in electronically scanned antenna arrays
[NRL-6425] 09 p1415 N67-19723
Centimeter wave measurement of dielectric constants for materials as determined by short circuit, open circuit, and impedance transformer methods
[TIL/T-5711] 09 p1504 N67-20311
Design and construction of degenerate parametric preamplifier for upper microwave region
[PROM.-3724] 11 p1839 N67-23006
Mode conversion methods for strip transmission line nonreciprocal devices
[GE/EE/67A-5] 17 p3039 N67-30252
Microwave all-pass networks for reflector antenna feed systems
[AFCRL-67-0235] 21 p3797 N67-35707
Radial line stubs as shunt elements in strip line circuits
[LMSC-806981] 22 p4013 N67-37338
MICROWAVE COUPLING
Microwave-plasma wave coupling, wave propagation and nonlinear waves in plasmas, electron and gas densities, and indium antimonide instability
[RADC-TR-66-589] 05 p0745 N67-14999
Coupling analysis, computer analysis of power converter, and beam stability computer calculation for cyclotron-synchronous wave amplifier
[MD-66-025] 19 p3414 N67-33897
Design and fabrication of wideband high isolation microwave coupler using tapered line techniques
[REPT.-3772] 22 p4008 N67-36685
MICROWAVE FILTER
SA WAVEGUIDE
Superconducting radio frequency devices for use in electron linear accelerators and separators 17 p3045 N67-30995
Parameters of superconducting radio frequency filters for momentum range extension 17 p3133 N67-30997
Design of narrow band filter using dielectric resonators
[ECOM-02668-4] 23 p4222 N67-38238
MICROWAVE FREQUENCY
Development and performance of impedance bridge with automatic tuning feedback, plug-in unit for microwave frequency measurements, and signal frequence regulator 01 p0072 N67-10427
Steady state plasma accelerators powered by microwave frequency electric fields 05 p0749 N67-15247
Microwave research on electroacoustic amplifiers, optical masers, stimulated Raman effect, acoustic wave optics, semiconductor oscillation, nonuniform plasmas, and ferromagnetic metals
[ML-1464] 06 p0949 N67-16325
Acoustic wave amplification, optical maser, tunable laser, acoustic wave optics, nonuniform plasma theory, semiconductor oscillation, and ferromagnetic metal studies in microwave program
[ML-1496] 06 p0949 N67-16329
Frequency tuning and temperature stabilization of dielectric resonators - Band pass filter frequency response with rutile and strontium titanate dielectric crystals 07 p1175 N67-16973
Ferroelectrics at microwave frequencies 07 p1175 N67-17006
Abstracts from conference papers on microwave measuring instruments and techniques 07 p1060 N67-17367
Symposium presentation abstracts on microwave measurement instruments and techniques 07 p1060 N67-17370
Instrumentation for spectroscopy at microwave frequencies 07 p1065 N67-17782
Bistatic electromagnetic scattering measurements from small spheres in free space to determine constitutive parameters at microwave frequencies
[NASA-CR-83015] 08 p1247 N67-18548
Matched inductive plate radome design for microwave and millimeter wave regions
[REPT.-624101] 09 p1415 N67-19878
Harmonic generation at microwave frequencies
[AFOSR-67-0062] 10 p1585 N67-21717
Measurement of dielectric constant of vegetation at microwave frequencies by cavity perturbation method
[NASA-CR-83925] 13 p2368 N67-25893
Atomic research on metastable atoms, resonance spectroscopy, and collision phenomena 14 p2584 N67-26617
Measuring techniques, theory, and measurements of natural materials microwave emission properties
[SGC-2398-5] 14 p2532 N67-26907
Frequency shift and Q change of microwave cavity caused by lossy dielectrics, plasma spheres, and cylinders - perturbation of plasma volume
[D1-82-0662] 14 p2600 N67-27771
Magnetic property measurements on moderately lossy magneto-dielectric material at microwave frequencies
[AFML-TR-66-338] 15 p2752 N67-28096
Noninterrupting grid design for uRahigh and microwave frequency electron tubes
[RADC-TR-66-686] 15 p2678 N67-28284
Data systems, radio physics, radar microwave component development, mechanical engineering, and solid state research
[ESD-TR-66-173] 17 p3025 N67-29710
Theoretical analysis of beam blow-up in low charge regime of cyclotron-synchronous

wave amplifier
[EC-2] 18 p3251 N67-32537
Materials preparation and microwave bench measurements for zero-field traveling wave maser 19 p3467 N67-33365
Microwave oscillations produced in crystal semiconductor by application of strong electric field
[CEA-BIB-77] 19 p3526 N67-33891
Microwaves used to detect and measure moisture content of gases used for cooling nuclear reactors
[BNWL-406] 20 p3681 N67-34405
Matching transitions between waveguides and Lecher wires in microwave region
[IPP-3/53] 20 p3710 N67-34837
Nonlinear microwave effects in conductors
[NSF-12] 21 p3913 N67-35359
On-a-pulse frequency measurement technique for carrier frequency of radar pulse
[DSL-R-170] 21 p3795 N67-35378
Short interaction injected beam crossed field amplifier used with cycloiding electron beam
[ECOM-02268-3] 21 p3813 N67-35403
Dicke-type radiometers for absolute temperature measurements at microwave frequencies
[NASA-TR-R-271] 21 p3796 N67-35599
Microwave absorption in dysprosium single crystals 21 p3918 N67-36312
Microwave rectification using piezoelectric quartz crystal
[AFCRL-67-0143] 22 p4122 N67-36716
Microwave temperature dependent measurements of superconducting tin and lead surface impedance
[HEPL-507] 22 p4127 N67-37256
Microwave photon interaction with superconducting tunneling currents - plasma physics, semiconductors, and solid state spectroscopy
[NOLC-715] 23 p4230 N67-38560
Passive microwave radiometry studies for rough sea
[DAC-66786] 23 p4244 N67-38709
Microwave propagation reliability over selected terrain in optical paths
[NASA-CR-71830] 23 p4218 N67-39352
Microwave surface resistance of superconducting lead, trapped magnetic flux, and magnetometer using superconductivity
[HEPL-514] 24 p4515 N67-39626
Nonlinear interaction between electroacoustic and transverse electromagnetic waves microwave frequencies
[IPP-3/54] 24 p4509 N67-39998

MICROWAVE INTERFEROMETER
Microwave interferometer measurements of electron density distribution behind shock fronts and discharge plasmas 05 p0747 N67-15236
Interferometer designed to measure phase shifts of three superimposed microwave beams transmitted across common plasma path
[IPP-2/49] 07 p1081 N67-17593
Rapid acting microwave interferometer with direct phase reading for plasma diagnostics
[FTD-HT-66-272] 07 p1082 N67-17651
Microwave plasma interferometry
[FTI-212/R-666] 16 p2954 N67-29732
Plasma diagnostics using microwave interferometer and resonance phase shift techniques
[REPT.-66-23] 16 p2955 N67-29748
Microwave interferometric measurements of deionization times in helium and argon plasma afterglows
[AFOSR-67-1112] 19 p3512 N67-33907
Microwave interferometry used to investigate ionization of hydrogen in circular electric fields
[JUL-480-PP] 20 p3707 N67-34201
Dielectric conductors and antennas evaluated for use in 2 mm microwave interferometer with high spatial resolution for measuring plasma density
[JUL-473-PP] 20 p3707 N67-34236
Haystack Millstone interferometer system for high resolution radiometric studies
[NASA-CR-84815] 20 p3665 N67-35172
Cavity resonator and microwave interferometer for ionization measurements behind high velocity projectile
[ISL-T-31/65] 20 p3690 N67-35184
Phase modulated microwave interferometer with fixed frequency signal source 23 p4252 N67-38770

MICROWAVE PLASMA PROBE
Theoretical and experimental studies on plasma physics in U.S.S.R. 1963 11 p1947 N67-21881
Diffraction, reflection, and refraction models for microwave beam interaction with cylindrical plasma
[RCA RES. REPT.-7-801-48] 11 p1902 N67-23009
Plasma diagnostics by microwave damping and cut-off
[FTI-211/R-665] 16 p2954 N67-29731
Plasma diagnostics by microwave refraction
[FTI-213/R-667] 16 p2954 N67-29733

MICROWAVE PROBE
Microwave techniques for high speed plasma measurements, and quantitative measurements of plane wave interaction with isotropic and anisotropic plasmas 04 p0594 N67-13683
Langmuir probe and microwave techniques applied to same plasma 04 p0595 N67-13685
Simultaneous observations of lower atmosphere by lidar and microwave radar
[AFCRL-67-0013] 12 p2140 N67-24771

MICROWAVE RADIATION
Technique for measuring microwave radiation scattering for application to measurement of properties of plasma confined in dipolar magnetic field
[NASA-TM-X-55576] 02 p0292 N67-11356
Biological effect of combined X-ray and superhigh frequency radiation on sensitivity and radiation resistance in rats 02 p0199 N67-11582
Polarized emissivity of smooth oceanic surface in microwave region, with and without ice sheets
[DAC-59655] 04 p0539 N67-13561
Microwave radiation from solid state plasmas 04 p0599 N67-13696
Microwave radiation receiver for plasma scattering experiments
[CLM-P112] 06 p0832 N67-15437
Spatial progress of ionization in low pressure gases subjected to microwave radiation to determine processes of breakdown at high altitudes 07 p1161 N67-16854
Spectroscopic analysis of optical precursor radiation in electromagnetic shock tubes
[TR-4] 10 p1691 N67-20438
Microwave and spectroscopic analyses of epithermal microwave radiation emitting from theta pinch plasma 11 p1957 N67-21958
Microwave radiation effect on central nervous system of living organisms
[ATD-66-133] 11 p1796 N67-23422
Theory and experimental confirmation of dynamic shield response, or propagating ionization front generated by intense microwave irradiation of nonuniform plasma
[GCA-TR-66-11-A] 14 p2596 N67-26948
Critical test of electric discharge model for Venus microwave emission
[NASA-CR-84417] 14 p2614 N67-27376
Incoherent scattering of microwave radiation from enhanced density fluctuations in direct current neon discharge
[R-352] 19 p3514 N67-33053
Cosmic microwave background temperature measurement at 1.5 centimeter wavelength
[AD-653449] 20 p3721 N67-34357
Microwave radiation interaction with hypersonic air plasmas
[AFCRL-67-0201] 22 p4113 N67-36680
Two stream instability in bismuth, pyrolytic graphite, germanium, and silicon as radiation source in microwave region
[ECOM-03434-F] 22 p4117 N67-37564
Microwave emission theory for nonequilibrium plasmas in indium antimonide subject to magnetic fields
[D1-82-0623] 23 p4234 N67-39154

MICROWAVE RADIOMETER
Radio astronomical studies in OH interferometry, discrete radio sources, and spectrum measurements of Venus and Jupiter
[NASA-CR-79923] 02 p0304 N67-11853
Sky temperature measurements made at 90-Gc with radio telescope system consisting of 60-inch millimeter searchlight antenna and superheterodyne radiometer 02 p0237 N67-12137
Passive microwave determination of snow wetness factors 04 p0535 N67-13478
Microwave radiometer, horn antenna system, and techniques for collecting and analyzing meteorological data 04 p0570 N67-13487
Correlation radiometer to detect microwave radiation, and magnetoplasma discharge column 07 p1163 N67-17011
Applicability of airborne multisensor surveys to geographic research
[AD-641894] 10 p1629 N67-20722
Data analyses of snow, soil, geological, and geophysical measurements obtained by microwave radiometry
[SGC-829R-4, VOL. II] 12 p2095 N67-24781
Instrumentation and measurement of brightness temperatures of snow, soil, and geological formations by microwave radiometry
[SGC-829R-4, VOL. I] 12 p2095 N67-24782
Microwave radiometric studies related to land mine detection
[REPT.-1875] 12 p2103 N67-24826
Tropospheric temperature and absorption data for solar radiation observations with microwave radiometer 13 p2310 N67-25139
Remote sensing by infrared and microwave radiometry - basic principles, correcting airborne measurement of natural water body surface temperature, and radiometry applications
[TR-31] 15 p2715 N67-28948
Analysis of microwave radiometric technique for correcting range errors of tracking systems due to atmospheric refraction
[IER-30-ITSA-30] 17 p3023 N67-30471
Day-night high resolution infrared radiometer using two-stage radiant cooling
[NASA-CR-86913] 18 p3271 N67-32388
Aircraft flight tests of electric scanning microwave radiometer designed for meteorological satellite
[NASA-TM-X-55639] 21 p3847 N67-35340

MICROWAVE REFLECTOMETRY
Accurate phase length measurements of large microwave networks used to feed radio frequency energy to two-mile linear accelerator
[SLAC-PUB-181] 01 p0038 N67-10718
Experimental arrangement for continuous velocity measurement of shock waves based on Doppler effect of microwaves
[ISL-T-26/65] 21 p3829 N67-35466

MICROWAVE RESONANCE
Time behavior of light emitted from many-element laser - microwave models of laser resonators
[ASR-1] 01 p0080 N67-10231
Langmuir type probe and microwave resonant cavity technique used to measure electron densities behind incident shock wave in pressure driven shock tube
[PIBAL-992] 01 p0122 N67-10868
Plasma diagnostics using microwave interferometer and resonance phase shift techniques
[REPT.-66-33] 16 p2955 N67-29749
Excitation of instabilities and microwave emission from high purity n-type indium antimonide 19 p3524 N67-33398

MICROWAVE SCATTERING
Pulsed microwave radar backscattering used in model tests of clear air turbulence detection
[NASA-CR-79922] 02 p0234 N67-11989
Calculations and experiments to determine wave instability in steady state discharge, laser breakdown in plasma, and microwave scattering from standing plasma waves 05 p0743 N67-14659
Beam break-up effect shown in microwave cold, microwave beam, and focusing beam tests
[SLAC-PUB-224] 10 p1700 N67-20775
Microwave and beta ray backscatter techniques for detecting voids and inhomogeneities in glass fiber reinforced plastics
[SA-TR19-1519] 10 p1662 N67-21359
Cloud droplet microwave scattering effect on line integral refractometer measurement
[MTR-53] 12 p2094 N67-24819
Microwave scattergrams of raindrop size distributions computed using Mie theory
[TR-436] 12 p2056 N67-24835
Signal correlations in forward scattering of microwaves by two-component random distributions
[SESW-E121] 17 p3023 N67-29835
Microwave scattering analysis with Hamiltonian optics
[TM-64321] 19 p3497 N67-33178

Plasma production by high power Q-switched laser, and photon scattering and microwave experiments
[WERL-3472-6] 22 p4116 N67-37581
MICROWAVE SPECTRUM
SA INTERSTELLAR MICROWAVE SPECTRUM
Microwave spectroscopy used in identification of atmospheric trace contaminants
[NASA-CR-66090] 02 p0259 N67-11723
Microwave absorption spectrum of molecular oxygen
[NASA-CR-80153] 03 p0389 N67-12917
Microwave spectroscopy and quantum mechanical calculations for small atoms and molecules
[AD-644572] 10 p1570 N67-30709
Energy levels of polyatomic molecules, and infrared and microwave spectra
[AFCRL-66-430, PT. I] 10 p1578 N67-31373
Rotational isomerism in fluoroacetyl fluoride studied by microwave spectroscopy
[AD-645803] 11 p1814 N67-33166
Microwave spectrum of pivalaldehyde in frequency region 9-40 kMc/sec
[AD-645777] 12 p2041 N67-33929
Internal axis method to study effects of internal rotation in microwave molecular spectra with symmetric tops
[AD-645780] 12 p2041 N67-33930
Microwave absorption spectrum of magnetically ordered dysprosium metal
[AFCRL-66-666] 12 p2193 N67-34753
Microwave spectrum, structure, dipole moment, and quadrupole coupling constant of germyl cyanide
[AD-645778] 12 p2048 N67-34898
Microwave spectrometric gas analyses in determining trace constituents collected from space simulator
[SAM-TR-67-3] 14 p2471 N67-36760
Radio astronomical studies of microwave spectrum, radial velocity, dielectric constants, and emissions 14 p2612 N67-37065
MICROWAVE SWITCHING
Fast switching microwave phase shifters for high power array radar antennas 04 p0514 N67-13946
MICROWAVE TRANSMISSION
Conditions analyzed for low-noise operation of crossed field microwave amplifiers
[ERL-66-17] 06 p0656 N67-16457
Surface and reflection effects on microwave propagation path across sea water
[NSTIC/07072/66] 06 p0844 N67-16590
Spectral analyses of microwave absorption in protein solutions, water, and organic solvents by molecular bonding to cell surface
[NASA-CR-84051] 13 p2380 N67-36384
Microwave, millimeter, and optical communication systems for spacecraft at Mars distances
[NASA-TN-D-3964] 14 p2549 N67-37287
Propagation and terrain reflection of highly stable narrow band microwave signals - radio communication
[IED-G5] 16 p2860 N67-29433
Methodology and heat radiators in microwave and laser systems for communication and tracking
[NASA-CR-85873] 17 p3028 N67-31305
Parametric analysis of microwave and laser systems for communication and tracking - updated reference data for advanced space communication and tracking systems
[NASA-CR-77943] 18 p3250 N67-32165
Systems studies to optimize missions using laser/optical, microwave, or combination of microwave and laser/optical communication and tracking systems
[NASA-CR-86910] 18 p3233 N67-32322
Microwave nondestructive testing of dielectric materials to detect flaws 20 p3647 N67-34474
Electromagnetic wave studies in microwave research facility, Italy 20 p3631 N67-35030
Design concepts of refrigeration systems for cooling components of microwave receiving systems to 90 to 100 deg Kelvin - transmission line
[NASA-CR-88120] 21 p3950 N67-36457
Electron attaching additives research for modification of reentry plasmas and improvement of microwave communication
[AFCRL-67-0214] 22 p4001 N67-37866
Reentry boundary layer microwave breakdown
[TR-1001/2340-20/-11] 24 p4507 N67-39734
Helmholtz equations used in study of propagation at microwave frequencies in waveguides filled with warm plasma
[SR-16] 24 p4509 N67-40013
MICROWAVE TUBE
Developments reported in varactor multipliers, crystal mixers, and diodes for microwave application 05 p0683 N67-14434
Noise measurements of crossed field microwave tube
[ECOM-3746] 05 p0684 N67-15052
Amplitron life test unit
[NASA-CR-81614] 07 p1053 N67-17981
Broadband noise generation mechanism in space charge of miniature microwave noise generator
[AD-643188] 10 p1591 N67-30586
Electron beam analyzer for testing linear beam microwave devices
[ECOM-2707] 10 p1596 N67-31436
Chemical vapor deposition as method for producing materials or coatings for use in vacuum electron devices and microwave tubes
[S-936] 15 p2727 N67-28611
Research and development of permanent magnet focused, pulsed, distributed interaction klystron
[REPT.-4] 16 p2870 N67-29776
Cold testing of ferrite materials for improving crossed field microwave amplifiers and oscillators
[QR-3] 19 p3415 N67-33220
Low weight beam tube development for traveling wave amplifiers
[ECOM-02578-2] 21 p3817 N67-35667
Design and development of traveling wave power amplifier tube employing transverse wave interaction
[ECOM-0236-1] 22 p4011 N67-36907
Analytical and experimental study of interaction of waveguide with waves on rotating electron beam
[UTEC-MD-67-050] 24 p4422 N67-39419
Mathematical treatment of axisymmetric wave propagation in uniform, finite, solid electron beam
[ECOM-3868] 24 p4506 N67-39618
MIDCOURSE GUIDANCE
SA GUIDANCE SYSTEM
Midcourse guidance analysis and optimization with discrete measurements for mission logic development
[NASA-CR-65557] 02 p0206 N67-12092
Design considerations for midcourse guidance and terminal descent system of Surveyor lunar soft landing spacecraft
[NASA-CR-80539] 03 p0466 N67-12302
Midcourse navigation using statistical filter theory, manual theodolite, and symbolic computer control applied to manned spacecraft
[NASA-TN-D-3875] 07 p1120 N67-17900
Statistical evaluation of simplified midcourse guidance laws 14 p2570 N67-36524
Navigation and guidance requirement analyses during midcourse and orbital phases of 1975 round-trip Mars mission
[NASA-CR-61130] 16 p2927 N67-29920
Functional design of Mariner midcourse maneuver operations program
[NASA-CR-86914] 18 p3235 N67-32230
MIDDLE EAR
Specific gravity and viscosity of endolymph and perilymph from inner ears of pigeons
[DRML-529] 05 p0655 N67-15129
MIDDLE EAR PRESSURE
S EAR PRESSURE TEST
MIE SCATTERING FUNCTION
Monte Carlo methods, Mie theory, and random walk and screen models for predicting reflective properties of paint films
[NASA-CR-61167] 06 p1328 N67-19976
Optical radar investigations of atmosphere, and Mie scattering intensity functions for backscatter 11 p1863 N67-31982
Microwave scattergrams of raindrop size distributions computed using Mie theory
[TR-426] 13 p2656 N67-34934
Atmospheric aerosol measurement using polarized laser light scattering and Rayleigh and Mie scattering functions
[UTEC-MD-67-034] 20 p3653 N67-34397
Monte Carlo method used for calculating reflected and transmitted radiance of earth atmosphere
[NASA-CR-89276] 23 p4248 N67-38936
Mathematical model of haze effect on Umkehr ozone distribution curves based on Mie scattering function
[AFCRL-67-0367] 24 p4485 N67-39699
MIGRATION
SA ELECTROMIGRATION
Computer program for radionuclide migration in soil columns 04 p0502 N67-13766
Grain boundary migration in potassium chloride bicrystals
[ANL-7233] 12 p2192 N67-34574
Fission product migration studies using lithium drifted germanium detector for gamma scanning experiments on irradiated uranium dioxide pellets
[AE-272] 15 p2743 N67-27854
Model to compute migration of very short-lived noble gases into Molten-Salt Reactor /MSRE/ graphite
[ORNL-TM-1810] 23 p4286 N67-38597
MILITARY AIRCRAFT
Atmospheric turbulence data survey of NATO countries as basis for military aircraft structure design analyses 03 p0323 N67-13065
Obstacle impact hazards of military aircraft flying at tree top altitude
[USAAVLABS-TR-66-78] 11 p1764 N67-33349
Comparative data on handling qualities of low level strike aircraft based on flight tests and wind tunnel estimates
[AGARD-534] 12 p2013 N67-33665
Method for estimating crew composition of two-man Army aerial vehicle
[TM-7-66] 12 p2094 N67-34835
Corrosion protection of antimony oxide primers over aircraft metals
[NAEC-AML-2532] 14 p2558 N67-37480
Evaluation of military air transport systems
[ORG/MS-7] 15 p2907 N67-27925
Mechanical problems associated with gas turbines required by military aircraft of future 16 p2963 N67-29195
Atmospheric turbulence, flight, commercial survey and ground load, sinking speed, and runway condition effects in NATO countries on design of military aircraft
[AGARD-555] 16 p2885 N67-29434
Liquid methane propulsion system concept for military and commercial supersonic transport applications
[NASA-TM-X-52190] 18 p3281 N67-30037
Compilation of research articles on manned military aircraft - hypersonic and supersonic flight, air breathing propulsion, simulation, noise, and aerodynamics
[NASA-TM-X-420] 19 p3365 N67-32070
State-of-the-art in manned military VTOL aircraft 19 p3365 N67-32071
Aerodynamic information for development of variable-sweep multimission military aircraft 19 p3366 N67-32072
Research objectives, flight aerodynamic characteristics, development problems, and systems operation of X-15 in relation to development of advanced military aircraft 19 p3366 N67-32075
Manned military aircraft structures and materials 19 p3545 N67-32077
Simulation requirements for development of advanced manned military aircraft 19 p3366 N67-32079
Aircraft design - crash survival aspects of aviation safety
[AVSER-66-18] 22 p3980 N67-37177
Statistics of Navy aircraft counting accelerometer loading data
[NAEC-ASL-1108] 22 p3981 N67-37635
MILITARY AVIATION
Laser light applications in communications, searching, tracking, interception, and aviation
[FTD-TT-65-341] 09 p1496 N67-19079
Crash survival variables affecting design and testing of military aircrew helmets
[AD-643641] 12 p2035 N67-34641
Long range planning forecast on airport and aircraft needs of civil, military, and commercial aviation
[AD-643230] 15 p2542 N67-28691
Air Force operations research in cold weather regions
[P-3549] 18 p3280 N67-29434
Brief history of civil and military aviation
[NASA-TM-X-52354] 24 p4375 N67-40028
MILITARY HELICOPTER
Cost and effectiveness evaluation of automated cargo delivery systems in army aircraft
[DAC-58064] 11 p1782 N67-33086
Operational performance of military cargo

and surveillance helicopters
[NASA-TN-D-4120] 21 p3757 N67-35733
MILITARY PSYCHIATRY
Military interpersonal relations and performance of trainees
[REPT.-3] 11 p1797 N67-22543
Conference on Air Force behavioral problems - aspects and applications of military psychiatry for personnel evaluation, mental health, therapeutic methods, and animal studies
[AD-648168] 14 p3458 N67-26921
Group therapy for Air Force personnel 14 p3459 N67-26923
Medical and psychiatric problems related to amphetamine therapy for military personnel 14 p3459 N67-26924
Assistance program for military personnel with handicapped children 14 p3459 N67-26925
Mental sickness among women Air Force personnel 14 p3459 N67-26926
Psychiatric assessment and presentation before military lawyers 14 p3459 N67-26927
Psychological index method for differential diagnosis of brain damage in human subjects 14 p3460 N67-26928
Confidential communication between personnel and behavioral scientist 14 p3460 N67-26929
Therapeutic process to obtain changes in human behavior 14 p3460 N67-26930
Aspects of psychiatry in military system 14 p3460 N67-26931
Psychiatric evaluation and selection of university students for flying assignments 14 p3460 N67-26932
Deep relaxation therapy for behavior modification of patient with phobia 14 p3460 N67-26933
Interpersonal perception and psychological adjustment of group members
[AD-645741] 14 p3472 N67-26966
MILITARY SPACECRAFT
Orbiting satellites for military reconnaissance related to space control laws 13 p3435 N67-25280
Legal liability and problems resulting from space flights and military use of outer space 13 p3439 N67-25513
United Nation efforts on international space program cooperation, and problems related to use of military spacecraft
[DGRR/WGLR PAPER-66-030] 13 p3440 N67-25684
MILITARY TECHNOLOGY
SA DEFENSE
Military applications of cybernetics
[JPRS-36343] 01 p0056 N67-10397
Categorizing scheme for identification of fields and disciplines for Army Engineering Data and Information System /EDIS/
[AD-634323] 02 p0237 N67-11271
Feasibility of voice actuated address mechanism for use as input device to Army field telephone communications system
[REPT.-3] 02 p0236 N67-12065
Scientific and philosophical application of cybernetics in military science
[JPRS-36476] 03 p0477 N67-12833
Methods applicable to military scientific investigations 03 p0477 N67-12834
Government hearings on satellite communications - civil and military applications, interagency relations, and procurement policies
[REPT.-2318] 04 p0626 N67-14146
Military technology and armed forces coordinated metal working and processing program 06 p0884 N67-15506
Military technology and United States Metalworking Processes and Equipment Program 06 p0884 N67-15509
Materials science in support of advanced military technology 06 p0884 N67-15510
Improvement in electromagnetic compatibility in field army through synthesis method of frequency assignment
[ECOM-01232-IF] 06 p0841 N67-16065
Electrodeposition of organic coatings on complex military structures
[CCL-269] 06 p0901 N67-16496
Plastics for ammunition applications 08 p1295 N67-18437
Carbon heating units to boil water for reconstituting precooked dehydrated rations
[TR-67-13-CM] 10 p1598 N67-20830
Electromagnetic radiation hazards in modern naval technology
[TM-3] 11 p1799 N67-22697
Unqualified representation of events in military research and development 11 p2007 N67-23414
Data processing experience applied to military management technology
[PRC-R-932, VOL. I] 12 p2063 N67-24975
Scientific, commercial, and military uses of outer space related to development of international control laws 13 p3432 N67-25253
Dynamic developments of international space laws, and shift of space technology efforts away from military-related efforts 13 p3432 N67-25254
Legal thinking and policies resulting from space exploration, military restrictions from use of outer space, and security of sovereign states 13 p3439 N67-25511
Time-lapse color photography to determine military implications of seasonal environmental changes
[AD-634676] 15 p2697 N67-27955
Ammonia burning internal combustion engines for military fleets of future
[AD-634631] 15 p2784 N67-27960
Army research and development activities in electronics, theoretical and applied physics, ballistics, pyrotechnic chemistry, and weapon system technology
[AD-634616] 15 p2808 N67-27971
Supplement to military science conference - practical problems and applications of Army research and development studies for military technology
[AD-647010] 15 p2808 N67-27997
Applied military science technology for in-house research and development of armed forces - conference address 15 p2808 N67-27998
Practical problems and applications of Army research and development - conference address 15 p2808 N67-27999
History of Air Force Office of Scientific Research
[OAR-66-7] 18 p3357 N67-31547
Historical summary of origin and first uses of military rockets emphasizing Spanish role
[NASA-TT-F-11128] 21 p3757 N67-35930
Potential uses of new communications technologies for national security and defense in 1970s
[P-3639] 24 p4406 N67-39748
Flight tests of three-canopy /trefoil/ parachute assembly for low level delivery of paratroops
[RAE-TR-67017] 24 p4374 N67-40015
MILITARY VEHICLE
Solar heat reflecting paint effects on crew compartment temperatures of armored personnel carriers
[TN-4-66] 05 p0735 N67-14674
Review and analyses of land locomotion theories, soil mechanics, and unusual vehicle concepts for off-road trafficability
[TR-9560] 18 p3255 N67-31921
Analytical methods for predicting performance of wheeled or tracked vehicles over off-road terrain 18 p3256 N67-31926
Soil analogs used for strength predictions in terms of surface vehicle locomotion in remote or inaccessible areas 18 p3263 N67-31928
Terrain geometry measuring equipment for off-road vehicle locomotion studies 18 p3270 N67-31931
Unusual surface vehicle concepts and components evaluated for off-road locomotion 18 p3256 N67-31932
Foreshortened center-fed VHF antenna installed on military vehicle for radio communication
[AD-653843] 20 p3599 N67-34057
MILKY WAY
Gemini IX experiment to photograph airglow, zodiacal light, and Milky Way 06 p0965 N67-16622
New H-alpha emission stars in eta carinae nebula region - tables and charts 14 p3610 N67-28483
Intrinsic colors and absolute magnitude of stars as function of spectrophotometric criteria used to determine galactic structure of Cassiopeia 14 p3617 N67-27780
Milky Way structure in direction of Sagittarius spiral arm, and spatial distribution of stars 20 p3729 N67-35057
Dust and stellar components distribution data to determine Milky Way structure between arms in Carina-Cygnus and Sagittarius 20 p3729 N67-35058
Lyman alpha radiation observations from AIS Veneras 2 and 3 flights
[NASA-CR-88983] 23 p4340 N67-38497
Statistical and astrophysical studies of emission-line stars and planetary nebulae in southern Milky Way
[AD-656513] 24 p4531 N67-40
Photographic observations of Milky Way ultraviolet radiation from stable platform located outside atmosphere
[NASA-TT-F-11234] 24 p4531 N67-40
MILLIMETER WAVE
SA MICROWAVE
Millimeter and submillimeter wave receiver techniques and detectors
[NASA-CR-80631] 04 p0515 N67-14
Variable range reflector method for measuring effective power patterns of millimeter wave radiometric antennas
[BRL-R-1322] 05 p0675 N67-15
Adaptive antenna techniques with very broad bandwidth capabilities for millimeter wave applications
[AFCRL-66-724] 06 p0840 N67-16
Fast millimeter single-pole double-throw ferrite latching switch
[ECOM-2757] 06 p0855 N67-16
Millimeter wave generation with electron beam devices
[NASA-TN-D-3727] 06 p0857 N67-16
Interferometric effect with semiconductors in millimeter wave region
[ECOM-2774] 07 p1176 N67-17
Instrumentation and antenna development, solar observations, and lunation observations in study of millimeter wave radiometry in radio astronomy
[NASA-CR-81644] 07 p1040 N67-17
Wall geometry effects on attenuation minimization of oversized millimeter waveguides
[NASA-CR-81710] 07 p1054 N67-18
Matched inductive plate radome design for microwave and millimeter wave regions
[REPT.-624101] 09 p1415 N67-19
Generation and detection of coherent elastic waves in quartz at extremely high frequency
[AD-642807] 10 p1751 N67-21
Interference spectrometer used to measure complex permittivity of dielectric materials in millimeter and submillimeter wave regions
[TR-1] 10 p1752 N67-21
Optical equipment and 90-GHz millimeter wave components for space communication and tracking 12 p2050 N67-23
Millimeter and centimeter operation devices based on avalanche transit diode oscillators 12 p2064 N67-23
Research on radio frequency systems at millimeter waves
[NASA-CR-83973] 13 p2282 N67-26
Microwave, millimeter, and optical communication systems for spacecraft to Mars distances
[NASA-TN-D-3984] 14 p2549 N67-27
Attenuation of millimeter wavelength radiation by gaseous water
[ECOM-5007] 16 p2936 N67-30
Toxicity of metal surface to biological cultures, and millimeter-wave astronomy
[PB-173834] 16 p2989 N67-31
Millimeter-wave radio astronomy observatory equipment 16 p2989 N67-31
Effective black body radiation of semitransparent materials for thermal calibrators in millimeter wave radiometer
[HDL-TM-67-2] 17 p3175 N67-32
Electron beam-electromagnetic field interactions and possible applications to generation and amplification of millimeter waves
[NASA-CR-85613] 17 p3143 N67-32
Horns, lens, power separators, and other elements designed for extremely high frequency interferometry - millimetric wave - liquid dielectric permittivity
[CEA-R-2993] 19 p3498 N67-35
Angular incidence effects in millimeter wave semiconductor interferometer
[ECOM-3816] 19 p3456 N67-28
Quantum electronics and millimeter wave in relation to resonant mixing 19 p3468 N67-35
MILLING
SA CHEMICAL MILLING
Effect of milling upon microstructure of uranium dioxide powder
[TRG-1301/S/] 07 p1136 N67-17
MILLING MACHINE
Vibration control in horizontal milling machine using torsional dampers in drive system

[NEL-207] 03 p0405 N67-13069
Effect and control of chatter vibration in machine tool processes
[QTR-1] 19 p3462 N67-32787
MILNE EQUATION
Milne problem solution for monoenergetic neutron transport equation with linear anisotropic scattering function in plane geometry
[BMWF-FBK-66-18] 12 p2171 N67-34679
MILNE-THOMSON METHOD
SEE RUNGE-KUTTA INTEGRATION
MINE DETECTOR
Microwave radiometric studies related to land mine detection
[REPT.-1875] 12 p2103 N67-34826
MINERAL
SEE BAUXITE
SEE CALCITE
SEE CORDIERITE
SEE DIORITE
SEE EUXENITE
SEE FORSTERITE
SEE GARNET
SEE GRAPHITE
SEE HEMATITE
SEE LAVA
SEE LIMESTONE
SEE MONTMORILLONITE
SEE NEPHELINE
SEE ROCK
SEE SOIL
SEE TALC
SEE WURTZITE
Polytypic relations of zenaite
[REPT.-07325-2-T] 01 p0034 N67-11037
Washing tetrabromoethane liquid from mineral particles
[BM-RI-6729] 02 p0227 N67-11838
Spectrophotometric analysis and X-ray diffraction of fine grained rocks and minerals for examining composition of Martian surface
[AD-630076] 03 p0459 N67-12661
Solid-liquid phase transformations of serpentine and olivine at varying temperatures and pressures
[NASA-CR-80435] 03 p0390 N67-13114
Luminescence measurements of minerals by Fraunhofer line depth method
[NASA-CR-80487] 04 p0540 N67-13700
Research and developments in geology, hydrology, mineral chemistry, particles, and gases
[BNWL-235-3] 04 p0541 N67-13741
Exchange reactions of alkali metal cations on natural stilbite 04 p0502 N67-13752
Alkali metal cation equilibrium with chabazite 04 p0502 N67-13753
Cation exchange properties of wairakite and analcime 04 p0502 N67-13755
Fast neutron activation analysis method for determining copper content in ores 06 p0624 N67-16277
Extraction of mineral acids by alkyl sulfoxides 06 p0627 N67-16315
Spectrophotometric reflectivity data of terrestrial specimens compared to spectral measurements of Martian continents to verify hypothesis of limonite covering on Mars 07 p1188 N67-16815
Shear strength, polymorphism, and mechanical behavior of olivine, enstatite, diopside, labradorite, and pyrope garnet
[AFCRL-66-543] 10 p1618 N67-30490
Conference papers on U.S.S.R. uses of radioactive isotopes and nuclear radiation in locating, prospecting, and exploiting mineral resources
[AEC-TR-6466/4] 10 p1631 N67-21981
Radioactivity methods for prospecting petroleum, gas, coal, and ore deposits 10 p1621 N67-21982
Radioactivity logging with gamma and neutron radiation sources on ore and coal deposits 10 p1623 N67-21983
Gamma ray, gamma-gamma ray, and neutron-gamma ray logging radioactivity methods of prospecting for coal deposits 10 p1622 N67-21985
Radiometric equipment for radioactivity studies of coal and ore boreholes 10 p1622 N67-21986
Borehole charged particle accelerators for improved radioactivity logging efficiency in prospecting coal, ore, and petroleum deposits 10 p1623 N67-21990
Two-channel differential scintillation gamma spectrometer for gamma-gamma and gamma-ray logging, and energy spectra recording of scattered and natural gamma radiation 10 p1624 N67-21990
Measuring apparatus for quantitative analysis of beryllium ore powder samples, concentrates, and products of metallurgical processing 10 p1624 N67-21992
High efficiency apparatus with slow neutron scintillation counter and low activity polonium-beryllium source for analyzing elementary composition of mineral raw materials 10 p1577 N67-21995
X-ray radiometric method and equipment for rapidly analyzing chemical composition of mineral substances 10 p1577 N67-21996
Nuclear radiation in X-ray fluorescence spectrometry, and application to identifying minerals 10 p1577 N67-21997
Scattered beta radiation method of determining lead content percentage in ores and concentrates 10 p1577 N67-21316
Polonium 210 alpha radiation for automatically controlling elementary composition of ore concentrates 10 p1578 N67-21317
Adhesion between differing silicate minerals in which contact faces are formed simultaneously - ultrahigh vacuum adhesion 12 p2124 N67-23967
Electron beam microanalysis of mineral phases in chondrite meteorites
[AFCRL-66-730] 12 p2095 N67-34751
Polytypic phase relations among complex inorganic structures
[REPT.-07325-3-T] 14 p2475 N67-36665
Mineral concentration from natural ores by heavy liquid separation method, using spodumene ores and 0.4-inch diameter cyclone with acetylene tetrabromide
[BM-RI-6969] 15 p2663 N67-38793
Phase relations, optical properties, and geological distribution of feldspars
[TT-65-50091] 18 p3231 N67-31645
Thermodynamic properties of forsterite and serpentine
[BM-RI-6962] 18 p3279 N67-31801
Thermal properties of amphiboles as function of alkali content determined by differential thermal analysis
[T-R-634] 19 p3439 N67-32901
Thermodynamics of ion exchange on colloidal materials with applications to silicate materials
[TID-23908] 23 p4366 N67-39122
Minerals and foods in oceans and oceanographic research
[JPRS-43307] 24 p4553 N67-40036
MINERAL OIL
Rapid shearing characteristics of polymers dissolved in mineral oil -
Rheology 05 p0723 N67-14543
MINERALOGY
SEE PETROLOGY
Geophysical methods for investigation of terrestrial crust and mineral prospecting 06 p0671 N67-15427
Identification of mirabilite and thenardite in airborne dust by infrared absorption spectroscopy
[ECOM-5072] 06 p0674 N67-16167
Mineral content of dust component of atmospheric aerosol over New Mexico
[ECOM-5067] 21 p3043 N67-36426
MINIATURE ELECTRONIC EQUIPMENT
SEE MICROMINIATURIZED ELECTRONIC EQUIPMENT
Design modification and construction of miniaturized, ruggedized, high power deuterium thyratron with improved life characteristics
[B-3419] 02 p0344 N67-11882
Reliability and capability improvements of high voltage miniature silicon rectifiers
[QPR-4] 03 p0373 N67-12558
Miniaturized broadband E-Tee circulator 03 p0374 N67-13002
Production engineering measures for subminiature feed-through ceramic dielectric capacitors
[QR-1] 10 p1585 N67-21697
Miniature electronic devices for use with bolometers and thermocouples to simplify field measurements of heat radiation 11 p1974 N67-21995
Design, performance, and applications of miniature recording gamma-ray dosimeter
[AECL-2629] 11 p1985 N67-22993
Fabrication of miniaturized electronics devices, including circuit interconnections, device joining, and flat package sealing
[GDC-ERR-AN-956] 12 p2067 N67-23079
Miniaturized biotelemetry system for measuring temperature of small mammal and radio telemetry system for measuring temperature of moving machine part
[Y-1568] 13 p2263 N67-25385
Corona wind in air setup for triggering miniaturized digital fluid flip flow amplifier element
[AROD-4942-3-E] 15 p2644 N67-29559
Optimum structures for miniature nickel-cadmium sealed cells and batteries
[REPT.-1] 16 p2822 N67-29618
Design and performance of compact lightweight two inch image orthicon television camera 16 p2897 N67-29943
Production engineering measure for multilayer printed wiring board
[REPT.-5] 17 p3024 N67-30306
Design characteristics, design tradeoffs, and kernel requirements of miniature data processing system for small standard satellite
[NASA-CR-85581] 17 p3031 N67-30332
Miniature semiconductor photodiode detection system for determining horizontal displacement of ballistic pendulum used in laser impulse measurements
[BRL-TN-1651] 18 p3278 N67-32638
Soviet-source abstracts from 1965-66 articles on telephone, telegraph, teletype, and facsimile equipment and radio relays and miniature transceivers 19 p3402 N67-33027
Vacuum deposited film process for miniature rheonium resistors
[NADC-AE-6711] 20 p3549 N67-34267
Electrically-small, superconducting antennas
[AFCRL-67-0200] 23 p4214 N67-39648
Electrical, mechanical, and circuit design of ultraminiature television camera
[NASA-CR-89625] 24 p4450 N67-39743
MINIATURIZATION
SEE MICROMINIATURIZATION
Miniaturizing automatic amino acid analyser for Apollo and Voyager missions
[NASA-CR-81689] 07 p1617 N67-18026
Miniaturized neutron sources for petroleum geology and geophysics 10 p1622 N67-21989
Armature design for miniature dc motors and performance characteristics calculation
[SC-TM-67-92] 19 p3419 N67-33902
MINIMUM DRAG
Two-dimensional lifting wings of minimum drag in hypersonic flow
[NASA-CR-80964] 05 p0629 N67-14692
Variational method used to derive hypersonic profile with minimum drag at assigned bending strength
[NASA-TT-F-10839] 06 p0785 N67-15690
MINIMUM VARIANCE ORBIT DETERMINATION /MINIVAR/
Modifications to minimum variance program for processing real data, including two-body problem solution, and modified Kalman filter with bias errors
[NASA-CR-81158] 05 p0622 N67-13900
MINING
Nature and extraction of lunar resources for use in increasing economy of manned lunar and planetary exploration
[NASA-TM-X-55673] 08 p1362 N67-18823
Radioisotopes and nuclear radiation methods in metallurgy and mining operations and research 10 p1654 N67-21947
Gamma electronic relays for automation and control of coal mining and preparation processes 10 p1645 N67-21958
Radioactive radiation instruments for automation and control of coal and ore mining processes 10 p1645 N67-21962
Radioactive control of drilling tool in coal boreholes, based on continuous measurement of scattered gamma radiation 10 p1775 N67-21315
Lunar surface mining techniques and materials characteristics in vacuum environment
[NASA-TM-X-52560] 11 p1974 N67-22172
Gravity survey of Blair Athol coal field in Queensland, Australia
[REPT.-94] 18 p3287 N67-32521
Phosphate industry and resources in Wyoming and Utah
[BM-RI-6894, PT. 4] 23 p4249 N67-39901
MINITRACK
Orbit calculations from minitrack observations
[RAE-TR-66368] 15 p2709 N67-36823
MINITRACK OPTICAL TRACKING SYSTEM /MOTS/
Stellar triangulation theory, geodetic

satellite observations and preprocessing procedures
[NASA-CR-89061] 23 p4342 N67-38276
MINKOWSKI THEORY
Relativity theory lectures involving Lorentz transformations, Minkowski space, and tensor analysis
[NASA-CR-81281] 06 p0918 N67-16519
First order theory for electromagnetic radiation emanating from linear, homogeneous, isotropic, moving conducting medium - Maxwell-Minkowski equations, and Green function
[AFCRL-66-469] 09 p1485 N67-19617
Minkowsky electrodynamic theory and power conservation law used to calculate receiving area of dipole antenna immersed in moving ionized medium
[NASA-CR-86683] 18 p3305 N67-31657
MINORITY CARRIER
Adaptation of models for minority carrier devices, and applicability in computer design evaluation studies of integrated circuits 18 p3244 N67-31566
MINUTEMAN ICBM
Component quality control and physics of failure programs for improving reliability and identifying failure modes of Minuteman II weapon system 01 p0050 N67-10125
Failure modes associated with thermally induced mechanical stress in Minuteman semiconductor devices 01 p0050 N67-10127
Design and process contribution to inherent failure modes of microminiature electronic components for Minuteman II 01 p0051 N67-10131
MIO918
S VISION
MIRAGE III AIRCRAFT
S DASSAULT MIRAGE III AIRCRAFT
MIRROR
SA BEAM SPLITTER
SA MAGNETIC MIRROR
SA PARABOLOIDAL MIRROR
Radiation accumulation and consumption in plane parallel layer with separated mirrors
[FTD-TT-65-1379] 05 p0738 N67-14680
External mirror for laser brightness gain and thermal compensating mode control 07 p1095 N67-16954
Ruby laser operation with inclined mirrors 07 p1096 N67-17170
Astronomy conference papers on light diffraction spectrograph, and vacuum chamber tests of astronomical mirror
[FTD-TT-65-1537] 07 p1079 N67-17178
Vacuum chamber testing of astronomical instrument mirrors 07 p1059 N67-17180
Modes of open resonator with plane circular mirrors
[PH.L.1966-18] 13 p2369 N67-28301
Specific impact and compression strength data on compositions of polystyrene foam for use as substrate for solar energy collector mirror surface 15 p2644 N67-28165
Reflection coefficients of lacquers containing photostabilizing compounds - protection of aluminum mirror surfaces produced by transfer method 15 p2644 N67-28166
Adjustable mirror mount design for lasers using kinematic principles
[RAE-TR-66349] 15 p2720 N67-28362
Factors affecting use of beryllium as mirror in cryogenic environment - bibliography
[OPSR-3] 22 p4073 N67-37880
Limitation of ion cyclotron heating in local mirrors of C stellarator
[MATT-411] 23 p4324 N67-39057
Aluminum collimating mirror nickel plated for use in space simulator
[NASA-CR-89755] 24 p4459 N67-40267
MISSILE
SA ANTIAIRCRAFT MISSILE
SA BALLISTIC MISSILE
SA BLACK BRANT III MISSILE
SA BLACK BRANT MISSILE
SA BLUE STREAK MISSILE
SA GUIDED MISSILE
SA HAWK MISSILE
SA INTERCONTINENTAL BALLISTIC MISSILE /ICBM/
SA LANCE MISSILE
SA POLARIS MISSILE
SA RAMJET MISSILE
SA SURFACE TO AIR MISSILE
SA WALLEYE MISSILE
SA WARHEAD
Craters produced by missile impacts 09 p1438 N67-19393
Fiber optic device for measuring missile vibration spectrum
[NASA-CR-82856] 09 p1450 N67-20253
Water landing characteristics of winged missile scale model
[NASA-TN-D-3799] 11 p1982 N67-23282
Construction estimates for effective missile control and guidance system support 17 p3100 N67-30454
Numerical calculations for ballistic interference effects on unguided missiles 17 p3100 N67-30455
Quasi-linear analysis of angular motion of symmetric missile acted on by cubic nonlinear damping moments and simple double-valued static moment
[BRL-MR-1823] 19 p3363 N67-33116
Impact craters produced by missiles with large kinetic energy 19 p3441 N67-33167
MISSILE ANTENNA
Antenna voltage breakdown and rocket charging experiments on supersonic flight of Nike-Cajun rocket
[AFCRL-66-588] 01 p0041 N67-11039
Composite radome antenna system for aircraft, space vehicles, or guided missiles
[HDL-TR-1327] 06 p0843 N67-16349
MISSILE BODY
Shock induced combustion in bow waves of high speed spherical and cylindrical missiles
[ISL-2/66] 16 p2986 N67-29850
Aerodynamic characteristics of aft mounted all-moving rectangular control surfaces on slender cruciform missile at Mach numbers from 0.6 to 2.8
[RAE-TR-66336] 16 p2815 N67-29900
MISSILE CONSTRUCTION
Historical summary of origin and first uses of military rockets emphasizing Spanish role
[NASA-TT-F-11128] 21 p3757 N67-35930
MISSILE CONTROL
Hybrid direct current operational amplifier for missile control circuits
[APL/JHU-CF-2868] 21 p3815 N67-35563
MISSILE DEFENSE
Display simulator presenting colored images for human discrimination and application to missile defense
[RM-5015-ARPA] 13 p2301 N67-25412
MISSILE DESIGN
SA MAGNUS EFFECT
Rotor aerodynamics and guidance control system for postal missile
[NASA-TT-F-8456] 01 p0094 N67-10184
Analytical representation of damping forces for missile design
[NASA-TN-D-3861] 17 p3175 N67-31401
MISSILE LAUNCHER
S LAUNCH VEHICLE
S MOBILE MISSILE LAUNCHER
MISSILE RANGE
Century coded timing signal format for missile range instrumentation
[RAE-TR-65349] 11 p1823 N67-22731
Meteorological parameters for altitude intervals between mean sea level and 30 km altitude for guided missile range
[IRIG-104-63, PT. 1] 11 p1916 N67-23133
Ultrahigh frequency flight termination receivers used at missile testing ranges
[IRMFSG-306-64] 12 p2051 N67-23926
MISSILE ROLL CONTROL
Stability and control data from wind tunnel testing of scale model target missile
[NASA-TM-X-1304] 01 p0002 N67-10234
MISSILE SIMULATOR
Electromechanical analog for autopilot aeroelastic missile studies
[TG-830] 06 p0906 N67-15961
MISSILE STABILIZATION
Conference on ballistics, liquid filled shells, projectile shapes, trajectories, stability, base pressure, bomb ballistics, and ballistic measurements
[AGARD-CP-10] 06 p0863 N67-15361
Perturbation effects on rockets 06 p0783 N67-15370
Polar equation of yawing motion for analysis of nonplanar and near-circular motions of missiles
[NASA-CR-73067] 07 p0986 N67-17188
Harmonic analysis of gust loads on missile traveling in turbulent air 20 p3563 N67-35069
MISSILE STORAGE
Polyurethane foam application to shock isolation of large silo based missiles 13 p2413 N67-25171
MISSILE SYSTEM
Chinese Communist abstracts dealing with rocket propulsion and material technology
[ATD-66-89] 02 p0296 N67-13...
Management planning and visibility in evaluation of contractor logistics in missile systems 11 p1853 N67-21...
MISSILE TEST RANGE
Eastern Test Range central telemetry station 07 p1059 N67-16...
Time code generation and distribution techniques used in tracking stations and missile test ranges
[NASA-CR-89261] 23 p4215 N67-38...
MISSILE TRACKING
SA INFRARED TRACKING
Theoretical influence of wake on leading edge of radar return from Sparta reentry vehicle
[WRE-TN-PAD-124] 02 p0235 N67-11...
Effects of geodetic measurement errors on trajectory data
[RE-S-66-1] 06 p0843 N67-16...
Trajectory parameter determination in relation to various AROD airborne range and orbital determination ground stations
[NASA-CR-82600] 06 p1369 N67-19...
Abstract compilation on tracking of missiles and space vehicles
[ATD-66-140] 12 p2053 N67-24...
Black Brant III missile launching, tracking, telemetry operation, and aerodynamic heating
[SRFB-003] 13 p2409 N67-26...
Soviet open literature survey on tracking of missiles and space vehicles
[ATD-67-45] 21 p3801 N67-36...
MISSILE TRAJECTORY
Physical model for missile free flight trajectory perturbation between cut-off and reentry
[RAE-TR-66086] 03 p0231 N67-12...
Influence of variable cross wind and thrust misalignment on flight path of unguided rocket 06 p0783 N67-13...
Site manual for radar intelligence system capable of precise missile trajectory measurements
[NASA-CR-81707] 07 p1042 N67-16...
Coordinate systems, motion equations, aerodynamic forces, and basic developments for unguided rocket trajectory simulation model
[ECOM-5076] 09 p1441 N67-19...
Ballistic missile decoy displacement at reentry and dependence on ejection velocity
[RAE-TR-66074] 11 p2006 N67-22...
Trajectory formulas for missiles in hyperbolic orbits applied to Lunik I lunar probe
[RAE-TN-SPACE-40] 11 p1977 N67-22...
First-order effect of earth oblateness upon flight time and trajectory of ballistic missile
[RAE-TN-WE-36] 11 p1977 N67-22...
Effect of wind on unguided rocket impact predictions
[ECOM-5112] 18 p3266 N67-32...
MISSION
S FLYBY MISSION
S SPACE MISSION
MISSION PLANNING
Mission planning for exobiological measurements on Venus
[NASA-CR-79756] 02 p0214 N67-12...
Midcourse guidance analysis and optimization with discrete measurements for mission logic development
[NASA-CR-65557] 02 p0206 N67-12...
Program coupler assembly of Lunar Excursion Module mission programmer 03 p0402 N67-13...
Mission planning, launch operations, and performance of Ranger VI lunar probe and Atlas Agena launch vehicle - TV subsystem failure
[NASA-CR-81193] 06 p0971 N67-15...
Structural design studies and project plan for folding modular panel solar cell array
[NASA-CR-81613] 07 p1001 N67-17...
Electric propulsion phases of lunar mission profiles evaluated for thrust-to-mass ratio
[NASA-CR-81743] 07 p1184 N67-18...
Mission planning, and spacecraft sterilization model for microbe decontamination in application to planetary travel studies
[NASA-CR-81784] 07 p1817 N67-18...
Lunar surface mobility systems comparison and evolution - resource planning for mobility systems derived from lunar module, command module, and multimission module
[NASA-CR-82782] 09 p1507 N67-19...
Lunar surface mobility systems comparison

and evolution - mission requirements for manned flying vehicles and surface roving vehicles
[NASA-CR-82751] 09 p1507 N67-19382
Lunar surface mobility systems comparison and evolution - mobility evolution selection methodology approach, logic, and computer implementation
[NASA-CR-82749] 09 p1508 N67-19384
Lunar surface mobility systems comparison and evolution
[NASA-CR-82744] 09 p1508 N67-19388
Use of cost effectiveness techniques in space program planning
[NASA-TM-X-59453] 09 p1511 N67-19903
Application plan for tasks to be accomplished on board Manned Orbital Research Laboratory
[NASA-CR-66285] 09 p1516 N67-20161
Integrated mission development plan for Manned Orbital Research Laboratory
[NASA-CR-66284] 09 p1516 N67-20162
Time phasing of lunar events - logistic savings in lunar missions and facility 10 p1759 N67-20415
Scientific objectives and experiments for comet mission
[NASA-CR-83113] 10 p1761 N67-21443
Space station mission simulation computerized mathematical model for analyzing and implementing MORL system or similar programs
[NASA-CR-66316, VOL. I] 11 p1980 N67-22159
Launch window characteristics of Jupiter opportunities using Atlas Centaur launch vehicle
[NASA-TM-X-52288] 11 p1979 N67-23314
Surveyor II mission and failure analysis
[NASA-CR-83644] 12 p2213 N67-23800
Integrated mission development plan for manned orbital research laboratory
[NASA-CR-66331] 12 p2208 N67-23904
Applications Technology Satellite /ATS/ mission - objectives, feasibility, experiment design, and spacecraft description
[NASA-CR-81604] 12 p2216 N67-24601
Flight dynamics, experiment operational phase sequence, and support operations for Applications Technology Satellite /ATS/ mission
[NASA-CR-81766] 12 p2216 N67-24603
Applications Technology Satellite /ATS/ mission study - experiment design, spacecraft description, ascent and stationkeeping, ground system, and schedules and cost
[NASA-CR-81765] 12 p2217 N67-24611
Mariner Mars 66 spacecraft mission study - probabilities of successfully transmitting encounter TV science data, releasing capsule for Mars landing, and command systems logic
[NASA-CR-83726] 12 p2218 N67-24639
Experiment missions for OSO satellite rendezvous, capture, material retrieval, refurbishment, and extravehicular operation work
[NASA-CR-83772] 13 p2407 N67-25490
Experiment missions for OSO satellite rendezvous, capture, material retrieval, refurbishment, and extravehicular operation work
[NASA-CR-83773] 13 p2407 N67-25499
Experiment missions for OSO satellite rendezvous, capture, material recovery, refurbishment, and extravehicular operation work
[NASA-CR-83782] 13 p2407 N67-25500
Systems and mission analysis of solar electric propulsion for solar system exploration
[NASA-CR-84036] 13 p2404 N67-26300
Jovian environment, evolution of biological systems, origin of terrestrial life, importance of Jupiter from biological view point, and effect on mission planning
[NASA-CR-84492] 14 p2616 N67-27647
Manned orbital research laboratory mission planning analysis
[NASA-CR-66286] 16 p2974 N67-29697
Full mission simulation scenario in support of supersonic transport crew factors research
[NASA-CR-73006] 16 p2841 N67-30022
Flight project support for Surveyor III, Lunar Orbiter, Pioneer VII, and Mariner IV missions, facility construction and equipment for deep space network, and system reliability 17 p3043 N67-30375
Electric propulsion applied to lunar surface and Mars missions 17 p3152 N67-30609
Lunar surface mission planning 17 p3159 N67-30611
Scientific measurement and instrument requirements for lunar orbiter Block III missions
[NASA-CR-85919] 17 p3068 N67-31059
Functional design of Mariner midcourse maneuver operations program
[NASA-CR-86914] 18 p3335 N67-32320
Management planning of Aurora 1 spacecraft missions
[NASA-TM-X-55849] 18 p3344 N67-32336
Mission planning and experiment design for future Mariner-type Venus space probes
[NASA-CR-86667] 18 p3336 N67-32377
Scientific objectives and supporting experiments for Mariner-type spacecraft missions to Venus
[NASA-CR-73699] 18 p3338 N67-32630
Users manual for Quick Look mission analysis program
[NASA-CR-87301] 19 p3522 N67-32972
Scientific experiments, equipment, sequence, and related requirements for extended lunar exploration
[NASA-CR-87401] 20 p3724 N67-34106
Computer printouts of experimental sequence data for study on scientific mission support for extended lunar exploration
[NASA-CR-87403] 20 p3724 N67-34121
Analyses of swingby and conjunction class missions, mission aborts, and launch azimuth constraints based on manned Mars stopover missions study
[NASA-CR-87487] 20 p3726 N67-34685
Mission, trajectory, and vehicle analyses of manned Mars stopover missions - advanced nuclear system parameters
[NASA-CR-87488] 20 p3733 N67-34792
Guidelines and assumptions for manned Mars stopover mission planning analyses - nuclear system parameters
[NASA-CR-87489] 20 p3737 N67-34793
Data processing plan for eccentric orbiting geophysical observatory
[NASA-TM-X-55890] 21 p3925 N67-35629
Payload analysis for automated Mars surface sampling mission modes
[NASA-CR-84849] 21 p3938 N67-36556
Orbital operations and analysis for infrared horizon radiance measurement experiment - mission profile, data acquisition, and spacecraft position and attitude determination
[NASA-CR-86376] 22 p3994 N67-36690
Feasibility estimate, mission profile, and design Orbital Experiment Capsule /OEC/ Mars satellite to be used in Voyager Project
[NASA-CR-73126] 22 p4146 N67-36792
Mission objectives and subsystems data to show lunar orbiter adaptability to other missions
[NASA-CR-86449] 22 p4146 N67-36835
Mission planning and research project on electric propulsion systems
[NASA-CR-86419] 22 p4132 N67-36941
Approximate methods in electric propulsion missions such as lunar orbiter lander 22 p4132 N67-36946
Evaluation of single unit and integrated life support system for simulated twenty day aerospace mission
[AMRL-TR-66-185] 22 p3978 N67-37077
Venus/Mercury swingby with Venus capsule - preliminary science objectives and experiments for use in advanced mission studies
[NASA-CR-86488] 22 p4148 N67-37258
Mission analysis procedure for determining approximate lunar areas of accessibility for mission planning
[NASA-CR-85728] 22 p4141 N67-37328
Multiple satellite mission analysis, specification requirements and configuration concepts
[NASA-CR-73140] 23 p4249 N67-38302
Space flight missions in astronomy, solar physics, particles and fields, ionospheres and radio physics, planetary atmospheres, planetology, biosciences, and spacecraft applications
[NHB-8030.2A] 23 p4344 N67-38579
Mission planning, orbit determination, thrust vector control, and configuration management program for Voyager project - summary
[NASA-CR-89733] 24 p4528 N67-39782
Iterative risk analysis approach for assessing and comparing risks associated with proposed Voyager missions
[NASA-CR-89736] 24 p4528 N67-39783
Mission objectives, design criteria, and design constraints for preferred capsule bus concept of Voyager flight capsule
[NASA-CR-89672] 24 p4525 N67-40041
Optimum capsule bus design for Voyager spacecraft based on mission analyses and system functional requirements
[NASA-CR-89675] 24 p4526 N67-40044
Redundancy at both mission and spacecraft systems level of Voyager program
[NASA-CR-89703] 24 p4532 N67-40411
Voyager capsule surface laboratory system - mission analysis, system functional requirements, and design selection and alternatives
[NASA-CR-89692] 24 p4534 N67-40582

MITOCHONDRIA
Ultrastructure skeletal-muscle mitochondria pathology and biochemical activity upon exposure to alpha toxin from human gas gangrene organism
[EATR-4028] 02 p0177 N67-11262
Effects of ionizing radiation on oxidation states of biological systems
[SRI-65-1755] 02 p0214 N67-12192
Oxygen supply to cell mitochondria under variable atmospheric pressure 12 p2025 N67-24427
Biochemical aspects of oxygen toxicity in rats at cellular and mitochondrial level 14 p2454 N67-26728
Correlation studied between activity of mitochondrial flavin enzymes and regulation of fermentation speed by breathing 20 p3579 N67-35264

MITOSIS
SA CELL DIVISION
Automatic cytogenetic analysis system with digital computer, scanning device, and microscope for mitotic cell detection and classification
[NASA-CR-79746] 01 p0017 N67-10983
Combined effects of acceleration, vibration, and radiation on mitotic activity of bone marrow cells of mice 02 p0181 N67-11425
Proton and gamma radiation effects on mitotic activity of human cell culture 02 p0186 N67-11484
Acceleration, vibration, and ionizing radiation effects on central nervous system and mitosis
[JPRS-39159] 04 p0491 N67-13807
Sensitivity of developmental phases of Tradescantia pahdosa microspores to Voskhod spaceflight conditions 10 p1559 N67-20398

MIXED FLOW
Sonic blocking limitations of mass flow rate of compressible fluids of different enthalpies flowing in constant section duct with external heat input
[TP-410] 04 p0533 N67-14302
Thermodynamics of nozzle flow in physical model of mixed flow colloid thruster to improve particle formation efficiency
[NASA-TM-X-52385] 06 p0655 N67-16045
Calculations and analysis of experimental results concerning jet flow diffusion in base flow and formation of turbulences
[REPT.-35] 07 p1064 N67-17125
Heat transfer crisis and pressure drop data for upward flow of steam-water mixtures in annular and clustered tubular test elements
[EUR-2334.E] 07 p1138 N67-17348
Characteristics of mixed boiling water flow through heated vertical channel under forced circulation
[TID-23394, VOL. 2] 13 p2422 N67-25516
Monthly hydrographic phenomena in transition region between ocean coastal and slope water
[AD-655839] 23 p4239 N67-37321
Mixing and heat transfer of hot, partially ionized argon jet with coaxial flow of cold helium
[NASA-CR-89612] 24 p4550 N67-39699

MIXER
Receiver mixer characteristics and their relationship to spurious product formations in mixer circuit
[A-869-F] 07 p1089 N67-17245
Hot-carrier mixer diode theory, relative to p-n junction and point contact diodes
[QPR-3] 14 p2867 N67-27899
Nonautoclave desalinization of aluminate solutions in mixer under industrial conditions 16 p2848 N67-29823

Small model powder mixer for blending ceramic fuel materials of uranium oxide/thorium oxide and uranium oxide/plutonium oxide
[AERE-M-1884] 20 p3591 N67-34329
Improved semiconductor mixer diodes for frequency converters
[QR-6] 21 p3817 N67-35800
Infrared heterodyne mixer and preamplifier development program
[NASA-CR-89002] 24 p4462 N67-39785
MIXING
S JET MIXING
S PREMIXED FLAME
S SIGNAL MIXING
S TURBULENT MIXING
MIXING LENGTH FLOW THEORY
Performance prediction for large scale ejector using mixing length flow theory
[NAL-TR-109] 10 p1552 N67-21413
Intermittency effects on turbulent transport processes in free turbulent flows
[R675D3] 11 p1863 N67-23461
Analytical studies of laminar separations using Crocco-Lees mixing parameter method
[NASA-CR-745] 12 p2065 N67-23715
MIXTURE
S BINARY MIXTURE
S GAS MIXTURE
S LIQUID-GAS MIXTURE
ML-1 NUCLEAR POWER PLANT
ML-1-II fuel elements for gas-cooled reactor systems
[AGN-TM-415] 08 p1307 N67-18292
Disassembly and examination of ML-1 reactor core to identify failure mechanism and leak paths
[IDO-17190] 10 p1690 N67-21832
MOBILE MISSILE LAUNCHER
Southern Hemisphere stratospheric circulation as indicated by shipboard meteorological rocket observations
[NASA-TM-X-1346] 08 p1305 N67-18952
MOBILITY
SA ELECTRON MOBILITY
SA HOLE MOBILITY
SA ION MOBILITY
Prolonged restriction of mobility effect on condition of human cardiovascular system 02 p0185 N67-11452
Influence of restricted mobility on motor system and compensation by physical exercise 02 p0198 N67-11574
Memory process reaction to limited mobility, partial isolation, and noise 02 p0221 N67-11641
Fundamental concepts of mechanical impedance and mobility
[NRL-6406] 02 p0315 N67-11926
Photoconductivity processes in low mobility organic materials
[SC-DC-66-1823] 04 p0600 N67-13992
Mobile flaw detection unit that inspects welded joints and castings with iridium and europium isotopes 10 p1643 N67-21245
Calcium, phosphorus, and nitrogen mobilization resulting from conditions of inactivity in Macaca irus monkeys
[SAM-TR-66-94] 12 p2034 N67-24416
Computer simulation of mobility measurement and ion swarm experiments
[UCRL-14556, REV. I] 12 p2155 N67-24565
MODAL RESPONSE
Response mode effects on post-test errors and human performance during learning
[AIR-C28-4/67-TR11] 17 p3001 N67-30286
Response mode analysis and control of multivariable chemical processes, and three mathematical models to determine distillation modes
[UCRL-17480] 22 p3966 N67-37481
MODE
S BREATHING MODE
S COUPLED MODE
S FAILURE MODE
S LASER MODE
S PROPAGATION MODE
S SCHUMANN MODE
MODE OF VIBRATION
S VIBRATION MODE
MODE SHAPE
Fundamental mode shape difference found to account for spatial dependence of pulsed neutron reactivity measurements 07 p1123 N67-17054
Finite element modeling of circular ring using half and quarter symmetry
[NASA-TM-X-53746] 11 p1995 N67-23317
Vibrational energy distributions in complex structural mode shapes 14 p2625 N67-27064
Tests, analyses, and computer program for predicting natural frequencies and mode shapes of weighted pressurized cylinders
[NASA-CR-79758] 16 p2961 N67-29912
Procedure for determining natural frequencies and corresponding mode shapes of liquid-filled elastic cylindrical tank with flexible inverted conical bulkhead
[NASA-CR-85578] 17 p3173 N67-30683
Temporal coherence and frequency versus time characteristics of Q-spoiled ruby laser
[SR-2] 19 p3466 N67-32773
Computer program for determining transverse natural frequencies and mode shapes of uniform beams
[NASA-TM-X-55877] 20 p3737 N67-34258
Symmetric and antisymmetric tank modes of free fluid surface motion under random excitation
[NASA-CR-88518] 22 p4027 N67-37468
MODEL
S AIRCRAFT MODEL
S ASTRONOMICAL MODEL
S ATMOSPHERE MODEL
S BIOLOGICAL MODEL
S DUMMY
S DYNAMIC MODEL
S ENVIRONMENT MODEL
S MATHEMATICAL MODEL
S SCALE MODEL
S SEMISPAN MODEL
S SPACECRAFT MODEL
S WIND TUNNEL MODEL
MODERATOR
Neutron scattering by hydrogeneous moderators
[GA-7055] 01 p0107 N67-10611
False source method applied to calculation of heterogeneous kernel for line source asymmetrically placed in moderator of cylindrical form
[JINR-P-3699] 01 p0110 N67-10837
Analytical procedures for identifying and measuring ionic impurities in heavy water moderators of NRX and NRU reactors 03 p0425 N67-12692
Neutron scattering law formalism, incoherent scattering laws and width functions, scattering laws for liquid moderators, and Zemach-Glauber treatment for molecules - lectures
[S-333] 07 p1129 N67-17410
Construction and characteristics of boron counter with methylene moderator for neutron dosimetry
[NP-TR-1394] 07 p1600 N67-17412
Sensitivity of water, graphite, and deuterium oxide moderating materials to scattering model for predicting thermal reactor parameters 08 p1314 N67-18792
Irreversible fixing of cadmium on metallic surfaces, and cadmium sulfate poisoning of EL 4 reactor moderator
[AECL-2490] 11 p1924 N67-22960
Use of high boiling organic fluids as coolants and moderators in nuclear reactors
[ONI-TRANS-2247] 12 p2148 N67-24015
Mathematical model for calculating neutron spectra in infinite homogeneous arbitrary moderators
[BMWF-FBK-66-21] 12 p2170 N67-24675
Mathematical model to evaluate effect of moderator temperature coefficient on core stability
[WCAP-2967] 15 p2748 N67-28425
Time-of-flight spectrometer used to study spectra of neutrons coming from special moderators of Silcette reactor
[NP-16581] 17 p3059 N67-30515
Modified two-group theory analysis of lattice experiments with heavy water moderators
[CNEA-184] 20 p3683 N67-35016
MODULATED CONTINUOUS WAVE
Cylindrical antenna configurations spinning around axes examined for effects on received or transmitted CW signal spectrum
[NASA-CR-73130] 21 p3802 N67-36606
MODULATION
S AMPLITUDE MODULATION
S DELTA MODULATION
S DEMODULATION
S FREQUENCY MODULATION
S INTERMODULATION
S IONOSPHERIC CROSS MODULATION
S OPTICAL MODULATION
S PHASE MODULATION
S PULSE AMPLITUDE MODULATION /PAM/
S PULSE CODE MODULATION /PCM/
S PULSE DURATION MODULATION /PDM/
S PULSE FREQUENCY MODULATION /PFM/
S PULSE MODULATION
S PULSE RATIO MODULATION /PRM/
S PULSE TIME MODULATION /PTM/
S PULSE WIDTH MODULATION /PWM/
S SINGLE-SIDEBAND MODULATION
S TRAVELING WAVE MODULATION
MODULATION TECHNIQUE
Wideband modulation techniques and phase-locked loop studies for airborne range and orbit determination system
[NASA-CR-79751] 02 p0233 N67-11[illegible]
Analytic functions theory used to study conventional multiplexing systems involving double and triple modulation techniques
[NASA-CR-79929] 02 p0234 N67-11[illegible]
Modulation and detection processes for analysis of uncooperative radar targets 04 p0512 N67-13[illegible]
Visual effects on multiparameter display of different matrix spot intensity modulation techniques
[LA-DC-7968] 10 p1594 N67-21[illegible]
Wideband digital modulation and detection techniques for troposcatter
[ECOM-20542-1] 11 p1826 N67-23[illegible]
Wideband digital modulation and detection techniques for troposcatter
[CSI-67-TR-2342] 14 p2488 N67-27[illegible]
Cross modulation and partial reflection techniques for determining D layer electron density distributions during International Quiet Sun Year
[NDRE-53] 17 p3052 N67-30[illegible]
Optimal modulation pattern for wideband digital data transmission over troposcatter path
[ECOM-02542-3] 18 p3235 N67-32[illegible]
Airborne range and orbit determination system studies on wideband modulation methods and phase lock loop advanced circuit - appendices
[NASA-CR-89259] 23 p4214 N67-38[illegible]
Modulation techniques applied to atomic and molecular beam experiments 23 p4307 N67-38[illegible]
MODULATOR
SA DEMODULATOR
SA ELECTRON TUBE
SA LIGHT MODULATOR
SA OPTICAL MASER MODULATOR
Power supply requirements for vacuum modulator tubes with electron beam focused by magnetic field
[ECOM-2734] 03 p0372 N67-12[illegible]
Power supply and hard tube modulator system for heavy ion linear accelerator high duty factor conversion
[UCRL-17111] 10 p1600 N67-20[illegible]
Modulator performance of one-kilovolt solid state thyristors
[ECOM-2771] 11 p1837 N67-23[illegible]
Modulator transfer functions for fixed and ramp input waveforms, and nonlinear homomorphic system for echo removal 11 p1820 N67-23[illegible]
Switching, and modulator development at Los Alamos Scientific Laboratory 12 p2078 N67-24[illegible]
Electro-optic modulator
[FTD-HT-66-682] 13 p2292 N67-25[illegible]
Communication theory on discrete analysis of homomorphic deconvolution, and unity feedback of two state modulator configurations 14 p2489 N67-27[illegible]
Prototype double-sideband Doppler VCO carrier modulator and transmitter for ground station use
[RD-65-44] 14 p2489 N67-27[illegible]
Methods of crossing high voltage interfaces with large bandwidth signals
[LA-DC-8370] 15 p2679 N67-28[illegible]
MODULE
SA COMMAND MODULE
SA ELECTRONIC MODULE
SA LANDING MODULE
SA LUNAR EXCURSION MODULE /LEM/
SA SERVICE MODULE
Room temperature resistance and high temperature testing of tubular thermoelectric module
[NASA-CR-80188] 03 p0234 N67-12[illegible]
Water cooled modular design of 300 kV dc power supply for thermonuclear system
[UCRL-70017] 10 p1556 N67-20[illegible]
Program summary for Manned mission photovoltaic power system - Integrated

power system and power system module
[NASA-CR-65656] 18 p3199 N67-32522
Management planning guidelines for standard payload module definition network
[NASA-TM-X-53299] 24 p4426 N67-40151
Instrumentation unit thermal conditioning heat sink concepts - wick boiler module tests, and panel designs
[NASA-CR-89618] 24 p4551 N67-40292
MODULUS
SA DYNAMIC MODULUS
SA ELASTIC MODULUS
Phase lock loop system with modulo 2n pi phase detector 07 p1634 N67-16933
Modulo checking method of error detection in binary counters 15 p2672 N67-27853
Polynomial representations in class of three-valued logics 20 p3617 N67-35295
MOIRE METHOD
Moire method used to study deformation of Plexiglas sphere pressed between two rigid parallel planes outside range of elasticity 03 p0471 N67-12146
Applicability of moire patterns produced by superposed screens in analysis of lineaments on lunar photographs 18 p3528 N67-31951
Moire fringe technique for determining transient displacement distributions in centrally notched aluminum plates with propagating cracks
[TR-3A] 19 p3544 N67-32961
Moire fringe technique for analysis of structural knee 20 p3742 N67-35202
MOISTURE
Neutron scattering and gamma ray methods for measuring moisture and density distribution in rocks 10 p1636 N67-21313
Moisture equilibrium in relation to chemical stability of dehydrated foods - annotated bibliography
[AD-656927] 23 p4185 N67-38071
MOISTURE DETECTOR
Breadboard instrumentation for detection of water in jet and residual fuel
[ITRI-C2091-1-2] 01 p0143 N67-10518
Remote detection of lunar water deposits 10 p1759 N67-20416
Soil moisture measurements with neutron flux detectors 11 p1911 N67-21997
Microwaves used to detect and measure moisture content of gases used for cooling nuclear reactors
[BNWL-406] 20 p3681 N67-34405
MOISTURE METER
SA HYGROMETER
Moisture content of adsorbent-type charcoals relationship to residual adsorptive capacity for organic compounds in close environmental systems
[NRL-MEMO-1710] 03 p0353 N67-12670
MOL
S MANNED ORBITAL LABORATORY /MOL/
MOLD
SA MANDREL
Viscoelasticity of slime mold protoplasm 05 p0643 N67-14574
Antigen synthesis during cellular reorganization in slime molds 07 p1006 N67-16788
Cell wall synthesis, and enzyme activity control in cellular slime mold development 07 p1006 N67-16789
Cell interactions in slime mold, from spore germination to aggregate formation 07 p1007 N67-16790
Hot die and molding techniques for production of polycarbonate molds
[UCRL-12287] 21 p3863 N67-34396
Effect of mold-steel interface reactions on casting surface and properties
[AMRA-CR-64-03/3] 22 p4060 N67-36745
Melting techniques and mold properties for high precision castings of titanium and titanium alloys
[S+T-MEMO-2/67] 24 p4457 N67-39884
MOLDING MATERIAL
Cellular metallic materials 05 p0716 N67-14811
Low melting metal alloys for casting and transfer molding of hollow plastic spheres
[PA-TR-3320] 06 p0887 N67-16421
Mechanical properties of molding material
[SCL-CR-66-91] 10 p1663 N67-21638
Casting apparatus for counter-gravity pouring of aluminum alloys into sand molds
[FA-R-1836] 19 p3488 N67-32903
Environmental conditioning procedures and effects on dimensional stability of precision moldings
[SC-DR-67-81] 20 p3667 N67-35096
Materials research activities dealing with organic encapsulating materials, moldable ceramics, high density and sprayed metals for gyro wheel rims, and ball and gas bearing materials - summaries 21 p3854 N67-36577
Injection molding process for press parts of plastic materials
[UCRL-13280] 23 p4257 N67-38399
MOLECULAR ABSORPTION
Stimulated emission and nonlinear absorption spectrometers for upper atmosphere measurements
[CARDE-TR-457/63] 10 p1594 N67-21416
Experimental determination of zeolite absorbing power at low pressures and for clean vacuum 11 p1901 N67-21953
Methods for determining surface areas of selected solids
[MEL-37/67] 18 p3549 N67-29684
Absorption kinetics of glycine in Macracanthorhynchus hirudinaceus
[NASA-CR-88384] 22 p3908 N67-36721
Lock-in amplifier for use with single-beam atomic absorption spectrophotometer - analysis of calcium, magnesium, palladium, rhodium, and strontium
[ISO-SA-37] 22 p3993 N67-37970
MOLECULAR BEAM
SA ATOMIC CLOCK
Rarefied gas mechanics, plasma dynamics, blast wave phenomena, energy conversion, aerodynamic noise, subsonics, flight dynamics, materials, high altitude measurements, and molecular beams
[NASA-CR-66243] 03 p0478 N67-13118
Molecular beam technology as applied to rarefied gas dynamics
[AGARDOGRAPH-112] 04 p0528 N67-13407
Metastable species in atomic and molecular beams produced by charge transfer in reentry physics studies
[AD-642525] 06 p0938 N67-16353
Apparatus using crossed molecular beams for studying reaction dynamics
[CALT-533-3] 07 p1149 N67-17455
Molecular beam chamber used for cryopumping and adsorption pumping studies
[AEDC-TR-66-135] 07 p1060 N67-17753
Experimental determination of velocity distribution in surface-scattered molecular beam
[D1-820569] 07 p1140 N67-18056
Chemical physics - molecular beam studies, calorimetry, microwave and radio frequency spectroscopy, neutron and X-ray crystallography, and mass spectrometry 08 p1244 N67-19349
Molecular beams and surface interactions 09 p1433 N67-19413
Thermal molecular beam technique to produce metastables by electron bombardment
[REPT.-9-66-13] 09 p1458 N67-19704
Excited states of molecular oxygen studied by molecular beam magnetic resonance techniques
[CAL-RM-2156-P-1] 09 p1492 N67-19661
Free molecule surface sources and sinks
[TN-36] 09 p1437 N67-20240
Ion range determination in solids by sputtering and method for conducting gas-surface experiments on satellites
[GD/C-DBE-66-016] 10 p1696 N67-20676
General physics - molecular beams, molecular collisions, microwave spectroscopy, radio astronomy, plasmas, energy conversion, noise in electronic devices, and neutron neutrality
[RLE-QPR-82] 10 p1693 N67-20832
Elastic scattering in velocity-selected molecular beams at thermal energies
[CALT-533-4] 10 p1734 N67-21590
Molecular beam research - square-wave phase modulation in molecular beam resonance studies and search for shift in transverse electromagnetic mass of electron 11 p1937 N67-22843
Measurement of normal component of transfer momentum from nitrogen ion molecular beam normally incident to copper target
[RAE-TR-66246] 11 p1944 N67-22340
Long term laser frequency stabilization using molecular beam 14 p2547 N67-26537
Instrument to detect molecular flow rates in presence of background gas noise of space environment chamber
[AEDC-TR-67-35] 14 p2534 N67-27046
Molecular beams, and cesium beam atomic clock 14 p2566 N67-27062
Molecular beams, and velocity of sound surfaces in lithium niobate 14 p2562 N67-27063
Molecular beam electric resonance spectra of lithium fluoride, sodium fluoride, and potassium chloride
[UCRL-17019] 15 p2659 N67-28410
Direct mass spectrometric sampling of high pressure inorganic gas systems
[AD-651458] 17 p3123 N67-30231
New charge exchange method for producing molecular beams 17 p3013 N67-30277
Prototype system for exciting beam of neutral gas molecules by low energy electrons
[AFCRL-66-790] 17 p3040 N67-30494
Design and performance of aerodynamic molecular beam system
[NASA-CR-85824] 17 p3070 N67-31331
Dissociation of hydrogen on tantalum using modulated molecular beam, mass spectrometric techniques
[UCRL-17336] 19 p3506 N67-32696
Scattering of molecular gas beams from platinum and tantalum surfaces
[F910439-7] 20 p3691 N67-34248
Continuum source molecular beam to provide highly directed gas flows for determining capture coefficient of gaseous carbon dioxide and water vapor
[NASA-CR-88253] 21 p3850 N67-36122
Rotational relaxation effect in low density hypersonic free jet studied using impact pressure measurements
[NASA-CR-88264] 21 p3833 N67-36171
Angular distribution of deuterium bromide molecules from deuterium atom reaction with bromine molecules
[TID-23837] 21 p3908 N67-36630
Atomic and molecular physics of hyperfine structures by molecular beam method
[AD-656734] 22 p4108 N67-37001
Molecular collision investigation using molecular beam techniques to measure flux distribution and speeds of thermal energy particles scattered from polycrystalline nickel surfaces
[NASA-CR-88758] 22 p4026 N67-37369
Mass spectrometric study of homogeneous nucleation in free jets and its application to beam formation and molecular beam sampling
[AD-655292] 22 p4028 N67-37409
Hydrogen-deuterium exchange reaction on clean nickel surface using modulated molecular beam techniques
[GA-7927] 23 p4200 N67-38062
Measurement and analysis of radio frequency spectrum of cesium fluoride and design, construction, and operation of high resolution molecular beam electric resonance spectrometer
[COO-1112-112] 23 p4203 N67-38229
Chemical kinetics, energy transfer, and atomic and molecular beam experiments - conference
[AGARD-CP-12, VOL. 1] 23 p4294 N67-38681
Modulation techniques applied to atomic and molecular beam experiments 23 p4307 N67-38830
Thermal energy molecular beam measurements of atom-atom scattering cross sections 23 p4307 N67-38831
Thermal energy molecular beam measurements of inelastic scattering cross sections for rotational quantum transitions 23 p4307 N67-38832
Arc heated supersonic molecular beam performance 23 p4307 N67-38833
Molecular beams from supersonic nozzle sources and high energies from expansion of gas mixtures 23 p4227 N67-38694
Neutral atomic and molecular beam production, and chemical reaction cross sections determined by beams in 10 eV range 23 p4286 N67-38695
Molecular argon beam production using shock tunnel source and gas expansion to supersonic flow 23 p4288 N67-38696
Molecular beam apparatus using cathode sputtering for potassium atom beam production and K-He cross section measurements 23 p4288 N67-38697
Shock-tunnel-driven molecular beam experiment design 23 p4288 N67-38698
Ultrahigh velocity molecular beam apparatus with mass spectrometric detector designed to measure dipole moments and

polarizabilities
[AFOSR-67-1971] 24 p4453 N67-40176
Crossed molecular beam scattering method for obtaining intermolecular potential energies - scattering of lithium atoms
[GDC-DBE-67-017] 24 p4502 N67-40269
MOLECULAR BONDING
Intermolecular bonding of metals and alloys by thermochemical vapor deposition
[NASA-CR-80721] 04 p0559 N67-13671
Spectral analyses of microwave absorption in protein solutions, water, and organic solvents by molecular bonding to cell surface
[NASA-CR-84051] 13 p2260 N67-36384
Interatomic bond strength in monophasic titanium niobium chromium alloys 23 p4066 N67-37146
Dipole-dipole interactions of nuclear spins with quadrupole-coupled nucleus - metal-hydrogen bonds
[TR-11] 23 p4310 N67-38980
MOLECULAR CHAIN
SA CRYSTAL LATTICE
High molecular compounds - double bond polymers containing pyridine rings, polymer film electric conductivity, and polymerisation of quinoline, 4-chloropyridine, and aromatic compounds
[FTD-TT-65-757] 02 p0224 N67-11273
MOLECULAR COLLISION
SA ATOMIC COLLISION
Theory and analysis of relative motion and internal excitation in molecular collisions
[NASA-CR-80729] 04 p0565 N67-13663
Atomic and molecular collisions
[AERE-L-170] 11 p1931 N67-22101
Multipole expansion of atom-atom interactions 11 p1934 N67-22126
Molecular hydrogen ion decay in collisions with thermal electrons
[NASA-CR-85588] 17 p3123 N67-30690
Higher order collision integral calculations
[NASA-CR-86991] 19 p3503 N67-33624
Molecular collision investigation using molecular beam techniques to measure flux distribution and speeds of thermal energy particles scattered from polycrystalline nickel surfaces
[NASA-CR-88758] 22 p4026 N67-37369
Proton homonuclear diatomic molecule collisions
[PSI-67-10] 23 p4297 N67-38121
MOLECULAR DIFFUSION
Ficks equation for molecular diffusion analysis and volumetric variations of nitrogen-carbon dioxide near liquid-gas equilibrium
[NASA-TT-F-10917] 13 p2270 N67-25819
Diffusion concept in chemical kinetics 18 p3227 N67-32590
Molecular genetics problem of particle diffusion from isosceles triangle by Brownian motion
[TR-67] 21 p3766 N67-36478
MOLECULAR DISSOCIATION
SA ATOMIC RECOMBINATION
Gaseous thermal electron reactions
[UCRL-17171] 09 p1411 N67-30206
Molecular fluorine dissociation studied by spectrophotometric observation behind shock waves in shock tube
[AROD-2962-11] 11 p1814 N67-22132
Diffusion concept in chemical kinetics, rotational relaxation in diatomic molecules, impact velocity, and quantum mechanical treatment of dissociation energy
[ARL-67-0061] 18 p3227 N67-32589
One-dimensional model for dissociation of diatomic molecules, and calculation of transition probabilities 18 p3227 N67-32593
Theory of resonant dissociative recombination 19 p3502 N67-32946
Technique for measuring relative density and density distribution of magnetically confined plasma using collisional dissociation of energetic molecular ion beam
[REPT.-3] 19 p3520 N67-33981
Technique using collisional dissociation of energetic molecular ion beam to measure relative density of magnetically confined plasma 19 p3520 N67-33982
Method using collisional dissociation of energetic molecular ion beam for measuring relative density distribution of magnetically confined plasma 19 p3520 N67-33983
Effects of nitrogen dioxide-nitrogen tetroxide on oxyhemoglobin molecule dissociation in dogs after exposure
[SAM-TR-67-33] 22 p3969 N67-36796
Unimolecular thermal dissociation of gases composed of small molecules 23 p4205 N67-38683
Chemical relaxation and dissociation of small molecules, and transition probabilities 23 p4205 N67-38684
Auroral molecular oxygen dissociation and infrared hyroxyl emission
[NASA-TM-X-55975] 24 p4435 N67-39394
MOLECULAR ELECTRONICS
Matrix analysis for calculating electron spectra of large molecular systems from atomic values
[DISS-3843] 17 p3131 N67-30758
Molecular electronics technique of developing microminiature instrumentation amplifiers for use with high-impedance and low-impedance transducers 19 p3415 N67-33141
MOLECULAR ENERGY
SA NUCLEAR ENERGY
Thermodynamics and differential equations for molecular transfer in generalized charged flux
[NASA-TT-F-10316] 01 p0163 N67-10220
Hellman-Feynman theorem used for internuclear separation derivatives of diatomic molecule energy
[NASA-CR-80728] 04 p0585 N67-13664
Quantum mechanical study of molecules - prediction of ground, ionized, and excited states of unknown nitrogen fluoride molecule
[NASA-CR-688] 06 p0945 N67-15665
Population inversion by adiabatic expansion of molecular gaseous mixtures
[ATD-66-115] 06 p0969 N67-16487
Perturbation calculation of energy of first excited state of molecular hydrogen ion
[WIS-TCI-192] 07 p1158 N67-17915
Bioenergetics research on biological energy changes, thermodynamics and life, entropy and information in biological bodies, and energy barriers and entropy barriers
[FTD-TT-65-1495] 09 p1461 N67-19776
Energy of interaction between two hydrogen atoms in their ground states described by Gauss-type functions
[NASA-CR-83049] 10 p1697 N67-20421
Microwave spectroscopy and quantum mechanical calculations for small atoms and molecules
[AD-644572] 10 p1570 N67-20709
Pariser-Parr approximation applied to hydrogen molecule
[AFCRL-66-818] 10 p1716 N67-21327
Natural vibrations as energy fluctuation and chemical conversion mechanism in monomolecular reactions
[NASA-TT-F-10780] 12 p2049 N67-25021
Perturbation theory used in quantum mechanics to determine molecular energy and properties
[NASA-CR-68474] 13 p2381 N67-36275
Effect of exponentially dependent vibration translation energy transfer rates on steady state vibrational distributions
[R67SD36] 21 p3899 N67-35562
MOLECULAR FLOW
SA FREE MOLECULAR FLOW
Method of determining aerodynamic characteristics of bodies in free-molecular flow
[FTD-TT-65-1935] 01 p0004 N67-11145
Probe for determining molecular speed ratio in low density flows from nonequilibrium nozzle and free-jet expansions
[CAL-AF-2041-A-I] 10 p1607 N67-20584
Calculated radial density distribution of molecular flux emerging from connecting tube between two low density gas chambers
[UTIAS-TN-102] 11 p1940 N67-23001
Numerical solution of Boltzmann equation for flow at large Knudsen numbers
[FTD-TT-65-1959] 12 p2089 N67-24729
First collision model for calculating near free molecular flux distribution to axisymmetric bodies, disks, and cones in hypervelocity flow
[AEDC-TR-67-28] 16 p2879 N67-29631
Numerical analysis of rarefied flows considering detailed molecular motion
[TAE-69] 21 p3833 N67-36170
Monte Carlo computer analysis of free molecular flow characteristics of thermosphere probe
[NASA-TM-X-53641] 21 p3842 N67-36302
Hydrodynamic stability of thin liquid layer on small body reentering atmosphere - free molecular flow
[SC-CR-67-2636] 22 p4032 N67-37734
Numerical analysis of aerodynamic forces and heat transfer on concave bodies in free molecular flow
[P-3164-1] 24 p4371 N67-39
MOLECULAR FORMING
Hydrogen/deuterium isotope effects in formation of hydrogen from combination of two radicals in aqueous solutions
[IA-1074] 03 p0361 N67-12
MOLECULAR GAS
Franck-Condon factors calculated for vibrational energy level transitions in molecular hydrogen band systems
[NASA-CR-72107] 02 p0291 N67-11
Electron attachment properties of high molecular weight gases for plasma quenching
[NASA-CR-66206] 03 p0350 N67-13
Energy levels of simple molecular gases for possible molecular laser materials
[NASA-CR-80832] 04 p0558 N67-14
Kinetic theory of bimolecular chemical reaction and diffusive drag in gas mixtures
[NASA-TR-R-254] 06 p0869 N67-16
Emission spectra of rarefied molecular gases excited by fast electrons 10 p1696 N67-20
Gerjuoy-Stein theory for determining energy losses in molecular gases induced by excitation of molecular rotation and vibration 11 p1933 N67-22
Photoelectron energy spectrometer determinations of partial photoionization cross sections of molecular gases
[AD-653214] 19 p3386 N67-32
Quenching of resonance radiation of sodium by molecular nitrogen
[P-304] 19 p3386 N67-32
Calculation of scattering and reaction cross sections of atmospheric gases
[TM-560] 19 p3502 N67-32
Theoretical analysis of slope energy curve entering continuum 19 p3503 N67-32
Abundance of interstellar molecular hydrogen
[NASA-TM-X-56861] 20 p3730 N67-35
Optimization of CW molecular gas laser using dc excited discharge with flowing combination of carbon dioxide, helium, and nitrogen as active laser medium
[ECOM-3818] 21 p3865 N67-35
Space molecular sink simulator facility with prototype vacuum chamber for studying surface effect phenomena 21 p3827 N67-36
MOLECULAR INTERACTION
Theory of transport coefficients for moderately dense gases
[BN-460] 01 p0060 N67-10
Survey of empirical and semiempirical interatomic and intermolecular potential functions
[NBS-TN-246] 03 p0442 N67-12
Meson and baryon spectroscopy, and neutral currents in weak interaction
[AD-639664] 05 p0743 N67-15
Reactions and interactions studied between oxides and carbides of transition metals
[NASA-TT-F-10447] 06 p0818 N67-15
Interaction of nonpolar atom or molecule with inhomogeneous surface electric field 06 p0935 N67-15
Physical chemical studies on molecular aspect of nucleic acid interactions 07 p1007 N67-16
Quantum mechanical calculations to evaluate barrier penetration and resonance effects on phase shifts
[NASA-CR-69930] 07 p1157 N67-17
Momentum accomodation coefficients obtained from low velocity molecule-surface interactions, for space probe drag calculations
[NASA-CR-82002] 08 p1326 N67-18
Interaction of high velocity particles with gaseous targets using electrostatic particle accelerator
[NASA-CR-82930] 09 p1543 N67-20
Molecular interactions of water with xenon, xenon hydrate, nitrous oxide, and ethylene, using thermal neutron inelastic scattering techniques
[AFOSR-66-2762] 10 p1561 N67-20
Nuclear magnetic resonance study of water exchange from first coordination sphere of gadolinium ion
[UCRL-17969] 10 p1571 N67-20
Introduction to general theory of electron and molecular scattering 11 p1933 N67-22
Rotational excitation of polar molecules by slow electrons 11 p1933 N67-22
Vibrational relaxation of molecular

interactions in gases
[ARC-CP-725] 11 p1859 N67-32794
Reaction of molecules in excited electronic states with paramagnetic gases
[AFOSR-67-0280] 12 p2046 N67-34755
Consecutive ion-molecule reactions in methane studied by means of positive ion impact
[SR-8] 12 p2049 N67-34978
Interaction between neutral molecule or atom and metal crystalline surfaces
[AROD-3313-1] 14 p2482 N67-37474
Low frequency molecular motions in lead styphnate HMX, RDX, and picric acid explosives studied by slow neutron inelastic scattering
[AD-634661] 15 p2757 N67-37944
Intermolecular interaction and equation of state for highly excited gas
[NASA-TT-F-10036] 16 p2946 N67-39006
Chemical activity and comet phenomena - photochemical models of astrophysical reactions, electron bombardment of low pressure gases, and singlet carbide studies
[NASA-CR-96551] 18 p3234 N67-32289
Molecular elimination and disproportionation effects on formation of nitrogen in hydrazine and hydrazine 15 photolysis 18 p3225 N67-32290
Development history of molecular chemistry 21 p3783 N67-35974
Electron exchange effects in degenerate perturbation theory of intermolecular potentials
[NASA-CR-88169] 21 p3902 N67-35985
Chemical reaction rates considered on molecular and statistical levels 23 p4305 N67-38682
Interaction between measuring instrument cavity and rarefied gas flow
[T-R-859] 24 p4432 N67-39845

MOLECULAR ION
Modifications to cyclotron to permit acceleration of helium molecular ions
[ANL-7171] 01 p0120 N67-10533
Franck-Condon factors for ionization of hydrogen and deuterium molecular ions
[JILA-57] 01 p0121 N67-11127
Calculations on stability of mixed ionic-molecular lattices of complex salts
[AFCRL-66-677] 07 p1026 N67-17197
Thermonuclear experiment involving injection of molecular ions at 600 KeV, dissociation by multiple passes through arc, and exponentiation on resulting trapped atomic ion population
[ORNL-4011] 07 p1166 N67-17449
Reaction cross section rate calculations for molecular ion chemistry of upper atmosphere
[LMSC-3-12-66-4] 08 p1344 N67-19229
Correction of error in application of Hirschfelder-Silbey perturbation theory to molecular hydrogen ion
[NASA-CR-86791] 21 p3902 N67-36039
Excitation of electrostatic ion cyclotron waves in low density plasma - resonance curves for atomic and molecular hydrogen ions
[IPPJ-58] 24 p4509 N67-40003

MOLECULAR ORBIT
Water molecule calculated in one-center approximation 03 p0355 N67-12370
Molecular orbital techniques used to find cubic field splitting 3a of certain ions in periodic group II-VI compounds of T sub d symmetry
[NASA-CR-81736] 07 p1180 N67-16190
Molecular orbital expansion methods and applicability to resonant charge transfer 11 p1934 N67-32135
Green function treatment of molecular field model of orientational order in face centered cubic crystalline ortho hydrogen
[DOUGLAS PAPER-4346] 12 p2182 N67-34374
Quantum theory, transition probability, molecular orbitals, and perturbation theory - research projects 16 p2943 N67-39467
Alternate molecular orbital method for benzene molecule functions 17 p3019 N67-31327
Molecular orbitals and inner shell chemical shifts for sulfur and chlorine oxy-anions 17 p3020 N67-31437
Coulomb and exchange integrals constructed from Slater wave functions for calculating molecular orbitals
[B67SD44] 22 p4102 N67-36871
Charge carrier mobility in organic semiconductors, described using molecular orbital theory
[NASA-TM-X-53636] 23 p4332 N67-38795
Alternate molecular orbit method of calculating exchange coupling constants for two hydrogen atoms
[SR-30] 24 p4500 N67-39662
Hartree-Fock calculation on single determinant wave function for hydrogen molecule
[TR-1001/2240-30/-15] 24 p4502 N67-40273

MOLECULAR OSCILLATION
Spectrum matching remote sensing technique for molecular vibration emissivity of lunar and planetary surfaces 07 p1077 N67-16956
Molecular vibrational relaxation effect on structure of unsteady rarefaction waves in oxygen and oxygen/argon mixtures
[ARC-CP-720] 08 p1284 N67-18365
Spectroscopic studies to classify emission spectra and oscillatory bands of cyanine dyes 20 p3599 N67-35865

MOLECULAR OSCILLATOR
Theoretical and measured oscillator strengths for atomic transitions in zinc iodine, cadmium iodine and mercury iodine 07 p1141 N67-16947

MOLECULAR PHYSICS
Biochemistry, organic and inorganic chemistry, molecular and nuclear physics, and metallurgy
[AR-53] 01 p0028 N67-10453
Theoretical studies in infrared and ultraviolet radiation of polyatomic molecules
[R67SD19] 17 p3139 N67-31431
Atomic and molecular hydrogen formation in photolysis of hydrogen peroxide 18 p3225 N67-32291
Molecular elimination of hydrogen during methyl acetylene photolysis in vacuum ultraviolet 18 p3225 N67-32292
Optical spectra of molecular emissions during electron bombardment of methane 18 p3225 N67-32294
Optical spectra of molecular emissions during electron bombardment of acetylene 18 p3225 N67-32295
Alternative definition of adiabatic electronic states not constrained by noncrossing rule 19 p3502 N67-32945
Formation and properties of metastable atoms, molecules, and ions
[CEA-BIB-89] 19 p3506 N67-33514
Fortran program for IBM 7040 computer to calculate valence force coordinates of valence force potential in molecules or crystals
[IN-1076] 20 p3597 N67-35833
Biochemistry, organic and inorganic material structural properties, molecular physics and biology, public health, metallurgy, and nuclear magnetic resonance spectroscopy
[AR-54] 21 p3951 N67-35530
Atomic and molecular physics of hyperfine structures by molecular beam method
[AD-656734] 22 p4103 N67-37691

MOLECULAR ROTATION
Determination of nuclei rotational spectra by optimum separability condition
[JINR-P-2966] 06 p1251 N67-18528
Relict radiation effect on rotational temperature of interstellar molecules
[NASA-CR-83532] 11 p1973 N67-32258
Internal axis method to study effects of internal rotation in microwave molecular spectra with symmetric tops
[AD-643780] 13 p2641 N67-33930
Light scattering by carbon disulfide and tetrachloride liquids and molecular solids
[TR-31] 12 p2156 N67-34916
Rotational relaxation of homonuclear diatomic molecules 18 p3227 N67-32292

MOLECULAR SIEVE
Regenerative amino acid salt sorber and other means to control carbon dioxide and reclaim oxygen during manned missions up to 180 days 04 p0498 N67-14245
Removal of jet fuel components harmful to fuel cell performance, and operational testing with molecular sieves
[GR-1-FCF-67] 16 p2821 N67-29233

MOLECULAR SPECTROSCOPY
Microwave spectroscopy used in identification of atmospheric trace contaminants
[NASA-CR-66090] 02 p0259 N67-11722
Molecular spectroscopy of low energy neutron scattering
[PA-TR-3379] 02 p0228 N67-11935
Gas laser research, atomic, molecular, and infrared spectroscopy techniques, and intense laser beam interaction with matter
[AFCRL-66-737] 08 p1286 N67-18234
Rotational temperature measurements of nitrogen fluorescence spectra using electron beam
[USCAE-104] 11 p1937 N67-32545
Neutron spectrum of inorganic and organic solids and liquids using molecular spectroscopy
[PA-TR-3386] 12 p2043 N67-34814
High resolution infrared spectrometer for analysing energy levels of polyatomic molecules
[AFCRL-66-430, PT. II] 13 p2318 N67-35179
Shock tube spectroscopic instrumentation and methods for identifying atomic and molecular features, and determining autoionization strengths and processes influencing line widths
[AD-642362] 14 p2512 N67-36813
Rotational temperature measurements in nitrogen flow field of low density free jet from sonic orifice made using electron beam fluorescence with spectrograph
[USCAE-103] 14 p2516 N67-36950
Molecular spectroscopy - multiplicities of phosphorescent states of organic molecules, polarization of absorption of uranyl nitrate, and electronic structure of S-S bond
[TID-23756] 17 p3122 N67-30950
Electron acceptors used to control quantum yield and decay time of delayed fluorescence of cyanine dyes 21 p3791 N67-36423
Electron spectra of aza-aromatics in polymer matrices
[TR-4] 22 p3981 N67-36639
Molecular spectroscopy and powder metallurgy experimental research accompanied by theoretical research in wave functions and atomic properties
[AFCRL-67-0306] 22 p3987 N67-37389
Spectroscopic studies of high pressure effects on crystalline molecular complexes having aromatic hydrocarbons as donors and tetracyanoethylene as common acceptors
[TR-6] 23 p4299 N67-38114
Experimental measurement of fluorescence lifetime from lowest electronic state in sulfur dioxide vapor
[TR-4] 24 p4399 N67-40257
Development of infrared instruments for molecular spectroscopic investigations
[AFCRL-67-0437] 24 p4496 N67-40361

MOLECULAR SPECTRUM
Isotope spectral analysis of boron 03 p0255 N67-12273
Quantitative molecular spectra and controlled gas emissivities for obtaining vibrational matrix elements from experimental data 07 p1141 N67-16946
Shock layer radiation predictions from molecular band systems in Martian and Venusian atmospheres
[NASA-TN-D-3850] 07 p1086 N67-17629
Formation and spectrum of molecules formed with quarks
[JINR-P-2971] 06 p1231 N67-18521
Resolved beam of infrared radiation for beatless interaction studies of molecular adsorbent spectrum
[NASA-TT-F-11006] 14 p2483 N67-37527
Changes of rotation-vibration spectrum of simple molecules during dissolution
[NASA-TT-F-11027] 16 p2943 N67-39814
Relations between cometary, solar and upper atmospheric processes - molecular spectroscopy
[AFCRL-67-0363] 22 p4139 N67-36899

MOLECULAR STRUCTURE
SA RAMAN SCATTERING
Crystal and molecular structures of transition rhodium and lithium hydrids
[NASA-CR-79747] 01 p0024 N67-10552
High temperature mass spectrometry and electric deflection analysis of molecular structures of alkali hydroxides, metaborates, and cesium sulfate
[PR-2] 01 p0025 N67-11020
Correlations between rheological behavior and structural changes of concentrated micellar isotropic solutions 05 p0694 N67-14520
Computation of vibrational frequencies of hydrazine molecule
[FTD-TT-65-1000] 05 p0695 N67-14749
Molecular structure effects of aryloxaric acids as combination oxidation and rust inhibitors
[FA-A66-11] 05 p0697 N67-15005
Molecular structure effect on thermal

stability and other physical characteristics of polyaryloxydisilanes and related monomeric compounds
[NASA-TM-X-53536] 06 p0619 N67-16049
Studies of structure and stability of hydrated electron and hydrated hydrogen ion in gamma irradiated aqueous solutions using valence bond method 06 p0625 N67-16382
Alcohol molecular structure effects on oxidation and reduction of iron ions in gamma radiated aqueous solutions 06 p0625 N67-16300
Structure of lactate dehydrogenase isozyme systems and role in vertebrate and mammalian embryonic development 07 p1006 N67-16787
Nature of hydrogen bond and molecular structure of water
[ISS-66/24] 07 p1026 N67-17375
Graphite grain formation in cool stars examined on basis of molecular equilibrium data for stellar atmospheres
[NASA-TM-X-55677] 08 p1362 N67-18578
Chemical synthesis of bridged bicyclic molecules to give medium-sized rings
[AFOSR-67-0036] 11 p1815 N67-23238
X-ray measurements and neutron intensity patterns for correlating liquid alloy structure
[CONF-660935-3] 13 p2363 N67-25937
Characterization of 300-unit tetrahedral network model, and comparison with vitreous silica and liquid water
[REPT.-6353.00100] 16 p2843 N67-29228
Structure analysis on stereo-regular isomers of polymethyl methacrylate in solution to determine molecular shape and conformation 18 p3231 N67-31659
Molecular structure of photosynthetic lamellar systems of bacteria and chloroplasts 18 p3207 N67-31770
Crystal and molecular structures of dibenzothiophene sulfone
[NASA-CR-86911] 18 p3226 N67-32400
Dielectric constant variation of supercooled water and molecular water structure model
[NEL-1434] 18 p3236 N67-32689
Geometry and electronic structure of biologically significant molecules as observed by natural and magnetic optical activity - protein conformation, chlorophyll, and porphyrins
[UCRL-17200] 19 p3373 N67-33085
Molecular structure and reactivity of ketones using deuterium substitution of alpha ketone hydrogens
[CEA-R-2955] 19 p3392 N67-33259
Influence of surface active materials on development of morphological structures of polyurethanes 19 p3477 N67-33482
Electron microscopy and X-ray analysis indicating that initial molecular structure of crystalline polyacrylonitrile does not change with thermal treatment 19 p3477 N67-33483
Synthesis of high molecular weight thermostable polymers 19 p3393 N67-33485
Preparation and structure of ionic and anionic carbon oxide complexes from noble metals 20 p3586 N67-34118
Brief summary of results of spectroscopic research program on molecular structure, particularly of atmospheric gas molecules
[AFCRL-67-0288] 20 p3695 N67-34533
Preparation, nuclear magnetic resonance structural studies, and physical property determinations of aprotic electrolytes in organic solvents
[NASA-CR-72377] 20 p3594 N67-34595
Electron spin resonance and optical absorption spectra of transition metal ions, color center defects in laser glass, and molecular structure of tetrahedron
[TR-598-1] 21 p3913 N67-35344
Short survey of computer technology role in studies of molecular structures and properties 21 p3775 N67-35422
Dielectric properties and structure of solids and liquids over temperature range
[AD-654396] 21 p3894 N67-35430
Chemical properties and molecular structures of heteropoly blues
[AROD-4598-5-C] 21 p3781 N67-35461
Molecular structure and reaction kinetics of oxygen fluorides
[IITRI-C327-16] 21 p3781 N67-35671
Polarization of luminescence and properties of molecular structures
[TT-67-62217] 21 p3915 N67-35675
Structure and coordinate bonding of complex rare earth metal ions 21 p3787 N67-36342
Tetrahedron linkages in rare earth oxides and oxysalt structures 21 p3788 N67-36343
Tabulated vibrational frequencies for study of atomic and molecular properties
[NSRDS-NBS-6, PT. 1] 21 p3791 N67-36437
Research reactors used for examining atomic and molecular structure of solids and liquids
[BNL-11401] 21 p3890 N67-36514
Estimates for mixing lambda-dipole levels of diatomic molecules in weak interaction
[JINR-P4-3290] 22 p4110 N67-37930
Dichroism and birefringence of polymers containing polyene segments
[ONR-TR-91] 23 p4269 N67-38112
Deuterium isotope studies on 2,3 dicarbahexaborane
[TR-14] 23 p4197 N67-38177
Strain energies and thermal properties of globular and polynuclear aromatic molecules
[COO-1149-92] 23 p4207 N67-38907
Literature review and experimental program to study charge transfer interactions of higher valency halides and oxyhalides with aromatic hydrocarbons ball plane interactions
[NOTS-TP-4388] 24 p4293 N67-39441
Determination of molecular basis for transport properties of organic nitro compound solutions used in high capacity fuel cells and batteries
[NOLC-737] 24 p4376 N67-39486
Storage and retrieval program for chemical compounds by molecular composition and structural properties
[CIDS-4] 24 p4552 N67-39515

MOLECULAR THEORY
Solid state physics and molecular theory group progress report
[AD-642566] 09 p1500 N67-19710
Research in solid state physics and molecular theory
[QPR-63] 11 p1948 N67-23153
Ligand field theory, electronic state of disordered systems, and band theory calculations 13 p2290 N67-25350
Constitutive equations from molecular network theories for polymer solutions
[MRC-TSR-708] 17 p3084 N67-30281
Computer solutions in terms of molecular theories of linear viscoelasticity
[NASA-CR-86903] 18 p3352 N67-32353
Excitation theory compared to polarizability theory for determining optical properties of dimers made up of two identical molecules having only one excited level when separate
[CEA-R-2878] 19 p3388 N67-33031
Solid state and molecular theory, structures of solids, low temperature and radio frequency physics, and interatomic and intermolecular forces - summaries of research activities 21 p3924 N67-36572
Selected studies in solid state and molecular theory
[QPR-65] 23 p4328 N67-38321
Molecular theory of gas-solid surface collisions at energies up to 1 eV
[FDR-66-7] 24 p4431 N67-39637
Fortran computer program for analyzing physical and chemical properties of molecules using factor analysis
[AD-656991] 24 p4495 N67-39079

MOLECULAR WEIGHT
SA LOW MOLECULAR WEIGHT
Shear dependence of viscosity for concentrated polymer systems related to polymer molecular weight distribution 05 p0721 N67-14508
Viscoelastic properties of polyvinyl acetates - mechanical loss and molecular weight distribution 05 p0721 N67-14509
Turbulent pipe-flow frictional pressure drop of very dilute aqueous solutions of polyethylene oxides measured and correlated with polymer molecular weight and concentration 05 p0894 N67-14547
Thermoelectric vapor pressure osmometer for solute characterization in prepolymer evaluations
[NOTS-TP-4247] 14 p2532 N67-28914
Computer solution of gel-cross linking relations involving molecular weight distribution
[COO-1086-35] 15 p2730 N67-27909
Pressure, volume and temperature properties in high molecular weight aromatic hydrocarbons
[TID-23757] 16 p2849 N67-29702
Gel permeation chromatography studies of molecular weights and molecular weight distribution of poly/isobutyl methacrylate/
[PA-TR-3511] 19 p3387 N67-32859
Light scattering technique for determining protein molecular weights - macromolecules
[JPRS-41822] 20 p3576 N67-34896
Thermistorized ebulliometry system for determining molecular weights of fluorocarbon compounds
[K-1690] 22 p3969 N67-37671
Gas chromatograph apparatus for preparing ultrahigh molecular weight polyethylene terephthalate from solid state commercial grade material
[NASA-TM-X-52349] 22 p3990 N67-37677
Computation based on experimental schlieren plot for determining distribution of molecular weight from equilibrium sedimentation
[AFML-TR-67-121, PT. I] 22 p3991 N67-37838

MOLECULE
SA DIATOMIC MOLECULE
SA MACROMOLECULE
SA POLYATOMIC MOLECULE
Variational method for calculating magnetic susceptibility of molecules 03 p0422 N67-12345
Literature review on basic ion-molecular reaction rates in ionosphere
[NASA-CR-80151] 03 p0389 N67-12916
Matrix isolation studies of products of gamma radiolysis of heterocyclic molecules
[PRNC-88] 04 p0505 N67-13999
Biosynthesis of deoxyribonucleic acid /DNA/, ribonucleic acid /RNA/, and protein molecules 07 p1003 N67-16706
Molecular aspects of control mechanisms in differentiated tissues, and isolation of pure chromosomal material 07 p1007 N67-16791
Molecular aspects of biological development in relation to unicellular organisms and concepts for unicellular model 07 p1007 N67-16795
Thermal splitting and uncoiling of deoxyribonucleic acid /DNA/, and partition function of mixed system 10 p1562 N67-21030
Nuclear spin correlation effect on scattering of neutrons by molecules 10 p1714 N67-21046
Experimental examples of atomic and molecular resonance reactions 11 p1933 N67-22115
Atomic interference effects of fast electron scattering by molecules 11 p1933 N67-22119
Interferograms interpreted in terms of molecular motion in infrared and Raman spectra
[TR-669/9260-01/-5] 11 p1810 N67-23550
Charged protein molecule production by electrostatic spraying 22 p4133 N67-36949

MOLLIER DIAGRAM
Nitrogen thermodynamic data in Mollier diagram form
[NOLTR-67-32] 19 p3550 N67-32961

MOLTEN-SALT ELECTROLYTE
Electrophoretic method using radioisotopes to determine isothermal ion mobilities and transport numbers in molten salts
[EUR-3160.E] 07 p1026 N67-17357
Laboratory process for electroreduction of uranium oxides to uranium metal in molten fluoride-salt electrolyte
[MCW-1500] 09 p1412 N67-20215
Electrolytic reduction of uranium hexafluoride to uranium metal - molten barium fluoride-lithium fluoride-uranium tetrafluoride electrolyte mixture
[MCW-1497] 10 p1573 N67-20965
Electrochemical potential of transition metals and lanthanides dissolved in molten alkali metaphosphate
[SC-CR-66-2164] 10 p1573 N67-20967
Molten salt electrorefining process for producing ductile vanadium
[BM-RI-6973] 16 p2852 N67-29681
Survey of research on applications of molten carbonate electrolytes as acid-base solvent systems
[TR-30] 17 p3013 N67-30286
Molten-salt electrolytic refining process for vanadium scrap conversion into ductile metal
[BM-RI-7036] 23 p4261 N67-39342

MOLTEN-SALT REACTOR /MSRE/
Detector to measure level of molten salt and metal 09 p1445 N67-19437
Molten Salt Reactor /MSRE/ kinetic behavior studied to determine inherent

stability characteristics 09 p1475 N67-19443
Reactor technology and instrumentation developments for low intensity test reactor, molten salt reactor, and high flux isotope reactor 09 p1475 N67-19444
Reactor operator training simulators 09 p1476 N67-19445
Reactor instrumentation program for sampling and enriching systems of molten salt reactor 09 p1476 N67-19447
Effects of core dimensions, molten-salt combinations, and uranium enrichment on epithermal melt spectrum of breeder reactor [JUL-291-RG] 10 p1682 N67-21069
Effects of core dimension, thorium fluoride content, and uranium enrichment on energy spectrum of sodium fluoride-beryllium fluoride molten-salt reactor [JUL-315-RG] 10 p1682 N67-21072
Multiple group cross-section structural codes for absorption, fission, and n-2n-processes of molten-salt breeder reactor materials [JUL-214-RG] 10 p1682 N67-21073
Parametric feasibility study of structural factors and heat transfer in molten-salt reactors [JUL-296-RG] 10 p1771 N67-21075
Effects of molten-salt combination, structural materials, and fuel element combination on breeding performance of fast reactor [JUL-380-RG] 10 p1683 N67-21077
Breeding conditions and cooling process in epithermic fluoride molten-salt reactors [JUL-362-RG] 10 p1683 N67-21079
Breeding capacity of epithermal molten-salt reactor having external lead cooling system [JUL-321-RG] 10 p1683 N67-21086
Breeding capacity of molten-salt reactor with external lead cooling system [JUL-361-RG] 10 p1684 N67-21100
Thermodynamic evaluation of cooling systems and energy transfer in Molten-Salt Reactors [JUL-422-RG] 11 p1923 N67-22928
Physical properties of fluoride molten-salt combinations of nuclear reactor fuel elements, and reactor cooling systems [JUL-268-RG] 11 p1925 N67-23030
Materials development and testing for molten-salt reactor program 13 p2356 N67-25371
Reactivity balance and xenon poisoning in Molten-Salt Reactor /MSRE/ [ORNL-TM-1796] 17 p3118 N67-31400
Molten-salt reactor irradiation assembly to study radiation and fission effects on molten fluoride fuel salt and construction materials 18 p3296 N67-33422
Computer calculations of scattering data for elements and isotopes used in epithermal molten-salt reactor /MOSEL/ [JUL-419-RG] 20 p3680 N67-34372
Chemical researches for molten-salt, aqueous, and gas cooled reactors and nuclear safety studies [ORNL-4076] 20 p3681 N67-34287
Mechanical properties and corrosion resistance of metals and alloys evaluated for high temperature operation in molten-salt experimental reactor [JUL-467-RW] 20 p3686 N67-35257
Materials for molten salt breeder reactors - graphite and modified Hastelloy N structural materials, and uranium bearing fluoride fuel salt [ORNL-TM-1854] 21 p3889 N67-36067
Instrumentation for large molten salt breeder reactors [ORNL-TM-1856] 21 p3890 N67-36511
Material selection and production engineering for control elements of molten-salt reactor [ORNL-4123] 22 p4091 N67-37363
Integrated fuel and blanket processing for molten salt breeder reactor [ORNL-TM-1852] 22 p4094 N67-37854
Model to compute migration of very short-lived noble gases into Molten-Salt Reactor /MSRE/ graphite [ORNL-TM-1810] 23 p4286 N67-38567

MOLYBDATE

Silicon carbide crystal growth from gas phase and crystallization of calcium, strontium, and barium molybdates in hydrothermal conditions [FTD-MT-65-476] 02 p0235 N67-11218
Hydrothermal crystal growth of calcium, strontium, and barium molybdates 02 p0235 N67-11220
Chemical properties and molecular structures of heteropoly blues [AROD-4598-5-C] 21 p3781 N67-35461

MOLYBDENUM

Neutron radioactivation determination of antimony, silver, copper, gallium, molybdenum, and zinc [CEA-R-2965] 01 p0066 N67-10607
Dislocation velocity measurements and microstrain characteristics of molybdenum single crystals of low dislocation density [Q-B2195-3] 01 p0067 N67-11021
Recrystallization parameters of niobium and tungsten - Titanium and molybdenum effects on recrystallization temperature and hardening of niobium alloys [FTD-MT-65-412] 02 p0368 N67-11251
Titanium and molybdenum effect on recrystallization temperature and hardening of niobium alloys 02 p0369 N67-11253
Solubility of molybdenum in liquid plutonium [LA-3523] 04 p0505 N67-14003
Molybdenum heater tube for heating helium to operating temperature of high temperature heat exchanger facility - performance of helium circulator [NASA-CR-72045] 05 p0691 N67-14904
Electron microscopic study of influence of irradiation temperature on damage structure in neutron irradiated molybdenum 07 p1173 N67-16756
Effect of pressure on electromotive force of molybdenum and molybdenum-rhenium thermocouples [UCRL-14993] 07 p1006 N67-17862
Transformation curves for continuous cooling of manganese-molybdenum-vanadium steel determined under argon [EURAEC-1677] 07 p1104 N67-17890
Cold rolled and recrystallization textures of molybdenum single crystals [NASA-TT-F-10714] 08 p1292 N67-18927
Solution rates of pure iron and molybdenum in liquid potassium 09 p1407 N67-19584
Determination of impurities in molybdenum by emission spectroscopy [UCID-15039] 10 p1581 N67-21060
Effect of impurity oxygen on liquid metal corrosion of molybdenum [IS-1350] 10 p1658 N67-21634
Mechanical properties of tungsten and rhenium in W Re Mo alloy development 11 p1869 N67-22292
Dislocation velocity measurements on molybdenum single crystals by etch-pitting method in study of microstrain region in high purity refractory metals [Q-B2195-3] 11 p1899 N67-23124
Austenitic grain growth of manganese-molybdenum and manganese-nickel-molybdenum steels during heat cycle simulating vertical slag welding conditions [EUR-2860] 11 p1899 N67-23184
Gaseous precision etching of patterns in molybdenum thin films [AD-645201] 11 p1816 N67-23372
Chemisorption of oxygen on molybdenum and niobium surfaces in ultrahigh vacuum [SRIA-425-9] 12 p2039 N67-23685
Chromatographic separations of niobium, tantalum, molybdenum, and tungsten [IS-T-113] 12 p2041 N67-23756
Favorable pressing and sintering properties of molybdenum acquired during processing treatment of molybdenum powder raw material 12 p2117 N67-23974
Solid state diffusion of powdered molybdenum onto carbon steel - protective coating 12 p2117 N67-23975
Interconnection and encapsulation of integrated circuits by anodic bonding - effect of molybdenum aluminum metallization on diode electrical characteristics [NASA-CR-84072] 13 p2395 N67-26373
Thermal environment effects on room temperature ductility and tensile strength of molybdenum wire [AD-634665] 15 p2721 N67-27948
Surface structure and electronic properties of single crystal molybdenum and tungsten ribbons [COO-1417-2] 15 p2722 N67-28216
Metallization and hard soldering techniques for obtaining vacuum tight cermet joints through infusion of molybdenum manganese paste and nickel [FTD-HT-66-711] 15 p2719 N67-28365
Rhenium separation from copper, molybdenum, and tungsten and spectrophotometric determination [LA-3550] 15 p2662 N67-28511
Radiation effects on crystal structure of molybdenum, nickel, and rhenium [BNWL-361] 18 p2980 N67-29762
Feasibility of system employing recirculating, gettered, hydrogen atmosphere to remove carbon from molybdenum [BNWL-379] 18 p2980 N67-29765
X-ray structural analyses on partially desulfurized molybdenite [NASA-TT-F-11951] 17 p3017 N67-31681
Single crystal dislocations in high purity refractory molybdenum [F-B2195] 19 p3472 N67-33423
Radiation effects on high purity molybdenum single crystals [BNWL-SA-777] 20 p3554 N67-34974
Diffusion of carbon from carbide of uranium into molybdenum and tungsten 20 p3556 N67-34976
Absolute activity measurements of molybdenum 99 and 4 pi-gamma ion chamber measurement of technetium 99m, and molybdenum 99 with ingrown technetium 99m [AAEC/TM374] 22 p4107 N67-37632
Micron size field emission diode development including efforts to form asperities on molybdenum areas at base of micron diameter cavity [ECOM-01766-6] 23 p4222 N67-38237

MOLYBDENUM ALLOY

Mechanical and thermal properties of tungsten and molybdenum alloy sheets for aerospace applications [REPT.-7563-1479-XII] 01 p0063 N67-10380
Oxidation resistance of zirconium boride and zirconium boride-molybdenum disilicide alloys [ATD-66-73] 01 p0068 N67-11134
Phase equilibrium of titanium aluminum molybdenum system in titanium rich alloy field 02 p0269 N67-11763
Phase transformations in titanium aluminum molybdenum alloys 02 p0270 N67-11764
Phase diagram of titanium vanadium niobium molybdenum system 02 p0270 N67-11765
High temperature tests on tungsten coated uranium oxide-molybdenum cermets for thermionic nuclear fuel elements [BMWF-FBK-66-08] 03 p0437 N67-13366
Crystallographic study of orientational relationships between gamma to alpha phase transformations for uranium-molybdenum alloys [CEA-R-2973] 03 p0413 N67-13288
Heat treatment effect on corrosion properties of zirconium-copper-molybdenum alloys [NP-16239] 03 p0413 N67-13295
Coulometric determination of carbon in plutonium and in uranium-molybdenum alloys [CEA-R-2968] 03 p0363 N67-13334
Relative importance of effects produced by additions of rhenium to tungsten, molybdenum, and chromium 06 p0892 N67-18839
Feasibility of using quenched-in defect technique to study effect of rhenium on vacancy clustering in Mo-35Re 06 p0893 N67-18840
Reactor stand, core design, and burst operation effects of uranium-molybdenum alloy fast burst reactor at White Sands Missile Range 07 p1125 N67-17062
Molybdenum alloy /TZM/ capsule experiments with boiling-refluxing potassium to determine mass transfer parameters 09 p1459 N67-19662
Long time creep test data on molybdenum base alloys, tantalum base alloys, and vapor deposited tungsten [NASA-CR-82815] 09 p1462 N67-19659
High-temperature reactor materials research - creep-rupture tests on Mo-Re-W alloys and on arc-cast Mo and W sheets 11 p1919 N67-22982
Production of Mo sheet from high-purity Mo powder compacts and purification and processing Mo-Re-W alloy sheets 11 p1896 N67-23594
Welding parameters and elevated temperature aging and strength characteristics of transition joints between chromium molybdenum alloy steel and

stainless steel
[NASA-CR-72205] 11 p1897 N67-22841
Tensile test data and stress strain curves of hot forged bar specimens of chromium molybdenum alloy steel at several temperatures
[NASA-CR-72203] 11 p1897 N67-22842
Mercury corrosion and evaluation of corrosion products found in separators of three chromium molybdenum alloy boiling thermal convection loops
[NASA-CR-72200] 11 p1922 N67-22860
Removal of SNAP-8 lubricant/coolant fluid from chromium-molybdenum steel
[NASA-CR-72223] 11 p1812 N67-22880
Mechanical properties of chromium molybdenum steel
[NASA-CR-72207] 11 p1897 N67-22893
Long-time creep data on refractory metal alloys for advanced space power systems
[NASA-CR-72185] 11 p1900 N67-23323
Mechanical and electric properties of molybdenum and molybdenum alloys - pressing and sintering properties of molybdenum powder - diffusion of molybdenum powder onto steel alloy surfaces
[FTD-TT-65-835] 12 p2117 N67-23972
Mechanical, electric, and other properties of metallic molybdenum and molybdenum alloys 12 p2117 N67-23973
Twinning and low temperature mechanical properties of polycrystalline niobium, molybdenum, and niobium molybdenum alloys
[AD-646682] 12 p2121 N67-24756
Electron microscopic and microdiffraction studies of nonmetallic impurities in molybdenum and molybdenum alloys
[FTD-HT-66-695] 13 p2336 N67-25450
Effect of titanium, zirconium, and hafnium on heat resistance of molybdenum-carbon alloys
[NASA-TT-F-10859] 14 p2550 N67-26579
Tensile properties, notch strength, heat treatment and aging responses, welding behavior, and corrosion resistance of metastable beta titanium molybdenum vanadium iron aluminum sheet alloy
[WAL-TR-406/2-14, PT. 1] 14 p2551 N67-26780
Elevated temperature fatigue of TZC molybdenum alloy determined in high frequency and high vacuum tests
[NASA-CR-72341] 14 p2556 N67-27236
Iridium-molybdenum diffusion for protective coatings on refractory metals
[NASA-CR-84828] 15 p2728 N67-28788
Recovery of cesium 137 from uranium-molybdenum alloy fission product solutions
[EUR-3451.F] 17 p3118 N67-31364
Microyield stress as related to dimensional stability of aluminum, beryllium, molybdenum, and magnesium alloys - - spacecraft structural materials
[NASA-CR-85624] 17 p3175 N67-31389
Dispersion-strengthened nickel-molybdenum nonoxidation resistant alloys
[NASA-CR-54502] 19 p3472 N67-33565
Optimum compositions for ternary alloys of rhenium with tungsten and molybdenum - Alloying of molybdenum welds with rhenium to increase plastic properties
[FTD-MT-65-445] 19 p3472 N67-33566
Alloying of molybdenum welds with rhenium to increase plastic properties 19 p3473 N67-33568
Literature survey on fatigue properties of unwelded and welded chromium-molybdenum steel tubings used in aircraft structures
[ARL/SM-304] 20 p3738 N67-34620
Room and high temperature tensile properties of Vascojet 90 steel sheet and recrystallization temperature and tensile properties of titanium zirconium molybdenum alloy sheet
[MGRT-304] 20 p3859 N67-34713
Three dimensional graph of quarternary titanium aluminum molybdenum vanadium system 22 p4063 N67-37134
Gamma radiation attenuation method for titanium molybdenum diffusion zone analysis 22 p4064 N67-37135
Heat resistance of titanium aluminum molybdenum vanadium system alloys 22 p4067 N67-37155
Small-quantity additions of molybdenum, zirconium, and niobium considered for improving behavior of uranium under neutron irradiation
[EUR-3479.I] 22 p4365 N67-38837
Chemical vapor deposition of tungsten molybdenum rhenium ternary alloy
[LA-DC-9005] 23 p4268 N67-39230
Metallurgical properties of alpha-gamma uranium alloys from uranium molybdenum niobium vanadium titanium system
[AMRA-TR-67-18] 24 p4467 N67-39997
MOLYBDENUM CARBIDE
Specific heats of vanadium, molybdenum, and niobium carbides in 3 deg to 9 deg K range
[ONERA-TP-480/1967/] 19 p3553 N67-33425
MOLYBDENUM COMPOUND
Radioactive tracer technique for measuring wear life of dry film lubricants as related to coating loss percent
[RIA-66-3446] 01 p0000 N67-11199
Plastic deformation effects on refractory titanium carbide, zirconium carbide, titanium boride, and molybdenum silicate
[NASA-TT-F-10775] 13 p2338 N67-25620
Vapor deposition of tungsten, molybdenum, and rhenium coating by carbonyl decomposition or hydrogen reduction
[NASA-TT-F-10914] 14 p2558 N67-27531
Vapor deposition of protective molybdenum silicide coatings on graphite 18 p3280 N67-32298
Fission gas collection technique for quantitative gas retention measurements in irradiated molybdenum-uranium dioxide cermet fuel
[LA-3718] 23 p4210 N67-39297
MOLYBDENUM SULFIDE
Electrophoretic deposition of metal bonded molybdenum disulfide for gear lubrication
[NASA-CR-81133] 05 p0714 N67-15255
Compaction of copper and copper-molybdenum disulphide as self lubricating bearing materials
[RAE-TR-66136] 09 p1463 N67-20185
Dry-film lubricants from molybdenum disulfide bonded with microfibrous boehmite
[NRL-6468] 11 p1892 N67-23348
Space lubrication problems, molybdenum disulfide films for heavily loaded gears, and ball bearing protection from contamination 21 p3562 N67-36218
MOMENT
SA BENDING MOMENT
SA DIPOLE MOMENT
SA DISTRIBUTION MOMENT
SA HINGE MOMENT
SA INERTIA MOMENT
SA LOADING MOMENT
SA MAGNETIC MOMENT
SA NUCLEAR-ELECTRIC MOMENT
SA PITCHING MOMENT
SA ROLLING MOMENT
Regge pole model used for describing particle interactions at high energy - complex moment theory
[REPT.-417] 01 p0116 N67-10702
Measurement of aerodynamic force and moment with wind tunnel balances 10 p1602 N67-21387
Time moment and fundamental decay constant of neutron pulse in thermalizing medium described by time dependent Boltzmann equation
[EUR-3275.E] 13 p2379 N67-26090
Elasticity moment theory and stress concentrations for plane weakened by two circular holes
[NASA-TT-F-10789] 14 p2622 N67-26630
Central moments and cumulants of number of cycles in random permutation
[MRC-TSR-700] 15 p2754 N67-28373
Translational displacements and additional moments of friction affecting rotation in ball bearings due to defects in shape of rolling surfaces
[FTD-HT-66-374] 21 p3855 N67-35390
MOMENT DISTRIBUTION
Combinatorial formula for calculating coding vector sums - weight distribution moments of binary code - communication system 02 p0238 N67-12143
Control moment distribution for Dornier DO-31 hovering rig
[AGARD-522] 04 p0481 N67-13400
Statistical analysis of moment invariant variations in pattern recognition 06 p1253 N67-18449
Angular and momentum distributions of protons, kaons, and pions from photoproduction of hydrogen at energies up to 5.8 GeV
[DESY-66/34] 13 p2378 N67-25986
Mathematical model of moments and moment distribution for nuclear structure
[UR-875-190] 14 p2587 N67-27068
Distribution of momentum, heat, and matter in open laminar and turbulent jet diffusion flames
[TAE-62] 20 p3744 N67-34155
Estimation problems for parameters of Neyman Type A distribution
[ORNL-4102] 20 p3670 N67-34789
MOMENT EQUATION
Momentum equation solved for frozen flow in char zone of charring ablator
[NASA-CR-66236] 03 p0473 N67-12977
Kinetic theory and hypersonic approximation method applied to moment equations for source flow expansions 19 p3430 N67-33261
Restricted variational principle and solution of radiative transfer equation for gray gas
[PIBAL-1020] 21 p3947 N67-35925
MOMENT METHOD
Moment method equations for probability calculations of multiphase logic circuits 13 p2297 N67-25725
Step function, and application of quadrature formulas to estimation using moments 14 p2563 N67-26532
Computer programs for reconstructing gamma ray scattering using moments method
[USNRDL-TR-67-9] 15 p2762 N67-28397
Moment method solution to conjugate kinetic equation for three-dimensional distribution of neutrons in infinite homogeneous medium 17 p3137 N67-31244
MOMENTUM
SA ANGULAR MOMENTUM
Momentum accomodation coefficients obtained from low velocity molecule-surface interactions, for space probe drag calculations
[NASA-CR-82092] 08 p1326 N67-18513
Momentum operators in quantum mechanics
[NASA-CR-83247] 10 p1669 N67-21837
Tropical meteorology studies of effect of sea surface conditions and small flat island on heat flux and momentum 11 p1913 N67-22228
Differential equation for n-dimensional Coulomb problem in momentum space
[NASA-TT-F-474] 14 p2584 N67-26858
Fortran program for computing acceptance as function of momentum in high energy particle beams
[RHEL-R-103] 14 p2589 N67-27321
Quality criteria of magnetoelectric momentum converters used in power compensation systems 15 p2710 N67-28168
Electrostatic method of compensating galvanometer tension member opposing momentum 15 p2710 N67-28110
Mathematical model consisting of spherical particles with statistical size and velocity distribution to examine momentum interaction in solid-fluid flow
[AFOSR-67-0657] 15 p2694 N67-28968
Hypervelocity impact cratering in pumice and dependence on projectile momentum 19 p3441 N67-33168
Momentum unloading in control systems using momentum exchange actuators and their effect on attitude control design - jet and magnetic systems 21 p3764 N67-36078
Momentum distribution and charge ratio of cosmic radiation at sea level - spark chamber and spectrograph measurements
[BMWF-FBK-67-29] 23 p4340 N67-38411
MOMENTUM ENERGY
Least squares method used for determining momentum spectra of secondary particles in anti pi,N interactions at 7 GeV
[JINR-E-2738] 03 p0445 N67-12239
Range momentum plots of charged particle reactions with matter
[UCRL-2426, VOL. IV] 06 p0941 N67-16529
Feynman diagram based on energy of system and transferred momentum 07 p1145 N67-17261
Determination of energy dependence of form factor in positive K meson decay - Bohr-Mittnar method for calculation of momenta and errors of tracks from particle decay
[CONF-660906-12] 08 p1234 N67-18611
Positive pion deuterium interactions at pion momentum 6 GeV/c
[IS-T-122] 13 p2376 N67-25809
Proton structure, magnetic form factors, and large-scale p-p scattering as function of

transverse momentum
[CERN-67-3] 13 p2379 N67-26101
Two-body interaction measurements in neutron cross section of beryllium at 14 MeV
[CEA-R-2986] 17 p3126 N67-30299
Wire spark chamber as momentum spectrometer to analyze inelastically scattered protons 17 p3084 N67-30059
Solution of Schroedinger equation expressed algebraically through solution of classical Hamiltonian equations in quadratic form of coordinates and momenta
[JINR-P2-3223] 19 p3506 N67-33709
Calculations of momentum and energy relaxation of electrons in polar semiconductor in strong magnetic field
[SR-18] 20 p3713 N67-34402
Exchange torque, power and momentum flow, and stress in rigid ferrimagnet
[AFCRL-67-0255] 21 p3915 N67-35649
Momentum spectrum and charge excess of cosmic ray muons at large zenith angles
[BNL-11545] 24 p4526 N67-40247
MOMENTUM PRECESSION
Effect of nodal regression of orbit on gravity gradient precession of gyroscopic satellite in testing general theory of relativity
[NASA-CR-82592] 06 p1369 N67-19245
Precession in motion of gyrostat fixed at single point under action of gravity forces 12 p2153 N67-23712
MOMENTUM STORAGE
Stable equilibrium orientation of spacecraft using wheel for storing angular momentum
[TN-1967-16] 15 p2789 N67-28243
MOMENTUM THEORY
Incompressible turbulent boundary layer calculations and measured growth of momentum thickness
[ARC-R+M-3447] 17 p3049 N67-31187
MOMENTUM TRANSFER
Transverse sum rule for electrons scattered inelastically with large momentum transfers from light nuclei
[REPT.-479/PL] 01 p0121 N67-10569
Dissimilarity between heat and momentum transfer in stable atmosphere near ground
[AFCRL-66-457] 01 p0101 N67-10584
Momentum transfer and cratering from aluminum sphere hypervelocity impact 04 p0610 N67-13860
Transverse moments and four momentum transfers of recoil protons in nucleon-nucleon interactions of ultrahigh energy
[INR-736/VI/PH] 04 p0586 N67-13896
Pion photoproduction at 3.0, 4.0, and 5.0 GeV for baryon four momentum transfers
[MIT-2066-265] 04 p0590 N67-14069
Ion collision frequencies and energy transfer in gaseous thermal nonequilibrium 06 p1350 N67-18426
Elastic proton-proton scattering, and momentum transfer distributions
[NYO-2262TA-129] 06 p1339 N67-18474
Low momentum transfer neutron form factors from deuteron electrodisintegration analysis
[DESY-66/21] 10 p1699 N67-20764
Isobar production mechanisms in proton-proton collisions
[PPAD-600F] 10 p1710 N67-20955
Elastic electron-proton scattering cross sections at momentum transfers up to 110/square fermi
[DESY-66/27] 10 p1728 N67-21455
Measurement of normal component of transfer momentum from nitrogen ion molecular beam normally incident to copper target
[RAE-TR-66346] 11 p1944 N67-23240
Angular momentum exchange control actuators for satellite attitude control 12 p2143 N67-23697
Momentum transfer to solid surfaces by nitrogen molecules at satellite velocities
[NASA-CR-66372] 15 p2790 N67-28365
Despinning of rotating spacecraft by momentum transfer
[TG-885] 16 p2974 N67-29459
West German electron synchrotron and theories on photoproduction and electroproduction
[DESY-67/1] 16 p2947 N67-29720
Momentum and heat transfer in planetary boundary layer 20 p3634 N67-34856
Electromagnetic form factors for four momentum transfers involving elastic electron-proton cross sections
[NP-16765] 20 p3703 N67-35091
Tables of similar solutions for equations of momentum, heat, and mass transfer in laminar boundary flow 22 p4163 N67-37358
MONATOMIC GAS
Heat transfer from tube wall to monatomic, diatomic, and triatomic gases at large temperature gradients 02 p0220 N67-11204
Index of refraction of excited monatomic gases
[BRL-MR-1772] 05 p0742 N67-15109
Transient heat transfer through collisionless gas enclosed between parallel plates
[NASA-TM-X-52278] 10 p1772 N67-21392
Distribution function and temperatures in monatomic gas under steady expansion into vacuum
[AFOSR-66-2409] 10 p1816 N67-21709
Differential kinetic equation for expansion coefficients of distribution function in monatomic rarefied gas
[FTD-HT-66-645] 12 p2173 N67-24722
Fourier transform of time-dependent density correlation function for dense monatomic fluids
[NYO-3226-15] 20 p3625 N67-34929
MONITOR
SA IN-FLIGHT MONITORING
Decameter-wave monitoring system for synoptic observations of radio emission from planet Jupiter
[NASA-TM-X-55611] 02 p0259 N67-11294
Sampling rate system for monitoring clean rooms
[NASA-CR-79537] 02 p0221 N67-11693
Television monitoring system for launcher area 6 of EUROPA 1 Project
[WRE-256, ISSUE 2] 02 p0260 N67-11871
Simulation of monitoring and decision-making unit for skip navigation system 03 p0430 N67-12345
Device for monitoring blocks of regulators 03 p0375 N67-12410
Visual monitoring techniques for microbiological contamination control to meet spacecraft sterilization requirements 05 p0650 N67-14771
Hazards monitoring data display and transmission system for launch complex
[NASA-CR-80961] 05 p0690 N67-14892
Crossed beam monitoring of atmospheric winds and turbulence with two orbiting astronomical telescopes mounted on single spacecraft
[NASA-TM-X-53538] 05 p0703 N67-14913
Propagation velocity correction factors broadcast from monitor stations in radio navigation system
[NRL-MR-1716] 05 p0734 N67-14994
Decontamination and microbiological monitoring of surfaces of Anchored Interplanetary Monitoring Platform spacecraft
[NASA-TM-X-55630] 06 p0972 N67-16652
Conceptual study of deep space monitor communications systems using single earth satellite - interface relationships and tradeoff analysis
[NASA-CR-73035] 07 p1039 N67-17840
Use of natural iron as fast neutron monitor
[AERE-M-1778] 07 p1137 N67-18076
Ionization chambers used for detecting tritium in air in presence of gamma radiation
[AECL-2604] 08 p1284 N67-19177
Alpha scintillation monitor for continuous air sampling of plutonium-handling areas
[RFP-815] 08 p1284 N67-19232
Neutron multiplicity monitor operations at sea level and 3800 meter elevation
[NASA-CR-82597] 08 p1284 N67-19559
Microminiaturized telemetry system to monitor biological functions
[NASA-CR-82795] 09 p1403 N67-19417
Radiation monitoring, warning, and communication systems 09 p1444 N67-19432
Airborne laser beam profile monitor design
[BRL-TN-1625] 09 p1456 N67-19709
Circuit design of gamma radiation dosimeter for continuous monitoring of accumulated radiation dosage
[UCRL-14925-T] 09 p1459 N67-20148
Radio frequency chopping and klystron type bunching system for generation of ion bursts in Van de Graaff accelerator
[AWRE-O-52/66] 10 p1736 N67-21627
Axial power monitoring of production reactor with on-line computer
[DPSPU-66-30-2] 10 p1589 N67-21824
Personal fm/fm biotelemetry system for monitoring respiration, temperature, electroencephalogram, and electrocardiogram data
[NADC-MR-6624] 11 p1706 N67-22550
Receiver-type instrument landing system monitor for all-weather landing system, using modular construction and solid state devices
[SRDS-RD-66-94] 11 p1983 N67-22591
Ground-base difference frequency coulometer for monitoring satellite battery charge
[APL-TG-857] 13 p2323 N67-26236
Calibration procedures for pulsed laser beam monitors in terms of energy and power per volt using absorption type calorimeter as standard
[UCRL-50165] 13 p2334 N67-26352
Acceleration measurements and force in specifying and monitoring laboratory vibration tests 14 p2622 N67-28043
Man-computer communication in active monitoring of automated checkout
[P-3522] 14 p2671 N67-28912
Electrical resistance measurements of molten metal coolants as means of monitoring impurities
[SM-85/44] 15 p2745 N67-28179
Computer program for time monitoring of fast breeder reactor
[KFK-462] 15 p2748 N67-28455
On-line computer system to monitor and control magnets and equipment leading from accelerator to experimental areas
[SLAC-PUB-348] 15 p2768 N67-28520
Alpha radiation hand and foot monitor using aluminized Mylar-covered scintillation counters
[DP-1060] 15 p2851 N67-28986
X-ray photography-television system for monitoring biodynamic experiments
[AMRL-TR-66-104] 16 p2937 N67-29091
Linear-log radiation instrument to monitor gamma dose rates
[ORNL-TM-1764] 17 p3070 N67-31322
Survey of unattached sensors for use in remote physiological monitoring in space including techniques for measuring eyeblink, eye movement, and pupillary diameter
[NASA-CR-85022] 18 p3218 N67-32429
Performance tests of delayed neutron monitor used in conjunction with boiling water loop in materials testing reactor
[TRG-1416/D/] 20 p3681 N67-34428
Dual high speed and low speed scanner system for monitoring reactor temperatures
[DUN-SA-33] 20 p3643 N67-34954
Inductive beam intensity monitor for extracted proton beam from synchro-cyclotron
[CERN-67-9] 20 p3643 N67-34970
Chamber voltage monitor and test unit for testing response of parts of reactor safety system - maintenance manual
[ORNL-TM-1656] 21 p3885 N67-35439
All-sky camera for continuously monitoring cloud coverage over White Mountains in eastern California
[NASA-CR-82525] 22 p4045 N67-37068
Alternating gradient synchrotron injector beam monitoring system
[BNL-11498] 22 p4049 N67-37691
Distortions of controlled electric transients by shock monitoring instrumentation circuits
[SC-DC-67-1832] 23 p4282 N67-38234
Ground level neutron counters for real time solar proton monitoring network 24 p4524 N67-39811
Real time monitor and input/output computer programs for Gemini space flights
[NASA-TM-X-66643] 24 p4618 N67-40270
MONKEY
Collar and chain procedure for transporting and seating monkeys
[ARL-TR-66-14] 01 p0016 N67-10482
Partial restriction of motor activity and ability of monkeys to solve problems 02 p0205 N67-11628
Dimensional study of vestibular end organ apparatus in human, squirrel monkey, and cat 05 p0634 N67-15126
Long-term performance of squirrel monkeys under space simulation conditions 05 p0657 N67-15144
Behavioral measures from squirrel monkeys under two-degree of space simulation conditions 05 p0657 N67-15145

Laminar organization and cell content of lateral geniculate complex of nocturnal owl monkey Aotes trivirgatus
[USAMRL-669] 06 p0797 N67-15406
Plasma growth hormone level increase in monkeys after injections of sheep hypothalamic extracts 06 p0803 N67-15956
Circadian subcutaneous temperature rhythm in rhesus monkey independency of environmental temperature fluctuations
[ARL-TR-66-21] 06 p0805 N67-16475
Performance of rhesus monkeys during continuous low-level gamma radiation
[ARL-TR-66-15] 07 p1606 N67-17617
Immobilization effects on phosphorus, calcium, and nitrogen balance in monkeys, and rapid analytical procedures 08 p1226 N67-18701
Rapid procedures for analyzing daily calcium, nitrogen, and phosphorus balance of inactive monkeys 08 p1226 N67-18702
Immobilization of monkeys, and effects on calcium, phosphorus, and nitrogen balance 08 p1226 N67-18703
Radiobiological effects and variability of responses in monkeys and humans
[REPT.-12826-FR1] 10 p1560 N67-20559
Postural behavior in Rhesus monkey analyzed during electrically elicited movement
[TR-66-1] 11 p1791 N67-22555
Hematological data on sooty Mangabey monkey
[REPT.-679] 11 p1793 N67-23049
Calcium, phosphorus, and nitrogen mobilization resulting from conditions of inactivity in Macaca irus monkeys
[SAM-TR-66-94] 13 p2024 N67-24416
Measuring techniques for determining monocular and binocular visual acuity of rhesus monkeys
[ARL-TR-67-3] 13 p2253 N67-25327
Psychophysiological reaction patterns to single stress learning task studied in chimpanzee, man, and monkey
[ARL-TR-66-16] 13 p2254 N67-25330
Behavioral program with monkeys to determine response to monomethyl hydrazine with and without pyridoxine
[ARL-TR-67-6] 13 p2254 N67-25331
Acceleration stress in monkeys, and breathing rate, electrocardiographic, and skin temperature measurements during centrifugation
[NASA-CR-83813] 13 p2256 N67-25677
Effects of acceleration on dogs and monkeys
[NASA-TT-F-10412] 14 p2451 N67-26624
Increase in plasma growth hormone level in monkey following administration of sheep hypothalamic extracts 14 p2458 N67-26776
Pulsed ionizing radiation effects on monkey equilibrium function
[SAM-TR-66-106] 14 p2458 N67-26895
Behavioral response experiment on monkey equilibrium function after pulsed gamma-neutron radiation exposure 14 p2459 N67-26922
Blood circulation during acceleration in monkeys
[NASA-TT-F-11060] 16 p2824 N67-29020
Beryllium sulfate effects on serum alkaline phosphatase in primates
[AMRL-TR-66-196] 16 p2832 N67-29412
X-ray photographic determination of monkey blood circulation under exposure to physiological accelerations
[NASA-TT-F-11061] 17 p3007 N67-31294
Toxicology and pathology of repeated doses of monomethylhydrazine in monkeys
[AMRL-TR-66-199] 18 p3213 N67-32461
Pathology of oxygen toxicity in monkeys
[AMRL-TR-66-234] 20 p3571 N67-34329
Peripheral versus central explanations for operant control of response latency in monkeys
[PRP-32N] 23 p4187 N67-38436
Veterinarians guide to subhuman primates in laboratory
[EASP-196-26] 24 p4380 N67-39409

MONOCHROMATIC RADIATION

Monochromatic radiation generation system for photo-biological investigations
[NASA-TT-F-10367] 06 p0799 N67-15555
Curves of monochromatic albedo for limb and terminator of Venus 07 p1187 N67-16886
Monochromatic light used in photolysis to study reaction of monoenergetic deuterium atoms with hydrogen molecules
[CALT-532-2] 07 p1627 N67-17429
Techniques for determining eta for thermally fissionable isotopes 08 p1341 N67-18854
Monochromatic light beam scattering for size distribution analysis of atmospheric aerosol particles 11 p1912 N67-22018
Spectral transmission of two optical systems for application to calibrations of star tracking systems
[RAE-TR-67010] 15 p2707 N67-27800
Photodissociative laser systems used to convert solar radiation to monochromatic coherent emission - excitation mechanisms, spectroscopy of gases absorbing light, and chemical processes
[NASA-CR-85005] 18 p3277 N67-31658
Degree of monochromaticity of coherent bremsstrahlung from crystal
[LNF-67/32] 20 p3597 N67-34726
Random scattering of quasimonochromatic radiation in long transmission line
[AFCRL-67-0353] 22 p3994 N67-36718

MONOCHROMATOR

High speed monochromator for studying small angle X-ray scattering
[NASA-TM-X-59656] 13 p2379 N67-26079
Optical and mechanical properties of monochromator with high precision directional control of spectrum 15 p2708 N67-27848
Ion velocity and electron temperature in hydrogen and air measured in coaxial plasma gun with monochromator
[INR-781/XVIII/PP] 17 p3142 N67-30706
ESRO sounding-rocket payload experiment utilizing Geiger-Mueller counter and far ultraviolet monochromator to determine relation between proton fluxes and intensity of auroral light
[ESRO-SN-61] 17 p3168 N67-31172
Vacuum diffraction ultraviolet monochromator for sensitivity evaluation of photomultipliers, photon counters, and ionization chambers
[NASA-CR-88282] 22 p4048 N67-37567
Spectral composition of earth radiation determined using monochromators installed on board Cosmos series earth satellites
[NASA-CR-82969] 23 p4244 N67-38707
Monochromator measurements of oxygen absorption coefficients at various wavelengths
[NASA-TN-D-4225] 24 p4532 N67-40429

MONOCULAR VISION

Monocular and binocular aftereffects of chromatic adaptation
[IZF-1966-9] 08 p1231 N67-19258
Measuring techniques for determining monocular and binocular visual acuity of rhesus monkeys
[ARL-TR-67-8] 13 p2253 N67-25327
Monocular brightness varied without varying monocular luminance, changing binocular brightness
[PRP-30A] 23 p4198 N67-38724

MONOMER

Molecular structure effect on thermal stability and other physical characteristics of polyaryloxysilanes and related monomeric compounds
[NASA-TM-X-53536] 06 p0619 N67-16049
Radiation induced polymerization of vinyl monomers impregnated in wood
[ORO-2945-8] 20 p3666 N67-35038
Graft polymerization of comonomers
[TID-23839] 22 p3993 N67-37995

MONOMOLECULAR LAYER

Surface viscosity of polydimethylsiloxane monolayers
[NRL-6430] 10 p1660 N67-20697
Carbon-14 labeled stearic acid adsorption on iron and glass as close-packed monomolecular layer
[NRL-6553] 21 p3774 N67-35340
Radio induced polymerization of absorbed molecular layer on solid surface
[COO-1560-1] 22 p3993 N67-37962
Surface potential measurements to determine effects of adsorbed organic monolayers on metal substrates
[RIA-67-1754] 24 p4396 N67-39715
Electric properties of monomolecular films adsorbed on metal surface
[NASA-TT-F-11153] 24 p4517 N67-39981

MONOPOLE ANTENNA SYSTEM

Log periodic antenna techniques
[EDL-M1016] 16 p2861 N67-29583
Experimental design model of electrically thick tubular monopole antenna driven by coaxial transmissions over ground planes
[AFCRL-67-0406] 24 p4489 N67-40165

MONOPROPELLANT

Design and scaling criteria for monopropellant hydrazine reaction chambers employing spontaneous catalytic activity
[NASA-CR-83457] 08 p1355 N67-19122
Design manual for monopropellant hydrazine rocket engines and gas generators employing spontaneous catalyst
[NASA-CR-83456] 08 p1355 N67-19123
Monopropellant hydrazine thrustor system
[NASA-CR-89570] 24 p4521 N67-39723

MONOPULSE ANTENNA

High power testing of S-band Cassegrain monopulse cone antenna 05 p0673 N67-14447
Cassegrain-fed monopulse antenna system with five horn feeds
[NASA-CR-720] 14 p2490 N67-27292
Monopulse tracking scheme for phased array antenna
[NASA-CR-85859] 17 p3028 N67-31239

MONOPULSE RADAR

First order radome boresight error theory derived and applied to prediction and design problems
[REPT.-1804-6] 06 p0643 N67-16335
Cross modulation in single channel monopulse signal processor
[NRL-6443] 12 p2051 N67-24016

MONOXIDE

SA CARBON MONOXIDE

Aluminum monoxide resonant spectrum for upper atmosphere temperature determination
[AFCRL-66-314] 09 p1441 N67-19648
Magnetic susceptibility of silver monoxide
[TR-5] 09 p1409 N67-19698
Bonding, stability, and formation of cubic refractory monocarbides, mononitrides, and monoxides
[CU-3553-5] 10 p1579 N67-21574
Dissociation energies of gaseous monoxides of rare earths
[TR-1] 17 p3013 N67-30348

MONTE CARLO METHOD

Feasibility of determining robustness regions of T-test in Pearson system by Monte Carlo technique
[RR-23] 01 p0093 N67-10305
Particle physics research on Monte Carlo calculations, Bohr theory and excitation function
[CU-1019-51] 01 p0124 N67-10659
Monte Carlo simulation of Knudsen gas flow with allowance for sojourn of molecules on tube wall
[IPP-2/41] 02 p0250 N67-11746
Monte Carlo calculation for simulation of scintillation detector response to underwater gamma rays
[NOLTR-66-140] 02 p0290 N67-11869
Monte Carlo analysis of fast neutron shielding properties of compound cubical and spherical shields
[ORNL-4009] 02 p0287 N67-12181
Performance analysis of spherical and cubical multilayer iron and water enclosure shields in real fallout field using Monte Carlo method
[RRA-T55] 04 p0584 N67-13395
Sign of neutral kaon mass difference, Fermi-Yang statistical ambiguity, and Monte Carlo results
[UCRL-17007] 04 p0588 N67-14009
Monte Carlo treatment of electron beam interaction with heavy target
[AERE-R-5173] 04 p0592 N67-14165
Computer-aided optimization using Monte Carlo techniques for digital systems timing
[NASA-CR-80648] 04 p0519 N67-14255
Monte Carlo computer simulation models used to maximize economic order quantity safety levels at wholesale depot echelon 07 p1311 N67-16977
High energy internuclear cascades studied by Monte Carlo calculation and radiochemical experiments 07 p1147 N67-17265
Monte Carlo simulation of proton-proton spin correlation experiment
[LA-3556] 07 p1150 N67-17461
Monte Carlo and discrete-ordinate calculations of neutron transport from fission and 14 MeV point sources in infinite air medium compared to other calculations of same phenomena
[ORNL-TM-1547] 07 p1155 N67-17870
Monte Carlo transport calculations estimating solar flare proton radiation dose received by travelers during supersonic flight
[NASA-CR-81727] 07 p1185 N67-18016

Monte Carlo type computer simulation, programmed in Algol, for modeling reliability growth
[NASA-CR-61692] 07 p1661 N67-18633
High speed Monte Carlo technique for hybrid computer solution of partial differential equations 07 p1648 N67-18661
Monte Carlo analysis of sphere transmission data for gold and iodine slow neutron capture cross sections at 24 keV 08 p1237 N67-18818
Computer program designed for processing Monte Carlo events tapes
[LA-3530-MS] 08 p1255 N67-19002
Monte Carlo methods, Mie theory, and random walk and screen models for predicting reflective properties of paint films
[NASA-CR-61167] 08 p1328 N67-19076
Tables constructed from Monte Carlo calculations of intranuclear cascades to represent energy and angles of emitted particles
[NASA-CR-82502] 08 p1321 N67-19078
Monte Carlo calculation of multiple scattering effects
[ISS-66/26] 08 p1344 N67-19190
Critical experiments on sphere containing uranium, parameters of cylindrical annuli, Monte Carlo calculations, SORA design, and safety factors 08 p1323 N67-19323
Thermal neutron flux calculations by Monte Carlo and other codes, experiences with SNAP power plants, and applications of discrete-ordinate transport theory to radiation shielding problems 08 p1323 N67-19324
Monte Carlo calculations to determine fast neutron dose rate distributions along square concrete duct using albedo concept
[ORNL-TM-1557] 10 p1696 N67-20679
Monte Carlo computer code to calculate transport of gamma rays in three-dimensional, rectangular geometry
[USNRDL-TR-1038] 10 p1588 N67-20697
Monte Carlo method used to study neutron interactions with matter
[ORNL-TR-1389] 10 p1734 N67-21581
Monte Carlo method and computer simulations used in model computations for work load distribution in plant production process
[REPT.-3696] 10 p1776 N67-21746
Adjoint Monte Carlo calculations for enriched uranium core assemblies
[K-DP-1637] 10 p1690 N67-21791
Neutron-gamma Monte Carlo transport code to provide differential data for use in mapping initial radiation environment created by nuclear detonation
[NDL-TM-35] 10 p1589 N67-21854
Method to evaluate joint probabilities necessary to determine operating characteristics of dependent mixed sampling inspection plans for single specification limit case
[N-38] 11 p1906 N67-22685
Monte Carlo calculation of electron, electron, proton reaction for incident energies between 300 and 600 MeV - tables
[ISS-66/37] 11 p1941 N67-23084
Cross sections for double charge exchange of pions by nuclei calculated by Monte Carlo method
[JINR-P2-3004] 11 p1943 N67-23191
Simple method to improve efficiency of sigma sub alpha over sigma sub t estimator for neutron capture rates used in Monte Carlo programs
[WAPD-TM-690] 12 p2158 N67-23564
Monte Carlo method for including epithermal neutron scattering by bound protons in combined slowing down thermal calculations
[WAPD-TM-617] 12 p2159 N67-23576
Monte Carlo simulation of high speed flow of rarefied gas around cylindrical body
[TN-1967-7] 12 p2088 N67-24652
Fortran Monte Carlo program treating time dependent neutron and photon transport
[UNC-5157] 12 p2174 N67-24981
General formulation of Monte Carlo method and strong laws for certain sequential schemes
[MRC-TSR-690] 13 p2345 N67-25198
Monte Carlo calculations of fast multicomponent critical systems
[ORNL-P-2600] 13 p2361 N67-25617
Monte Carlo simulation for Apollo go, no-go verification
[NASA-TM-X-55776] 14 p2486 N67-26639
Monte Carlo generation of random samples from Wishart distribution used in verification of asymptotic properties of estimation procedure
[AROD-4721-8-M] 14 p2543 N67-26945
Application of Monte Carlo method to reactor shielding problems
[ORNL-TR-1381] 14 p2590 N67-27444
Time dependent neutron transport from point isotropic source at altitude of 50,000-ft using Monte Carlo transport code
[DASA-1626-III] 14 p2527 N67-27486
Monte Carlo calculations and computer simulation of statistical model of photomultiplier
[NP-16546] 15 p2678 N67-28303
Optimal representation of function as linear combination of functions and applications to Monte Carlo simulations
[D1-82-0610] 15 p2735 N67-28630
Monte Carlo neutronics computer program for reactor calculations
[AHSB/S/-R-105] 15 p2751 N67-28643
Specific yield functions for IGY neutron counters for vertically incident cosmic ray protons, using Monte Carlo method
[BSR-2018] 16 p2985 N67-29092
Monte Carlo procedures to study transport of light through earths atmosphere under various environmental conditions
[RRA-T63-3] 16 p2936 N67-29100
Monte Carlo studies of light transmission in atmosphere
[ECOM-00248-1, VOL. I] 16 p2956 N67-29106
Solving problems of multiple scattering from neutron cross sections experiments by Monte Carlo method
[ORNL-TR-1546] 16 p2941 N67-29273
Nuclear particle transport with emphasis on Monte Carlo and shielding calculations
[RISO-136] 16 p2950 N67-29701
Monte Carlo study on limits of tests of quantum electrodynamics with electron-positron colliding beams 16 p2951 N67-30100
Monte Carlo method used in penetration of point monodirectional gamma rays through slab shields 17 p3105 N67-30308
Strong convergence of linear averages proven in sequences of random variables occurring in Monte Carlo sampling
[MRC-TSR-719] 17 p3091 N67-30436
Fortran program using Monte Carlo method to calculate solid angle subtended by one circular disk at another
[ORNL-4099] 17 p3119 N67-30530
Monte Carlo method, and radiant heat transfer to analyze impact pressure probes 17 p3047 N67-30582
Monte Carlo method for determining electron flow in low density argon gas including space charge and elastic collisions
[NASA-TN-D-4007] 17 p3143 N67-30646
Monte Carlo method for computing particle and gamma radiation transfer for radiation shielding 17 p3114 N67-31259
Monte Carlo method of analyzing gamma radiation and fast neutron spectrometer characteristics 17 p3117 N67-31277
Monte Carlo method of analyzing characteristics of spectrometer with boron-hydrogen scintillator 17 p3137 N67-31278
Test program for pseudorandom numbers with uniform distribution for application to Monte Carlo methods
[EUR-3464.E] 17 p3095 N67-31306
Monte Carlo studies of light transport
[RRA-T74] 17 p3122 N67-31393
Numerical analysis of strong shock waves using Monte Carlo method - structure of shock wave in gas of hard spheres for Mach 2.5
[R-347-PT-8] 19 p3421 N67-32923
Monte Carlo method for calculation of radiant heat exchange
[NASA-CR-87256] 19 p3551 N67-32232
Monte Carlo code for solving one-dimensional nonlinear radiation transport problems in real materials
[UCID-15123] 19 p3507 N67-32628
Monte Carlo code for solving planar electron-diode problems including electron-neutral elastic collisions
[NASA-TN-D-4043] 19 p3411 N67-32639
Finite geometry and polarized multiple scattering corrections of experimental fast neutron polarization data by Monte Carlo methods
[AE-284] 20 p3677 N67-34093
Theory and tables for tests of hypotheses concerning mean and variance of Weibull population
[ARL-67-0059] 20 p3668 N67-34099
Gamma-ray isotropic dose, energy flux and energy current buildup factors for finite slabs calculated by Monte Carlo techniques
[NASA-TN-D-4096] 20 p3696 N67-34909
Monte Carlo method for evaluation of high energy neutron exposure hazards
[NASA-CR-87490] 20 p3576 N67-34961
Algorithms for processing random signals using Monte Carlo method 20 p3665 N67-35257
Monte Carlo computer analysis of free molecular flow characteristics of thermosphere probe
[NASA-TM-X-53641] 21 p3843 N67-36302
Analysis and measurement of radiative heat transfer between simply arranged surfaces
[AFFDL-TR-67-94] 22 p4150 N67-36717
Light reflection and transmission from clouds with various drop size distributions calculated using Monte Carlo technique
[NASA-CR-80489] 22 p4037 N67-37266
Treatment of hydrogen scattering in multigroup Monte Carlo criticality calculations
[K-DP-2253] 22 p4106 N67-37482
Monte Carlo analysis of neutron transport through spherical boron carbide shell
[ORNL-TM-1616] 22 p4108 N67-37768
Monte Carlo method for calculating heat source spatial distribution in infinite reactor lattice with uniform spacing
[UJV-1724] 22 p4093 N67-37773
Monte Carlo calculation on neutron flux distribution in urania rod cluster
[BNWL-SA-1179] 22 p4095 N67-37983
Climate prediction based on study of upper air wind data
[AFCRL 67-0313] 23 p4277 N67-38286
Monte Carlo program for calculating Doppler coefficients in arbitrary neutron flux spectra
[NASA-TN-D-4200] 23 p4284 N67-38334
Monte Carlo calculation of inelastic collisions of deuterons with nuclei
[JINR-P2-3356] 23 p4300 N67-38373
Effects of faulty random number generators on Monte Carlo calculations
[ORNL-TM-1625] 23 p4275 N67-38654
Monte Carlo calculations of light scattering from clouds
[NASA-CR-89263] 23 p4345 N67-38713
Monte Carlo method used for calculating reflected and transmitted radiance of earth atmosphere
[NASA-CR-89276] 23 p4346 N67-38986
Radiance and polarization of multiple scattered light from haze and clouds calculated from Stokes vectors by Monte Carlo method
[NASA-CR-89284] 23 p4296 N67-38989
Characteristics of recoil-proton Perlow-type neutron spectrometer simulated by Monte Carlo code
[RT/FI/66/20] 24 p4455 N67-40556

MONTMORILLONITE
Montmorillonite ion exchange equilibria with strontium-sodium-cesium 04 p0862 N67-12790
Interaction of water and ice with silicate surfaces through analysis of montmorillonite
[CRREL-RR-210] 19 p3443 N67-32398

MOON
SA EARTH-MOON SYSTEM
SA LUNAR ATMOSPHERE
SA LUNAR BASE
SA LUNAR COMPOSITION
SA LUNAR CRATER
SA LUNAR CRUST
SA LUNAR DISK
SA LUNAR DUST
SA LUNAR EFFECT
SA LUNAR ENVIRONMENT
SA LUNAR EXCURSION MODULE /LEM/
SA LUNAR EXPLORATION
SA LUNAR FLIGHT
SA LUNAR GEOLOGY
SA LUNAR GRAVITATION
SA LUNAR GRAVITATIONAL EFFECT
SA LUNAR IONOSPHERE
SA LUNAR LANDING
SA LUNAR LANDING MODULE
SA LUNAR LANDING SITE
SA LUNAR LAUNCH
SA LUNAR LIMB
SA LUNAR LOGISTICS
SA LUNAR LUMINESCENCE
SA LUNAR MAGNETIC FIELD

SA LUNAR MAP
SA LUNAR MARE
SA LUNAR OBSERVATORY
SA LUNAR OCCULTATION
SA LUNAR ORBIT
SA LUNAR ORBITAL RENDEZVOUS /LOR/
SA LUNAR PERTURBATION
SA LUNAR PHOTOGRAPH
SA LUNAR PHOTOGRAPHY
SA LUNAR PROBE
SA LUNAR PROGRAM
SA LUNAR ROVING VEHICLE /LRV/
SA LUNAR SATELLITE
SA LUNAR SHADOW
SA LUNAR SOIL
SA LUNAR SPACECRAFT
SA LUNAR SURFACE
SA LUNAR SURFACE VEHICLE
SA LUNAR TEMPERATURE
SA LUNAR TIDE
SA LUNAR TOPOGRAPHY
SA LUNAR TRACKING
SA LUNAR TRAJECTORY
Review of hypotheses on origin of moon
[UCSD-34P43-5] 01 p0152 N67-10731
Possible structure of surface layer of moon
[NASA-CR-80579] 03 p0466 N67-13234
Lunar ephemeris corrections 08 p1360 N67-18303
Bibliography of lunar and planetary research for 1965
[AFCRL-67-0043] 14 p2812 N67-26674
Masses of Venus and Moon, and astronomical unit determined by Mariner II radio tracking data
[NASA-CR-84978] 16 p2966 N67-29180
Isothermal and isophotic atlas of moon contours through lunation
[NASA-CR-855] 22 p4140 N67-37302
Lunar thermal emission theory, and instrumentation for radar observations of moon
[NASA-CR-88478] 22 p4145 N67-37952
Spherical harmonic expansion of lunar gravity field data from lunar orbiter and Lunik 10 analyses, and calculation of moon shape and internal structure
[NASA-CR-89683] 24 p4531 N67-40320
MOON-EARTH TRAJECTORY
SA EARTH-MOON TRAJECTORY
Electric propulsion and payload mass ratio for moon-earth payload transport 10 p1754 N67-30510
MOONWATCH PROGRAM
Moonwatch program observations of satellite orbits - decay prediction table
[NASA-CR-85382] 17 p3169 N67-31450
MORL
S MANNED ORBITAL RESEARCH LABORATORY /MORL/
MORPHOLOGICAL INDEX
Electron microscopic and morphometric studies of rat lungs after exposure to oxygen at atmospheric pressure and 258 torr 14 p2453 N67-26725
Differential effects of centrifugal acceleration applied during well-defined phases of early development of frog eggs to simulate gravitational forces
[NASA-TT-F-11317] 24 p4384 N67-39930
MORPHOLOGY
SA LUNG MORPHOLOGY
Cartographic representation of various morphologic species of loess on large scale topographic maps
[JPRS-35132] 01 p0067 N67-10395
Morphological polarization of mechanoreceptors of vestibular and acoustic systems in birds, fishes, mammals, and frogs 05 p0655 N67-15127
Polyethylene terephthalate as cryogenic liner material - mechanical relaxation, morphology, and infrared studies of solvent induced crystallization
[NASA-CR-80923] 06 p0896 N67-16667
Morphology of polyethylene terephthalate studied, emphasizing morphology of glass and effect of strain induced crystallization of polymer 06 p0898 N67-16669
Comparative morphology and physiology of excretion 07 p1064 N67-16716
Molecular aspects of lens cell differentiation 07 p1066 N67-16785
Biodynamics of morphological point of no return during differentiation in Blastocladiella emersonii fungus 07 p1067 N67-16792
Classification and condensation of information dealing with problems of Russian morphology - literature being abstracted, classification for retrieval, and conversion to machine format
[RM-5143-PR] 07 p1212 N67-17195
Morphometric parameters of Antarctic, and ice volume and bedrock mean elevation calculations 11 p1866 N67-22342
Effects of transformation products and morphology, mechanical strain, aging reactions, and heat treatment and fabrication procedures on properties of superconducting materials 13 p2390 N67-25352
Morphology of noctilucent clouds 15 p2700 N67-28034
Fabrication and mechanical properties of sintered zirconium yttrium oxide dispersions - morphology and powder metallurgy
[AECL-3633] 16 p2913 N67-30118
Electrical methods for determining growth and breakdown of oxide films on zirconium alloys
[AECL-3668] 17 p3080 N67-30945
Freeze-etch morphology of chloroplasts from glutaraldehyde-fixed leaves 18 p3207 N67-31771
Astrogeologic studies - lunar and planetary research
[NASA-CR-86649] 18 p3326 N67-31934
Stratigraphy and structure of Pitatus region of moon 18 p3326 N67-31935
Stratigraphy and structure of Mare Serenitatis region of moon 18 p3327 N67-31936
Structural characteristics of floor of crater J. Herschel and possible volcanic origin 18 p3327 N67-31946
Structure of Triesnecker-Hipparchus region of moon 18 p3327 N67-31947
Dynamical model of auroral zone morphology for describing polar and polar cap aurora phenomena 20 p3637 N67-34142
Glaciological and glacial-morphological climatic changes in Canadian Arctic archipelago 20 p3674 N67-34547
Crystal growth kinetics, morphology, and structure of bainite transformation in beta brass
[TR-6] 21 p3865 N67-35484
Morphology of strain-induced crystallization of polyethylene terephthalate
[NASA-CR-88195] 21 p3874 N67-35794
Staining and morphological, cultural, and physiological characteristics of organisms isolated from Hilgard soils - charts
[NASA-CR-88114] 21 p3769 N67-36613
MORPHOTROPISM
S CRYSTAL STRUCTURE
MORSE POTENTIAL
Construction of energy functions for Morse system of vector fields on manifold
[NASA-CR-85814] 17 p3095 N67-31434
MOS
S METAL OXIDE SEMICONDUCTOR /MOS/
MOSAIC
Mosaic electro-optical techniques 03 p0399 N67-13074
X-ray analysis of mosaic structure of aluminum single crystals under fast neutron bombardment 06 p0948 N67-16272
X-ray and electron microscopic techniques to compare surface topography, mosaic spread, average strain, and other structural details of oxide on several dilute copper base alloys 13 p2335 N67-25253
MOSS
S MANNED ORBITAL SPACE STATION /MOSS/
MOSSBAUER EFFECT
Isomer shifts of iron 57 in transition metals under pressure
[COO-1198-389] 01 p0143 N67-11181
Mossbauer effect and nuclear spectroscopy studies
[NDL-TM-33] 05 p0709 N67-15037
Mossbauer effect applied to measuring technology, and nuclear hyperfine structure phenomena 07 p1156 N67-17783
Thin layer and gas chromatography, Mossbauer and atomic absorption spectrometry, fission track analysis, X-ray fluorescence spectroscopy, and other methods employed in geochemistry 09 p1449 N67-19506
Electron spin resonance, Mossbauer, electronic, and optical rotatory spectra applications to problems in biology 09 p1397 N67-19522
Theory of Mossbauer effect applied to resonance absorption of light by impurity induced local modes 10 p1744 N67-20471
Mossbauer effect of Te 125 in simple cubic and amorphous phases determined in tellurium-base alloys
[REPT.-46] 10 p1747 N67-30746
Nuclear reactions in light nuclei and Mossbauer studies
[NYO-2028-1] 10 p1725 N67-21606
Test of time reversal invariance in electromagnetic interactions using Mossbauer effect
[NYO-1932-114] 10 p1695 N67-21662
Mossbauer effect study of crystal field potential in intermetallic compounds of thulium
[IS-T-104] 12 p2190 N67-23890
Mossbauer effect study of electronic relaxation rates in paramagnetic ferric compounds
[TR-6] 12 p2047 N67-24780
Mossbauer effect at crystal surfaces
[AD-647244] 13 p2391 N67-25625
Mossbauer effect in ruthenium 99, use of Ru 99 as sensitive probe for internal magnetic fields, and Mossbauer spectrometer design
[BNL-11026] 14 p2805 N67-27487
Mossbauer spectroscopy to determine effects of impurities and imperfections in crystals of azide and picric salts used in explosives
[AD-634656] 15 p2709 N67-27942
Mossbauer effect with americium 241 sources
[DP-MS-66-67] 15 p2661 N67-28498
Mossbauer effect in protactinium 231
[DP-MS-66-68] 15 p2661 N67-28499
Mossbauer effect studies of surface reactions and hydrogen-reduction of supported iron catalysts
[AFOSR-67-0923] 16 p2843 N67-29120
Mossbauer spectra of admixture of dysprosium 161 nuclei in gadolium
[IAE-1221] 17 p3124 N67-30240
Mossbauer effect study of hydrogen adsorption onto metal surface by cathodic charging
[NASA-CR-84864] 17 p3082 N67-31353
Mossbauer spectra for gold-iron solid solutions and electric field gradients from Mossbauer measurements
[UCRL-14929] 19 p3523 N67-33002
Mossbauer spectra and effective field parameters calculated for iron compounds
[AROD-6388-5-P] 19 p3391 N67-33236
Effects of neutron irradiation on Mossbauer effect of gold in platinum lattice 21 p3913 N67-35864
Mossbauer effect study of magnetic structure of single crystal erbium
[IS-T-117] 21 p3913 N67-35456
Nonlinear least squares computer analysis of Mossbauer transmission spectra
[AD-654929] 21 p3890 N67-35566
MOT
S MANNED ORBITAL TELESCOPE /MOT/
MOTH
Physical optics of compound eye of Tobacco Hookworm Moth 14 p2582 N67-27091
MOTION
S ANGULAR MOTION
S BROWNIAN MOTION
S DOMAIN WALL MOTION
S EARTH MOTION
S HARMONIC MOTION
S HEAD MOVEMENT
S HEAVING MOTION
S ION MOTION
S LIBRATIONAL MOTION
S ORBITAL MOTION
S PARTICLE MOTION
S PLANETARY MOTION
S SPACECRAFT MOTION
S VERTICAL MOTION
S WAVE MOTION
MOTION EQUATION
SA BALANCE EQUATION
SA FORCED VIBRATORY MOTION EQUATION
Mathematical models and equations for bodily tide and free oscillations of earth derived and analyzed for accuracy 01 p0092 N67-10070
Propagation of small amplitude ion acoustic solitary waves
[IPPJ-51] 01 p0113 N67-10139
Analog computer simulation of equations of motion for diesel free-piston engine model, and application to steam powered air compression
[AD-638544] 01 p0144 N67-10286

Mathematical model for motion of rotating or nonrotating space vehicle having passive moving parts
[ADR-06-07-64.3] 01 p0114 N67-10425
Equations for determining the response of mechanical systems to combined force and motion excitation
[ADN-06-16-66.1] 01 p0160 N67-10597
Analytical solution for motion of lunar orbital satellite
[NASA-TM-X-55295] 02 p0303 N67-11392
Motion and continuity equations for shock wave propagation in plastic medium 04 p0581 N67-13706
Basic fluid dynamics with formulation of general equations of motion 05 p0692 N67-14402
Partial differential equations and matrix method for obtaining equations of motion in orbit 05 p0727 N67-14412
Differential motion equations of probe numerically integrated in rectangular coordinate system for probe ephemeris 05 p0671 N67-14425
Formulation for solution of light time problem 05 p0671 N67-14426
Formulation of motion equation for problem of flow through tubes 05 p0643 N67-14572
Motion equations for pulsating flow evaluated for applicability to blood flow through small tubes 05 p0644 N67-14580
Equations of motion of gas flow after container fragmentation in vacuum
[FTD-TT-65-1675] 05 p0771 N67-14679
Approximation of nonlinear motion equations of autonomous system using asymptotic polynomials
[TG-230-T497] 05 p0728 N67-14737
Coupled electromagnetic waves in magnetoionic media
[SR-3] 05 p0739 N67-14758
Equations of motion and integrals of motion derived for Sundman regularization of three-body problem
[NASA-TM-X-55636] 05 p0763 N67-14919
Derivation of equations governing motion of charged particle in space and time dependent electric and magnetic fields in guiding center approximation
[R-9] 05 p0745 N67-14983
Linearization for certain earth-moon trajectories in restricted three-body problem
[TRW-9863-6005-R000] 06 p0964 N67-15779
Dynamical computation of photon correlations and counting statistics 06 p0917 N67-16019
Method using motion equation for solving problems in seismic wave radiation from sources moving over finite distance
[SUDAAR-285] 06 p0875 N67-16445
Differential equations of motion for determining dynamic characteristics of variable mass slender elastic body moving under high accelerations
[NASA-CR-713] 06 p0979 N67-16672
Polar equation of yawing motion for analysis of nonplanar and near-circular motions of missiles
[NASA-CR-73067] 07 p0988 N67-17186
Mechanical properties and motion equations of relay track drive 07 p1091 N67-17290
Theory of stability of continuous one-dimensional nonconservative elastic systems
[NASA-CR-81672] 07 p1204 N67-17991
N-body problem and motion of masses under gravitational force 08 p1360 N67-18316
Relationship between Krylov-Bogoliubov averaging method and approximate first integral of motion 08 p1298 N67-18307
First correction to second adiabatic invariant of charged particle motion in magnetic field
[NASA-TM-X-57234] 08 p1347 N67-18444
Development of earth gravitational potential from sixth through twenty-fifth zonal harmonic
[NASA-TM-X-55695] 08 p1277 N67-18754
Refined method of solving equations of slightly rarefied viscous gas motion 08 p1267 N67-18906
Motion equations for optimal control technique of highly elastic launch vehicle
[NASA-CR-82451] 08 p1373 N67-19128
Coordinate systems, motion equations, aerodynamic forces, and basic developments for unguided rocket trajectory simulation model
[ECOM-5076] 09 p1441 N67-19731
Characteristics method applied to equations governing shear wave propagation in elastic media
[REPT.-125-10] 09 p1519 N67-19735
Ferromagnetic resonance in two band ferromagnetic model - equations of motion
[REPT.-66-36] 09 p1501 N67-19752
Model for describing sloshing motion derived and compared with liquid theory
[NASA-CR-82843] 09 p1435 N67-19927
Motion equations for two-dimensional laminar jet of incompressible fluid in parallel streaming flow
[D1-82-0549] 09 p1436 N67-20020
Motion analysis for rigid-plastic cylindrical shell clamped at both ends and subjected to internal impact load 09 p1522 N67-20034
Motion analysis of momentless spherical shell made of rigid plastic material 09 p1522 N67-20035
Equations of motion for flutter and stability of coaxial elastic circular cylindrical shells between which flows compressible fluid 09 p1530 N67-20068
Nonlinear differential equation describing extensional motion of freely spinning and gravitationally stabilized spring-mass system in orbit plane
[TR-1001/2307/-4] 09 p1513 N67-20194
Motion equations for collisionless electron and ion plasma 09 p1496 N67-20228
Equations for calculating control gains with filters for rigid body motion of space vehicle 09 p1429 N67-20269
Conductor motion in magnetic field studied on basis of fundamental electromagnetic theorems 09 p1486 N67-20270
Theory and equations for natural oscillations and stability of continuous triple-layer plates with light filler
[FTD-HT-66-285] 10 p1764 N67-20619
Asymptotic method for nonlinear motion equations of aircraft
[NAL-TR-111T] 10 p1552 N67-21414
Complete equation system formulated for laminar boundary layer stability with mass transfer and foreign gas injection
[NOLTR-66-167] 10 p1615 N67-21440
Differential equations of horizontal motion of atmosphere with variable Coriolis parameter integrated numerically for both frictionless flow and flow with surface frictional resistance
[HIG-66-12] 10 p1673 N67-21869
Effects of electron thermal motion on propagation of longitudinal plasma oscillations 11 p1949 N67-21895
Motion analysis of charged particles in axially symmetric magnetic fields of cusped geometry 11 p1955 N67-21939
Numerical treatment of nonideal magnetogasdynamics basic equations
[SR-33] 11 p1958 N67-22449
Motion equations for flat plate magnetohydrodynamic boundary layer in transverse magnetic field
[UTIAS-68] 11 p1982 N67-22659
Application of digital computers for deriving motion equations of point mass in curvilinear coordinate systems by use of tensor calculus
[NASA-TN-D-3939] 11 p1832 N67-22303
Theory of gradient perturbations in alternating synchrotron
[BNL-10899] 12 p2164 N67-23770
Hill power series, Liapunov method, and equations of motion for celestial mechanics applications
[FTD-HT-66-341] 12 p2212 N67-24736
Basic equations developed for small motions superposed on large static deformations in porous media
[AM-66-18] 12 p2230 N67-24792
Viscous flow near angular points on solid body, and calculation of boundary layer and gas motion equation 12 p2305 N67-25394
Controllable deformations of incompressible simple materials
[AM-66-17] 13 p2415 N67-25445
Generalized analytic expressions for describing motion of free laminar jet
[USAAVLABS-TR-66-69] 13 p2307 N67-25639
Motion equation describing magnetic moment in single-domain ferromagnetic film in computer element 13 p2286 N67-25764
Stress equations for motion and kinetic energy analysis of third order fluids
[NASA-CR-83836] 13 p2397 N67-25822
Equations describing rotation of orbital plane
[NASA-CR-83933] 13 p2402 N67-25825
Characterization of turbulence and flow of liquid films on inclined walls using motion equation
[REPT.-36] 13 p2425 N67-26110
Quasi-energy integrals of motion equations for variable mass mechanical points and systems when Lagrange condition is time dependent 13 p2369 N67-26184
Lie series solution of gravity gradient stabilized motion of satellite in elliptic orbits
[NASA-CR-84079] 13 p2404 N67-26306
Equations of motion used to construct magnetohydrodynamic model of cyclone in electric conducting atmosphere
[NASA-CR-84109] 13 p2387 N67-26406
Fortran IV program for deriving motion equations of coordinate systems
[AFFDL-TR-65-194] 14 p2581 N67-26963
Helicopter stability and control - longitudinal motion
[DLR-FB-66-75] 15 p2641 N67-26674
Solution to motion equations for magnetogasdynamic flow between diverging plane walls
[AEDC-TR-67-86] 15 p2776 N67-26691
Solution to motion equations for nonlinear vibrations of one-dimensional elastic body under free flight conditions 15 p2682 N67-26819
Two solutions to problem of motion of body with stationary point
[TRANS-512] 15 p2755 N67-26868
Lubrication and elasticity equations established for elastohydrodynamic problem of normal approach of two spherical bodies
[MTI-67TR21] 15 p2676 N67-26957
Methods of regularization for computing orbits in celestial mechanics
[NASA-CR-769] 16 p2968 N67-27267
Computerized expansions in elliptic motion
[D1-82-0601] 16 p2969 N67-27610
Trajectory equations describing spacecraft motion from launch to earth impact or orbit injection
[NASA-CR-821] 16 p2976 N67-30121
Reorientation of human body in free fall by moving parts of body relative to each other - motion equations
[NASA-CR-86871] 18 p3216 N67-31527
Stress waves in viscoplastic medium 18 p3248 N67-31652
Regions of motion impossibility defined for three bodies for certain conditions
[NASA-CR-86863] 18 p3306 N67-31749
Steady state and finite difference solutions to climatic variables and atmospheric motions
[REPT.-7945-349] 18 p3290 N67-31829
Climatic equations in coordinate system for axially asymmetric and symmetric atmospheric motions 18 p3290 N67-31830
Equations of motion of body under influence of earth gravity and atmospheric drag using radar polar coordinates
[ESD-TR-67-376] 19 p3298 N67-32753
Approximate methods for solving differential equations of motion to predict free turbulent mixing processes - single-form eddy viscosity model 19 p3553 N67-32385
Permeance, differential motion equations, and static and frequency characteristics of electromechanical torque motor converter with magnetic spring 19 p3371 N67-32547
Solar differential rotation and large-scale meridional currents investigated with axially symmetric time-independent hydrodynamic equations of motion
[TR-1001/2269-01/-2] 19 p3327 N67-32665
Elastic body equations in analysis and design of space vehicle flight control systems
[NASA-CR-834] 20 p3732 N67-34343
Integral and differential equations of motion for determining role of flutter derivatives in aircraft stability and control 20 p3567 N67-35153
Classical unstable elementary particles and long-range scalar field defined by motion equation 21 p3898 N67-35319
Solutions of equations of motion for elastic waves assumed to be excited in 6-constant centro-symmetric cubic crystal
[AD-655149] 21 p3915 N67-35625
Theory of motion of vortex ring subject to gravity 21 p3922 N67-36439
Characteristics, design criteria and motion equation of reaction wheel and gyroscope 21 p3954 N67-36676
Averaged equations for slow oscillatory motion of spin-stabilized shell

[NOTS-TP-4355] 22 p4097 N67-36795
Nonlinear steady state solutions to moving load problems
[AFOSR-67-1439] 22 p4153 N67-36933
Control techniques for large highly-coupled elastic boost vehicles with elastic and fuel slosh mode frequencies close to desired control frequencies - motion equations
[NASA-CR-88780] 22 p4157 N67-37786
Numerical method for determining transient blade motions of rotor with flapping and lead-lag degrees of freedom
[NASA-TN-D-4195] 22 p3958 N67-38016
Method for deriving displacement equations of motion for laminated material
[TR-67-4] 23 p4353 N67-38079
Motion equations, geometry, natural frequency, and sloshing considered in active tank system design for roll control of ships
[TR-490-3] 23 p4355 N67-38149
Computation procedure for motion of lunar landing vehicle during landing impact
[NASA-TN-D-4216] 23 p4350 N67-38468
Nonlinear differential equations for position and attitude of spacecraft with time dependent mass and mass properties
[TG-919] 23 p4344 N67-38678
Heisenberg statistical theory of turbulence and motion equations for turbulent flow
[NASA-CR-89138] 23 p4339 N67-38946
Approximate solution of motion equations for arbitrary rotating spacecraft
[NASA-TR-R-269] 23 p4352 N67-39063
Motion equations and analysis of interaction of boundary layer and corner-expansion wave in supersonic flow
[UTIAS-TN-117] 24 p4430 N67-39543
Equations of motion used in numerical analysis of weak pressure wave propagation at very low pressure
[P-328] 24 p4433 N67-40173
Equation of motion coefficients measured for pitching and heaving destroyer model
[TDCK-43940] 24 p4546 N67-40268
Mathematical theory and practical considerations for selecting solid rocket motors as track test propulsion
[MDC-TR-67-76] 24 p4524 N67-40342

MOTION PERCEPTION
Vestibular motion sensor role in human dynamic space orientation and manual vehicle control
[NASA-CR-628] 01 p0016 N67-10751
Effects of motion cues on manual tracking ability of pilots 06 p0811 N67-15867
Solutions to motion sensing problems associated with Project Wisp
[EGG-1183-2078] 07 p1861 N67-17390

MOTION PICTURE
SA CINEMATOGRAPHY
Narrow band interference polarization filters for motion picture recording of motion and emission of solar prominences
[T-25] 01 p0147 N67-10356
Description of movie representing IMP-1 magnetometer observations of interplanetary magnetic field
[NASA-CR-90128] 02 p0307 N67-12172
Soviet motion picture on outer space
[FTD-TT-66-27] 06 p0968 N67-16344
High speed motion picture study of condensing mercury vapor in glass tubes in ground and zero gravity test facilities
[NASA-TN-D-4023] 15 p2806 N67-28739
High speed moving pictures used to record motion kinematics of billet during high speed deformation process 20 p3742 N67-35161

MOTION SICKNESS
Interaction of vestibular apparatus and vegetative components of motion sickness in dogs 02 p0182 N67-11435
Rotary test to determine latent forms of motion sickness in astronauts under conditions of weightlessness - vestibular effect 02 p0195 N67-11548
Otolithic theory of motion sickness 02 p0195 N67-11549
Modelling studies of high altitude motion sickness 02 p0204 N67-11622
Chemical preparations for preventing motion sickness, and their effects on reflexes 02 p0207 N67-11651
Speed of recovery from Coriolis stimulation in sickness with relation to pilots and nonpilots
[SAM-TR-66-83] 02 p0213 N67-11894
Excitation and inhibition signal configurations in receptive field of vestibular analyzer causing motion sickness syndrome 04 p0486 N67-13438
Physiochemical and biological properties of saliva during rolling, turning, and hypoxia
[FTD-TT-65-1645] 05 p0653 N67-15042
Review of vestibular function, spatial disorientation, and motion sickness
[AD-637943] 10 p1560 N67-20542
Changes in electrogastrogram and breathing amplitude used as indicators of nausea in human males subjected to coriolis stimulation
[TR-18] 20 p3570 N67-34092
Human tolerance to acceleration
[NADC-MR-6711] 22 p3908 N67-36818
Canvas of flight training students to determine relationship between motion sickness and anxiety
[NAMI-988] 22 p3969 N67-37005
Theoretical and clinical studies on human and animal vestibular apparatus - radiation and space flight effects, functions of otolithic formations, and astronaut selection
[JPRS-42843] 24 p4387 N67-40569
Survey on theoretical and clinical studies of vestibular reactions to various stimulations 24 p4388 N67-40570

MOTION SICKNESS DRUG
Effect of metamizil, pentaphene, and aminazine on certain vestibular disorders - cholinolytics and adrenalytes as motion sickness drugs 02 p0185 N67-11456
Effectiveness of motion sickness drug from slow rotation room studies
[NASA-CR-81787] 07 p1017 N67-18130
Drugs altering susceptibility to motion sickness in aerobatics and slow rotation room
[NASA-CR-84019] 13 p2260 N67-26270
Cerebellum site and mode of antivertigo action of thiethylperazine
[NASA-CR-85902] 17 p3008 N67-31492

MOTION STABILITY
Limitations on reduced frequency and amplitude of motions produced in magnetic suspension system when used for dynamic stability testing 04 p0526 N67-13590
Necessary condition for orbital motion stability
[TG-236-T486] 05 p0764 N67-15083
Attitude stability of spinning passive orbiting satellite
[NASA-CR-685] 06 p0973 N67-16665
Method for computing centers and limit cycles in reactor kinetics 07 p1122 N67-17047
Asymptotic method applied to stability of forced vibrations described by second order nonlinear differential equation 07 p1206 N67-18185
Prediction theory for motion behavior of helicopter blades at low rotor speeds in strong steady high winds
[ARC-CP-853] 08 p1220 N67-18380
Stability of periodic and equilibrium solutions of restricted three-body problems - measure preserving mappings, normal form of Hamiltonian, and Poincare recurrence theorem
[NASA-CR-83480] 08 p1301 N67-19029
Nonlinear effects of liquid motion in fixed and moving containers on stability and control of liquid rocket powered missiles and spacecraft
[NASA-CR-83667] 08 p1378 N67-19104
Doubly symmetric orbits about collinear Lagrangian points
[DI-82-0573] 11 p1978 N67-23157
Optimum stabilization of rotational motion of solid with fixed point using gyroscopes 13 p2369 N67-26186
Instability of periodic motions near collinear points of libration in plane restricted three-body problem examined with Liapunov theory
[NASA-TM-X-59661] 13 p2403 N67-26282
Spurious balloon behavior and measurement of wind profiles
[NASA-TN-D-3994] 14 p2444 N67-27289
Linear differential equations with variable coefficients for discrete motion analysis on rate gyro
[DLR-FB-67-30] 17 p3061 N67-30762
Temperature effect on stability of rotational motion of liquid 18 p3366 N67-32287
Influence of air cushion on pitch, heave, and roll stability of ground effect machines
[DTMB-2121F] 19 p3367 N67-33248
Ship-motion data indicating that autocorrelation of roll and pitch can be represented by exponential cosine 19 p3411 N67-33380
Thermoconductivity of propellant tank insulants, satellite communication ground station, and twenty-four hour satellite motion stability 20 p3734 N67-35021
Motion stability of twenty-four hour satellite in geomagnetic field 20 p3734 N67-35024

MOTIVATION
Influence of selective reinforcement of pursuit rotor performance on skill and retention
[HUMRRO-TR-66-11] 01 p0022 N67-10410
Exploratory study of factors affecting aircrew morale
[SAM-TR-66-62] 01 p0025 N67-11042
Family background, education, and motivation of technical entrepreneurs
[NASA-CR-77278] 02 p0328 N67-11965
Effects of one-month confinement on verbal learning, group cohesiveness, motivation, and time estimation 07 p1012 N67-17612
Fear of failure, cognitive controls, and human motivation and performance
[TR-17] 09 p1404 N67-19855
Effects of goals and intentions on human performance level, task choice, and attitudes
[AIR-E-51-1/67-FR] 12 p2023 N67-24714
Motivation effects on human learning and performance
[AMRL-TR-66-138] 13 p2365 N67-26227
Behavioral response measures for determining effects of fear of failure on risk taking and performance
[AD-650302] 16 p2825 N67-29127
Uncertainty as motivating variable in increasing strength of information acquisition
[AD-652413] 19 p3376 N67-33499
Human performance related to motivations of achievement, power, and company affiliations for determining leadership qualities
[NASA-CR-87442] 20 p3749 N67-34202
Auditory vigilance performance and effects of assigning differential pretask instructions
[AD-656942] 23 p4197 N67-38244

MOTOR
S ELECTRIC MOTOR
S PSYCHOMOTOR
S ROCKET STEERING MOTOR
S SERVOMOTOR
S SYNCHRONOUS MOTOR
S TORQUE MOTOR

MOTOR CASE
SA ROCKET MOTOR CASE
Technology of glass filament winding for rocket motor casing structures
[RAE-LIB-TRANS-1178] 03 p0404 N67-12896
Scanning of rocket motors for bond between propellant liner and case
[NOLTR-67-36] 15 p2714 N67-28830
Motor chamber and nozzle shell designs, material and process evaluation studies, and fabrication methods for pressure vessel components of two 260-SL motors
[NASA-CR-72126, VOL. V.] 16 p2964 N67-30032
Procurement, process, and nondestructive test specifications for development of 260-SL motor chamber and nozzle shell fabrication of high nickel maraging steel
[NASA-CR-72126, V. V, APPEND. A] 16 p2964 N67-30033
Material and process evaluation program for 260-SL motor chamber and nozzle shell fabrication of 18 percent nickel maraging steel - appendix
[NASA-CR-72126, V. V, APPEND. B] 16 p2964 N67-30034
Normal motor and nozzle performance reported for static test firing of 44-SS-4 motor
[NASA-CR-72287] 22 p4134 N67-37694

MOTOR SYSTEM
Dynamic properties of hysteresis motors with phase control for application to automatic control systems 03 p0373 N67-12772
Solenoid stepper motor for positioning Surveyor antenna/solar cell panel 21 p3763 N67-36206

MOTOR SYSTEM /BIOL/
Motor activity criteria for evaluating flight fitness of pilots 02 p0217 N67-11471
Adrenaline increase and motor activity suppression in ileum found by rotation of animals with intact nervous systems and labyrinths 02 p0191 N67-11585
Vestibular functioning and motor activity under space flight

conditions 02 p0192 N67-11512
Decrease in speed of conditioned reflexes and motor reaction accompanied by increase in oxygen consumption by mice exposed to helium enriched oxygen environment for prolonged period of time 02 p0192 N67-11517
Prevention of unfavorable effects from limited motor activity on functioning of cardiovascular system 02 p0193 N67-11526
Effect of hypokinesis on accuracy of motor functioning of athletes 02 p0220 N67-11555
Negative influence of radiation-protective preparations on motor-evacuatory functioning of gastrointestinal tract of nonirradiated rats 02 p0196 N67-11559
Multiple vibration and fractionated irradiation effect on latent period of unconditioned defensive motor reaction 02 p0198 N67-11571
Influence of restricted mobility on motor system and compensation by physical exercise 02 p0198 N67-11574
Partial restriction of motor activity and ability of monkeys to solve problems 02 p0205 N67-11628
Physiological stimuli effects on latent period of conditioned motor responses in humans 02 p0206 N67-11635
Mutual compensation of certain qualities of motor activity in performing complex coordinated movement 02 p0231 N67-11649
Multichannel reaction method for control of motor reactions in men and animals 04 p0489 N67-13455
Average potentials synchronized with cardiac cycle, motor activity, and auditory and visual stimulation detected and isolated in electroencephalographic activity [AFOSR-66-1941] 05 p0659 N67-15264
Changes in frequency distribution of muscle action following acquisition of simple motor skill 07 p1012 N67-17610
Postural behavior in Rhesus monkey analyzed during electrically elicited movement [TR-66-1] 11 p1791 N67-22555
Basic mechanisms of intensity perception in visual system and sensory motor integration [AFOSR-67-0403] 12 p2029 N67-24895
Sensory motor responses of human operators 14 p2469 N67-26695
Prevention of adverse effect of hypokinesia on human cardiovascular system in space flight by physical exercise, rhythmic compression of limbs, drugs, and moderate hypoxia 16 p2627 N67-29230
Effects of laser radiation to eyes and heads of mice, rats, and guinea pigs related to mortality, blindness, and neuromotor activity 16 p2832 N67-29346
Bioelectric and electronic systems for controlling motor system in humans [JPRS-41403] 19 p3377 N67-33634
Devices and systems for controlling motor reaction in living organisms 19 p3377 N67-33635
Multichannel electronic control device for stimulating human motor system 19 p3377 N67-33636
Artificially disturbed sensory coordination in humans - motor reactions to visual and kinesthetic signals [AFOSR-67-1548] 21 p3770 N67-35434
Motor performance test for myoelectric response associated with practice and fatigue effect [AD-655140] 21 p3766 N67-36006
Movement coordination in man after prolonged confinement in small chamber 23 p4192 N67-39019
Effect of exteroreception on motor reaction of pigeons exposed to brief weightlessness 23 p4194 N67-39104
Test console for integrated human perceptual-motor performance battery measurement system [NASA-CR-89613] 24 p4391 N67-40317

MOTS
S MINITRACK OPTICAL TRACKING SYSTEM /MOTS/

MOUNT
S RIGID MOUNTING

MOUNTAIN
Proposal for establishment of systematic meteorological studies in Soviet mountainous regions 04 p0572 N67-14231
Land types and natural regions in mountain areas of Peiping 05 p0701 N67-14659
Classification and geographical characteristics of vertical natural zones in mountain areas of Honan province 05 p0702 N67-14660
Corrections for gravity during leveling in high mountain region [ACIC-TC-1133] 06 p0875 N67-16473
Microbarometric leveling used during large scale gravimetric survey in mountain taiga terrain [ACIC-TC-1122] 09 p1473 N67-19719
Program and techniques of atmospheric turbulence research on mountainous helicopter routes [T-R-630] 09 p1473 N67-19725
Transmission loss and space diversity measurements over mountain diffraction path [IER-12-ITSA-12] 11 p1825 N67-23159
Photographic measurements and Baldwin formula calculations of relative depths of lunar annular mountains and craters in Mare Nubium [NASA-CR-84091] 13 p2405 N67-26415
Medium range weather forecasting for mountainous regions based on expansion of natural orthogonal functions 17 p3097 N67-30411
Density cross sections of earth crust in mountainous terrain determined by gravimetric and seismic data, direct measurements, and geophysical observations [ACIC-TC-1147] 19 p3447 N67-33742
Corrections for errors in height interpolation during gravimetric survey of level terrain and mountainous area 19 p3448 N67-33743
Local gravity anomalies in northern Cis-Caucasus mountains explained by tectonic concept 19 p3448 N67-33745
Influence of deep crustal structure on gravity field in Cis-Caucasus region 19 p3448 N67-33746
Geological origin of Crimea and Black Sea [ACIC-TC-1215] 23 p4034 N67-38881
Problem of interpolating derivatives of gravity potential in mountainous region [ACIC-TC-1203] 23 p4038 N67-37419
Mountain clear air turbulence measurements by T-33 aircraft, screening principles and methods, and vortex wake measurements behind Douglas DC-8 aircraft [DME/NAE-1967(2)] 24 p4373 N67-40235

MOUNTAIN INHABITANT
S ALTITUDE ACCLIMATIZATION

MOUSE
Endurance of extremal acceleration increased as result of exposure to ionizing radiation [NASA-TT-F-10349] 01 p0013 N67-10224
Spleen oxygen tension and radiation protection in mice [AD-636373] 01 p0015 N67-10417
Redistribution of erythrocytes in blood of mouse upon lowering of atmospheric pressure 02 p0179 N67-11407
Active and passive altitude acclimatization for increasing animal resistance to transverse directed loads 02 p0186 N67-11463
Blood changes in mice exposed to nitrogen-oxygen and helium-oxygen atmospheres 02 p0190 N67-11493
Prolonged effects of hyperoxic environments on level of acetylcholinesterase in brain of mouse 02 p0192 N67-11513
Decrease in speed of conditioned reflexes and motor reaction accompanied by increase in oxygen consumption by mice exposed to helium enriched oxygen environment for prolonged period of time 02 p0192 N67-11517
Biological effect of 13-time repeated gamma radiation treatment of white mice 02 p0193 N67-11523
Helium effect on conditioned reflex activity and gaseous metabolism of mice 02 p0208 N67-11636
Damage and defense of bone marrow in mice from proton and X-ray irradiation 02 p0209 N67-11671
Increased oxygen pressure effect on erythropoiesis in white mice and rats 02 p0209 N67-11672
Low and high temperature resistance in mice with aminazine doses 02 p0210 N67-11674
High and low barometric pressure effects on susceptibility and resistance to infection [NASA-CR-80119] 02 p0215 N67-12350
Neutral and acidic polysaccharide effects on natural resistance of mice to bacteria [NASA-CR-80377] 03 p0347 N67-12610
Radiorecovery effect of deoxyribonucleic acid on cultured mouse fibroblast cell [EUR-2765.F] 03 p0349 N67-12153
Effect of actinomycin on stabilization of conditioned reflexes and on transition from short-term to long-term memory in white mice [JPRS-39060] 04 p0494 N67-14156
Biological effectiveness of negative pion beam on mice with abdominal lymphoma 06 p0801 N67-15943
Growth and development of erythroid spleen colonies in irradiated polycythemic mice hosts 06 p0801 N67-15945
Temperature regulation in pocket mouse for space biology research [NASA-CR-81351] 06 p0807 N67-16008
Proliferation and differentiation of stem cells of mouse blood forming system 07 p1008 N67-16786
Characteristics of metabolism and conditioned reflex activity of mice during prolonged stay in helium-oxygen atmosphere [NASA-TT-F-10817] 07 p1011 N67-17516
Decreased cellular recovery rate after irradiation of mice in hypoxic environment [USNRDL-TR-1066] 08 p1231 N67-18251
Experimental fast neutron dosimetry and LD 50/30 studies in mice [AD-639758] 09 p1396 N67-18556
Acute hydrazine toxicity in mice [SAM-TR-66-89] 09 p1498 N67-20066
Continuous low-level gamma irradiation effects on circulating and peritoneal mononuclear leukocytes of mice [USNRDL-TR-1085] 10 p1561 N67-20388
Hydrazine effects on vitamin B6 levels in mouse brain [AF-IF] 13 p2259 N67-26321
High and low barometric pressure effects on susceptibility and resistance of mice to infection [NASA-CR-84073] 13 p2261 N67-26372
Shielding properties of pharmaceutical chemical agents to proton radiation determined in rats and mice [NASA-CR-84099] 13 p2361 N67-26407
Erythropoietin effect on growth and development of spleen colony forming cells 14 p2456 N67-26765
Effect of acclimatization to hypoxia on mice resistance to acute hypoxia and radial acceleration and on heart morphology 16 p2826 N67-29212
Excitation and inhibition effects of 510 MeV protons, fast neutrons, and gamma irradiation on higher nervous activity of mice 16 p2829 N67-29252
Fast neutron and gamma radiation effects on higher nervous activity of mice 16 p2829 N67-29253
Derivatives of trichloroethylphosphinic acids and effects on white mice and rabbits 16 p2847 N67-29504
Dietary and environment chamber tests conducted to determine nutritional requirements and breeding behavior of three Perognathus subspecies [NASA-CR-85777] 18 p3202 N67-31725
Vascular responses and wound repair in mice exposed to moderate and severe hypoxia [NASA-CR-88517] 22 p3971 N67-37509
Hypoxia induced hypothermia and hemoglobin oxygen affinity in Perognatus [NASA-CR-85267] 23 p4187 N67-39490
Vibration effects on endocrine glands of white mouse [NASA-TT-F-11238] 24 p4387 N67-40465

MOVING TARGET INDICATOR /MTI/ RADAR
Survey of principal developments in moving target indication theory and technique 04 p0512 N67-13900
X-band radar for detection, measurement, and identification of moving targets 04 p0513 N67-13901
Range gating in transportable moving target indication radar set for elimination of delay line loss effect [ECOM-2750] 06 p0844 N67-16429
Method of selecting moving radar targets with recording of reflected signals [FTD-HT-66-79] 08 p1416 N67-19899
Doppler radar system for detecting moving targets in clutter noise [HDL-TR-1349] 19 p3299 N67-32961
Cathode ray tube using cathodoluminescent phosphor with excitation time dependent color for moving target

indicator radar
[REPT.-10] 20 p3811 N67-34252
MSFN
S MANNED SPACE FLIGHT NETWORK /MSFN/
MSRE
S MOLTEN-SALT REACTOR /MSRE/
MTI
S MOVING TARGET INDICATOR /MTI/ RADAR
MULTICHANNEL RECEIVER
Selection of high accuracy radio guidance and tracking systems among interferometer, range and range rate and multichannel transponder systems
[ELDO-TM-F-36] 04 p0516 N67-14291
Multichannel, instrumentation type, tape recorder used together with multichannel light beam oscillograph as data acquisition and reproduction system for Alice machine
[UCRL-70018] 07 p1062 N67-17682
Computer program for handling two-dimensional data of multichannel analyzer
[BNL-10994] 13 p2290 N67-25931
MULTICHANNEL TRANSMITTER
High frequency channel data applied to development of block error corrections for high speed digital communications systems
[MTP-32] 06 p0831 N67-15352
Techniques for fabrication of multiple-channel physiologically implantable telemetry systems
[NASA-CR-83914] 13 p2264 N67-26074
Dynamic characteristics of FM multichannel telemetering system
[NAL-TR-124] 16 p2863 N67-29976
MULTIENGINE AIRCRAFT
NASA research on noise-abatement steepened approaches for multiengine jet transports
[NASA-TN-D-4044] 18 p2818 N67-29358
MULTILAYER STRUCTURE
SA HONEYCOMB
SA LAMINATE
SA SANDWICH CONSTRUCTION
Neutron density distribution measurement by spiral wire detector in reactor elementary cell
[INR-898/IX-A/RP] 04 p0578 N67-14055
Seismic scale model study of refraction arrivals in three-layer structure
[AFCRL-66-571] 06 p0673 N67-16139
Structural model to evaluate evacuated multiwall structure for hypersonic aircraft
[NASA-CR-66211] 08 p1580 N67-19277
Flat conductor harness for lightweight multilayer printed circuit board
[NASA-TM-X-53564] 11 p1840 N67-23333
Axial transverse laminography and mutual coupling nondestructive techniques for inspection of multilayer printed circuit boards 12 p2063 N67-23668
Production engineering measure for multilayer printed wiring board
[REPT.-5] 17 p3034 N67-30906
Multilayer epitaxy for high reliability junction transistors
[NASA-CR-84638] 18 p3248 N67-31845
Thermophysical properties of some multilayer insulations in cryogenic temperatures
[JINR-P6-3237] 19 p3555 N67-33878
High performance design criteria for multilayer insulation systems for cryogenic propellant tankage - handbook
[NASA-CR-87485] 20 p3740 N67-34910
Stress analysis for development of multilayer large steel vessels
[EUR-3400.D] 20 p3741 N67-35003
Multilayer insulation systems evaluation for 300 to 700 degrees K temperatures
[NASA-CR-907] 24 p4542 N67-39588
MULTIMODE RESONATOR
Raman generator for amplification of coherent radiation, and spectral characteristics of gas laser with one direction traveling wave propagation
[FTD-MT-65-399] 02 p0207 N67-11313
Multimodality of gas laser in resonator with one direction traveling wave propagation 02 p0207 N67-11315
MULTIPACTOR
Secondary electron emission from copper surfaces in multipactor effects study 06 p0833 N67-15745
Multipacting in frequency range of 10-150 MHz between coaxial electrodes in high vacuum environment 06 p0851 N67-15753
MULTIPATH PROPAGATION
Effect of multiple paths on acoustical signals as related to speech recognition and improvement of signal-to-noise ratios - delay lines
[AD-637676] 01 p0087 N67-10317
Mathematical treatment of optimum binary signal sets for certain scatter multipath channel models
[NASA-CR-69640] 07 p1114 N67-17874
Method of measuring multipath components of electromagnetic field
[IER-6-ITSA-6] 12 p2052 N67-24059
Frequency differential phase-shift keyed digital data modem for operation over long range HF paths
[ESD-TR-66-639] 18 p2880 N67-29497
Phase characteristics of incoherent multipath reflection between airborne and ground based radio transmission systems
[TM-67-9] 18 p2881 N67-29567
Electrical generation and sensing of rotational stress waves in metal wire delay lines - Stress magnetic field relations for isotropic ferromagnetic material - Multipath acoustics
[AD-655637] 22 p4100 N67-37490
Multipath environment using planetary surface model and fast fading effects on relay link of communications between spacecraft and probe entering planetary atmosphere
[NASA-CR-73145] 24 p4403 N67-39524
MULTIPHASE FLOW
Universal power supply system consisting of 2.5 kW regulated dc supply, 2 kW inverter, and remote control assembly
[ECOM-67376-F] 17 p2995 N67-30437
MULTIPLE-DEGREE-OF-FREEDOM SYSTEM
Evaluation of transient loads for environmental testing of spacecraft using multiple degree of freedom model 13 p2413 N67-25172
MULTIPLEX TRANSMISSION
Codes for multiple-access communication satellite systems using time-frequency multiplexing
[NASA-CR-79745] 01 p0039 N67-10684
Multiplex transmission system operating on basis of time division
[CERN-66-26] 02 p0234 N67-11743
Analytic functions theory used to study conventional multiplexing systems involving double and triple modulation techniques
[NASA-CR-79929] 03 p0334 N67-11859
Time modulation multiplex digital communication systems for determining tropospheric scattering 07 p1035 N67-16963
Multiplex measuring system allowing transmission of different slowly varying values over coaxial cable
[EUR-3256.D] 11 p1835 N67-22921
Generalized multiplex transmission theory, and optimum multiplexing system for communication during manned interplanetary flight
[NASA-CR-87002] 18 p3235 N67-32579
Multiplex telemetry for data transmission from high velocity projectiles
[ISL-T-41/65] 20 p3805 N67-35061
MULTIPLEXER
SA FREQUENCY-DIVISION MULTIPLEXING
SA ORTHOGONAL MULTIPLEXING THEORY
SA TIME DIVISION MULTIPLEX
System reorganization of spacecraft data encoder to localize multiplexer degradation 02 p0236 N67-12132
Applications of fluidic multiplexer in nuclear plants 10 p1619 N67-21115
Renewal processes in study of multiplex systems and reliability
[ARC-R+M-3444] 16 p2923 N67-30048
Multiple access communication utilizing small ground stations for satellite communication modulation - multiplexing techniques
[NASA-CR-87479] 20 p3805 N67-35234
MULTIPLIER
SA ELECTRON MULTIPLIER
SA FREQUENCY MULTIPLIER
SA LAGRANGE MULTIPLIER
SA PHOTOMULTIPLIER
Solid state microwave electronics developments on range techniques, high power varactor multipliers, and computer design of varactor circuits 14 p2509 N67-27088
Production engineering and life expectancy tests conducted with 45 kV multiplier
[AD-649011] 16 p2888 N67-29494
Communications and networks - pulse amplitude modulation, multipliers, photoformer, and sequential circuits 18 p3230 N67-32219
Cathode ray tube as fast multiplier with high input resistance
[KFK-552] 21 p3819 N67-36092
MULTIPLIER PHOTOTUBE
S PHOTOMULTIPLIER
MULTIPOLAR FIELD
Internal Compton effect, and use of superconducting magnet spectrometer to determine multipolarity assignments
[NASA-CR-633] 01 p0119 N67-10239
Methods for determining quality of multipole magnets
[SLAC-PUB-313] 21 p3898 N67-36010
MULTIPROGRAMMING
Multiprocessor organization, integrated circuit techniques, self-repairing systems for spaceborne computer designs - conference
[NASA-TM-X-53362] 07 p1044 N67-17101
Multiprocessor program control for manned Mars spacecraft 07 p1045 N67-17105
Automation techniques for self-repairing digital computers in spaceborne multiprocessor systems 07 p1045 N67-17106
Supervisor program for multiprogramming of several jobs
[ESD-TR-67-14] 16 p2864 N67-29401
Computer design for asynchronously reproducible multiprocessing
[MAC-TR-34/THESIS/] 16 p2865 N67-29508
Operating systems in multiprocessing, multiprogramming, and time sharing digital computers
[NRL-6531] 17 p3030 N67-30470
Throughput and cost effectiveness of monoprogrammed, multiprogrammed, and multiprocessing digital computers
[NRL-6549] 21 p3805 N67-36019
MULTISTAGE COMPRESSOR
Computer program for design of multistage axial flow compressors
[NASA-CR-54530] 17 p3074 N67-31417
MULTISTAGE ROCKET
Real-time meteorological system to predict impact of Agena rocket and other unguided, high altitude multistage rocket
[AD-634672] 15 p2739 N67-27953
Divergence speed of multistage rocket for static stability criteria
[ISAS-411, VOL. 32, NO. 4] 16 p2983 N67-30091
MULTISTAGE ROCKET ENGINE
Definition and development cost for three-stage configurations for ELDO C launch vehicle using LOX-hydrogen rocket engine - Blue Streak Launch Vehicle 04 p0616 N67-14293
MULTISTAGE ROCKET VEHICLE
ELDO B multistage launch vehicles - design flight criteria, performance characteristics, guidance and control and tracking system of B1 and B2
[ASAT I, VOL. 1] 04 p0617 N67-14297
Finite difference method for analysing aeroelastic divergence characteristics of unguided, slender body, multistage launch vehicles
[NASA-TN-D-3893] 11 p1994 N67-23289
Longitudinal vibration characteristics of scaled dynamic model of liquid propellant multistage launch vehicle
[NASA-TN-D-3975] 14 p2627 N67-27415
MULTIVIBRATOR
Relaxation and continuous vibration modes in semiconductor polyphase multivibrator 15 p2683 N67-28104
Multivibrator used with small camera to obtain maximum reference marks when photographing interrupted satellite path 16 p2896 N67-29480
MUON
Spectrometric measurements of energies in muonic atoms of elements
[JINR-P-2735] 01 p0122 N67-10617
Muon capture probability in mixed single atom and multiatom gases in relation to argon measured using mu-X radiation recordings
[JINR-P-2788] 01 p0129 N67-10628
Muon capture effect in lithium
[NP-16190] 01 p0130 N67-10901
High energy electron shielding, and fast neutron and muon measurement
[DESY-66/18] 04 p0577 N67-14029
Changes occurring during strong interactions, and effect associated with capture of negative muons 07 p1146 N67-17214
Computer program for muon capture

process 07 p1147 N67-17264
Measurement of relative branching ratio in decay modes of kaon-muon-pion interactions
[UCRL-16603] 07 p1153 N67-17592
Monte Carlo calculation of multiple scattering effects
[ISS-66/26] 06 p1344 N67-19190
Beta decay and muon capture, with form factors describing weak nuclear interactions
[TH/171] 09 p1490 N67-20373
Electromagnetic form factors of proton - Photoproduction of electron-positron and muon pairs as high momentum tests of quantum electrodynamics, and muon g-2 value
[SLAC-PUB-225] 10 p1707 N67-30996
Positive and negative muon decay spectra in copper
[UCRL-16168] 15 p2763 N67-28427
Asymmetry of neutron emergence from polarized muon capture investigated on basis of two-particle effective Hamiltonian
[JINR-P4-3153] 15 p2765 N67-28467
Muon catalysis of chain fusion reactions
[CONF-661115-1] 16 p2933 N67-29789
Phi resonance and kaon, muon, and neutral decays 16 p2951 N67-30109
Discharge track chamber for detection of muon capture by nuclei and atomic processes 17 p3133 N67-30069
Determination of neutron-neutron scattering length and effective range in relativistic calculation of muon capture in deuterium
[TH/203] 20 p3696 N67-34632
Height of effective muon production level determined by attenuation measurements
[REPT.-802-VI-PH] 20 p3699 N67-34887
Electromagnetic absorption spectrum longitudinal and lateral development fluctuations influence on spectrum of ratio of muon to electron component density
[REPT.-804/VI-PH] 20 p3703 N67-35181
Relativistic calculation of muon capture in deuterium with application to determination of neutron-neutron scattering length and effective range
[NP-16819] 22 p4109 N67-37971
Muon energy spectrum at sea level determined from large ionization burst spectrum 22 p4296 N67-38311
Application of particle-hole model to electroexcitation and muon capture in light nuclei
[NOLTR-67-88] 23 p4299 N67-38372
Height of effective muon production level in effective atmospheric shower evaluated by means of attenuation measurements
[INR-803/VI/PH] 23 p4304 N67-38578
Fluctuations in longitudinal and lateral development of effective atmospheric shower and their influence on ratio of muon to electron component density
[INR-804/VI/PH] 23 p4305 N67-38588
Spectrograph with solid iron magnet for measuring cosmic ray muon momentum spectrum
[BMWF-FBK-67-33] 23 p4253 N67-38846
Momentum spectrum and charge excess of cosmic ray muons at large zenith angles
[BNL-11545] 24 p4526 N67-40247
MUONIUM
Brief surveys on problems of quantum chemistry, positronium and muonium properties, luminescence applications, and shock wave effects in detonation systems and other processes
[JPRS-41117] 21 p3775 N67-35421
Positronium and muonium formation and potential use in studying velocities of hydrogen reactions 21 p3775 N67-35423
MUSCLE
SA ELECTROCARDIOGRAPHY
SA MYOELECTRIC POTENTIAL
Hypothermia effect on circulation of blood through skeletal muscle
[AD-647495] 12 p3027 N67-34659
Intermediate f-structure between fibrillar and globular actins in muscle protein
[JPRS-41505] 17 p3606 N67-31124
Vital staining of rat diaphragm muscle tissue during excitation
[JPRS-41938] 19 p3379 N67-33852
Luminescent microscopy of fixed and vital preparations of denervated frog muscle fibers stained with acridine orange
[JPRS-41904] 19 p3379 N67-33958
Model derived for human eye positioning mechanism
[SRL-67-0005] 21 p3771 N67-35543
Combined effects of cold and exercise on triceps surae reflex
[AAL-TR-66-15] 21 p3766 N67-36045
MUSCLE RELAXANT
Mechanisms of smooth muscle relaxation through anodal current stimulation
[J-230-10] 10 p1563 N67-21340
Release of potassium from muscles under effect of muscle relaxants
[REPT.-4-4-67] 18 p3201 N67-31636
MUSCULAR FATIGUE
Muscular working ability in man underrepeated shock loads 02 p0189 N67-11483
Protein metabolism in hard muscular work in relation to nutritional requirement 03 p0339 N67-12444
MUSCULAR FUNCTION
SA HEART FUNCTION
SA KINESTHESIS
Level of muscular working ability gained through physical training related to radiation resistance in white rats 02 p0189 N67-11484
Action of salyrgan, cysteine, and adenosine triphosphate on muscle contractions of amoeba
[RAE-LIB-TRANS-1164] 03 p0345 N67-12884
Changes in frequency distribution of muscle action following acquisition of simple motor skill 07 p1012 N67-17610
Experiment designed to study preventive effects of muscular exercises on intermittent venous occlusion on cardiovascular deconditioning observed after 10 days bed recumbency
[NASA-CR-692] 06 p1238 N67-18963
Theoretical prediction of main source and effect of structural damping in contractile muscle component
[DOUGLAS PAPER-4139] 11 p1793 N67-23122
Filament sliding and interface tension generation during muscular contraction
[DOUGLAS PAPER-4037] 12 p2021 N67-24045
Morphofunctional analysis of brachial muscles of certain ungulates 20 p3574 N67-34508
Nitrogen metabolism in rats exposed to hypokinesia 23 p4194 N67-39167
Brain hemodynamics during prolonged hypokinesia 23 p4195 N67-39112
Functional state of human auditory analyzer in two month hypokinesia experiment 23 p4195 N67-39113
MUSCULAR STRENGTH
Scaling of effort produced by strenuous isometric muscle contractions
[AMRL-749] 24 p4384 N67-39985
Manual grip-retention capability of seated males grasping experimental ejection actuators
[AMRL-TR-67-63] 24 p4391 N67-40339
MUSCULAR SYSTEM
SA MOTOR SYSTEM /BIOL/
Decalcination in man resulting from restriction of muscular activity during space flight 02 p0193 N67-11528
Prednisolone effects on neuro-muscular resistance in cats to adrenaline 02 p0205 N67-11638
Multichannel reaction method for control of motor reactions in men and animals 04 p0489 N67-13455
Using in vivo power supplies for implanted electronic devices - bioelectric potential, piezoelectric crystals, muscle power, and biochemical fuel cell
[AD-654702] 21 p3769 N67-36187
MUSCULAR TONUS
Decrease of pulse wave propagation speed in muscular blood vessels under influence of hypodynamia - muscular tonus change 02 p0186 N67-11480
Influence of hypokinesia on elastic-cohesive properties of human skeletal muscles 02 p0208 N67-11660
Prevention of adverse effect of hypokinesia on human cardiovascular system in space flight by physical exercise, rhythmic compression of limbs, drugs, and moderate hypoxia 18 p3227 N67-30120
MUTATION
SA GENETICS
Fructose metabolism by Hydrogenomas eutropha, auxotrophic mutants which produce polysaccharides, and large batch culture apparatus
[NASA-CR-79823] 01 p0019 N67-11109
Genetic cultural stabilities of hydrogen bacteria for application to biological life support systems
[NASA-CR-80422] 03 p0347 N67-12113
Mutagenic and genetic effects of alkylating compounds, and ethylenimine on barley seeds exposed to gamma radiation
[JPRS-39156] 04 p0492 N67-13008
Radiation effects on hereditary characteristics - mutation, genetic damage, and use in improving organism characteristics 17 p3601 N67-30402
X-ray induced mutations in Drosophila germ cells
[SAN-590-1] 18 p3211 N67-32105
Unicellular algal mutants under controlled culturing conditions 20 p3577 N67-34824
MYLAR
Photometric measurements of Echo I satellite on specular degradation of aluminized Mylar surface during orbit
[NASA-CR-80175] 02 p0206 N67-12307
Charge storage effects in Mylar from electron irradiation
[NASA-CR-656] 02 p0206 N67-12375
Effects of acetone and toluene solvents and dip time on crystallinity of polyethylene terephthalate and mylar samples 06 p0899 N67-16690
Superpressure mylar balloon technology in United States - applications, balloon size criteria, and possible improvements
[NASA-TM-X-55701] 06 p1220 N67-18764
Radiation effects on mica, Mylar, and polystyrene dielectrics
[REPT.-7] 11 p1841 N67-23260
Procedure for recording, etching, and counting fission fragment tracks in mica and Mylar
[UCRL-17975] 14 p2586 N67-26823
Alpha radiation hand and foot monitor using aluminized Mylar-covered scintillation counters
[DP-1060] 15 p2651 N67-28066
Thermal radiation properties of polyethylene, mylar, and other polymer thin film balloon fabrics
[C-62944] 21 p3573 N67-35462
Cryogenic positive expulsion bladders development
[NASA-TM-X-52353] 22 p4122 N67-38758
MYOELECTRIC POTENTIAL
Role of bioelectric activity of muscles, oxygen consumption, and body temperature in heat production and energy exchange 02 p0201 N67-11582
Electrodiagnostic methods for therapeutic stimulation and control of neuromuscular physiological functions 04 p0457 N67-13445
Studies in neural network stability and transition matrixes, impalement techniques for myoelectric fiber studies in cats, and method for lens fabrication by square plate deformation 05 p0649 N67-14630
Motor performance test for myoelectric response associated with practice and fatigue effect
[AD-655140] 21 p3766 N67-36006

N

N-N JUNCTION
Interface states of germanium-silicon alloyed heterojunction
[TR-EE66-24] 13 p2388 N67-25116
N-P JUNCTION
SA P-N JUNCTION
Nuclear particle counters using n-p type and homogeneous semiconductors
[FTD-MT-65-120] 10 p1633 N67-21367
N-P-N JUNCTION
Crystal structure defects and junction characteristics in n-p-n junction silicon epitaxial planar transistors 01 p0050 N67-10122
Design theory and fabrication procedure for n-p-n 100 ampere silicon switching transistor
[NASA-CR-80141] 02 p0245 N67-12161
Production engineering measure for silicon n-p-n switching transistors
[T-21] 07 p1651 N67-17645
Silicon n-p-n very high frequency power transistors
[QR-4] 07 p1651 N67-17648
Gamma radiation tests on n-p-n silicon epitaxial transistors
[NASA-CR-82810] 08 p1357 N67-18545
Lithium drifted germanium thick planar detectors produced by AC drifting - n-p-n junction
[BNL-10882] 10 p1748 N67-28033
N-TYPE SEMICONDUCTOR
Metal-oxide-silicon capacitor and

radiochemical analyses of anion in sodium contamination failure mode
[NASA-CR-79727] 02 p0296 N67-12228
Current-striction model for calculating magnitude, temperature dependence, and angular dependence of n-type semiconductors
[TR-30] 06 p1352 N67-19237
Influence of cobalt 60 gamma irradiation on bulk and surface recombination rates in n-type and p-type semiconductors
[NASA-CR-84446] 14 p2804 N67-37425
Band structure of group V semimetals and group IV, V, and VI semiconductors
[AD-649089] 16 p2959 N67-39674
Excitation of instabilities and microwave emission from high purity n-type indium antimonide 19 p3524 N67-33390
Transverse magnetoresistance of n-type germanium in strong magnetic fields 20 p3714 N67-34610
Thermoelectric power and thermoconductivity of iron disulfide and aluminum antimonide monocrystals of p and n type over large temperature range 21 p3945 N67-35475
Solid state traveling wave amplifier using n-type semiconductor
[ECOM-2902] 21 p3815 N67-35586
NA-300 AIRCRAFT
S OV-10 AIRCRAFT
NACELLE
SA EXTERNAL STORE
Aft-fuselage-mounted nacelles effect on subsonic longitudnal aerodynamic characteristics of twin turbojet aircraft
[NASA-TN-D-3781] 03 p0334 N67-13176
Wind tunnel measurements on streamlined fan lift nacelle
[ARC-R+M-3470] 22 p3956 N67-37201
NANOSECOND
Nanosecond pulse low power amplitude-to-time converter and associated linear gate circuits
[NASA-TM-X-55592] 02 p0243 N67-11370
Nanosecond light pulse generator with external synchronization
[NASA-TT-F-10662] 08 p1257 N67-18926
Nanosecond circuitry and techniques for transistor amplifiers, variable rate kilovolt pulser, and related instrumentation 09 p1423 N67-19424
Pulse voltmeter for measuring strength of voltage of nanosecond pulses
[FTD-HT-66-101] 09 p1448 N67-19781
Nanosecond lifetime measurements of excited nuclear states
[ZFK-PHA-20] 15 p2763 N67-28420
Pulse excitation method using arc lamp for determining nanosecond fluorescent lifetimes of rubrene and perylene
[GE/EE/67A-8] 17 p3037 N67-30671
NAPHTHALENE
Mass spectrometry of tetrahydronaphthalene fragmentation under electron impact 06 p0822 N67-16234
Mass spectrometry measurement of appearance potentials of hydrocarbon ions derived from tetrahydronaphthalene by electron impact 06 p0823 N67-16248
Primary processes in radiation chemistry studied by mass spectrometry, and distribution of primary decomposition products of tetrahydronaphthalene in liquid phase 06 p0825 N67-16285
NARCOSIS
Human performance and behavior in hyperbaric environments 20 p3582 N67-34368
NASA PROGRAM
SA APOLLO APPLICATIONS PROGRAM /AAP/
SA SPACE PROGRAM
Space travel research problems
[NASA-TT-F-8460] 01 p0151 N67-10185
Spacecraft propulsion, and nuclear-electric power supply for space travel
[NASA-TT-F-8507] 01 p0184 N67-10189
Photographs and summary of various phases of Gemini space flights 01 p0136 N67-10665
Implementation, test, and evaluation of selective dissemination system for NASA scientific and technical information
[NASA-CR-63220] 02 p0227 N67-11241
Program documentation for selective dissemination system for NASA scientific and technical information
[NASA-CR-63021] 02 p0240 N67-11342
NASA selective dissemination of information program
[NASA-TM-X-57601] 02 p0237 N67-11343
Chronology on astronautics and aeronautics in 1965
[NASA-SP-4006] 02 p0302 N67-11323
Satellite observations by U.S. and foreign stations during 1960 as part of NASA program
[NASA-CR-79505] 02 p0233 N67-11731
Chronological listing, orbital data, and description of U.S. and Soviet satellites and space probes launched from 1957 to 1965 02 p0248 N67-11913
Scientific NASA program conference in cooperation with West Coast universities
[NASA-SP-122] 02 p0239 N67-11943
Congressional subcommittee hearings on NASA fiscal year 1967 budget request 02 p0239 N67-12022
Bibliography of formal NASA technical reports, papers, and presentations
[NASA-TM-X-59077] 02 p0239 N67-12062
Space program research and advanced development in guidance and control, engineering mechanics, environmental simulation, propulsion, space sciences, and telecommunications
[NASA-CR-79917] 02 p0239 N67-12101
Space research and lunar exploration activities reviewed in terms of interdisciplinary results and impact on teaching of science
[NASA-TM-X-52255] 03 p0460 N67-12719
Annotated bibliography of NASA special publications through July 1966 03 p0477 N67-13720
Air traffic control concepts for supersonic vehicles
[NASA-TM-X-59175] 03 p0421 N67-13246
Remote sensing of natural and cultural resources from earth orbiting spacecraft 04 p0625 N67-13505
NASA spacecraft sterilization program, and constraints for preventing extraterrestrial life contamination during planetary explorations 05 p0779 N67-14763
NASA management of spacecraft sterilization program 05 p0780 N67-14764
NASA requirements for decontamination and sterilization of planetary landing capsules 05 p0849 N67-14765
History, research programs, and accomplishments of National Aerospace Laboratory, Netherlands, and by-products accruing from NASA scientific and technological programs
[AGARD-66/3] 05 p0781 N67-14921
Technological and managerial history of Mercury project, including bibliography
[NASA-SP-4001] 05 p0766 N67-14934
Projected large-scale use of radioisotopes by NASA 06 p0911 N67-15547
Discrete and continuous models, multivariable and adaptive control, information theory, and design methods - NASA-university conference on manual control
[NASA-SP-128] 06 p0906 N67-15850
Safety and accident prevention programs in industry, at launching facilities, and at NASA headquarters 06 p0861 N67-15923
Survey of NASA supported metals joining research having industrial applications
[NASA-SP-5064] 07 p1093 N67-17823
Geomagnetism, solar and galactic cosmic rays, and comets, and influence on earth environment
[NASA-SP-114] 07 p1185 N67-18141
Lifting bodies for manned reentry spacecraft
[NASA FACTS, VOL. IV, NO. 2] 08 p1370 N67-18506
NASA space science astronomy program - orbiting satellite experiments for solar, stellar, and galactic observations
[NASA-SP-127] 08 p1363 N67-18730
NASA space astronomy program 08 p1364 N67-18731
NASA space flight program for solar astronomy 08 p1364 N67-18732
Experimental packages of orbiting laboratory, and of sounding rockets for stellar and galactic astronomical observations 08 p1364 N67-18733
Space flight astronomy and future capabilities 08 p1364 N67-18734
NASA survey for future development of sounding rockets
[NASA-TM-X-55685] 08 p1371 N67-18738
Space launchings and explorations by NASA and other groups in United States during 1966 08 p1389 N67-19074
Data collection and analysis for determining impact of NASA programs and contracts on areas of United States
[NASA-CR-82928] 09 p1546 N67-19981
Educational bulletin on Apollo flight
[NASA FACTS 23, VOL. IV, NO. 7] 09 p1517 N67-20248
NASA program appropriations, future space exploration activities, and research in aerospace technology 10 p1774 N67-20411
NASA position in contracting for logistic support 11 p1852 N67-21974
Management planning, systems analysis, and evaluation of logistics within NASA programs 11 p1852 N67-21979
Apollo Applications Program - objectives, experiments, instrumentation, funding, and space vehicles 11 p1962 N67-22361
NASA educational booklet on space science, spacecraft, and planetary exploration 11 p1962 N67-22324
NASA program for application of space science and technology to public sector
[NASA-SP-142] 11 p2007 N67-22320
NASA information release of Lunar Orbiter D launching, including configurations, systems, mission, and Atlas Agena launch vehicle data
[NASA NEWS RELEASE-67-101] 12 p2214 N67-23760
NASA meteorological flight program plans, procedures for participation in space flight programs, and requirements for meteorological research on Mars 12 p2214 N67-24309
University participation in NASA scientific space programs 12 p2340 N67-24427
NASA space exploration programs design modifications and instrumentation developments
[NASA-CR-83745] 13 p2406 N67-25691
University, industrial, and state government resource support for Regional Dissemination Center for New England - NASA Technology Utilization Project
[NASA-CR-83785] 13 p2440 N67-25439
Manned and unmanned space flights, ground support system, international cooperation, and advanced technology and nuclear propulsion - NASA report for January through June 1966
[NASA-TM-X-59854] 13 p2440 N67-25648
Annotated bibliography of special publications reflecting manifold activities of NASA
[NASA-TM-X-59879] 13 p2441 N67-26015
Medical applications of NASA supported science and technology - abstracts and tech briefs
[NASA-CR-84056] 13 p2280 N67-26285
Technical details reviewed on NASA sponsored research at Experimental Astronomy Laboratory
[NASA-CR-84291] 14 p2569 N67-26521
NASA sponsored research activity at Experimental Astronomy Laboratory 14 p2610 N67-26522
NASA press release for IMP-F launching giving mission, background data, experiments, and Delta launch vehicle facts
[NASA NEWS RELEASE-67-121] 14 p2619 N67-27125
Activities, services, and organization of regional information dissemination center in Pittsburgh
[NASA-CR-84508] 14 p2635 N67-27678
Congressional hearings for NASA 1968 budgetary appropriations in space science and applications 15 p2800 N67-28574
Congressional hearings for NASA 1968 budgetary appropriations for advanced research and development 15 p2809 N67-28575
NASA program bill for appropriations authorization for space projects - hearings before United States Senate Committee 15 p2809 N67-28577
Congressional hearings for NASA 1968 budgetary appropriations in research and development, facilities, and administration 15 p2809 N67-28578
Congressional hearings for NASA and Department of Housing and Urban Development 1968 budgetary appropriations 15 p2809 N67-28579
Congressional hearings for NASA 1968 budget authorizations 15 p2809 N67-28580
NASA 1968 appropriation request for Apollo project and Apollo Applications Program 16 p2969 N67-29439
Authorizing appropriations to NASA for research and development, facility construction, and administration

[REPT.-338] 17 p3181 N67-30552
Congressional hearings on NASA budget requests and appropriation authorization for 1968 17 p3181 N67-30770
Information retrieval efforts by biomedical applications team to supply clinical and research personnel with NASA science and technology
[NASA-CR-85603] 17 p3006 N67-31399
NASA Space Science and Applications Program
[NASA-EP-47] 17 p3164 N67-31420
ESRO II and NASA international cooperative programs 17 p3168 N67-31427
Technology acquisition in commercial firms, and NASA dissemination program
[NASA-CR-790] 17 p3182 N67-31477
Actual and desired influence of scientific community on decision making for NASA programming
[NASA-CR-85799] 17 p3139 N67-31488
Proceedings of second NASA microelectronics symposium
[NASA-TM-X-55834] 18 p3241 N67-31562
Systems configurations of Lunar Orbiter E spacecraft - missions, tracking, and launching
[NASA NEWS RELEASE-67-192] 18 p3340 N67-31712
Life cycle tests of nickel-cadmium space cell packs
[NASA-CR-85976] 18 p3199 N67-32259
Congressional adjustments to NASA fiscal year 1968 request for funds
[REPT.-353] 18 p3360 N67-32397
Biomedical technology transfers of NASA science and technology
[NASA-CR-85969] 18 p3214 N67-32617
Regional dissemination for technology utilization by students and industry
[NASA-CR-87303] 19 p3557 N67-32918
Activities of NASA regional information dissemination center
[NASA-CR-87309] 19 p3558 N67-32993
Goddard Space Flight Center and Industry Second Seminar - marketing practices and problems related to research and development procurements
[NASA-TM-X-66213] 20 p3751 N67-34722
NASA specifications and standards
[NASA-SP-5000] 20 p3751 N67-34727
Studies and analyses of space science problems related to NASA lunar and planetary programs
[NASA-CR-87506] 20 p3728 N67-34835
Research projects to disseminate aerospace technology information generated by NASA and government, and index of articles on marketing technology
[NASA-CR-88275] 21 p3953 N67-36640
Auxiliary electric propulsion system capabilities 22 p4132 N67-36942
Multiple regression equations and regional approach to developing forecasting model on geographic distribution patterns for NASA subcontract awards
[NASA-CR-88486] 22 p4170 N67-37784
Hearings on NASA appropriations for 1968 before subcomittee of House of Representatives Committee on Appropriations 22 p4170 N67-37785
NASA space science programs on solar physics and properties of magnetosphere, ionosphere, atmosphere, and interplanetary space 22 p4170 N67-37818
Economic analysis of research and development, and size and distribution of NASA subcontract activity
[NASA-CR-86646] 22 p4170 N67-37846
NASA launchings, space probes, manned space flights, and other space-related and aeronautics events and discoveries in 1966
[NASA-SP-4007] 23 p4345 N67-38808
NASA news release giving details on occasion of launching of Orbital Solar Observatory /OSO-D/ with Delta launch vehicle
[NASA NEWS RELEASE-67-262] 23 p4353 N67-39258
NASA aircraft/spacecraft telemetry receiving systems
[NASA-TM-X-55960] 23 p4218 N67-39368
NASA space science and applications program and budget request
[NASA-TM-X-66853] 24 p4553 N67-39648
Budgetary considerations and engineering and technical support service contract operations - statements before Committee on Government Operations hearing 24 p4553 N67-39655
Contract competition in high technology DOD and NASA market
[NASA-CR-89697] 24 p4554 N67-40192
Medical benefits resulting from utilization of devices and techniques of space research within NASA program
[NASA-EP-46] 24 p4396 N67-40267
Apollo space suit technology applied in conceptual designs of collapsible hyperbaric chamber for medical therapy
[NASA-CR-89671] 24 p4393 N67-40458
Organizational bibliography on NASA ground handling facility
[NASA-TM-X-66557] 24 p4428 N67-40542
NATIONAL AIR SPACE UTILIZATION SYSTEM
Air sovereignty rule of international law in terms of use of outer space 13 p2430 N67-25239
NATIONAL SEVERE STORMS PROJECT
Statistical and dynamical analyses of severe storms
[ARL-1523-2] 11 p1917 N67-23444
NATURAL FREQUENCY
Natural frequencies and damping capabilities of laminated beams
[MEL-295/66] 03 p0468 N67-12239
Natural frequencies of bending and twisting vibrations in variable mass beam under concentrated load 04 p0618 N67-13902
Computer program using matrix algebra to solve linear equations for natural frequencies of rods
[FTD-HT-66-553] 10 p1869 N67-21846
Truncation errors in natural frequencies as computed by method of component mode synthesis 11 p1901 N67-22830
Derivation of natural frequencies and modes from resonance test using imperfect excitation
[RAE-LIB-TRANS-1213] 15 p2796 N67-27790
Free vibrations of variable mass body 15 p2802 N67-28816
Tests, analyses, and computer program for predicting natural frequencies and mode shapes of weighted pressurized cylinders
[NASA-CR-79756] 16 p2901 N67-29912
Procedure for determining natural frequencies and corresponding mode shapes of liquid-filled elastic cylindrical tank with flexible inverted conical bulkhead
[NASA-CR-85578] 17 p3173 N67-30683
Computer program for determining transverse natural frequencies and mode shapes of uniform beams
[NASA-TM-X-55877] 20 p3737 N67-34258
Additive property of modal density for composite structures in analysis
[NASA-CR-86453] 20 p3739 N67-34690
Error estimation of operator needed for approximate expression for natural vibration frequencies of free beam with variable parameters 20 p3740 N67-34869
Frequency and viscous damping of liquids during weightlessness - liquid sloshing characteristics of liquid-vapor interface in zero Bond number environment
[NASA-TN-D-4133] 20 p3625 N67-34899
Calculation methods for natural frequencies of rods with apertures 23 p4361 N67-39192
NATURAL SATELLITE
Description of individual planets and planetary satellites 06 p0863 N67-15496
NAVIER-STOKES EQUATION
SA REYNOLDS EQUATION
Exact solutions to Navier-Stokes equations with curl free convective accelerations
[R66SD61] 02 p0252 N67-12029
Exact solution of Navier-Stokes equations for nonstationary viscous fluid flow between two parallel vibrating cylinders 02 p0304 N67-13086
Numerical solutions of Navier-Stokes equations for different problems in flow of viscous fluid and derivation of refined plate theory
[FTD-TT-65-1982] 04 p0625 N67-12396
Numerical solution of Navier-Stokes equations for different problems in flow of viscous fluid 04 p0628 N67-12397
Physical effects due to viscosity introduced by numerical scheme in making Navier-Stokes time-dependent second-order difference analysis of one-dimensional relaxing flow 07 p1063 N67-16851
Numerical analysis of two-dimensional laminar flow with nonregular boundaries
[NASA-CR-83855] 08 p1289 N67-19115
Numerical method of integrating Navier-Stokes equation for unsteady compressible flow, and application to separated flows 08 p1271 N67-19238
Asymptotic solutions of Navier-Stokes equations for supersonic viscous flow near wall region with large local surface curvature
[TR-40] 12 p2097 N67-24230
Navier-Stokes and continuity equations used to calculate unsteady laminar flow of viscous incompressible fluid in moving circular tube
[REPT.-38] 13 p2306 N67-25107
Navier-Stokes equations for viscous compressible flow applied to Rayleigh problem
[R67SD18] 17 p3047 N67-30619
Numerical solutions for time-dependent Navier Stokes equation for two-dimensional flow of dissociating gas over circular cylinder 23 p4021 N67-37614
Extended Navier-Stokes equations for diffusion and chemical reaction rate analysis of gas mixture flow over cylinder
[R67SD56] 24 p4432 N67-40094
NAVIGATION
S AIR NAVIGATION
S CELESTIAL NAVIGATION
S COLLISION AVOIDANCE NAVIGATION
S GUIDANCE
S INERTIAL NAVIGATION
S INTERPLANETARY NAVIGATION
S LONG RANGE NAVIGATION
S MARINE NAVIGATION
S ONBOARD NAVIGATION
S PLOTTING
S POLAR NAVIGATION
S RADAR NAVIGATION
S RADIO NAVIGATION
S SPACE NAVIGATION
S STAR TRACKER
S TRIANGULATION
NAVIGATION AID
SA PLANETARY LONGITUDE
Canadian radio and electrical engineering bulletin articles on electronics, equipment, punched tape, navigation aids, and related subjects 02 p0246 N67-12529
Electronic aids to aircraft navigation
[FTD-MT-65-94] 11 p1918 N67-23046
VORTAC identification light for visual aid to VFR pilots
[RD-66-89] 14 p2572 N67-27182
Cartographic displays for low altitude navigation
[AD-650445] 15 p2742 N67-28917
Simulator study of pictorial navigation display in instrument departure of supersonic transport
[NASA-TN-D-4029] 16 p2827 N67-30027
Low altitude navigation methods - effects of map scale and reference point variables, and training on ability of pilots to estimate direction
[TR-67-4] 17 p3160 N67-30245
Geographic orientation in aircraft pilots - flight method of reporting navigation performance
[TR-751-10] 17 p3060 N67-30360
Analysis of vector analog computer
[RD-67-37] 22 p4004 N67-36721
NAVIGATION AND GUIDANCE
Low cost navigational aid capable of providing localizer-type guidance - VOR localizer
[RD-66-52] 02 p0207 N67-12253
DeepSpace Network Research and Development
[NASA-CR-81209] 06 p0827 N67-15501
Spacecraft control, navigation, and guidance
[NASA-SP-8] 09 p0980 N67-16959
Estimated man-machine requirement computations for space navigation and guidance
[NASA-CR-80011] 09 p1222 N67-18720
Technical details reviewed on NASA sponsored research at Experimental Astronomy Laboratory
[NASA-CR-84291] 14 p2569 N67-26521
Manual onboard guidance for many body interplanetary trajectories 14 p2570 N67-26525
Optimum navigation measurements for satellite orbit and hyperbolic free fall reentry 14 p2570 N67-26526
Closed loop optimal guidance equations for soft landing 14 p2570 N67-26529
Gyrocompass and star tracker attitude reference techniques compared 14 p2570 N67-26532
Tables and graphs for interplanetary navigation and guidance study

[NASA-CR-61131] 15 p2742 N67-28743
Launch vehicle and spacecraft control, navigation, and guidance methods and systems for Apollo project
[NASA-CR-61129] 16 p3926 N67-29367
Statistical error analysis of navigation and guidance systems for Earth-Mars mission, and computer simulation and onboard measurement techniques
[NASA-CR-61139] 16 p3927 N67-29919
Navigation and guidance requirement analyses during midcourse and orbital phases of 1975 round-trip Mars mission
[NASA-CR-61130] 16 p3927 N67-29920
Navigation and guidance of hypersonic launch vehicles having cruise capability
[NASA-CR-73100] 16 p3927 N67-30139
Explicit and lambda guidance simulator techniques for navigation and guidance of launch vehicles having cruise capability
[NASA-CR-73103] 16 p3928 N67-30161
Navigation and guidance requirements of two-stage launch vehicle consisting of air breathing recoverable first stage and rocket powered second stage
[NASA-CR-73102] 17 p3101 N67-30744
NAVIGATION INSTRUMENT
SA INERTIAL PLATFORM
Linear glide slope field detectors for landing system monitors
[SRDS-RD-66-12] 01 p0076 N67-11137
Circuit details for units of Remote Monitor Indicator and Control System for all weather Instrument Landing System
[FAA-RD-66-48] 07 p1120 N67-17949
NAVIGATION SATELLITE
SA TRANSIT SATELLITE
Ranging errors studied in relation to navigation with high altitude satellites
[TN-1966-46] 10 p1674 N67-21867
Celestial navigation methods using satellite range and location data for determining position of observer
[NRL-MR-1750] 14 p3571 N67-36614
Thermal design of navigational satellites for attaining balance between external and internal heat inputs and heat output by radiation from external surfaces
[APL-TG-845] 14 p3618 N67-36819
Errors in position determinations in navigating with high altitude satellites
[ESD-TR-67-60] 14 p3571 N67-36906
Future potentials of navigation satellites
[NASA-TM-X-59646] 14 p3621 N67-37659
Error analysis of hyperbolic navigation system using synchronous high altitude satellites
[TN-1967-18] 17 p3166 N67-30671
Feasibility of fan beam navigation satellite concept
[NASA-CR-80024] 17 p3102 N67-31062
Program plan for fan beam navigation test satellite
[NASA-CR-85083] 17 p3102 N67-31433
Electrical system design of positioning equipment used in fan-beam navigation satellite
[NASA-CR-85002] 17 p3102 N67-31456
Structural stress and deflection and electrical performance analyses of boom antenna configurations for spinning navigation satellite
[NASA-CR-85001] 17 p3103 N67-31479
Digital computer simulations of fan beam navigation concepts for two satellite altitudes
[NASA-CR-80025] 17 p3103 N67-31489
Performance analysis and implementation of marine and air navigation and traffic control system using navigation satellite
[NASA-CR-85010] 20 p3731 N67-34257
USS Gyatt /DD-712 evaluation of Navy navigation satellite system /NAVSAT/ and very low frequency hyperbolic navigation system /Omega
[IR-67-61] 23 p4282 N67-38113
NAVIGATION SYSTEM
SA DIGITAL NAVIGATION SYSTEM
Invariance theory applied to inertial navigation system synthesis based on gyroscopic pendulum
[FTD-TT-65-1860] 01 p0103 N67-11086
Simulation of monitoring and decision-making unit for skip navigation system
[E] 02 p0420 N67-12345
Space navigation, spacecraft trajectories, and space vehicle navigation systems
[NASA-TT-F-344] 04 p0613 N67-14109
Apollo project support for systems analysis and test of S-band and planning for navigation aspects of lunar landing mission
05 p0671 N67-14428
Space reference systems
[ACIC-TR-98] 10 p1760 N67-20647
Comparative analysis of cost/effectiveness for Doppler-inertial navigation system optimal filtering techniques
[IBM-67-928-7] 14 p3571 N67-36677
Effects of measurement noise, measurement bias, and station location uncertainties on Apollo mission phases
[NASA-TM-X-55003] 15 p3889 N67-28823
Navigation systems for manned lunar missions and earth space station rendezvous
17 p3101 N67-30597
Advanced range and orbit determination system for radio navigation and tracking
17 p3101 N67-30598
Linearized error analysis of onboard primary navigation systems for Apollo lunar module
[NASA-TN-D-4027] 20 p3677 N67-34897
Omega position location equipment feasibility experiment on using Omega navigation system and synchronous satellites for global location and data collection system
[NASA-TM-X-55985] 21 p3885 N67-36634
Inertial systems designed for naval navigation
[FTD-MT-65-189] 22 p4068 N67-37228
ATS-1 VHF channels for aircraft position fixing, and digital computer model for position error analysis of satellite navigation systems
[NASA-CR-88871] 23 p4089 N67-38002
Error sensitivity expressions for satellite orbital hyperbolic navigation system
[P-3636] 24 p4489 N67-39537
NEAR INFRARED
Observations of near infrared radiation from solar atmosphere, near infrared radiation from solar atmosphere during total eclipse, and radiometric observations of solar corona during eclipse
[AFCRL-66-274] 01 p0146 N67-10008
Observations of near infrared radiation from solar atmosphere 01 p0146 N67-10009
Near infrared radiation from solar atmosphere during total solar eclipse of 20 July 1963 01 p0146 N67-10010
Spectroscopic measurements of near infrared spectrum of shock heated air and nitrogen
[CAL-QM-1758-A-1] 01 p0118 N67-10982
Possibility of selecting quasi-stellar galaxies from blue stars by observations in near infrared
[REPT.-2] 15 p2790 N67-28627
NEBULA
S CRAB NEBULA
S PLANETARY NEBULA
NEGATIVE FEEDBACK
S DEGENERATION
NEGATIVE RESISTANCE DEVICE
Production of negative resistances in RC circuits using exponential sources of current
03 p0377 N67-12762
NEODYMIUM
Thermal optical distortion in neodymium doped glass that is induced by pump radiation
[MDE-1198] 06 p0889 N67-15353
Comparison of neodymium doped high energy laser glass material to standard silicate based glass
[AD-646097] 06 p0890 N67-16363
Automatic laser beam detector and instantaneous transverse electromagnetic mode analysis of helium-neodymium laser
07 p1095 N67-16952
Radiochemical procedure for purification of stable fission product neodymium 148
07 p1025 N67-17149
Slow coincidence spectrometric analysis of neodymium isotope decay scheme
[INR-627/IA/PL] 07 p1147 N67-17337
Optical properties on neodymium-doped glasses, and spectrofluorophosphorimeter construction
[AD-642160] 08 p1351 N67-18555
Spin resonances and thermal neutron cross sections for samarium 149, neodymium 146 reaction
[INR-755/IA/PL] 10 p1717 N67-21411
Polarized stimulated radiation of glass activated by neodymium
[FTD-HT-66-311] 11 p1894 N67-23172
Electron and gamma transition energies and intensities in decay of neodymium 147
[AE-265] 11 p1946 N67-23396
Quantum theory of noise in laser decay, and ionic cross relaxation in neodymium-glass oscillator
12 p2189 N67-23843
Pulsed neodymium doped glass laser for high photon energy density
[WRE-TN-PAD-126] 14 p2549 N67-27123
Electrowinning high purity neodymium, praseodymium, and didymium metals from oxides
[BM-RI-6957] 14 p2559 N67-27733
Neutron-alpha particle reaction on neodymium isotopes at neutron energies up to 400 eV
[JINR-P3-3104] 15 p2764 N67-28434
Chromatographic separation of neodymium for measuring burn-up of irradiated nuclear fuel solutions using mass spectrometry
[TRG-1496/D/] 20 p3592 N67-34363
Cold pressing and sintering of samarium and neodymium sesquioxides
[BNWL-386] 20 p3666 N67-34799
Chemical and electron optical studies of gels, oxide microspheres, and sols prepared from europium, neodymium, and praseodymium hydroxides 21 p3786 N67-36323
Specific heat and electric resistivity of neodymium-iron compounds
21 p3922 N67-36371
Slip-casting of samarium and neodymium oxides
[BNWL-437] 22 p4056 N67-37718
Compensating ion effects on fluorescence of neodymium ion in garnet crystals
[SRRC-CR-67-35] 23 p4326 N67-38808
NEODYMIUM COMPOUND
Crystal field splitting of neodymium plus 3 ion in neodymium aluminum oxide and lanthanum aluminum oxide
21 p3918 N67-36308
NEON
Oscillator strengths for extreme ultraviolet resonance lines of ions in neon isoelectronic sequence
[NASA-TM-X-55585] 03 p0443 N67-13227
Control of helium and neon metastable atoms by optical pumping and application to gas laser
[REPT.-26] 09 p1456 N67-19728
Ternary fission of uranium 238 induced by neon 22 ions
[JINR-E7-2924] 10 p1719 N67-21489
Gravitation research - experimental test of Freundlich red-shift hypothesis and measurement of metastable vs ground-state electron exchange cross sections for helium and neon
11 p1937 N67-22649
Viscosity and thermoconductivity coefficients of dilute neon, krypton, and xenon
[NASA-CR-83699] 13 p2425 N67-25941
Isotopic abundance of neon, argon, and nitrogen in natural gases containing helium
[BM-RI-6936] 14 p2481 N67-27409
Excitation cross sections for proton upper laser states of neon and proton states of krypton
[NASA-CR-88877] 22 p4112 N67-38025
Design and construction of neon hodograph
[BMWF-FBK-67-42] 23 p4256 N67-39268
NEOPRENE
Neoprene and PVC ship cable sleeve samples tested to determine physical and mechanical properties when exposed to diesel oil
[TDCK-46567] 07 p1107 N67-17948
Physical and mechanical properties of butyl and neoprene mixtures evaluated for application in marine cable sleeves and insulation
[TDCK-46586] 08 p1297 N67-19169
Tear resistance of nylon fabrics coated with formulations containing neoprene latex
[AD-653792] 20 p3664 N67-34334
Prediction of shelf-storage life in rubbers from accelerated heat aging tests - oven aging experiments with nitrile, neoprene, and hypalon
[RAE-TR-67118] 23 p4269 N67-38444
Neoprene and polyethylene balloon film failures
23 p4271 N67-39245
NEPHANALYSIS
Nephanalysis techniques evaluated for case of artificial cloud cover 12 p2133 N67-23482
NEPHELINE
Sintering of nepheline charges, and reaction with calcium oxide
16 p3846 N67-29822
NEPHELOMETER
Ultraviolet polar nephelometer and extinction meter for measurement of atmospheric extinction

[R-5-66-1] 01 p0102 N67-10953
Comparison of nephelometric instrumental technique and gravimetric method for analysis of nonvolatile residue level in hydrocarbon cleaning solvents
[NASA-TM-X-53530] 02 p0239 N67-11983
Atmospheric extinction measurement and light scattering function - polar nephelometer and power supply
[R-5-66-2] 05 p0708 N67-15025
NEPTUNE
Flyby and orbiter missions to Saturn, Uranus, Neptune, and Pluto using nuclear electric low thrust stage and Saturn-Centaur launch vehicles
[NASA-CR-80846] 04 p0614 N67-14253
NEPTUNIUM
Parameters in production of plutonium 238 from irradiation of neptunium 237 in thermal reactors 05 p0735 N67-14824
Fission cross section ratios of uranium 238, neptunium 237, and uranium 235 08 p1338 N67-18827
Assay method of uranium 235, uranium 238, and neptunium 237 fission foils by two pi and low geometry alpha counters 06 p1341 N67-18863
Production of plutonium 238 by continuous irradiation and chemical processing of neptunium 237
[ORNL-4023] 13 p2042 N67-24160
Spectrophotometry of neptunium in nitric acid solutions
[RFP-958] 23 p4206 N67-38703
NERVA
S NUCLEAR ENGINE FOR ROCKET VEHICLE /NERVA/
NERVOUS SYSTEM
SA AUTONOMIC NERVOUS SYSTEM
SA BRAIN
SA CENTRAL NERVOUS SYSTEM
SA CEREBRAL CORTEX
SA CEREBRUM
SA END PLATE
SA NEUROLOGY
SA NEURON
SA NEUROSCIENCE
SA PACINIAN CORPUSCLE
SA PERIPHERAL NERVOUS SYSTEM
SA PSYCHOMOTOR
SA RECEPTOR
SA SPINAL CORD
SA SYMPATHETIC NERVOUS SYSTEM
SA SYNAPSE
Nervous system - conditioned response, respiratory reflex, sleep deprivation reactions, and respiratory changes
[FTD-MT-65-308] 01 p0011 N67-10141
Reflex of purpose as object of physiological analysis 01 p0012 N67-10143
Nervous system conditioned reflexes in adult humans 01 p0012 N67-10144
Adrenal cortex and nervous system reactions to stress effects 02 p0183 N67-11436
Characteristics of adrenal and thyroid glands and higher nervous activity under prolonged action of sound in rats 02 p0183 N67-11437
Adaptational reactions in rabbits formed by sympathetic-adrenal system in response to environmental changes 02 p0200 N67-11590
Experiments on regulation of hypoxic erythrocytosis for application to ways of increasing resistance of nervous system to action of extreme factors 02 p0202 N67-11601
Nerve reflex regulation of respiration under excess intrapulmonary pressure 02 p0206 N67-11634
Development of algorithms for use in computer analysis of biocurrents of nervous systems 03 p0351 N67-12360
Methods for development of storage memory in mathematical models with search strategy similar to human brain 04 p0487 N67-13446
Applicability of nonlinear differential equation with discontinuous coefficient to development of mathematical model for simulating excitation properties of nerve tissue 04 p0487 N67-13447
Applicability of nonlinear differential equation with discontinuous coefficient to development of mathematical model for excitation of nerve tissue 04 p0488 N67-13448
Multichannel reaction method for control of motor reactions in men and animals 04 p0489 N67-13455
Sweep frequency technique used in auditory nerve fiber responses to two-tone stimuli 05 p0649 N67-14635
Physical constants of semicircular canals from measurement of single neural activity in anesthetized cat brain stem under constant angular acceleration 05 p0656 N67-15139
Laminar organization and cell content of lateral geniculate complex of nocturnal owl monkey Aotes trivirgatus
[USAMRL-669] 06 p0797 N67-15496
Cholinesterase containing nerves in ocular and orbital tissue of rats, rabbits, and guinea pigs
[AFOSR-66-2972] 06 p0807 N67-16650
Processing methods of functional neural networks employed to solve pattern recognition problems
[NOLTR-65-160] 07 p1055 N67-17347
Pulse trains in lateral geniculate and retinal ganglion nerve cells
[RM-4876-ARPA] 09 p1401 N67-19793
Histochemical and fluorescence methods of localizing monoamines in nervous system
[AFOSR-67-0531] 12 p2023 N67-24369
Confirmation of sterotaxic atlas of chimpansee brain based on histological localization of electrode implantations in one animal
[ARL-TR-67-5] 13 p2256 N67-25422
Functional neural mechanisms that produce instinctive behavior
[SDC-SP-2792/000/00] 14 p2461 N67-26970
Synthesis of mediators of sympathetic nervous system and pigmentation in ontogenesis of vertebrates
[NASA-TT-F-10952] 14 p2462 N67-27315
Neural information processing studied in peripheral auditory system of guinea pig
[AMRL-TR-66-87] 15 p2849 N67-28255
Reciprocal controls between nervous system and endocrine secretion
[AFOSR-67-0920] 16 p2825 N67-29110
Neuro reflex mechanisms controlling hemodynamic changes in dogs during rapid and slow increases in acceleration 16 p2826 N67-29213
Comparison of effects of chronic and acute gamma irradiation by cobalt 60 and influence of time factor on higher nervous activity of white rats 16 p2830 N67-29255
Chronic gamma radiation effects on vestibular apparatus of guinea pigs and role of time factor in radiation reactions of nervous system 16 p2830 N67-29256
Effects of various X-ray doses during infancy on development of nervous system of rats
[COO-1201-10] 17 p3005 N67-31071
Sequential machine analysis and optimization method for distributed adaptation ability in neuron model network
[GER-12738] 18 p3254 N67-32845
Information and nervous system
[JPRS-41901] 19 p3376 N67-33401
Electric stimulation and signal transmission in sciatic nerve of frog 19 p3384 N67-33895
Mathematical models based on experimental data for study of neuron oscillators
[AD-653893] 20 p3573 N67-34497
Analog computer calculations of mathematical model for nerve tissue excitation 20 p3575 N67-34510
Soviet literature on biological and medical concepts of ionic conductance, biocontrol system, and computer theory of human activity
[JPRS-42666] 21 p3767 N67-36129
Dynamics of ionics conductances of nervous membrane 21 p3767 N67-36133
Ionic theory of excitation of nerve tissue 21 p3767 N67-36133
Human activity and feedback in biocontrol system 21 p3767 N67-36134
Properties of stria terminalis fibers in cats
[AFOSR-67-1604] 22 p3969 N67-36893
Bibliography on nerve conduction and nerve impulses, with emphasis on behavior of nerve cell networks
[P-3613] 22 p3972 N67-37557
Acoustic and mechanical stimuli effects on Pacinian skin sensory receptor corpuscle
[AFOSR-67-1523] 22 p3972 N67-37558
Problems in physiology of sensory systems
[NMS-TRANS-3094] 23 p4185 N67-38251
Electrical coupling and normal oscillation modes in dense excitable cellular structures
[SG-1198/SR-1] 24 p4391 N67-40886
NETHERLANDS
History, research programs, and accomplishments of National Aerospace Laboratory, Netherlands, and by-products accruing from NASA scientific and technological programs
[AGARD-66/3] 05 p0781 N67-14921
NETWORK
SA CIRCUIT
SA COUPLING NETWORK
SA DEEP SPACE NETWORK /DSN/
SA ELECTRIC NETWORK
SA GRID
SA ITERATIVE NETWORK
SA LOGIC NETWORK
SA NEURAL NET
SA RC NETWORK
SA RLC NETWORK
SA SATELLITE NETWORK
SA SATELLITE TRACKING AND DATA ACQUISITION NETWORK
Accurate phase length measurements of large microwave networks used to feed radio frequency energy to two-mile linear accelerator
[SLAC-PUB-181] 01 p0020 N67-10718
Influence of conductor connecting noise generator and two-port network during noise measurements
[TIL/T-5450] 02 p0347 N67-11749
Nonlinear programming used for network design 04 p0622 N67-13250
Rational solutions to multicommodity network flow problems
[ORC-66-23] 05 p0728 N67-14757
Parallel-T resistance-capacitance network circuit for developing quadrature voltage at variable frequency
[NRL-6440] 05 p0689 N67-15323
Organization, inspection, and maintenance procedures of hydrometeorologic stations
[FTD-MT-65-230] 10 p1673 N67-21703
Design method for sequential network using flip-flop circuitry
[EUR-2268.E] 10 p1589 N67-21755
Multicommodity maximum flow problem
[ORC-66-25] 11 p2007 N67-23422
Closed networks of queues
[ORC-67-1] 13 p2130 N67-24604
Satellite communication and tracking station network for data acquisition and transmission
[ESRO-TM-44] 13 p2279 N67-25697
Algorithm for critical path analysis in PERT network 13 p2289 N67-25772
Response of linear network and Fortran IV code for IBM 7040 electronic computer
[ISS-66/38] 13 p2299 N67-26067
Frequency characteristics determination of equivalent transfer function of four-terminal operational network 15 p2833 N67-28115
Fast logic circuit achieved by connecting switches and memory components in n-dimensional network
[FTD-HT-67-4] 15 p2873 N67-28268
Characterization of 300-unit tetrahedral network model, and comparison with vitreous silica and liquid water
[REPT.-4332.09100] 16 p2843 N67-29228
Lossless N-port networks characterized by step-up vectors
[SEL-67-004] 16 p2871 N67-29229
Communications and networks - pulse amplitude modulation, multipliers, photoformer, and sequential circuits 18 p3230 N67-32219
Voltage and current distribution in star connected electric power distribution system 20 p3613 N67-34610
Realization of Boolean function of n variables by means of network of threshold elements with n inputs 20 p3614 N67-34654
Meteorological rocket network firings 21 p3963 N67-35680
Spinning paraboloid of revolution formed from network of flexible fibers
[NASA-CR-873] 22 p3997 N67-37220
Grating and networks of ribbons as radio reflectors
[NASA-CR-872] 22 p3999 N67-37260
Topological dual extended to nonplanar networks by coherent dual concept, and applied to reliability problems 23 p4272 N67-39965
Algorithm for approximation solution to resource distribution problem in network planning
[JPRS-42662] 23 p4276 N67-39969
NETWORK ANALYSIS
Transfer matrix method applied in analysis of complex structural networks
[NASA-CR-79807] 02 p0215 N67-11720
Analysis, design, and synthesis of solid state circuits with computer aid -

Conference
[NASA-CR-80512] 04 p0521 N67-13341
Application of network topology to analysis of passive networks 04 p0521 N67-13344
Computer programs for application to topological analysis of active networks 04 p0521 N67-13345
Basic algorithms for matrix manipulations by computer for network analysis 04 p0522 N67-13346
Sensitivity indexes for active circuits based on state vector differential equation for circuit analysis and design 04 p0522 N67-13351
Characteristics, availability, and present uses of computer programs for solid state circuit analysis and design 04 p0522 N67-13352
Survey of Critical Path Method /CPM/ and Program Evaluation and Review Technique /PERT/ network planning techniques
[DLR-MITT.-66-12] 04 p0623 N67-13706
Digital computer aided circuit analysis and design
[NASA-CR-66252] 04 p0523 N67-14306
Automatic malfunction analysis by discrete network simulation for selected networks of Saturn IC stage
[NASA-CR-81313] 07 p1056 N67-16728
Computer programs for automatic malfunction analysis by discrete network simulation
[NASA-CR-81530] 07 p1046 N67-17377
Automatic malfunction analysis computer program for discrete network simulation 07 p1046 N67-17378
Test plan for checkout and qualification of Apollo manned space flight network systems 06 p1250 N67-19000
Transformation to give equivalent network, with regard to network function, with fewer vertices - topological analysis
[R-329] 10 p1507 N67-21365
Simplified approximation method for calculating complex asymmetrical operating conditions of electric networks 11 p1841 N67-22190
Computer-aided circuit design - network analysis methods, options, parameters, programs, filters, sensitivity, and engineering
[NASA-TM-X-59610] 11 p1846 N67-22621
Computer influence on methods of formulating network problems for designing electronic equipment
[IBM-TR-00-1562] 11 p1846 N67-22622
Software system for on-line analyses of linear network circuits 11 p1846 N67-22623
Circuit features, variational capabilities, input-output capabilities, and transient analysis of NET-2 circuit program 11 p1846 N67-22626
Sensitivity calculation method for parameters of digital computer network analysis program 11 p1846 N67-22627
Circus digital computer program for transient analysis of electronic circuits - time domain response of electronic circuit 11 p1846 N67-22628
Relations between tree branches and links of electrical network of SCEPTRE transient analysis program established by using F matrix 11 p1847 N67-22630
Accurate circuit parameter characterization, flexible network analysis computer programs, and empirical circuit responses for designing of circuits 11 p1847 N67-22631
Flowgraph construction, input-output formulation, and subroutines for Network Analysis for Systems Applications Program /NASAP/ 11 p1847 N67-22633
Partial derivatives and sensitivity coefficients for options built into computer circuit 11 p1847 N67-22635
Bibliography and abstracts on network analysis and applications in construction and military operations
[TDCK-46634] 11 p2006 N67-22969
Semi-topological analysis of linear networks
[R-323] 11 p1848 N67-23110
Analog probability simulation of stochastic control systems made of unreliable binary elements - communication network 12 p2071 N67-24225
Algorithms for network graph analysis of deterministic processes 13 p2289 N67-25771
Algorithms for analysing directional graphs and networks 13 p2289 N67-25773
Digital computer research on IBM 7094-1401 system, pattern recognition computer, and network analysis of ILLIAC computer series 14 p2496 N67-26613
Rand Corporation mathematics research in linear programming, dynamic programming, flows in networks, and game theory
[P-3543] 16 p2922 N67-29777
Interpolation with positive real functions
[RADC-TR-67-70] 17 p3039 N67-30253
Constitutive equations from molecular network theories for polymer solutions
[MRC-TSR-706] 17 p3084 N67-30281
Transistor and diode equivalent circuits models used in nonlinear computer circuit analysis program
[NAFI-TR-647, VOL. II] 17 p3039 N67-31307
Graphical evaluation and review technique to analyze networks with stochastic and logical properties
[NASA-CR-74140] 17 p3042 N67-31354
NET-1 computer program for simulating electronic circuits containing passive and active elements
[R66ELS-97] 18 p3240 N67-31507
Cybernetics and control of large systems - optimum planning, industrial process quality control, and network construction
[JPRS-41494] 18 p3285 N67-31865
Geometric models and algorithms for construction of shortest connecting networks 18 p3288 N67-31871
Pattern recognition, computer storage unit, control systems, network analyses, and communication theory 18 p3254 N67-32506
Communication science engineering developments on nonlinear circuits and systems 19 p3423 N67-33611
Nonlinear circuit network analysis on certain new network elements 19 p3424 N67-33612
Analysis and synthesis of multithreshold threshold logic
[TR-EE67-5] 21 p3820 N67-35562
Microwave all-pass networks for reflector antenna feed systems
[AFCRL-67-0235] 21 p3797 N67-35707
Numerical methods, programs, and mathematical models for use in digital computer-aided circuit analysis and design
[NASA-CR-66463] 22 p4016 N67-37245
Positive real functions and matrices of several variables for design of electric networks
[RADC-TR-67-365] 22 p4016 N67-37300
Algorithm for minimum average length cycle of directed graph
[ORC-67-21] 22 p4065 N67-37858
Stability theory for nonlinear distributed electric networks
[EE-1256-5-67] 23 p4229 N67-38258
Maximizing flow through network with node and arc capabilities
[RM-5383-PR] 23 p4274 N67-38502
Network analysis of solid state devices to assure component reliability over broad frequency ranges
[BRL-MR-1657] 24 p4423 N67-39541
Sequential prime implicant form of fault diagnosis and automatic circuit replacement in self-repairing sequential digital nets
[ECOM-02344-3] 24 p4423 N67-39570
Boolean matrix algebra technique permitting high speed computation in network analysis and simulation
[ECOM-2856] 24 p4423 N67-39619
Stability of linear time-varying networks
[RADC-TR-67-336] 24 p4424 N67-39735
Network performance analysis for Gemini GTA-5 mission
[NASA-TM-X-55965] 24 p4407 N67-39963
Statistical mechanics of neural networks
[AD-658886] 24 p4392 N67-40870
NETWORK SYNTHESIS
Resistance-capacitance active filters - synthesis techniques for low and high pass transfer functions
[ECOM-2744] 01 p0055 N67-11024
Synthesis of RC networks without using inductors or transformers 04 p0522 N67-13347
Gyrator-capacitor network used in production of inductorless filters with RC-ACTIVE networks 04 p0519 N67-13348
Design concept of circuit to satisfy requirements of low level pulse height discriminator 06 p0881 N67-16269
Linear network for classification of analog parallel input signals
[NOLTR-66-108] 07 p1055 N67-17029
Adaptive mechanism theory in threshold gate network synthesis, moment invariant statistics, logic cell iterative arrays, computer design, functional equation solutions, and sonar systems
[RADC-TR-66-510] 08 p1253 N67-18447
Method for synthesizing networks of threshold gates 08 p1259 N67-18448
Network synthesis of cascaded threshold elements
[RADC-TR-66-518] 09 p1427 N67-19454
Categorizations and realizations applied to positive real and biquadratic immittance functions
[AFCRL-66-243/II/] 09 p1469 N67-19785
Techniques for logical network synthesis with given transfer function based on approximation methods using sampled inputs
[NASA-CR-82914] 09 p1428 N67-19911
Method and digital computer program for Resistance-Inductance-Capacitance /RLC/ synthesis of minimum-phase transfer functions 09 p1428 N67-20287
Optical birefringent devices - synthesis of lossless networks, double-pass technique, optical amplitude modulator, and naturally birefringent and electro-optic networks 10 p1692 N67-20522
Optical network synthesis using birefringent crystals - synthesis of lossless networks containing equal length crystals and compensators 10 p1692 N67-20523
Optical synthesis of lossless double-pass networks using birefringent crystals 10 p1692 N67-20524
Matrix solutions for electronic two-port networks
[RAE-TR-66253] 11 p1845 N67-22487
Design and fabrication techniques for wiring pattern used for interconnecting network circuits of automatic mask sets 11 p1838 N67-22624
Digital filter design program capable of generating discrete representations for continuous filters - digital computer 11 p1846 N67-22625
Software for threshold gate network research and automated design aid systems for computer systems design
[AFCRL-66-908] 11 p1832 N67-23353
Technology and fabrication of integrated logic networks - Metal oxide semiconductor transistor circuits
[AFCRL-67-0006] 12 p2072 N67-24636
Synthesis of time-varying passive networks
[SEL-66-099] 12 p2073 N67-24989
System configuration synthesis
[NASA-CR-83971] 13 p2300 N67-26162
Bionic simulation program for network combinations and parameter variations in neural net
[AMRL-TR-66-101, VOL. I] 15 p2652 N67-28964
Output from digital computer simulation of neuromine network
[AMRL-TR-66-101, VOL. II] 16 p2841 N67-29596
Bionics approach to reliability problems, neuron theory, and neuron and neuron network synthesis using Venn diagrams for geometric solution of logic problems
[JPRS-41097] 17 p3010 N67-30618
Quasilossless time variable synthesis suitable for integrated circuits
[TR-6556-15] 17 p3042 N67-31282
Compact interference stable coding method providing for reliable synthesis of logic circuits transforming information to Hamming code 18 p3253 N67-32227
Survey of basic problems, theorems, and constructions for flow networks and generalized extension to frames of real vector spaces and blocking systems
[RM-5266-PR] 18 p3253 N67-32479
Circuit design and hardware procurement for troposcatter simulator
[CSI-67-TR-2374] 18 p3235 N67-32669
Conditions for transformerless realization of one terminal pair RLC with one resistor
[R-351] 18 p3254 N67-32696
Network design to compensate for time delay distortion
[NASA-CR-87279] 19 p3421 N67-33223
Binary, cyclic, and other codes for logic circuits of communication networks - information transmission
[FTD-HT-66-297] 20 p3601 N67-34533
Properties of symmetric functions of triadic logic - information theory 20 p3614 N67-34555
Conference on steel crack toughness, concrete tensile test, stress and hardness effect on magnetization induced from cyclic

deformation, and linear mechanical vibration system synthesis
[T+AM-296] 20 p3661 N67-35148
Miyatas synthesis procedure applied to linear mechanical vibration systems 20 p3742 N67-35152
Technique for computing circuit elements of positive real binary order immittance function
[AFCRL-67-0136] 22 p4015 N67-37209
Network synthesis techniques used to determine performance characteristics of filters designed for VHF wideband crystals
[ECOM-3814] 24 p4419 N67-39958
NEUMANN PROBLEM
Exterior Neumann problem for axisymmetric domain 13 p2348 N67-25776
Linear solidification of dilute binary solution
[AMRA-TR-66-34] 16 p2846 N67-29566
NEURAL NET
SA ARTIFICIAL INTELLIGENCE
Studies in neural network stability and transition matrixes, impalement techniques for myoelectric fiber studies in cats, and method for lens fabrication by square plate deformation 05 p0649 N67-14636
Computer program for simulation of perceptrons and similar neural networks
[REPT.-8] 12 p2959 N67-34402
Electroencephalograms, electrocorticograms and evoked responses, microelectrode recordings and slow potentials, and functional aspects of neuronal nets
[AD-646834] 12 p3027 N67-34721
Information handling properties of neuromine nets
[AMRL-TR-66-128] 13 p2295 N67-25175
Neural modeling of human processes of speech production and pattern recognition
[REPT.-9] 15 p2650 N67-28730
Bionic simulation program for network combinations and parameter variations in neural net
[AMRL-TR-66-101, VOL. I] 15 p2652 N67-28964
Output from digital computer simulation of neuromine network
[AMRL-TR-66-101, VOL. II] 16 p2841 N67-29596
Sequential machine analysis and optimization method for distributed adaptation ability in neuron model network
[GER-12738] 18 p3254 N67-32545
Statistical mechanics of neural networks
[AD-658886] 24 p4392 N67-40370
NEUROLOGY
Neural mechanisms involved in instinctive behavior of pigeons
[AFOSR-67-0007] 12 p2021 N67-23628
Molecular neurochemistry of hippocampus and other brain sites during conditioned avoidance behavior
[MPL-8] 12 p2038 N67-24777
Basic mechanisms of intensity perception in visual system and sensory motor integration
[AFOSR-67-0463] 12 p2039 N67-24895
NEURON
SA RECEPTOR
Neuron level analysis of respiratory center readjustment under conditions of breathing with excess intrapulmonary oxygen pressure in cats 02 p0194 N67-11536
Mechanisms of excitation and inhibition in nerve cells in relation to constructing mathematical and electronic models 03 p0351 N67-12355
Neuron models used in constructing neuron group models
Bionics 03 p0351 N67-12356
Developments in bionics - neuron models, man-machine systems, orientation and navigation in animals, and biomechanics and bioenergetics 03 p0354 N67-12792
Applicability of nonlinear differential equation with discontinuous coefficient to development of mathematical model for studying spontaneous rhythm of neurons 04 p0488 N67-13449
Analytical expressions for synthesis of formal neurons 05 p0636 N67-14356
Digital computer simulation of information processing function of nerve cells
[RM-4877-ARPA] 05 p0653 N67-15089
Neuron model to consider mutual effect of processes in dendrites and soma of neuron
[FTD-HT-66-103] 09 p1427 N67-19779
Changes in tigroid substance of neurons of cats subjected to superhigh frequency field
[ATD-67-3] 14 p2463 N67-27581
Bionics approach to reliability problems, neuron theory, and neuron and neuron network synthesis using Venn diagrams for geometric solution of logic problems
[JPRS-41097] 17 p3010 N67-30818
Imictron control element with mechanisms of living neuron - Time interval modulation coding system 20 p3613 N67-34186
Direct innervation of capillary endothelial cells in lamina propria of ferret stomach
[NASA-CR-73139] 23 p4169 N67-38813
NEURON TRANSMISSION
Problems in analysis of physiology of neuron impulse activity of central nervous system by mathematical methods using computers 04 p0489 N67-13456
Neuronal connections in sensory epithelia and pathological aspects of vestibular epithelia in squirrel monkeys and cats 05 p0655 N67-15130
Electroencephalograms, electrocorticograms and evoked responses, microelectrode recordings and slow potentials, and functional aspects of neuronal nets
[AD-646834] 12 p3027 N67-34721
Electrophysiological correlates of vigilance and learning studied simultaneously by behavioral and electrographic means
[NASA-CR-85843] 18 p3301 N67-31641
U.S.S.R. scientific articles on locomotor adaptations of vertebrates and cephalopods, and information transfer in living systems
[FTD-HT-66-601] 20 p3573 N67-34501
Mathematical model for energy relationships during excitation of nerve tissue 20 p3574 N67-34509
Frequency analysis method for investigating information transmission through cerebral synapses 20 p3575 N67-34512
NEUROPHYSIOLOGY
SA PSYCHOPHYSIOLOGY
Electrodiagnostic methods for therapeutic stimulation and control of neuromuscular physiological functions 04 p0487 N67-13445
Problems in analysis of physiology of neuron impulse activity of central nervous system by mathematical methods using computers 04 p0489 N67-13456
Principles of control sciences applied to biology and medicine
[JPRS-38959] 05 p0639 N67-14375
Validity of tests on laboratory animals to determine effects of psychotropic drugs on human mental processes 05 p0640 N67-14379
Electronic equipment applications in study of higher neural activity and neurophysiology
[JPRS-39490] 05 p0658 N67-15182
Statistical procedure for testing hypothesis of independence, and application to reliability and maintenance of stochastically failing equipment and neurophysiological experiments
[RM-5124-PR] 06 p0901 N67-15358
Cerebral physiological and neurophysiological processes of animal behavior and learning
[AFOSR-66-2356] 07 p1013 N67-17679
Computer program for control of chimpansee discrimination test analysis and electroencephalographic response data
[NASA-CR-81667] 07 p1018 N67-18183
Electrophysiology and neurophysiology of auditory perception 11 p1792 N67-23684
Comparative research on neurophysiology of vision
[AFOSR-66-3764] 11 p1793 N67-23650
Behavioral biology bibliography, including citations on neurophysiology, psychology, and information science
[NASA-CR-82040] 13 p2256 N67-25641
Neurophysiological research on contrast detectors, and insight into neuronal closed loops from shift register theory 14 p2472 N67-27104
Set theory and interrelation with neurophysiology and cybernetics
[JPRS-40823] 14 p2482 N67-27307
Neuronal activities in regulation of feeding and satiety centers in chronically unrestrained cats
[J-195-5] 19 p3372 N67-32870
Stimuli frequency, number, and locus studied for intensity dependence of vibration-evoked cortical response in man
[NASA-TT-F-11193] 21 p3766 N67-35921
Solar phenomena, planetary and lunar compositions, plasmas, interplanetary particles, satellite probes, animal neurophysiology, engineering structures, and related space activities
[NASA-CR-88283] 21 p3922 N67-36460
Physiological data and human engineering - model of neuromuscular actuation system
[NASA-CR-73128] 22 p3968 N67-36756
Neurophysiological problems and variable structure automata
[JPRS-42839] 23 p4231 N67-39972
NEUROSCIENCE
SA PSYCHOLOGY /GEN/
Neuroscience research on correlations between human brain lesions and memory changes, and on hysteresis and macromolecular memory
[NASA-CR-83422] 11 p1791 N67-22881
Actual and potential biological preparations for studying learning mechanisms, with interest centered on insects and mollusks
[NASA-CR-84118] 13 p2296 N67-26449
Electrical coupling and normal oscillation modes in dense excitable cellular structures
[SG-1198/8R-1] 24 p4391 N67-40288
NEUTRAL BEAM
Atomic beams as probe for low density plasmas, and elastic scattering of neutral beams by plasmas
[NYO-2397-2] 01 p0122 N67-10004
Neutral particle beam direction in bubble chamber of synchrophasotron determined by conversion pairs and gamma quantum spectrum
[JINR-P-2916] 10 p1675 N67-29783
Fast neutral hydrogen beam probe of dense plasmoid modes in longitudinal magnetic field 11 p1954 N67-21529
NEUTRAL ELEMENT
Spectroscopic experiments with gas-driven shock tube - technical developments, redundant measurements of plasma state, and atomic line strengths for neutral carbon
[NASA-CR-79762] 02 p0293 N67-13078
Optical and mass spectrometric measurements of neutral element composition in upper atmosphere 10 p1758 N67-29396
Interaction between neutral molecule or atom and metal crystalline surfaces
[AROD-3313-1] 14 p2482 N67-27474
NEUTRAL PARTICLE
Magnetohydrodynamic wave propagation in ionosphere and collisional effects of positive ions with neutral particles
[AD-637871] 01 p0130 N67-10560
Statistical mechanics of irreversible processes in neutral and ionized gas
[LGI-66-2] 03 p0448 N67-13042
Distribution of neutral atoms and charge exchange ions downstream of ion thruster
[NASA-TM-X-52259] 03 p0455 N67-13096
Decay of neutral pions into three photons
[JINR-P-2763] 04 p0688 N67-14614
Neutral particle decay modes measured using Cerenkov counter
[LNF-66/31] 07 p1149 N67-17421
Upper atmosphere neutral particle composition measured by mass spectrometer mounted in Centaur rocket nose cone
[ESRO-SN-21 /ESLAB/] 07 p1074 N67-17941
Magnitude of kaon mass difference measured by time dependence of strangeness produced by neutral kaons originating from positive kaon reaction with deuteron
[BNL-10668] 10 p1794 N67-26829
Method for calculating neutral atmospheric temperatures from incoherent scatter observations
[NASA-CR-84048] 13 p2315 N67-26367
Electron-neutral elastic collisions in computer simulation of one-dimensional plasma diodes
[NASA-CR-84163] 14 p2594 N67-26581
Ion and neutral particle densities in crossed field hydrogenous plasma
[ER-23] 16 p2903 N67-29749
CP invariance in neutral kaon decay
[NEVIS-160] 16 p2947 N67-29758
Thermal method for measurement of neutral particle flux using junction temperature effect
[CEA-R-3094] 19 p3366 N67-32518
Detection and analysis of neutral charged particles, and application to study of hot plasmas
[CEA-R-3128] 19 p3380 N67-32978
Proposed program to accumulate dense energetic ion plasma in open-ended magnetic well by injecting fast neutral atoms into target plasma produced by electron-cyclotron

resonant heating
[ORNL-4080] 20 p3711 N67-35039
Correlations in strong decays of neutral kaon anti-kaon pair into neutral particles
[JINR-P2-3210] 22 p4109 N67-37912
General analysis of neutral kaon physics
[CERN-67-18] 23 p4299 N67-38315
NEUTRALIZATION
Neutralization of positive and negative ions for electrostatic propulsion 04 p0605 N67-13892
Transverse supersonic gas jet for neutralization of intense ion beam
[NP-TR-1432] 10 p1733 N67-21812
New charge exchange method for producing molecular beams 17 p3013 N67-30277
NEUTRINO
SA ANTINEUTRINO
Detection of underground high energy neutrino interactions
[COO-818-86] 01 p0128 N67-10603
Neutrino physics, cosmic ray, and elementary particle experiments
[COO-818-96] 01 p0149 N67-10996
Massive neutrinos in perfect fluid sphere and neutrino motion in superdense matter 04 p0586 N67-13955
Neutrino and antineutrino emission during stellar evolution, and cosmological implications 05 p0761 N67-14860
Effect of neutrino processes in delaying or stopping helium burning in red giants
[NASA-TM-X-59255] 05 p0742 N67-15211
Lectures on vector current theories, elastic and inelastic neutrino reactions SU/3/ symmetry for weak interactions, intermediate vector boson, and Goldberger-Treiman relation
[NP-16332] 07 p1148 N67-17414
Astrophysical evidence for direct electron-neutrino weak interaction - theoretical models of superluminous white dwarfs with and without neutrino emission process
[NASA-TM-X-57356] 08 p1360 N67-18355
Gravitational collapse and electron-type neutrino interactions in massive star during final catastrophic stages of evolution
[NASA-TM-X-57354] 08 p1361 N67-18356
Germanium extraction, formation, and decay studied for use of gallium as solar neutrino detector
[BNL-TR-88] 10 p1699 N67-20752
Lepton polarization in production of excited neutron by neutrinos
[IS-T-96] 10 p1709 N67-20936
Narrowing effect of neutrino during interactions with relativistic electrons
[JINR-P-3779] 12 p2100 N67-23578
Nuclear spectroscopy and solar neutrino astrophysics
[BNL-TR-118] 12 p2300 N67-23745
Pole model for decay of neutrino into three pions
[LNF-67/2] 12 p2165 N67-24030
Soft photon emission approach to pion-gamma and neutrino-gamma pion decays
[IS6-66/49] 13 p2379 N67-26691
Bubble chamber study of elastic neutrino interactions, elastic production of hyperons, and single pion production
[CERN-67-12] 20 p3696 N67-34621
Neutrino motion in Volkoff spheres
[NP-16736] 20 p3699 N67-34699
Neutrino motion in fluid sphere described by solution with singularity 20 p3702 N67-35034
Role of neutrinos in astrophysics, and high energy neutrino interactions with elementary particles 23 p4337 N67-38303
Energy dependence of form factor in positive kaon decay to positron, pion, and neutrino
[PPAD-621F] 23 p4313 N67-39153
NEUTRON
SA COLD NEUTRON
SA FAST NEUTRON
SA SLOW NEUTRON
SA THERMAL NEUTRON
Electromagnetic cascades and neutron production by 6.3 BeV bremmstrahlung in lead, copper, and heavy concrete measured by ionization chamber
[DESY-66/13] 01 p0122 N67-10627
Interpolation formula for neutron self-shielding factor
[KFK-264] 01 p0134 N67-10661
Variational principle for neutron diffusion equation using discontinuous trial functions
[WAPD-T-1885] 01 p0134 N67-10666
Time dependent multigroup diffusion code /SWANTIME/ for IBM 7090 for following response to neutron pulse injected into system with short prompt neutron lifetime
[AWRE-O-3/66] 01 p0136 N67-10707
Response matrices in double P sub N approximation of neutron transport theory
[AAEC-E-149] 01 p0138 N67-10776
Measurement of effective delayed neutron fraction for Zero Power Reactor I
[NASA-TN-D-3709] 01 p0110 N67-10790
Computer program to calculate neutron energy from knock-on proton trajectory length and orientation in nuclear emulsion
[NDL-TM-34] 01 p0845 N67-10974
Intense neutron-generator based on proton accelerator
[AECL-2500] 02 p0285 N67-11745
High energy neutron-proton interactions 03 p0441 N67-12686
Angle-space synthesis as analytical approach to solution of neutron transport equation in realistic multidimensional reactor geometries
[CONF-660606-14] 04 p0575 N67-13962
Relativistic quantum field theory on neutrino and photon concepts
[JEN-157-DF/I-48] 04 p0587 N67-13987
Effect of negative ions on diffusion of charged particles in lower ionosphere
[NASA-CR-80852] 04 p0546 N67-14259
Neutron production rate of fusion reaction in deuterium plasma calculated by non-Maxwellian average
[NRL-6391] 05 p0749 N67-15269
Measurement of gamma ray spectra emitted by nuclei excited as result of resonant neutron capture 06 p0933 N67-15646
Electric and magnetic transition probabilities of spherical nuclei of europium in shell region N equals 82 06 p0934 N67-15654
Mechanical resonance neutron velocity selector system operating on time of flight measurement principle 06 p0913 N67-16513
Neutron-proton elastic scattering above 1 GeV
[SLAC-68] 06 p0939 N67-16382
Cavity formation in neutron irradiated magnesium oxide 07 p1173 N67-16763
Pulsed neutron irradiation of aerospace nuclear reactor fuels immersed in water
[USNRDL-TR-1046] 07 p1127 N67-17154
Construction and characteristics of boron counter with methylene moderator for neutron dosimetry
[NP-TR-1394] 07 p1080 N67-17412
Fission fragment angular distributions in neutron fission of plutonium 239, uranium 233, and uranium 235
[LA-TR-66-41] 07 p1148 N67-17413
Gamma scintillation spectrometry of neutron deficient radio active nuclide decay
[IDO-17188] 07 p1151 N67-17528
Search through nuclear reaction for trineutron stable particle
[ORNL-P-2412] 07 p1153 N67-17554
Monte Carlo and discrete-ordinate calculations of neutron transport from fission and 14 MeV point sources in infinite air medium compared to other calculations of same phenomena
[ORNL-TM-1547] 07 p1155 N67-17693
Techniques for determining eta for thermally fissionable isotopes 08 p1341 N67-18854
Neutron resonance absorption
[IN-1021] 08 p1343 N67-18895
Neutron multiplicity monitor operations at sea level and 3800 meter elevation
[NASA-CR-82507] 08 p1284 N67-19359
General physics - molecular beams, molecular collisions, microwave spectroscopy, radio astronomy, plasmas, energy conversion, noise in electronic devices, and neutron neutrality
[RLE-QPR-82] 10 p1693 N67-20632
Lepton polarization in production of excited neutron by neutrinos
[IS-T-96] 10 p1709 N67-20936
Neutron and gamma ray attenuation in cylindrical duct filled by helical plug with adjustable number of turns
[AE-261] 10 p1715 N67-21151
Radioactivity logging with gamma and neutron radiation sources on ore and coal deposits 10 p1623 N67-21283
Gamma ray, gamma-gamma ray, and neutron-gamma ray logging radioactivity methods of prospecting for coal deposits 10 p1623 N67-21285
Pulse neutron methods for studying geological sections of well 10 p1623 N67-21286
Industrial method for determining porosity of carbonate deposits by neutron-gamma ray logging 10 p1624 N67-21296
Gamma ray and neutron-gamma ray logging, and radioactive isotope methods used in oil fields 10 p1625 N67-21309
Economic importance of gamma ray and neutron-gamma ray logging, and radioactive isotope methods in solving oil well problems 10 p1625 N67-21310
Fortran program applying first order perturbation theory to problems in multigroup neutron transport theory
[AWRE-O-40/66] 10 p1719 N67-21513
High intensity neutrons produced by electrical means
[AECL-2818] 10 p1688 N67-21640
Interaction of neutrons with uranium-238 to determine average cross sections of fission and radiation capture
[FTD-HT-66-338] 11 p1935 N67-23443
Quasispin formalism and applications to nucleon system and proton-neutron system
[NUP-66-16] 11 p1936 N67-23486
Final state lambda hyperon-neutron interactions in reaction gamma plus deuteron yields positive kaon plus lambda hyperon plus neutron
[TH/176] 11 p1941 N67-23649
Transient annealing in semiconductor devices following pulsed neutron irradiation
[SC-R-66-923] 11 p1969 N67-23221
Variational principle for neutron diffusion equation using discontinuous trial flux functions - Lagrange multiplier method
[WAPD-TM-610] 12 p2158 N67-23562
Difference equations for neutron diffusion equations in hexagonal geometry option of PDQ-7 program - truncation error
[WAPD-TM-645] 12 p2158 N67-23563
Simple method to improve efficiency of sigma sub alpha over sigma sub t estimator for neutron capture rates used in Monte Carlo programs
[WAPD-TM-609] 12 p2158 N67-23564
Compilation of additions entered into CINDA master tape index on literature of microscopic neutron data
[TID-23357, SUPPL. 1] 12 p2160 N67-23577
Shielding effectiveness of permanent structures of Test Cell C complex of rocket facility during full power run of Kiwi B4D-202 nuclear reactor - gamma and neutron radiation doses
[LA-3622-MS] 12 p2150 N67-24535
Neutron anisotropy of inhomogeneous graphite block
[NP-16499] 13 p2360 N67-25546
Calculation on first flight collision probability for neutron paths in square and hexagonal lattices
[JAERI-1072] 13 p2376 N67-25919
Time moment and fundamental decay constant of neutron pulse in thermalizing medium described by time dependent Boltzmann equation
[EUR-3275.E] 13 p2379 N67-26090
Neutron irradiation of benzene chromium tricarbonyl
[EUR-3282.D] 14 p2477 N67-26926
Variational principles associated with neutron diffusion in solids
[MRC-TSR-711] 15 p2760 N67-28280
Asymmetry of neutron emergence from polarized muon capture investigated on basis of two-particle effective Hamiltonian
[JINR-P4-3153] 15 p2765 N67-28467
Fast chopper and scintillation spectrometer used to measure spectrum of gamma rays following resonance neutron capture at 405 eV in Cl-35
[UJV-1705] 15 p2765 N67-28470
Mass distributions of proton meson and neutron pion combinations for 114 cases of neutron proton reactions
[JINR-P1-3146] 15 p2770 N67-28580
Lambda hyperon-proton scattering and lambda hyperon-neutron interaction
[IC/67/16] 15 p2771 N67-28691
Powder dispersion materials for reactor physics measurement
[INR-751/XIV/PR] 16 p2935 N67-29970
Neutron irradiation effect on mechanical property and grain size in iron
[SORIN-100] 16 p2911 N67-29979
Rotating neutron target system
[UCRL-70183] 17 p3045 N67-30668
Halogen atom reactions activated by radiative neutron capture and bromine 82m

isomeric transition
[COO-1617-6] 17 p3018 N67-31070
Janvier method in pulsed neutron experiments
[CEA-R-3070] 19 p3488 N67-33119
Classical methods of calculating neutronic interactions of multiplying media
[CEA-R-2849] 19 p3505 N67-33230
Green function for reflected slab reactor solved using diffusion theory model, for pulsed neutron problem
[UCRL-70366] 19 p3490 N67-33333
Neutron beam characteristics associated with thermal, epithermal, and fast neutron fluxes measured in high flux beam reactor
[BNL-11245] 19 p3493 N67-33752
Thermal annealing of neutron irradiated tris dipyridyl cobalt III perchlorate - redistribution of electrons among donors
[AEET-271] 20 p3568 N67-34123
Neutrons from d-d reactions in hot deuterium plasma for plasma diagnostics
[IPP-1/60] 20 p3707 N67-34168
Measurement of neutron attenuation in several reactor materials and radioactive neutron sources
[JUL-435-ST] 20 p3693 N67-34340
Data requirements of triangular mesh neutron codes Trifid and Raven
[TRG-1374/R/] 20 p3681 N67-34430
Computer program for solving time-independent neutron transport equation in multigroup r-geometry reactor cell
[EIR-110] 21 p3900 N67-35857
Analytical solution of energy dependent neutron transport equations
[EIR-98] 21 p3901 N67-35859
SNAP reactor data used for comparison of beryllium photoneutron decay sets
[NAA-SR-MEMO-12347] 21 p3905 N67-36288
Neutron irradiation of pure metals and aluminum zinc alloys
[ANL-7185] 22 p4071 N67-37510
Neutron and gamma ray shielding, heat transfer problems and physics theory for thermionic reactors as power supply for spacecrafts
[BMWF-FBK-67-46] 22 p4095 N67-37907
Linearized point reactor model in prompt jump approximation used with two-region lumped parameter model for heat transfer to determine reactor stability with delayed neutrons
[TID-23844] 22 p4096 N67-38027
Solar flare effects on diurnal variation of neutron intensity 23 p4338 N67-38217
Neutron time-of-flight effect on decay constant in diffusion measurements
[UJV-1720] 23 p4301 N67-38453
Neutron irradiation effects on resistivity of binary alloys
[ORO-2891-6] 23 p4264 N67-38577
Effective neutron resonance integral of 30-mil thorium wire relative to integral at infinite dilution
[WAPD-TM-623] 23 p4306 N67-38644
Spectrometry of neutron capture gamma radiation of gases in reactor
[BMWF-FBK-67-25] 23 p4267 N67-38845
Interfacial energy distribution of neutrons 23 p4311 N67-38964
Neutron diffusion in polarizing media 23 p4311 N67-38966
Neutron irradiation effect on mechanical properties of nickel chromium iron alloy 600, nickel chromium iron weld metal, and Type 347 stainless steel
[KAPL-3161] 23 p4266 N67-39025
Rapid neutron capture in supernova explosions
[NASA-TM-X-60443] 23 p4340 N67-39075

NEUTRON ABSORBER
Modifications to computer program used for calculating neutron absorptions and spectra at epithermal energies
[AECL-1996, SUPPL.] 04 p0518 N67-13865
Reactivity worths of neutron absorbing rods in plutonium-fueled water moderated reactors 08 p1310 N67-18507
Compound nucleus states model for computing fast neutron absorption and energy loss due to radiative capture and neutron reactions with atomic nuclei 08 p1336 N67-18826
Computer code for calculating neutron absorber and fissile isotope cross sections from reactivity measurements
[IN-1017] 08 p1316 N67-18873
Neutron absorbers and pulsed neutron research in Nora reactor uranium oxide and water lattices
[IAEA-3498-16] 16 p2922 N67-29781
Fast neutron attenuation in nonhydrogen moderators for radiation shielding of reactor vessels 17 p3114 N67-31251

NEUTRON ACTIVATION
Neutron radioactivation determination of antimony, silver, copper, gallium, molybdenum, and zinc
[CEA-R-2965] 01 p0086 N67-10807
Chemical separation and spectrometric analysis of alkali metals, alkaline earths, rare earths, chromium, hafnium, lanthanum, manganese, silver, and scandium neutron-activated biology material
[AE-347] 02 p0227 N67-11864
Activation cross section of neutron reactions in selenium and iron samples measured with high resolution detectors at 14.4 MeV
[ORO-3346-2] 03 p0445 N67-12300
Bromine in terrestrial and extraterrestrial matter determined by neutron activation analysis
[ORO-2670-13] 04 p0507 N67-14038
Neutron activation analysis of grains from enstatite achondrite meteorites - effect of proton damage on luminescence spectra of various meteorite classes - Lunar luminescence
[AFCRL-TR-66-665] 04 p0514 N67-14281
Rare earth fractionation in Hawaiian volcanic rocks, neutron activation procedure to determine rare earth elements in rocks and minerals, and magnetic processes
[AD-642344] 05 p0765 N67-15104
Polish articles on neutron activation analysis, trace elements, reactor technology, and nuclear physics and chemistry
[AEC-TR-4919] 06 p0821 N67-16221
Neutron activation analysis on arsenic content in semiconducting germanium, sulfur, and mineral acids 06 p0823 N67-16250
Neutron activation analytical method for determining amounts of manganese in nitric and hydrochloric acids 06 p0824 N67-16276
Fast neutron activation analysis method for determining copper content in ores 06 p0824 N67-16277
Absolute thermal neutron density measurements by activation method using liquid scintillators 06 p0827 N67-16279
Absolute beta activity measurements of thermal neutron activation cross-sections of phosphorus, iodine, and indium in relation to sodium and manganese using liquid scintillators 06 p0828 N67-16280
Metallic bismuth impurities determined by neutron activation 06 p0825 N67-16289
Neutron activation analysis to determine copper, zinc, arsenic, and iron traces in high purity selenium 06 p0827 N67-16322
Isotope separation and purification and neutron activation analysis research
[MLM-1274] 06 p0830 N67-16528
Determination of antimony in natural materials by neutron activation
[ORO-2670-15] 07 p1027 N67-17466
Atomic absorption and emission spectroscopy, and neutron activation for ultratrace chemical analysis of materials for semiconductor
[NASA-CR-82011] 08 p1237 N67-18519
Neutron activation and iodine-131 tracer test methods for charcoal filter banks at research reactor facility
[IS-1425] 08 p1311 N67-18584
Neutron radiative capture cross section measurements on irradiated sodium, manganese, indium, and holmium samples 08 p1340 N67-18840
Neutron activation cross sections for cobalt 60 isomers
[IN-1024] 08 p1344 N67-19020
Neutron activation methods applied to determining oxygen content in steel, and cost comparison for use of nuclear and conventional equipments by industry
[EUR-3161.F, VOL. III] 06 p1239 N67-19067
Elemental abundances in meteorites and terrestrial matter determined by neutron activation analysis
[NASA-CR-82505] 08 p1278 N67-19083
Neutron activation determination of oxygen in steel on industrial scale with similar possibilities for determining nitrogen and hydrogen in steel
[EUR-3161.F, VOL. I] 08 p1340 N67-19186
Apparatus, conditions, and results of tests designed to determine industrial application possibilities of neutron activation analysis for determining oxygen content in steel
[EUR-3161.F, VOL. II] 08 p1341 N67-19189
Neutron activation procedure to simultaneously detect cesium, hafnium, and tantalum in tektites 09 p1405 N67-19507
Induced neutron activity method for determining contact zone of oil-bearing and water-bearing carbonate collectors in cased and uncased wells 10 p1624 N67-21294
Fast neutron activation of rock boreholes using polonium-beryllium sources 10 p1624 N67-21302
Scintillation gamma spectrometer technique for simultaneously determining element concentration in rock sample 10 p1625 N67-21304
Induced neutron activation method to check flooding of oil deposits 10 p1625 N67-21311
Neutron activation measurements of trace element concentrations in concrete materials for use in NASA Space Propulsion Facility
[NASA-TM-X-1361] 13 p2125 N67-24490
Fission rate data from neutron activation method for calculating reactor power for fuel element geometry
[IN-1047] 13 p2362 N67-25908
Automated activation analysis research
[TKES-5671-5] 16 p2943 N67-29809
Electronic methods for coupling automated instrumental activation analysis system to cooled lithium drifted germanium detector 16 p2898 N67-29891
Improved methods of standard and sample preparation for neutron activation analysis 16 p2845 N67-29892
Applicability of automatic activation analysis facilities of Texas A and M University to problems involving public benefit and interest 16 p2943 N67-29898
Two-dimensional activation analysis using neutron activation and scanning methods for studying localization of impurities in irradiated aluminum foil 16 p2943 N67-29894
Additional basic and applied nuclear research projects of activation analysis research laboratory 16 p2943 N67-29896
Use of nuclear photoactivation by X-rays as analysis method
[EUR-3298.F] 17 p3131 N67-30749
Fast neutron generators and gamma spectrometers for direct activation analysis of steel structures
[MG/D-329/65] 17 p3081 N67-31141
Activation of indium and cadmium through cobalt-60 irradiation
[ISS-66/46] 19 p3327 N67-33977
Sensitivity data sheets for handbook on neutron activation analysis sensitivity - bismuth isotope reactions
[EUR-1898.E, ADDEND. I] 20 p3690 N67-34092
Neutron activation analyses of trace elements in petroleum and long-lived nuclides
[SGAE-CH-46/1967] 20 p3598 N67-35344
High temperature neutron diffraction of yttrium and lanthanum dicarbides 21 p3787 N67-36341
Neutron activation analysis of Roman copper coins dating 250 to 300 A.D.
[NAEM-35] 23 p4310 N67-39219
Determination of tungsten resonance absorption integrals by activation
[NASA-TN-D-4137] 23 p4315 N67-39278
IBM 7094 computer program written in Fortran IV for prediction of neutron induced activation
[NASA-CR-89654] 24 p4500 N67-39822
Activation analysis from thallium 203 neutron two neutron reaction
[CNAEM-39] 24 p4490 N67-40282

NEUTRON BEAM
Gamma rays investigated during interaction of neutrons with sodium, sulfur, chlorine, potassium, and lead
[USNRDL-TR-1043] 02 p0291 N67-12084
Design and operation of resonance neutron selector in Poland 06 p0813 N67-16310
Collimated neutron beams measured with rem meter 13 p2210 N67-25467
Influence of nitrogen in iron and steel under fast neutron irradiation on magnetic properties
[SORIN-M/441] 13 p2349 N67-25894
Core element effect on beryllium-filtered neutron beam from research reactor
[AMRA-TR-67-05] 18 p2904 N67-28946
Neutron beam characteristics associated with thermal, epithermal, and fast neutron fluxes measured in high flux beam reactor
[BNL-11245] 19 p3490 N67-33752

NEUTRON BOMBARDMENT
Electron microscope study of high temperature embrittlement of irradiated stainless steels
[TRG-1283/C/] 03 p0410 N67-12700
Fatigue properties of neutron-irradiated pressure vessel steels
[WAPD-T-1864] 04 p0556 N67-13379
Determination of embrittlement of pressure vessel steels after increasing neutron radiation doses
[EUR-3830] 04 p0560 N67-13972
Mechanical property changes in Zircaloy 2 Inconel and Incoloy for fast neutron exposures above 1 MeV
[GEAP-5100-9] 04 p0561 N67-14086
Damaging neutron exposure criteria for evaluating embrittlement of reactor pressure vessel steels
[NRL-6415] 05 p0727 N67-14999
Angular distribution and spectra of direct reactions on light and medium weight elements at neutron energy of 14 MeV 06 p0921 N67-15572
Radiative capture, inelastic scattering, and polarization in reactions of nucleons with nuclei described by optical model 06 p0923 N67-15583
X-ray analysis of mosaic structure of aluminum single crystals under fast neutron bombardment 06 p0948 N67-16372
Effect of lattice defects produced by fast neutrons on plasticity of copper single crystals 07 p1098 N67-16770
Correlation between critical shear stress of neutron irradiated copper single crystals and density of defect clusters 07 p1098 N67-16771
Energy dependence of neutron and gamma radiation damage in silicon transistors
[NAA-SR-MEMO-11867] 07 p1052 N67-17725
Interstitial nitrogen effects on mechanical properties of iron after neutron bombardment
[EUR-2393.E] 10 p1654 N67-21157
Neutron irradiation effect on plastic deformation in niobium single crystals
[ORNL-TM-1583] 10 p1752 N67-21467
Neutron damage in reactor metal studied by liquid helium temperature resistance measurements, mechanical property measurements, and stored energy measurements
[GA-7436] 10 p1657 N67-21654
High temperature tensile strengths of unirradiated and neutron bombarded austenitic steel
[AE-360] 11 p1898 N67-22957
Platinum alloy thermocouple composition changes due to neutron bombardment in thermal reactors
[EUR-3156.E] 11 p1926 N67-23093
Neutron irradiation induced defects in molybdenum studied by transmission electron microscopy and field-ion microscopy
[UCRL-17078] 11 p1899 N67-23185
Effects of fast neutrons on mechanical properties of Fe-Ti and Fe-N-Al alloys before and after isothermal annealing
[EURAEC-1727] 12 p2115 N67-23590
Production of plutonium 238 by continuous irradiation and chemical processing of neptunium 237
[ORNL-4023] 12 p2042 N67-24160
Electromotive force deviation of Chromal-Alumel thermocouples caused by neutron irradiation
[EUR-3257.E] 12 p2102 N67-24585
Neutron irradiations of silicon diodes to determine energy dependence and degradation of electrical parameters
[NDL-TR-83-IV] 13 p2389 N67-25336
Potentialities of variable energy cyclotron for charged particle activation analysis - literature survey of reported methods and prescribed experimental methodology 16 p2873 N67-29295
Methods of separation of reaction channels of np-interactions by neutron bombardment
[JINR-P1-3145] 16 p2945 N67-29685
Embrittlement in pressure vessel steels determined with respect to neutron irradiation by stress wave attenuation tests
[EUR-3334] 16 p2906 N67-29735
Long term mechanical properties of metals subjected to mechanical stress at high temperature and neutron irradiation
[EURAEC-1860] 16 p2906 N67-29736
Neutron danger functions in analysis of reactor radiation shielding 17 p3113 N67-31243
Neutron bombardment influence on certain properties of tungsten
[JPRS-42211] 20 p3712 N67-34220
Neutron irradiation effects on mechanical properties and corrosion behavior of zirconium alloy and Zircaloy 2
[EUR-3335.E] 20 p3658 N67-34696
Neutron irradiation effects on high temperature tensile properties of nickel-containing alloys
[AECL-2677] 20 p3662 N67-35256
Hyperfine interaction in rare earth metals and compounds from polarized neutrons 21 p3921 N67-36365
Temporary effect of neutron bombardment on various transistors 23 p4234 N67-38479
Small-quantity additions of molybdenum, zirconium, and niobium considered for improving behavior of uranium under neutron irradiation
[EUR-3479.I] 23 p4265 N67-38837
Curium 250 production in high flux reactor neutron irradiation of curium sample
[ANL-7330] 24 p4491 N67-39682
Ternary fission of uranium 238 and thorium 232 nuclei by 2.9 MeV neutrons
[INP-547/PL] 24 p4501 N67-40099
Separation of recoiling chromium /II/ species from neutron bombarded hexaquochromium /III/ ion adsorbed on ion exchange resin
[IAERU-6606] 24 p4401 N67-40479
NEUTRON COUNTER
SA GEIGER COUNTER
Neutron monitor and telescopic recordings of diurnal and semidiurnal variations of cosmic ray intensity during 1965 - tables
[AFCRL-66-523] 01 p0147 N67-10307
Precision long counter for measuring fast neutron flux density
[BNWL-360] 02 p0259 N67-11705
Similarity method applied to radiation fields during calibration of neutron radiation meters
[NP-16202] 03 p0400 N67-13260
Silicon detectors of thermal neutrons 06 p0938 N67-16284
Nondestructive radionuclide analysis by neutron counter
[DP-1035] 07 p1078 N67-17077
Boron pile measurements of average number of neutrons per fission for reactor physics calculations
[EANDC/UK/-52-S] 08 p1312 N67-18616
Neutron counting statistics of zero power reactor treated on basis of Kolmogoroff theory of branching processes
[KR-114] 15 p2743 N67-27985
Specific yield functions for IGY neutron counters for vertically incident cosmic ray protons, using Monte Carlo method
[BSR-2018] 16 p2965 N67-29002
Amplifier-discriminator used in neutron counters - sensitivity, effects of temperature changes and transistor leakage and circuitry
[AECL-2690] 17 p3061 N67-30607
Scintillation and neutron counters and dosimeters for studying nuclear reactor shielding and shielding materials properties 17 p3116 N67-31274
Directional characteristics and neutron sensitivity of ionization chamber dosimeters for measuring X-rays, neutron, and gamma radiation
[NP-16701] 19 p3451 N67-33005
Air pressure dependence of cosmic ray intensity - statistical analysis of neutron monitor data
[SN-3] 19 p3530 N67-33291
One-factor model for comparing performance of neutron monitors
[SN-2] 19 p3530 N67-33353
Neutron monitor modifications and muon telescope design for cosmic ray studies 23 p4251 N67-38232
Instrument errors in neutron counter reduced by soldering contacts of high voltage and central counter electrodes 23 p4251 N67-38233
Fission chambers for study of neutron shielding 23 p4311 N67-38969
Ground level neutron counters for real time solar proton monitoring network 24 p4524 N67-39811
Silicon transistor circuit for reactor period simulator test on neutron flux measuring device
[DP-1119] 24 p4451 N67-39856
NEUTRON CROSS SECTION
Statistical model approach for computing ratios of neutron cross sections for reaction on adjacent isotopes
[UCRL-14575] 01 p0121 N67-10606
Neutron capture reactions and stellar nucleosynthesis - heavy element buildup
[NASA-TM-X-53527] 02 p0289 N67-11353
Enriched isotopes of calcium used to measure on 14 MeV neutron-induced reaction cross sections 03 p0423 N67-12548
Absolute values of neutron cross sections for 14.8 MeV neutrons of low Z 03 p0433 N67-12549
Neutron cross sections and isomeric ratios at 14.8 MeV 03 p0433 N67-12551
Fluctuation analysis and theory of certain proton - alpha particle and other neutron reaction cross sections 03 p0434 N67-12552
Integrated cross section of helium with velocity-dependent potential 03 p0436 N67-12570
Neutron resonance parameters studied using slowing down time lead spectrometer 03 p0439 N67-12598
Modified Fortran evaporation program used for calculating radiochemical cross sections and particle multiplicities for protons on carbon and aluminum targets
[NASA-CR-80437] 03 p0442 N67-13116
Evidence for baryon minus eta enhancement near threshold
[COO-881-75] 03 p0443 N67-13285
Neutron cross sections of germanium at 14.4 MeV measured
[ORO-3346-3] 03 p0446 N67-13327
Thermostat for high temperature measurements of neutron cross sections
[NP-497/PS] 04 p0574 N67-13599
Computer program to calculate point cross sections from resonance parameters - nuclear reactor analysis
[NAA-SR-11900, VOL. VI] 04 p0584 N67-13630
Tabulation of protactinium 233 total neutron cross section data
[IN-1014] 04 p0584 N67-13634
Fast neutron cross sections and elastic scattering Legendre moments below 75 MeV for carbon
[KAPL-3099] 05 p0741 N67-14692
Energy dependence of differential cross sections of deuterons during formation of compound nucleus in silicon reaction 06 p0922 N67-15574
Polarization of neutrons in stripping reaction on carbon analyzed by elastic scattering 06 p0922 N67-15576
Inelastic scattering cross sections of neutrons with iron, nickel, and niobium nuclei 06 p0924 N67-15586
Fast neutron absorption cross section measuring without effect of elastic scattering 06 p0924 N67-15589
Threshold photoneutron cross sections for iron and bismuth
[UCRL-14942] 06 p0939 N67-16391
Neutron differential elastic scattering cross sections and total cross sections for nuclides
[LA-3538-MS, VOL. I] 06 p0940 N67-16399
Neutron differential elastic scattering cross sections and total cross sections for nuclides
[LA-3538-MS, VOL. II] 06 p0940 N67-16400
Evaluation of cross sections for determining production of transuranium elements
[BNL-922] 07 p1151 N67-17521
Elastic and inelastic neutron scattering, charged particle emissions, slow neutron reactions, and neutron cross sections - conference papers
[INDSWG-101] 07 p1152 N67-17583
Photoneutron measurements obtained with monochromatic photons
[UCRL-70002] 07 p1153 N67-17559
Reactor multiplication values and neutron cross section uncertainties in thermal systems 08 p1310 N67-18505
Conference papers pertaining to effects of neutron cross section measurements and uncertainties on reactor design and technology
[CONF-660203, BK. 1] 08 p1313 N67-18781
Sensitivity of light and heavy water moderated reactor characteristics to neutron cross section uncertainties below 100 eV 08 p1312 N67-18782
Low energy neutron cross section measurements of nonfissile nuclides for thermal and intermediate energy reactor designs 08 p1313 N67-18783
Data analysis of total neutron cross section measurements on radioactive

isotopes 08 p1313 N67-18785
Sensitivity of reactor multiplication values to thermal neutron cross sections 08 p1313 N67-18786
Neutron cross section sensitivity calculations for small hydrogen moderated clean critical cores 08 p1314 N67-18789
Totally absorbing gamma ray detector measurements of neutron capture cross sections on tungsten isotopes 08 p1315 N67-18795
Preparation of neutron cross section library for use in reactor and shielding calculations - automated data handling system, feedback problems, and data interpolation 08 p1315 N67-18797
Neutron cross section data compiling - activities, magnetic tape data library, and problems in publication of cross section data 08 p1335 N67-18798
Theoretical models to fill gaps in sets of neutron cross section data for elastic and inelastic scattering of neutrons in energy range below 16 MeV 08 p1335 N67-18799
Mechanized evaluation of neutron cross sections 08 p1335 N67-18800
Neutron cross sections and resonance integrals for transuranium elements 08 p1336 N67-18801
Fortran program for neutron cross section data evaluation 08 p1315 N67-18802
Time-of-flight technique for correlating energy calibration of neutron velocity spectrometers 08 p1316 N67-18804
Critical mass and flux distribution measurements as supplementary data for determining neutron cross sections 08 p1316 N67-18806
Computer library of neutron activation cross sections for stable isotopes 08 p1316 N67-18807
Cross section calculation method for computer prediction of neutron induced activation energy throughout periodic table 08 p1336 N67-18808
Mathematical criteria for valid Legendre polynomial expansions of differential neutron cross section values 08 p1336 N67-18809
Sensitivity parameters of fast power reactor to neutron cross section uncertainties in 100 eV to 100 keV energy range 08 p1316 N67-18811
Energy evaluation and sample dependent background corrections for total neutron cross section measurements by synchrocyclotron spectrometer 08 p1336 N67-18812
Technological survey on neutron cross section measurements and detectors for 100 eV to 100 keV energy range 08 p1336 N67-18813
Reactor safety as function of reactivity coefficients in neutron cross sections 08 p1316 N67-18814
Neutron capture cross sections for nucleosyntheses in stars and in thermonuclear explosions 08 p1337 N67-18815
Spin-dependent scattering radii for sodium neutron cross section calculation below 40 keV 08 p1337 N67-18816
Gold capture cross section discrepancies explained by changes in boron cross sections used to monitor neutron fluxes 08 p1337 N67-18817
Monte Carlo analysis of sphere transmission data for gold and iodine slow neutron capture cross sections at 24 keV 08 p1337 N67-18818
Slow neutron resonance parameter and cross section numerical analysis by computer programs 08 p1316 N67-18819
Conference papers on neutron cross section measurements and needs [CONF-660303, BK. 2] 08 p1316 N67-18821
Qualitative influence of fast neutron cross sections above 100 keV on threshold fissioners 08 p1316 N67-18822
Techniques for neutron resonance measurements above 200 keV on lead targets 08 p1337 N67-18823
Cross section and angular distribution energy measurements of gamma rays produced by neutron inelastic scattering, and comparison with theoretical predictions 08 p1338 N67-18825
Compound nucleus states model for computing fast neutron absorption and energy loss due to radiative capture and neutron reactions with atomic nuclei 08 p1338 N67-18826
Fission cross section ratios of uranium 233, neptunium 237, and uranium 235 08 p1338 N67-18827
Elastic and inelastic neutron scattering cross sections from lithium 08 p1338 N67-18828
Nuclear models of charged particle data to determine neutron cross section values 08 p1338 N67-18829
Differential measurements of neutron scattering cross sections from nitrogen 08 p1338 N67-18830
Determination of fast neutron spectrum from threshold foil activation cross section data 08 p1317 N67-18831
Measured differential niobium 93 cross section at 14 MeV and varying scattering angles 08 p1338 N67-18832
Discrepancy between measured and predicted neutron cross section values for niobium 93 to niobium 92 reaction 08 p1339 N67-18833
Linear accelerator measurements of MeV total neutron cross sections for several nuclides 08 p1339 N67-18834
Statistical analysis of cross section ratios in two-particle excitation functions induced by 14 MeV neutrons 08 p1339 N67-18836
Inelastic neutron cross section measurements for lead in high and low MeV energy range 08 p1339 N67-18837
Neutron induced gamma ray production cross section measurements for aluminum, iron, niobium, tungsten, uranium, and plutonium 08 p1339 N67-18838
Neutron radiative capture cross section measurements on irradiated sodium, manganese, indium, and holmium samples 08 p1340 N67-18840
Measurements on capture cross section of uranium 238 with bomb source neutrons 08 p1340 N67-18842
Reactivity measurements of pile neutron cross sections and resonance absorption integrals 08 p1317 N67-18844
Critical evaluation of fast fission cross sections of uranium 235, uranium 238, plutonium 239, and plutonium 240 08 p1317 N67-18846
Sensitivity of fast reactor parameters to cross section uncertainties 08 p1317 N67-18847
Fission resonance cross section requirements for reactor design 08 p1317 N67-18848
Measurement and analysis of fissile nuclide cross sections 08 p1340 N67-18849
Interpretations of neutron cross sections of fissionable materials for resolved resonance region 08 p1340 N67-18850
Neutron cross section of uranium 235 fission from 20 eV to 2 MeV 08 p1340 N67-18851
Capture and fission cross sections of plutonium 240 08 p1341 N67-18852
Fission neutron cross section measurements of plutonium 241 determined from nuclear explosion 08 p1341 N67-18853
Preparation of microscopic cross sections of uranium 235 for high temperature reactor calculations 08 p1317 N67-18856
Need for plutonium 238 and curium 244 cross section data 08 p1317 N67-18857
Fission cross section of uranium 235 measured by time of flight using neutrons generated by underground nuclear explosion 08 p1318 N67-18858
Fission cross section of plutonium 239 measured by time of flight using neutrons from underground nuclear explosion 08 p1341 N67-18859
Analytical fits to absorption and fission neutron cross sections of uranium 233, uranium 235, plutonium 239, and plutonium 241 08 p1341 N67-18860
Comparison of multilevel and single level fission cross section effects for fissionable isotope 08 p1341 N67-18861
Epithermal neutron induced fission cross section of uranium 235 08 p1341 N67-18862
Future neutron cross section needs for nuclear power industry 08 p1318 N67-18864
Future trends in neutron cross section measurements with electron linear accelerators 08 p1342 N67-18865
Nuclear explosions as pulsed neutron sources for cross section measurements 08 p1342 N67-18866
Isochronous cyclotron, synchrocyclotron, and separated orbit cyclotron for measuring slow neutron cross sections 08 p1342 N67-18867
Van de Graaff accelerator experiments on neutron decay spectrometer for cross section measurement 08 p1318 N67-18869
Neutron-proton differential cross section measurements, using shielded counter to record recoil angle distribution 08 p1342 N67-18870
Direct zero power reactor measurements of neutron capture-to-fission ratio, and results of uranium 235 measurements 08 p1342 N67-18871
Fission cross section of plutonium 241 from 0.01 ev to 0.5 ev [IN-1012] 08 p1343 N67-18867
GRIEM computational system in Fortran II for IBM 7094 for generating multigroup constants from microscopic neutron cross section data [NAA-SR-11980, VOL. III] 08 p1319 N67-18893
Nonspherical optical model for computing fast neutron scattering cross sections [NAA-SR-11796] 08 p1320 N67-18917
Thermal neutron cross sections, resonance parameters, and cross section curves [BNL-325, SUPPL. 2, VOL. IIA] 08 p1344 N67-19089
Deuteron and proton optical models, excitation energies for 23 levels of Zr 94, stripping and other direct reactions, and neutron capture and fission cross sections of uranium 08 p1346 N67-19822
Nuclear chemistry studies of isotope neutron cross sections, nuclear charge distribution in fission, gamma radiation, energy levels, and decay properties and schemes 08 p1342 N67-19842
Fortran IV program for evaluating equivalent diffusion coefficient and loss cross section of annular void in cylindrical reactors [GEMP-424] 09 p1429 N67-20144
Neutron cross sections and related measurements [ORNL-P-2493] 10 p1708 N67-20823
Tungsten neutron cross section, resonance parameters, and scattering matrixes for certain nuclear reaction concepts [NASA-CR-83622] 10 p1708 N67-20831
Linear accelerator project, germanium and silicon electrons, and mass spectrometer to measure thermal neutron cross sections of francium 167 and samarium 147 [RPI-238-68] 10 p1709 N67-20927
Neutron inelastic scattering by Al, Ca, C, Co, Fe, K, Na, V, and Y and neutron total cross section of N and Ca [ORNL-TM-1685] 10 p1711 N67-20972
Anomalous neutron parameters of chlorine nuclei in controlling flooding of oil fields 10 p1625 N67-21312
Spin resonances and thermal neutron cross sections for samarium 149, neodymium 146 reaction [INR-755/IA/PL] 10 p1717 N67-21411
Fortran IV program for constructing cross section data from multigroup cross section data and addition to ROC nuclear data library tapes [WAPD-TM-586] 10 p1722 N67-21557
Theoretical models for providing neutron cross sections for reactor and shielding calculations [KAPL-P-2176] 10 p1724 N67-21568
Neutron resonances and reactivity [LA-3560-MS] 10 p1728 N67-21665
Neutron cross section data in 100 eV to 100 keV energy range for large fast power reactor users [GEAP-4472] 10 p1689 N67-21678
Compilation of neutron induced fission cross sections from Petrel event [LA-3598] 11 p1804 N67-22313
Computer oriented neutron data storage and retrieval system [UCRL-50122] 11 p1820 N67-22321
Pile neutron capture cross sections of rare earth isotopes determined by mass spectrometric analysis - tables [SGAE-PH-47/1966] 11 p1829 N67-22970
Neutron total cross section measurements using neutron intensity spectrum continuous in energy [COO-1973-3] 13 p2180 N67-23304
Tabulation of total neutron cross section of uranium 233 determined with materials testing reactor fast chopper [IN-1615] 13 p2169 N67-24589
Tabulation of thorium 232 total neutron cross sections for 1.9 and 7.5 eV resonances

[IN-1040] 12 p2169 N67-34560
Fast neutron cross sections inferred from charged particle data and nuclear models
[UCRL-14955] 12 p2169 N67-34568
Neutron emission in fast neutron fission of plutonium 241, neutron resonance radiative capture cross sections of shell nuclei, and neutron angular distribution calculations
[EANDC/OR/-44/L/] 12 p2170 N67-34677
Gamma production cross sections calculated as function of energy
[UCRL-50185] 13 p2372 N67-35636
Inelastic neutron scattering cross sections in several elements with 15 MeV neutrons
[NDL-TR-86] 13 p2375 N67-35636
Summary and evaluation of plutonium 239 cross section data for nuclear data file
[GEAP-5272] 13 p2361 N67-35904
Neutron fission cross sections of plutonium 239 and plutonium 240
[KFK-450] 15 p2766 N67-38451
Neutron capture cross section measurements for medium and heavy nuclei using large liquid scintillator
[KFK-455] 15 p2767 N67-38490
Neutron gamma cross section measurement for gold at 30 keV
[KFK-454] 15 p2767 N67-38491
High resolution neutron cross section measurements for fast reactor structural materials
[KFK-452] 15 p2750 N67-38492
Monte Carlo neutronics computer program for reactor calculations
[AHSB/S/-R-105] 15 p2751 N67-38863
Relative neutron cross section energy measurements on excitation fluctuations of magnesium 24, and aluminum 27 structures
[USNRDL-TR-67-21] 15 p2772 N67-38967
Solving problems of multiple scattering from neutron cross sections experiments by Monte Carlo method
[ORNL-TR-1546] 16 p2941 N67-39273
Neutron cross section sensitivity calculation for small hydrogen moderated reactor designs
[KAPL-M-6563] 16 p2942 N67-39333
Neutron and scattering cross section, elastic scattering, angular correlation, and decay data
[AEET-367] 16 p2942 N67-39337
Physical problems in neutron nuclear data evaluation
[KFK-457] 16 p2948 N67-39798
Pulsed neutron measurements on capture and transport cross sections in lead and uranium 238
[KFK-451] 16 p2948 N67-39799
Atomics international evaluated nuclear data file and associated computer programs for automated preparation of multigroup constants
[NAA-SR-MEMO-12315] 16 p2950 N67-39879
Differential equations for Doppler broadened cross sections 17 p3123 N67-30174
Two-body interaction measurements in neutron cross section of beryllium at 14 MeV
[CEA-R-2986] 17 p3126 N67-30299
Neutron cross sections of plutonium 241 below 1 keV
[AEEW-M-714] 17 p3105 N67-30300
Estimates of alpha decay lifetimes for superheavy nuclei determined from neutron capture cross sections
[UCRL-50183] 17 p3129 N67-30677
Neutron inelastic cross sections calculated using electromagnetic transition data
[UCRL-50181] 17 p3132 N67-30679
Method of removal of neutron absorption, elastic scattering, and inelastic scattering cross sections, and application to heavier shielding media 17 p3113 N67-31245
Neutron absorption and scattering cross section method for radiation shielding calculations 17 p3113 N67-31247
Neutron and gamma attenuation cross sections in concretes with additives for shielding material 17 p3115 N67-31262
Index to contents of neutron data compilation center master data tape
[CCDN-NW/4] 17 p3123 N67-31419
Evaluated compilation of neutron data relevant to development of nuclear energy
[CCDN-NW/5] 18 p3307 N67-31551
Radiative neutron capture cross sections for europium 151, 152, 153, 154, and 155
[LA-3643] 18 p3306 N67-31715
Conversion of analog film data records obtained from nuclear explosions to cross sections as function of neutron energy
[LA-3478, PT. II] 18 p3310 N67-32025
Uranium 233 fission and capture cross sections and their analysis at low energies
[LA-3676-MS] 19 p3504 N67-33065
Nuclear structure and atomic research on scattering, cross sections and related physics research 19 p3504 N67-33207
Elementary neutron-nucleus interactions, reactor constants, neutron cross section calculations by optical model and data processing for single-crystal fast-neutron scintillation spectrometry
[ANL-TRANS-168] 19 p3508 N67-33702
Dispersion sum rules used for mapping relations between high energy cross sections into low energy region
[JINR-P2-3198] 19 p3508 N67-33708
Neutron capture and fission cross sections for uranium 233 used in reactor design applications
[ORNL-TM-1751] 19 p3509 N67-33778
Evaluation of heavy even-even nuclide elastic and inelastic cross sections by means of nonspherical optical model
[NAA-SR-MEMO-12314] 19 p3509 N67-33840
Neutron total and absorption cross sections of plutonium 238
[IN-1026] 20 p3704 N67-35200
Fission chambers using time-of-flight techniques to measure differential energy spectrum of neutrons as well as neutron cross sections
[UCID-15055] 22 p4020 N67-37224
Neutron cross sections of several isotopes with charged particle detection by CsI/Tl/ scintillator coupled to photomultiplier - fast coincidence /nHe3/ in /d,d/ reactions
[CEA-R-3134] 23 p4298 N67-38239
Neutron resonances in platinum, silver, and thulium nuclei of spin 1/2 determined by capture and transmission experiments
[CEA-R-3077] 23 p4299 N67-38268
Element abundance correlated with neutron capture cross sections at energies corresponding to interior stellar temperatures to demonstrate s-process for heavy element nucleosynthesis
[ORNL-P-3052] 23 p4300 N67-38357
Measurements and calculations of effective fission cross section ratios in zero power fast reactor
[AEEW-R-526] 23 p4285 N67-38361
Computer program for calculating neutron cross sections with R-matrix formalism and with complex pole expansion of collision matrix
[COO-1546-4] 23 p4302 N67-38505
Fine neutron structure propagation in fast reactors due to light scattering elements
[RT/PI/67/11] 23 p4286 N67-38546
Computer program for two-fold least squares analysis of capture and fission cross sections with multilevel expansion
[COO-1546-5] 23 p4304 N67-38556
Computer program for calculating neutron spectra and average cross sections in high energy region
[GA-7169] 23 p4304 N67-38572
Parameters for first neutron resonance in cadmium 113
[CNAEM-34] 23 p4306 N67-38643
Evaluation of neutron cross sections on basis of optical and statistical models
[BARC-279] 23 p4312 N67-39059
Cross sections producing isomeric state of tantalum 180 formed in neutron-neutron reaction
[INR-795/I/PL] 24 p4498 N67-39427
NEUTRON DECAY
Pulsed neutron decay analysis by least squares method with linear combination of exponentials
[IEA-160] 01 p0130 N67-10656
Orbital angular momentum of polarized sigma-positive decay
[COO-881-76] 03 p0444 N67-13279
Analysis of decay reaction of type neutron to positive pion negative pion gamma
[UCRL-16923] 04 p0588 N67-14011
Gamma and conversion electron spectra of rhenium 184 decay
[JINR-P-2814] 05 p0741 N67-14690
Sum rule algebra for weak axial production of pions in neutron beta-decay amplitude
[IAS-67/6] 14 p2564 N67-37123
Neutron and gamma ray die-away experiment for lunar and planetary surface analysis
[NASA-CR-84447] 14 p2614 N67-27424
Prompt neutron decay kinetics in fast thermal reactor determined by noise analysis
[KFK-522] 19 p3493 N67-33775
NEUTRON DETECTOR
Detector for bursts of neutrons by measurement of silver beta decay
[LA-3498-MS] 01 p0120 N67-10530
Thermoluminescence, solid state track detection, and activation analysis approaches to problem of personnel neutron dosimetry
[BNWL-SA-537] 01 p0024 N67-10769
Deuterium deuteron-neutron helium 3, and tritium deuteron-neutron helium 4 reactions for fast neutron radiation meter calibrations
[NP-16204] 01 p0130 N67-10911
Isotropically sensitive detector for measuring biological shielding of nuclear reactor 02 p0187 N67-11465
Pulse height distribution curve analyzed for plastic scintillator fast neutron detectors 03 p0440 N67-12613
Calculating integral generation multiplicity factor for neutron detector and ionization chamber to determine solar cosmic ray spectrum in high energy region
[NASA-CR-80157] 03 p0457 N67-12912
Reverse-recovery lifetime as function of temperature used to determine recombination levels in silicon diode fast neutron dosimeter studies
[NDL-TR-83-III] 04 p0600 N67-13913
Neutron density distribution measurement by spiral wire detector in reactor elementary cell
[INR-698/IX-A/RP] 04 p0578 N67-14055
Triple angular correlation method for obtaining spectroscopic data of nuclei with high excited states 06 p0926 N67-15601
Local transfer functions measured with neutron detector in experimental power reactor to determine kinematic parameters 07 p1124 N67-17056
Development reviewed of neutron detection and monitoring devices for personnel radiation protection
[ORNL-P-2467] 07 p1021 N67-17427
Multisphere neutron detector for dosimetry of mixed radiation fields
[PPAD-580E] 07 p1021 N67-17551
Technological survey on neutron cross section measurements and detectors for 100 eV to 100 keV energy range 08 p1326 N67-18813
Solar neutron detection by OSO-I satellite carrying boron fluoride detector
[NASA-TM-X-55713] 09 p1506 N67-19862
Standardized neutron detection method based on solid state neutron track detector in contact with fissile radiators /fission foils/
[USNRDL-TR-1089] 10 p1629 N67-20582
Neutron sensitive detector for uncontrolled nuclear criticality accidents
[BNWL-SA-517] 10 p1687 N67-21577
Application, sensitivity, and designs of solid and liquid neutron dosimeters
[PG-711] 10 p1635 N67-21794
Neutron dosimetry using fission fragment damage principle
[BNWL-322] 12 p2026 N67-24566
Neutron energy detection in yield of high kinetic fission fragments from uranium 233, uranium 239, and plutonium 239
[IN-1033] 12 p2169 N67-24573
Semiconductor diodes used as neutron detectors
[NP-16489] 13 p2393 N67-35544
Neutron radiation detector and air contamination monitoring systems
[ORNL-TM-1669] 15 p2837 N67-28341
Establishment of neutron fluxes and doses using multi-sphere technique and thermal neutron detectors
[NP-TR-1406] 15 p2785 N67-28464
Thermostability of stilbene spectrometer used to measure neutron and gamma ray spectral distribution and intensity
[BRL-MR-1866] 15 p2713 N67-28684
Dosimetry technology - thermoluminescent, neutron, solid state particle, and plutonium detectors, criticality incident alarms, and gamma radiation and small chamber exposure rate instruments
[BNWL-339] 17 p3002 N67-30675
Subcriticality measurements of reactor parameters by determination of neutron noise
[ORNL-P-2979] 19 p3492 N67-33663
Performance tests of delayed neutron monitor used in conjunction with boiling water loop in materials testing reactor

[TRG-1416/D/] 20 p3581 N67-34428
High sensitivity neutron and proton flux detector using spallation of mercury to terbium 149
[UCRL-17505] 21 p3848 N67-35854
Linear accelerator radiation field measurements by gamma detection, gamma ray spectroscopy, and neutron detection methods
[AFCRL-67-0301] 21 p3906 N67-36493
Solar cycle variation of attenuation coefficient of intensity recorded by IGY neutron monitors synoptically studied by regression analysis 22 p4137 N67-37451
Measurement of moderated neutron fluxes using gold lanthanum cobalt manganese sandwich detectors
[CEA-R-3200] 22 p4095 N67-37954
Transmission of 14 MeV neutrons in liquid nitrogen measured with neutron detectors
[UCRL-50259] 23 p4297 N67-38187
Design, fabrication, and testing of SEMIRAD detection system for high-intensity neutron radiation
[NUCOR-031767] 24 p4453 N67-40255

NEUTRON DIFFRACTION
Absolute position digital indicator developed for three-dimensional automatic neutron diffractometer for solid state studies 03 p0394 N67-12620
Focusing of neutron time of flight diffractometer for crystal structure analysis
[INR-743/II/PS] 04 p0551 N67-13713
Neutron diffraction study of ordered nickel-manganese alloys
[ANL-TRANS-344] 04 p0561 N67-13966
Time-of-flight method for neutron diffraction crystal structure studies 06 p0946 N67-16227
Integrated intensity of scattered neutrons in diffraction structure studies on powdered crystal 06 p0937 N67-16254
Electron microscopic observations of point defect agglomerations in copper 07 p1172 N67-16755
Chemical physics - molecular beam studies, calorimetry, microwave and radio frequency spectroscopy, neutron and X-ray crystallography, and mass spectrometry 08 p1244 N67-19349
Canted antiferromagnetism of copper chloride - deuterium oxide confirmed in neutron diffraction experiment
[BNL-10781] 09 p1503 N67-20278
Collimators in neutron time of flight powder diffractometry
[INR-747/II/PS] 11 p1929 N67-22913
X-ray measurements and neutron intensity patterns for correlating liquid alloy structure
[CONF-660935-3] 13 p2363 N67-25937
Nuclear reaction materials studied by X-ray and neutron diffraction
[SORIN-103] 14 p2566 N67-27248
Neutron diffraction used to define rhombohedral structure of ordered holmium carbide
[LA-TR-66-84] 14 p2561 N67-27342
Neutron diffraction for studying chemical binding of atoms in crystals and molecules and nature of ferromagnetism
[PRNC-94] 20 p3692 N67-34311
High temperature neutron diffraction of yttrium and lanthanum dicarbides 21 p3787 N67-36341
Electrical resistivity and neutron diffraction pattern measurements of chromium alloys
[JAERI-1137] 23 p4333 N67-39050
Neutron diffraction study of antiferromagnetism of polycrystalline uranium antimony and uranium bismuth coordination compounds
[INR-P-798/II/PS] 24 p4514 N67-39429
Fortran program for calculating neutron diffraction magnetic intensities
[PRNC-78] 24 p4416 N67-40248
Sodium thiosulfate pentahydrate crystal structure from neutron diffraction
[CNAEM-44] 24 p4400 N67-40316

NEUTRON DISTRIBUTION
Dynamics code that solves two-group neutron diffusion equations simultaneously with thermal and hydraulic equations for average channel of water-cooled reactor
[AEEW-R-441] 01 p0107 N67-10629
Multiple collision probabilities and their dependence on angular distribution of incoming neutrons 03 p0434 N67-12604
Tissue dose-equivalent rates from cosmic ray neutrons and in low level environment of nuclear power station
[PG-734/CC/] 04 p0539 N67-13542
Deuteron-neutron stripping patterns for boron 10 and boron 11, and angular correlation between neutrons and gamma rays in Born approximation 06 p0922 N67-15578
General analysis code for collision tape generated by 05R neutron transport code
[ORNL-3656] 07 p1044 N67-17979
Lutetium activations and neutron spacial and energy distributions in deuterium oxide moderated reactor with Pu-Al 19 rod clusters 08 p1310 N67-18566
Compilation, evaluation, and reduction of data on angular distributions of elastically scattered neutrons 08 p1236 N67-19810
Spherical shell transmission method for measuring total neutron absorption cross sections of boron and lithium 08 p1239 N67-19835
Isomeric cross section ratios for spin dependence calculation on fast neutron capture at nuclear level density 08 p1340 N67-19839
Intracell neutron density distributions in Anna reactor core with water
[INR-734/IXA/R] 10 p1685 N67-21403
Intracell neutron density distributions in Anna reactor core without water
[INR-730/IXZ/R] 10 p1685 N67-21404
Angular distribution of thallium-232 1.6 MeV neutron fission fragments
[ANL-TRANS-407] 12 p2172 N67-24700
Moment method solution to conjugate kinetic equation for three-dimensional distribution of neutrons in infinite homogeneous medium 17 p3137 N67-31244
Experimental verification of multiple group method for calculating three-dimensional neutron energy distribution for radiation shielding 17 p3067 N67-31246
Approximation methods and problem of 3-dimensional energy and angular distribution of neutrons 17 p3137 N67-31249
Fast neutron and gamma radiation flux distribution from isotropically radiation sources 17 p3114 N67-31253
Unidirectional radiation sources for determining neutron distribution through nuclear reactor shielding 17 p3116 N67-31272
Markov process used in formulations and theory of stochastic neutron transport
[LA-DC-8706] 19 p3507 N67-33644
General transport theory applicable to studies of kinetics of heterogeneous systems
[CEA-R-3080] 19 p3494 N67-33863
Rigorous solution of energy-independent neutron transport equation for thin embedded layer
[JUL-484-RE] 20 p3692 N67-34254
Neutron density distribution in heterogeneous reactor lattice near control rod
[NP-16823] 23 p4290 N67-38916
Neutron dose composition in shielding materials 23 p4310 N67-38962
Solution of neutron age equation for plane cosine law source 23 p4311 N67-38965

NEUTRON EMISSION
Transient annealing in semiconductor devices following pulsed neutron irradiation
[SC-DC-66-1830] 01 p0140 N67-10635
Nuclear Ramsauer effect to interpret neutron giant resonances as maxima created by interference between neutron wave components 06 p0926 N67-15604
Accuracy of evaporation model to represent reactions induced by 14 MeV neutrons and for nuclei with atomic number between 10 and 40 06 p0927 N67-15611
Crystal growth of beryllium oxide during neutron irradiation
[AAEC-TM-318] 07 p1106 N67-17547
Sphere techniques for measuring flux densities and dose rates of thermal, intermediate, and fast neutrons
[JUL-213-ST] 11 p1941 N67-22975
Values for spontaneous and neutron induced fission of fissile isotopes
[NP-16440] 12 p2185 N67-23889
Neutron irradiation effects on mechanical properties on structural alloys 13 p2336 N67-25961
Long term mechanical properties of metals subjected to mechanical stress at elevated temperatures and neutron irradiation
[EURAEC-1714] 16 p2910 N67-29823
Dependence of irradiation behavior of tempered nickel chromium iron alloy on precipitation state
[ANL-TRANS-421] 16 p2911 N67-29830
Neutron radiation induced changes in electrical properties of junction field effect transistors
[SC-RR-66-2664] 16 p2870 N67-29839
Manganous sulfate bath method to determine emission rate of americium-beryllium neutron source for calibration
[CSIR-FIS-12] 17 p3126 N67-30219
Automatic reengagement of pumping and neutron safety of GNP-1 accelerator
[NT-65-18] 20 p3619 N67-34447
Neutron energy spectra measured as function of neutron emission angle and ion bombardment energy
[NASA-CR-88527] 23 p4104 N67-37198
Computer code for calculating displacement damage produced in silicon by neutron irradiation
[SC-RR-67-122] 23 p4130 N67-37844
Polarized neutron transmission through magnetized ferromagnetic materials
[BMWF-FBK-67-50] 23 p4330 N67-38581
Dense plasma focus role in producing intense source of neutrons
[LA-DC-8134] 23 p4334 N67-39202
Prompt neutron emission from uranium-235 fission fragments
[AWRE-O-43/67] 24 p4494 N67-40410

NEUTRON FLUX
Computer code for thermal neutron flux induced material buckling in subcritical assembly
[INR-659/IXA/RP] 01 p0105 N67-10474
Personnel dosimetry for neutrons - determination of neutron flux by phantom backscatter for application to intermediate energy neutron dosimeter
[AERE-R-5125] 01 p0024 N67-10578
Fuel assembly experiments, hydride orientation and mechanical properties of thin walled Zircaloy tubing, and in-core flux monitors
[DPST-66-83-5] 01 p0106 N67-10666
Computer program for neutron flux determination from foil activation data
[SC-DC-66-1512] 01 p0044 N67-10948
Large concentric cylinder fission electric cell experiments in thermal neutron fluxes of nuclear test reactor
[NASA-CR-79946] 02 p0285 N67-11819
Neutron flux measurements for reactor pressure vessel, and exposure limit calculations for preventing radiation embrittlement
[NRL-6474] 06 p0914 N67-16479
Fundamental mode shape difference found to account for spatial dependence of pulsed neutron reactivity measurements 07 p1123 N67-17054
Rise portion of pulsed neutron curves investigated by two-group theory to measure Fermi age 07 p1124 N67-17055
Xenon induced space-time variation of reactor neutron flux investigated in adiabatic approximation 07 p1124 N67-17059
Singlet and kinetic theories and cross power spectral density solutions for neutron fluctuations in critical systems 07 p1126 N67-17070
Methods for burnup determinations in irradiated uranium carbide fuel specimens by measuring uranium 235 depletion, fission products, plutonium, and neutron flux
[EUR-3123.E] 07 p1127 N67-17141
Calculation of neutron fluxes and related parameters for uranium carbide specimens 07 p1127 N67-17142
Neutron flux measurements at surface of uranium carbide specimens using monitors dilute alloys of cobalt and silver in aluminum 07 p1127 N67-17151
Apparatus for handling uranium dioxide specimens irradiated with different neutron flux doses for releasing fission gases from samples
[EURAEC-1667] 07 p1124 N67-17575
Vacancy and interstitial defect clusters in neutron irradiated nickel foil at 40 deg
[BNWL-SA-763] 07 p1102 N67-17577
Measurement of thermal neutron fluxes in simulated intense neutron generator target using manganese and gold foils and small boron trifluoride detector
[AECL-2835] 07 p1158 N67-17944
Theoretical physics research on neutron fluxes, linac shunt impedance, slow neutron scattering, silicon 28 structure, phonon frequencies in transition metals, and computation 09 p1229 N67-19250
Computer program for calculation of

thermal neutron flux and currents, energy, and gamma dose on axis of graphite carbon dioxide reactor channel
[ORNL-TR-1374] 08 p1312 N67-18614
Damage flux determined for advanced gas cooled reactor from neutron irradiation experiments
[TRG-1267/C/] 08 p1323 N67-19260
Thermal neutron flux calculations by Monte Carlo and other codes, experiences with SNAP power plants, and applications of discrete-ordinate transport theory to radiation shielding problems 08 p1323 N67-19324
Shielding design mathematics for fuel-handling facilities, computer calculations for gamma ray transport and dose rates, and programs for neutron transport and Legendre coefficients 08 p1334 N67-19336
In-pile performance of platinum-rhenium and tungsten-rhenium thermocouples exposed to long term irradiation at high temperatures 09 p1477 N67-19623
Transitory increases in nuclear flux accompanied by outbursts of solar X-radiation recorded by Elektron II instrument package 10 p1757 N67-20402
Fast neutron flux in heavy water reactors
[CEA-R-3048] 10 p1677 N67-20855
Computer programs for graphic projections of neutron flux, neutron power, and isotope concentration distribution from numerical data on PDQ-5 tape
[WAPD-TM-611] 10 p1587 N67-20881
Production of carrier-free sodium 24 by irradiation of magnesium matrices in fast neutron flux of pool reactor
[EUR-3258.E] 10 p1713 N67-21030
Design and construction of water moderator for neutron standardization
[JUL-179-RX] 10 p1684 N67-21069
Measuring apparatus for neutron flux densities and neutron dosimetry standardization
[JUL-158-ST] 10 p1715 N67-21091
Calculation using albedo concept of subcadmium flux along center line of square concrete ducts arising from incident subcadmium neutrons
[ORNL-P-2672] 10 p1717 N67-21466
Concrete attenuation of neutron flux emitted at 90 deg to primary proton beam direction of 10 GeV synchrophasotron
[JINR-P9-2933] 10 p1724 N67-21586
Kinetics calculation for reactor composed of three different regions
[EUR-3051.E] 10 p1690 N67-21825
Soil moisture measurements with neutron flux detectors 11 p1911 N67-21997
Time dependent perturbation theory used to determine output boundedness and stability of nonlinear reactor system
[ANL-7189] 11 p1920 N67-22305
Fast-response thermocouple for measuring temperature transients of materials subject to pulsed neutron flux
[UCRL-14592] 11 p1878 N67-22327
Preparation of phosphorus-33 by irradiation of enriched sulfur-33 in highly thermalized flux
[ORNL-4051] 11 p1935 N67-22456
Fission fragment damage in glass and mica studied with uranium foil detector systems for application to neutron flux measurement
[AECL-2657] 11 p1936 N67-22478
Cosmic ray neutron monitoring data for 1966 from Canadian stations - spurious annual variation
[CRGP-1253] 11 p1916 N67-22900
Nondestructive boron distribution analysis in steel by neutron flux depression
[SGAE-IB/IA-11/1966] 11 p1813 N67-23036
Effective resonance integral, thermal, and epithermal self-shielding factors, and cadmium ratios for 197 gold in 11E neutron flux spectra
[NAA-SR-MEMO-12164] 11 p1943 N67-23197
Time dependent neutron transport from point isotropic source at high altitude
[DASA-1830-II] 13 p2370 N67-25177
High flux isotope reactor target development, and production of gram quantities of heavier transuranium elements by neutron captures in plutonium 239 13 p2355 N67-25369
Design, calibration, and use of absolute thermal neutron fluxmeter 13 p2319 N67-25466
Neutron flux depressions and negative reactivities produced by irradiation device geometry in swimming pool reactor core
[NP-16432] 13 p2360 N67-25543
Digital computer program for neutron flux stability in reactor cores with xenon 135
[LA-3568] 13 p2360 N67-25557
Time dependent neutron transport from point isotropic source at altitude of 80,000 feet
[DASA-1830-I] 14 p2522 N67-26971
In-core instrumentation for measuring fuel pin and coolant temperatures, coolant flow rates in fuel element assemblies, fission gas buildup pressure in fuel pins, and neutron and gamma fluxes
[ANL-7161] 14 p2576 N67-27245
Time dependent neutron transport from point isotropic source at altitude of 50,000-ft using Monte Carlo transport code
[DASA-1830-III] 14 p2527 N67-27466
Thermal neutron depth dose dependence on beam and phantom size for incident collimated beams of fast neutrons
[PG-774/CC/] 14 p2592 N67-27554
Computations on intracell neutron density distributions and flux disadvantage factors for water, deuterium, and water-deuterium moderated thermal reactors
[KR-113] 14 p2580 N67-27637
Thermal flux measurements in mock-up power cycling rigs of Pluto 7V type
[AERE-M-1820] 15 p2743 N67-27784
Measurements of neutron flux as function of wavelength in DIDO cold moderator
[AERE-R-5168] 15 p2743 N67-27861
Upper limit on quiet time solar neutron flux at energies above 60 MeV determined by using balloon flights with Cerenkov scintillation counters
[NASA-CR-84665] 15 p2787 N67-28020
Fast neutron flux measurement by threshold activation detectors
[UJV-1712] 15 p2747 N67-28405
Establishment of neutron fluxes and doses using multi-sphere technique and thermal neutron detectors
[NP-TR-1406] 15 p2765 N67-28464
Computer program used in calculating thermal neutron flux spectra for reactor design
[DLR-FB-66-91] 15 p2750 N67-28673
Radiation effects on crystal structure of molybdenum, nickel, and rhenium
[BNWL-361] 16 p2960 N67-29762
Elastic scattering of neutrons from lithium 6
[EUR-3454.E] 16 p2951 N67-29937
Neutron flux distribution in water-reflected spherical cavity
[NASA-CR-72231] 16 p2952 N67-30138
Method for estimating fission and thermal neutron flux dosages in irradiated pieces of nickel and cobalt wire
[AERE-R-5314] 17 p3127 N67-30418
Calculation of neutron flux distribution by means of integral transport method in one-dimensional geometry
[AE-279] 17 p3129 N67-30522
Titanium as detector of fast integrated neutron flux
[NP-16620] 17 p3129 N67-30669
Sensitivity and precision of apparatus used in continuous measurement thermal neutron flux of gaseous circuits
[CONF-651154-5] 17 p3112 N67-31091
Fast neutron energy distributions calculated using neutron flux function 17 p3136 N67-31243
Measuring fast neutron fluxes in nuclear shielding on background of intense intermediate neutron fluxes 17 p3117 N67-31276
Evaluation of modifications to Dounreay Fast Reactor including gamma and neutron flux measurements, design of fission chamber, use of foils, and effect of control rod movements
[TRG-1429/D/] 17 p3117 N67-31344
Techniques for measurement of neutron flux and power generation distribution in lattices of zero energy reactor Hero and sub-critical stack Fifi
[TRG-1338/W/] 17 p3118 N67-31349
Comparison of calculated and measured fast-neutron fluxes emerging from HB-6 beamhole of Plum Brook reactor
[NASA-TM-X-1418] 18 p3294 N67-32235
Capsule assemblies and engineering test reactor for irradiating high temperature materials under various temperature and high neutron flux conditions 18 p3296 N67-32411
Capacitor pulse heating techniques to determine in-pile specific heat data for reactor design materials as function of exposure to integrated neutron flux
[UCRL-14766] 18 p3296 N67-32419
Attaining high neutron flux by operating small number of fuel elements at very high specific powers and by using very light lattice to achieve long neutron lifetimes
[DP-1076] 19 p3487 N67-32986
DTF-BURN - multigroup transport theory burnup computer program written in Fortran IV
[LA-3671] 19 p3491 N67-33040
Gamma and neutron fluxes in Dounreay fast reactor
[TRG-1429] 19 p3492 N67-33081
Fortran IV code for solving multigroup neutron diffusion equations in two dimensions
[ORNL-4078] 19 p3509 N67-33713
Reactor kinetics and multigroup diffusion theory for defining properties of neutron flux
[KFK-506] 19 p3492 N67-33715
Decalibration of tungsten-tungsten 26 percent rhenium thermocouple in neutron flux by determining change in thermoelectric emf
[LA-3662] 20 p3679 N67-34213
Integral equations for solving one-velocity neutron flux distribution in cylindrical lattice cell
[AECL-2709] 20 p3694 N67-34418
Design, development and manufacture of neutron converters for Dounreay materials testing reactor
[TRG-1453/D/] 20 p3682 N67-34521
Period measurement of neutron flux during reactor startup using logarithmic integrator
[CNEA-181] 20 p3685 N67-35118
Computer program for calculating axial temperature and density distribution in nuclear reactor gas exposed to neutron flux
[NASA-TN-D-4135] 21 p3886 N67-35712
Solid state nuclear track detectors in reactor physics experiments
[NORA-MEMO-123] 21 p3853 N67-36484
Thermal neutron flux distribution and diffusion length in standard graphite block 22 p4089 N67-36907
Destructive and nondestructive techniques for measuring nuclear fuel burnup and neutron flux
[TRG-1494/D/] 22 p4091 N67-37323
Monte Carlo analysis of neutron transport through spherical boron carbide shell
[ORNL-TM-1816] 22 p4106 N67-37705
Absolute measurement of standard thermal neutron flux using gold detector activation
[CEA-R-3166] 22 p4110 N67-37907
Monte Carlo calculation on neutron flux distribution in urania rod cluster
[BNWL-SA-1178] 22 p4095 N67-37961
Core calculations and design justification for pulsed reactor
[SC-RR-66-2643] 22 p4096 N67-37963
Monte Carlo program for calculating Doppler coefficients in arbitrary neutron flux spectra
[NASA-TN-D-4200] 23 p4284 N67-38324
Neutron flux measurements near lunar surface for determining chemical composition of surface layer
[NASA-CR-89297] 23 p4340 N67-38822
Collectrons - self powered detectors for continuous measurement of neutron fluxes
[EUR-3567.F] 23 p4313 N67-39125
Development program on application of steam-water spray to reactor cooling - inpile corrosion of Zircaloy 2 in steam-water mixture
[EURAEC-1862] 23 p4291 N67-39222
Effects of sodium void coefficient, Doppler effect, and prompt neutron lifetime on performance of ceramic fast breeding reactors
[RT/FI/67/23-PRV-R/67/1] 24 p4490 N67-39675

NEUTRON PHYSICS
Neutronics characteristics of possible driver fuels for fast test reactor
[BNWL-281] 04 p0576 N67-13977
Nonlinear system stability, optimal control, reactor dynamics, space-time effects, and pulsed neutron research covered in symposium on neutron dynamics and control
[CONF-650413] 07 p1122 N67-17041
Differential equations describing kinetics of spatial and spectral coupling of reactor

neutron field 07 p1124 N67-17056
Fast reactor pulsed by mechanical means and by photoneutrons from linear electron accelerator 07 p1125 N67-17067
Stellar nucleosynthesis by neutron capture on rapid time scale
[LA-DC-7885] 07 p1151 N67-17325
Nuclear physics, general physics, neutron physics, and theoretical physics research summaries
[AECL-2611] 08 p1326 N67-18245
Neutron physics research on crystal dynamics, diffraction, and resonant scattering 08 p1329 N67-18349
Reactor physics, and neutron physics for reactors
[BNWL-284] 08 p1309 N67-18501
Neutronic values of sodium cooled fast breeder reactors
[EURFNR-76F] 08 p1312 N67-18615
Neutron physics studies in high energy radiation shielding and detection
[NASA-CR-77961] 08 p1335 N67-18706
Neutron resonance parameters from combined data on transmission, capture, and scattering areas 08 p1313 N67-18784
Neutron physics researches dealing with nuclear reactors, radiation detection and shielding, and mathematics and computer programs for data processing
[ORNL-3973, VOL. I] 08 p1323 N67-19321
Research in nuclear, general, neutron, and theoretical physics
[AECL-2610] 10 p1718 N67-21485
Angular distribution of neutrons from carbon 12 nitrogen 14 nuclear reaction
[JINR-P3-3070] 12 p2171 N67-24678
Milne problem solution for monoenergetic neutron transport equation with linear anisotropic scattering function in plane geometry
[BMWF-FBK-66-18] 12 p2171 N67-24679
Nuclear engineering program on reactor physics, neutron physics, and nuclear physics problems 14 p2574 N67-28610
Neutron reactions studied with distorted-wave Born approximation
[LYCEN-6638] 15 p2760 N67-38304
Neutron-alpha particle reaction on neodymium isotopes at neutron energies up to 400 eV
[JINR-P3-3104] 15 p2764 N67-28434
Neutron diffusion coefficient determined by using transport equations in P-3 approximation 17 p3137 N67-31248
Mechanical high transmission selector of neutron velocities
[INP-527/PS] 17 p3070 N67-31296
Nuclear, neutron, theoretical, and general physics research progress report
[AECL-2637] 17 p3139 N67-31445
Neutron physics, nuclear reactions with charged particles, spectroscopy, muonic X-rays and nuclear structures, neutron interactions with matter, neutron gas kinetics, and instruments
[NYO-GEN-72-132] 19 p3507 N67-33583
Neutron physics research project summaries in nuclear spectroscopy, scattering measurements, solid state studies, and fission processes
[JUL-463-NP] 20 p3691 N67-34205
Conversion of neutron code TDC to Fortran IV
[AAEC/TM370] 20 p3607 N67-34577
Neutron polarimeter for thermal neutron separation
[EUR-3291.E] 20 p3643 N67-34974
Neutron diffusion code for reactor core containing large cylindrical cavities
[RT/FI/66/44] 21 p3889 N67-36291

NEUTRON SCATTERING

High temperature graphite rig for neutron scattering experiments
[AERE-R-5217] 01 p0104 N67-10021
Neutron scattering by hydrogeneous moderators
[GA-7055] 01 p0107 N67-10611
Particle physics research
[MPG-66-6] 01 p0125 N67-10680
SCATLD tape editing computer program for neutron scattering materials
[AAEC-TM-310] 01 p0044 N67-10704
Fortran IV computer program for converting form of neutron elastic scattering data stored in ROC nuclear data library
[WAPD-TM-573] 01 p0044 N67-10761
Thermal scattering cross section determinations and predictability of neutron spectra in thermal reactor systems
[GA-7072] 01 p0109 N67-10767
Inelastic slow neutron scattering for investigation of biological systems including polypeptides, glutamic acid, and glycines
[PA-TR-3367] 02 p0212 N67-11887
Molecular spectroscopy of low energy neutron scattering
[PA-TR-3370] 02 p0228 N67-11935
High energy physics, instrumentation, nuclear reactions, neutron scattering, fission, solid state physics, superconductivity, mathematics, and biomedicine
[ORNL-3924] 02 p0443 N67-12250
Planning of optical experiment to measure neutron-proton scattering above pion production threshold
[JINR-E-2765] 02 p0445 N67-12304
Transit time measurements on electric polarization of kilovolt neutrons scattered by lead 04 p0585 N67-13804
Angular distribution and electric polarization coefficients of neutrons scattered by lead
[JINR-P-2764] 04 p0590 N67-14052
Slow neutron scattering by liquid deuterium oxide
[IN-1020] 04 p0592 N67-14139
Slow neutron scattering kernels for water at 423 deg and 550 deg K
[IN-1019] 04 p0592 N67-14140
Markov chain concept for treating random processes of neutron scattering and absorption in slabs
[TR-482] 05 p0743 N67-15293
Model Hamiltonian for neutron scattering resonance in shell model of molecular oxygen
[NASA-CR-81154] 05 p0919 N67-15386
Factors affecting experimental and calculated scattering cross sections of fast neutrons at small angles 06 p0924 N67-15587
Neutron yield and gamma radiation determined in inelastic scattering of 14 MeV neutrons on carbon 12
nuclei 06 p0924 N67-15590
Angular distribution measurements for elastic scattering of 400 KeV neutrons on Cd, In, Mo, Nb, Se, Sn, Zn, and Zr 06 p0925 N67-15597
Anomalous pattern of scattering cross sections of neutrons at small angles on uranium and plutonium 06 p0925 N67-15598
Total slow neutron scattering cross section per proton bound in benezene molecule 06 p0732 N67-15294
Scattering sample influence on neutron temperature distribution in reactor core 06 p0913 N67-16295
Long wavelength neutron scattering used to study defect clusters 07 p1171 N67-16745
Small defect clusters in graphite and magnesium oxide observed by cold neutron scattering measurements 07 p1171 N67-16746
Long wavelength neutron scattering by defect clusters in quartz 07 p1171 N67-16747
Small angle scattering of neutron damaged quartz crystals 07 p1171 N67-16748
Neutron scattering law formalism, incoherent scattering laws and width functions, scattering laws for liquid moderators, and Zemach-Glauber treatment for molecules - lectures
[S-333] 07 p1129 N67-17410
Channel coupling in nuclear reactions applied to resonances in scattering of low energy neutrons by carbon 12
[PUC-937-210] 07 p1185 N67-17688
Elastic and inelastic neutron scattering, U 235 and Pu 239 reactions, target neutron spectrum and angular distributions, gamma ray ratios, and radiative capture research 08 p1229 N67-18347
Differential scattering of neutrons from oxygen and intermediate states
[ORNL-P-3434] 08 p1332 N67-18582
Deuterium oxide moderated reactor sensitivity to thermal neutron scattering law 08 p1315 N67-18793
Theoretical models to fill gaps in sets of neutron cross section data for elastic and inelastic scattering of neutrons in energy range below 16 MeV 08 p1335 N67-18799
Fortran program for determining neutron scattering angular distribution data from differential cross section
values 08 p1336 N67-18805
Present state of experimental inelastic neutron scattering from aluminum, iron, and uranium 08 p1337 N67-18824
Neutron induced gamma ray production cross section measurements for aluminum, iron, niobium, tungsten, uranium, and plutonium 08 p1339 N67-18838
Nonspherical optical model analysis of neutron scattering properties of tungsten isotopes
[NAA-SR-11973] 08 p1343 N67-18879
Diffusion model analysis of quasi-elastic neutron scattering by incoherent liquid
[AE-359] 08 p1345 N67-19263
Electron-neutron interaction measured by neutron scattering by rare gases, computer method, gamma ray coincidence method using germanium detector, and lifetime measurements by Doppler shift
[ANL-7190] 09 p1487 N67-19474
Measurement of electron-neutron interaction by asymmetrical scattering of thermal neutrons by rare
gases 09 p1487 N67-19475
Experimental fast neutron dosimetry and LD 50/30 studies in mice
[AD-639758] 09 p1396 N67-19526
Molecular interactions of water with xenon, xenon hydrate, nitrous oxide, and ethylene, using thermal neutron inelastic scattering techniques
[AFOSR-66-2762] 10 p1561 N67-20625
Neutron elastic and inelastic interference scattering cross section in crystalline lattices of solids
[NASA-CR-83201] 10 p1702 N67-20821
Neutron production and scattering around high energy accelerator
[CEA-R-2975] 10 p1712 N67-20988
Comparison of electromagnetic and neutron studies of solids 10 p1749 N67-21023
Neutron scattering, and concepts of atomic structure and atomic dynamics of simple liquids 10 p1688 N67-21025
Impurity and anharmonic effects in neutron scattering by
phonons 10 p1749 N67-21026
Multiphonon neutron scattering study of hydrogen bonding in zirconium
hydride 10 p1674 N67-21036
Hydrogen motion in primary solutions of hydrogen in some transition
elements 10 p1750 N67-21037
Neutron scattering in stretch-oriented polyethylene 10 p1713 N67-21038
Experimental determination of neutron inelastic scattering in
polyethylene 10 p1713 N67-21039
Inelastic neutron scattering by solid and liquid cyclohexane 10 p1714 N67-21040
Langevin equation in application to neutron scattering from liquid
methane 10 p1714 N67-21042
Inelastic scattering of neutrons by spin waves in terbium 10 p1751 N67-21044
Focusing of triple-axis neutron spectrometer for studying inelastic neutron scattering in crystals 10 p1631 N67-21045
Nuclear spin correlation effect on scattering of neutrons by
molecules 10 p1714 N67-21046
Inelastic neutron scattering and dispersion in polycrystals and liquids
[JUL-412-NP] 10 p1715 N67-21067
Certain diffusion constants determined by neutron single scattering experiments
[JUL-60-NP] 10 p1715 N67-21286
Neutron scattering and gamma ray methods for measuring moisture and density distribution in rocks 10 p1636 N67-21313
High strength aluminum alloy pressure vessel for measurement of phonon energy shifts produced by neutron inelastic scattering
[SGAE-PH-43/1966] 10 p1723 N67-21798
Polarization effects in Coulomb scattering of 4 MeV neutrons by copper, lead, and uranium nuclei
[ANL-TRANS-371] 11 p1944 N67-23226
TRNEX Fortran computer program for calculation of gamma ray angular distribution and production cross sections for neutron inelastic scattering
[ORO-2791-30] 12 p2159 N67-23570
Monte Carlo method for including epithermal neutron scattering by bound protons in combined slowing down thermal calculations
[WAPD-TM-617] 12 p2159 N67-23578
Elliptic partial differential equation solution to neutron scattering problem
[EUR-3262.E] 12 p2160 N67-24595
Computer code for calculating thermal neutron scattering kernels in moderators
[GA-7417] 12 p2170 N67-24670
Tables of differential cross sections for neutron scattering from beryllium, calcium,

carbon, lead, lithium, oxygen, silicon, sulfur, and tin nuclei
[ANL-6172] 13 p2171 N67-34687
Pressure induced phonon frequency shifts in lead measured by inelastic neutron scattering
[SGAE-PH-49/1966] 13 p2381 N67-36514
Intermediate resonances of neutrons scattered by permanently deformed even even nuclei
[IC/66/100] 13 p2382 N67-36473
Quantum mechanical treatment of thermal neutron multiple scattering
[IN-1045] 14 p2592 N67-37591
Fast neutron scattering from elemental molybdenum, tin, antimony, and tellurium
[ANL-7274] 14 p2592 N67-37592
Angular distribution measurements of elastically scattered neutrons for iron, nickel, cobalt, copper, and indium
[AE-270] 15 p2756 N67-37855
Dynamic and thermodynamic structure of water determined from cold neutron scattering data
[INP-501/PS] 15 p2756 N67-37876
Direct measurement of neutron-neutron scattering cross sections in magnetosphere using pulsed reactor
[AEC-TR-6793] 15 p2764 N67-38439
Elastic neutron-neutron scattering in meson model of nuclear forces
[JINR-P4-3135] 15 p2767 N67-38524
Scattering of low energy neutrons in zirconium hydride
[BMWF-FBK-66-40] 15 p2769 N67-38537
Neutron-neutron scattering length determinations
[UCRL-16864] 15 p2769 N67-38538
Numerical calculations for anharmonic effects in neutron scattering by crystal lattice
[AE-274] 15 p2782 N67-38803
Linear accelerator experiments in neutron scattering, scattering cross sections, and energy spectra
[RPI-338-71] 16 p2941 N67-39269
Preparation of slow neutron scattering kernels for Brookhaven Evaluated Nuclear Data File using calculations based on models for structure of liquid water and deuterium
[IN-1065] 16 p2933 N67-39772
Polarized elastic fast neutron scattering off carbon 12 in low energy range
[AE-282] 17 p3128 N67-30620
Neutron scattering models for water compared to experimental scattering law data
[KAPL-P-3179] 17 p3134 N67-31057
Angular distribution of neutrons at small distances in isotropically scattering medium 17 p3137 N67-31252
Primary radiation attenuation in heterogeneous medium and monoenergetic neutron scattering 17 p3114 N67-31254
Cross sections of inelastic scattering of neutrons by levels of iron, nickel, and niobium determined by spectra of gamma rays from decay of excited states 17 p3114 N67-31255
Exchange of tensor mesons in neutron-neutron scattering
[JINR-P02-3188] 19 p3505 N67-33436
Elastic and inelastic fast neutron scattering from tungsten 182, 184 and 186 isotopes
[ANL-7288] 19 p3506 N67-33566
Modifications to bulk-shielding reactor, neutron scattering facilities at High Flux Isotope Reactor /HFIR/, and other brief summaries on solid state research projects
[ORNL-4066] 19 p3536 N67-33716
Dispersion sum rules for neutron-neutron and neutron-antineutron scattering
[JINR-P2-3253] 19 p3509 N67-33725
Local modes and neutron scattering experiments with lithium, magnesium, beryllium, and copper alloys and pure magnesium and copper
[JINR-P03-3216] 19 p3473 N67-33869
Finite geometry and polarized multiple scattering corrections of experimental fast neutron polarization data by Monte Carlo methods
[AE-264] 20 p3677 N67-34003
Neutron incoherent scattering by liquids and solids calculated by method based on incoherent approximation
[AECL-2766] 20 p3743 N67-34112
Critical evaluation of Markov matrix method for treating neutron diffusion through slabs of materials such as shield or inside wall of fallout shelters
[R-539] 20 p3691 N67-34115
DIFF code using results of WDSN transport code to calculate neutron diffusion theory parameters for CRAM diffusion code
[AAEC/E174] 20 p3691 N67-34174
Determination of neutron-neutron scattering length and effective range in relativistic calculation of muon capture in deuterium
[TH/203] 20 p3698 N67-34632
Integral neutron thermalization and angular scattering in water, on zirconium hydride, and on cryogenic beryllium metal
[GA-7673] 21 p3886 N67-35833
Energy distribution of neutrons scattered from single crystal of paramagnetic terbium 21 p3920 N67-36338
Magnon dispersion relation in pure terbium and in terbium-10 percent holmium alloy from inelastic neutron scattering 21 p3920 N67-36339
Neutron scattering in liquid parahydrogen, liquid deuterium oxide, and reactor-grade graphite
[GA-7439] 21 p3906 N67-36506
Abstracts on nuclear physics reactions - proton and neutron scattering cross sections, particle capture, dipole moments, shell models, fission, emission, and radiative transition in isotopes
[ORNL-4062] 22 p4106 N67-37494
Compilation of angular distributions of elastic scattered neutrons
[NAA-SR-11900, VOL. IV] 22 p4107 N67-37650
Physical interpretation for static parameters of neutron scattering model
[UCRL-17502] 22 p4108 N67-37845
Relativistic calculation of muon capture in deuterium with application to determination of neutron-neutron scattering length and effective range
[NP-16819] 22 p4109 N67-37871
Fast neutron scattering measured by time of flight method using Van de Graaff accelerator
[BMWF-FBK-67-04] 22 p4112 N67-38014
Magnetic small angle scattering of thermal neutrons in unmagnetized iron
[BMWF-FBK-67-37] 23 p4301 N67-38418
Scattering of cold neutrons by liquid carbon deuterium
[BARC-386] 23 p4308 N67-38793
Fortran program for calculating elastic scattering phase shift, cross section, and polarization of neutron on even-even nucleus
[RT/FI/67/10] 23 p4314 N67-39331
Slow neutron scattering measurements of quasi-elastic widths in liquid lead to observe Kohn anomaly
[IN-1094] 24 p4499 N67-39531
Neutron scattering in beryllium
[GA-8031] 24 p4502 N67-40379
Multiple scattering in neutron double differential cross section measurements
[GA-8053] 24 p4502 N67-40380
Neutron angular scattering by methylene group, zirconium hydride, and benzene
[GA-8030] 24 p4503 N67-40382

NEUTRON SOURCE
Absolute calibration of neutron sources by manganese sulfate method
[ZFK-RN-33] 01 p0128 N67-10610
Thermal neutron source for calibration of neutron radiation meters in diffuse flow
[REPT.-7] 01 p0074 N67-10821
Application of pulsed neutron sources to structure and lattice dynamics studies of solids
[INR-744/II/PS] 04 p0586 N67-12919
Engineering development problems in two high performance repetitively pulsed neutron sources - advanced pulsed fast reactor, and accelerator-booster system
[CONF-660914-1] 04 p0587 N67-13970
Neutron diffusion parameter of organic glass measured by pulsed method using chopper as pulsed neutron source
[INR-690/IX-A/R] 04 p0667 N67-13991
Pseudo random neutron source excitation to measure power reactor impulse response
[GEAP-5145] 04 p0577 N67-14030
Nuclear explosions as pulsed neutron sources for cross section measurements 06 p1342 N67-18866
Time of flight measurements made with intense neutron source
[LA-DC-7813] 10 p1700 N67-20922
Miniaturized neutron sources for petroleum geology and geophysics 10 p1623 N67-21289
High flux beam reactor for neutron source
[BNL-10610] 10 p1687 N67-21561
Preliminary tests relating to use of fission products for fabrication of neutron sources
[EUR-3252.F] 11 p1941 N67-23061
Production and application of neutron sources
[JPRS-39544] 11 p1947 N67-23455
Relative detection sensitivities of chemical elements in nuclear activation with isotopic neutron-source
[ANL-7242] 13 p2371 N67-25423
Microscopic parameters of reactor used as neutron source
[NP-16426] 14 p2577 N67-27334
Neutronic stability of coupled Kiwi and Phoebus nuclear rocket engines confirmed by transfer function and pulsed neutron source measurements
[LA-DC-8516] 15 p2748 N67-28458
Manganous sulfate bath method to determine emission rate of americium-beryllium neutron source for calibration
[CSIR-FIS-12] 17 p3128 N67-30310
QAD point-kernel computer program for estimating effects of gamma rays and neutrons originating in volume-distributed source
[LA-3573] 18 p3307 N67-31639
Calculation of age and fast effect for monoenergetic neutrons in beryllium and beryllium oxide
[UCRL-50229] 19 p3506 N67-33513
Use of carbon, nitrogen, and oxygen reactions as neutron sources
[EUR-3492.E] 20 p3701 N67-35002
Theoretical models for examining mechanism governing rapid electric discharge - neutron source by plasma focus
[LA-TR-67-42] 21 p3911 N67-36048
Comparative analysis of measurements of radium-beryllium neutron source emission rates
[NP-16703] 21 p3904 N67-36234
Neutron multiplication of high isotopic plutonium 238 dioxide in sealed calorimeter pressure containers
[MLM-1395] 21 p3793 N67-36644
Polonium-210 half-life determination, polonium fluorine neutron sources, uranium-234 separation and purification, neutron activation analysis and nuclear magnetic resonance
[MLM-1388] 22 p3989 N67-37617
Calibration of radium-beryllium neutron source
[NP-16854] 23 p4208 N67-38917
Compositional analysis of lunar and planetary surfaces using neutron capture gamma rays
[NASA-CR-89330] 23 p4346 N67-39076
Determination of reactivities using pulsed neutron techniques for highly subcritical solution reactors
[NASA-TM-X-52369] 24 p4493 N67-40266

NEUTRON SPECTROMETRY
Design criteria for automatic control systems of neutron spectrometry
[RT/EL/66/2] 01 p0056 N67-10660
Spectrometer using polarized neutron beam for improved accuracy in high angle magnetic reflection measurements 03 p0294 N67-12610
Features reviewed of gamma ray spectra accompanying capture of slow thermal neutrons - new spectrometers 06 p0932 N67-15641
Energy levels in heavy nuclei investigated using neutron capture gamma radiation 06 p0933 N67-15643
Time of flight analyzer with magnetic memory based on digital computer techniques 06 p0831 N67-16310
Development of differential neutron spectrometer with charged particle collimation for improved neutron detecting resolution
[MLM-1239] 06 p0832 N67-16391
Slow coincidence spectrometric analysis of neodymium isotope decay scheme
[INR-627/IA/PL] 07 p1147 N67-17327
Response functions obtained with organic scintillators in proton-recoil neutron spectrometry
[ORNL-P-2471] 07 p1149 N67-17434
Time-of-flight technique for correlating energy calibration of neutron velocity spectrometers 08 p1216 N67-18904
Energy evaluation and sample dependent background corrections for total neutron cross section measurements by

synchrocyclotron
spectrometer 06 p1536 N67-18512
Van de Graaff accelerator experiments on neutron decay spectrometer for cross section measurement 06 p1318 N67-18949
Neutron spectrometry, isotropically responding fast neutron dosimetry, and instrument-response unfolding methods for radiation detection 06 p1384 N67-19327
Reflectivities of several metallic crystals used in neutron spectrometers [AEET-259] 10 p1693 N67-20796
Neutron spectrometry in natural uranium assembly using lithium 6 /neutron, triton/ helium 4 reaction and surface barrier junction [EUR-3061.F] 10 p1575 N67-21155
Performance and packaging of stilbene spectrometer for simultaneous detection of neutron and gamma rays in mixed radiation field [BRL-R-1335] 10 p1634 N67-21423
Fast neutron spectroscopy methods using threshold probes evaluated for accuracy [JUL-414-RX] 11 p1942 N67-23091
Neutron spectrometer and pulsed helium 3 beam to measure certain nuclear reactions [NP-16393] 13 p2372 N67-25535
Proton-recoil proportional counter and helium sandwich detector for critical assemblies [ITRI-578P31-1] 14 p2533 N67-26996
Neutron time-of-flight spectrometer used for high resolution cross section measurements, using isochronous cyclotron as neutron source [KFK-453] 15 p2766 N67-28482
Holmium 165 neutron spin resonances measured by time of flight method using neutron spectrometry [JINR-P3-3206] 19 p3510 N67-33856
Time-channel response function for time of flight spectrometer to measure monoenergetic secondary neutrons in 2 to 100 MeV energy region [NASA-CR-87805] 20 p3702 N67-35018
Neutron spectra measurement facility for lattice physics studies [GA-7934] 21 p3925 N67-36654
Fortran IV/63 program package for calculating time channel response function in neutron time-of-flight spectroscopy [NASA-CR-88878] 22 p4066 N67-37934
Dosimetry and radiation protection - shielding, neutron spectrometry, diffusion, materials and instrumentation [AEC-TR-6719] 23 p4310 N67-38961
Neutron time of flight spectrometer operating characteristics [JAERI-1138] 23 p4254 N67-39048
Characteristics of recoil-proton Perlow-type neutron spectrometer simulated by Monte Carlo code [RT/FI/66/36] 24 p4455 N67-40556

NEUTRON SPECTRUM

Broad-range low-deflection magnetic neutron spectrometer for measuring neutron spectrum from pulsed and steady state sources [BRL-MR-1753] 01 p0053 N67-16504
ELAN computer code for use in integral neutron energy spectrum measurements [AEEW-M-621] 01 p0044 N67-10686
Transmission method for measuring neutron spectrum to calculate energy distribution in reactors 03 p0439 N67-13597
Effective neutron spectrum for use in diffraction structural analysis of crystals by time of flight method [INR-721/II/PS] 04 p0585 N67-13716
Burnup code for continuous charge discharge fuel cycles [EUR-3076.E] 04 p0575 N67-13740
Modifications to computer program used for calculating neutron absorptions and spectra at epithermal energies [AECL-1996, SUPPL.] 04 p0518 N67-13865
Numerical analysis of effective neutron temperature of given thermal neutron spectrum [RISO-33] 04 p0593 N67-14184
Research reactor characteristics, neutron spectra, and flux distributions 05 p0735 N67-14617
Spectra of neutrons formed by interaction of deuterons with hydrogen and helium isotopes 06 p0930 N67-15564
Anomalous behavior of calcium 40 nucleus and neutron spectra of bismuth and calcium from inelastic scattering of 14 MeV neutrons 06 p0927 N67-15605
Spectra for inelastic scattering of 3 MeV neutrons on bismuth, lead, silicon, and sodium 06 p0927 N67-15606
Time-to-pulse height converter 06 p0853 N67-16348
Consistent P sub 1 multigroup code for calculation of fast neutron spectra and multigroup constants [NAA-SR-MEMO-12019] 07 p1133 N67-17570
Differential energy flux neutron spectra in liquid hydrogen obtained by time-of-flight techniques [NASA-CR-72142] 07 p1154 N67-17620
Absorption and scattering cross section data for predicting neutron spectrum in thermal reactor 06 p1314 N67-18782
Foil activation data reduction method for neutron flux spectra determination 06 p1237 N67-18830
Determination of fast neutron spectrum from threshold foil activation cross section data 06 p1317 N67-18831
Adequacy of fast and intermediate cross section data from measurement of neutron spectra in bulk uranium 238 and uranium 235 06 p1317 N67-18845
Time of flight measurements of neutron spectra in uranium 235 and tungsten [GA-7427] 09 p1480 N67-20160
Energy sensitive, average, cross section ratios for fast neutron spectra at center of bare and natural uranium-reflected spheres of Pu-239, U-233, and U-235 [LA-DC-7851] 10 p1732 N67-21787
Calibration of large proton recoil detector for fast neutron spectra measurements [CONF-661001-4] 11 p1887 N67-23237
Neutron total cross section measurements using neutron intensity spectrum continuous in energy [COO-1573-6] 12 p2160 N67-23584
Design study of neutron spectrum converter for use in Juggernaut reactor east thermal column [ANL-7244] 12 p2146 N67-23890
Lattice assembly, conversion ratio, and neutron spectrum data from critical experiments on reactor cores [BAW-3647-2] 12 p2146 N67-23892
Neutron spectrum of inorganic and organic solids and liquids using molecular spectroscopy [PA-TR-3388] 12 p2042 N67-24014
Mathematical model for calculating neutron spectra in infinite homogeneous arbitrary moderators [BMWF-FBK-66-21] 12 p2170 N67-24475
Epithermal neutron spectra in materials testing reactor determined by resonance detectors [WAPD-TM-642] 16 p2931 N67-29723
Spatially dependent thermal neutron spectra in slab and rod geometries [GA-7508] 16 p2932 N67-29730
Linear accelerator studies of fast neutron spectra measurement [TID-23685] 16 p2874 N67-29808
Photoneutron spectra from bismuth 209 target [AD-651111] 17 p3127 N67-30256
Suitability of angular parameters of neutron reactions as measures of neutron energy [AERE-M-1850] 17 p3107 N67-30421
Time-of-flight spectrometer used to study spectra of neutrons coming from special moderators of Silcotte reactor [NP-16581] 17 p3059 N67-30515
Epithermal and thermal spectrum indices in deuterium oxide lattices in zero power reactor [AE-377] 17 p3108 N67-30722
Neutron spectra in presence of plutonium determined from activation ratios of detector foils having cross sections with different energy dependence [RT/FI/66/28] 17 p3112 N67-31089
Effects on neutron spectra from helium produced by neutron neutron and neutron alpha reactions in beryllium [CONF-651154-3] 17 p3135 N67-31093
Measurement of thermal neutron spectrum from neutron chopper [IS-1449] 17 p3138 N67-31184
Fast neutron spectra in concrete and water used as shielding 17 p3115 N67-31261
Radiation detectors for recording nuclear reactor shielding, and measuring gamma ray and neutron spectra 17 p3116 N67-31273
Statistical method for determining neutron transport in absorbing media and thereby obtaining neutron energy spectrum for given monoenergetic source as function of space [AECD/EP-13] 17 p3138 N67-31385
Reactor core variations and effect on neutron spectra 18 p3301 N67-32443
Differential neutron energy spectrum measurements on uranium 233 and uranium 235 fuelled beryllia moderated assemblies in Mesta reactor [AAEC/E171] 20 p3679 N67-34187
Operation of activation analysis installation [EUR-3210.F, VOL. II] 20 p3696 N67-34635
Computer program for calculating neutron spectra of water iron water reactor shielding assembly [EUR-3472.D] 20 p3685 N67-35185
Time-of-flight method for examining spectra of breakup neutrons in targets irradiated with 50 Mev deuterons [KFK-504] 21 p3903 N67-36049
Energy level structure of osmium 190 determined by thermal neutron capture by osmium 189 [BNL-11426] 21 p3906 N67-36525
Neutron spectrum resonance in erbium nitrate solution - neutron spectra in uranium and plutonium lattices [GA-7683] 21 p3793 N67-36536
Determination of neutron spectra in coupled graphite-deuterium oxide reactor [RT/FI/66/35] 21 p3802 N67-36569
Spectral distribution of neutrons from Triga Mark F reactor measured with magnetic neutron spectrometer - recoil protons [BRL-MR-1841] 22 p4103 N67-37006
Classical derivation of neutron energy spectrum [USNRDL-TR-67-57] 22 p4102 N67-37054
Calculation method for neutron capture gamma spectra in light, magic, and near-magic nuclei [ORNL-TM-1867] 22 p4108 N67-37063
Measuring epithermal neutron spectra with resonance monitors 23 p4310 N67-38963
Intermediate neutron spectra from time of flight spectrometer measurements 23 p4311 N67-38967
Continuous fast neutron spectra from single crystal scintillation spectrometer 23 p4311 N67-38968
ACOF IBM 7044 orthonormal expansion code for analysis of neutron spectra and dosimetry [JAERI-1140] 23 p4221 N67-39035
Techniques for measuring neutron energy spectra in photographic emulsions [NDL-TR-92] 24 p4499 N67-39651

NEUTRON STAR

Gravitational radiation from oscillating neutron stars [NASA-CR-79899] 03 p0457 N67-12394
State, gravitational, and equilibrium equations for highly collapsed stars with relativity effects, and applications to neutron stars and large, low density masses 05 p0761 N67-14859
Surface properties, temperature effects, cooling behavior, and observability of neutron stars [NASA-TM-X-57218] 07 p1195 N67-18198
Composite equations of state for determining effects of nuclear forces on neutron star models [NASA-TM-X-57347] 06 p1329 N67-18354
Application of stars produced in nuclear emulsion to determination of high neutron energy spectrum [UCRL-17963] 20 p3697 N67-34729

NEUTRON THERMALIZATION

Integral neutron thermalization [GA-7691] 01 p0145 N67-10677
Computer program for calculating neutron thermalization in lattices 03 p0434 N67-13002
Pulsed neutron experiments in moderating assemblies 07 p1123 N67-17663
Transition metal hydrides as moderator material in neutron thermalization process 06 p1308 N67-18235
Integral neutron thermalization - computer codes for calculating neutron scattering kernels and generating scattering laws [GA-7383] 10 p1726 N67-21618
Fourier analysis of slowing down neutrons in substances [NP-16445] 15 p2761 N67-28285
Inelastic incoherent scattering laws for common reactor moderators and integral neutron thermalization [GA-7489] 19 p3498 N67-33365
Neutron thermalization in diphenyl

[GA-8050] 24 p4401 N67-40378
NEW ZEALAND
Tabulated geomagnetic data from New Zealand 13 p2311 N67-25561
Progress in industry and economics in New Zealand through advanced applied science 13 p2442 N67-26468
Isogonic map of Australia and New Zealand for epoch 1965.0 [REPT.-98] 18 p3264 N67-31976
NEWTON-RAPHSON METHOD
Convergence proof and procedure for third-order and fourth-order iteration process for nonlinear equations - Newton-Raphson second-order iteration [NASA-CR-81744] 07 p1115 N67-18068
Improved Newton-Raphson method [LNF-67/4] 13 p2350 N67-26304
Extension of finite-dimensional results of Newton-Raphson method to least squares problems 14 p2566 N67-27758
Newton-Raphson method applied to solution of boundary value problems in trajectory optimization [NASA-CR-85752] 17 p3094 N67-31286
NEWTON THEORY
Newton equation solution method extended to rectangular systems and singular Jacobians by using generalized inverses [AD-639464] 01 p0097 N67-11012
Newtonian theory, Keplerian law, and two-body problem applied to orbital motion 05 p0759 N67-14411
Measurability of difference between orbits of two spacecrafts operating by Newtonian and relativistic mechanics 06 p0963 N67-15762
Unsteady forces acting on two-dimensional oscillating airfoils calculated by Newtonian snowplow theory [RM-4415-ARPA] 07 p0990 N67-17907
Newton method applied to value-vector problem for linear operator [MRC-TSR-685] 10 p1664 N67-20566
Gravitation theory as generalization of relativity and Newton theory [AFOSR-66-2083] 10 p1696 N67-21713
Newtonian hypersonic strong interaction theory for flow past flat plate leading edge [USCAE-102] 10 p1553 N67-21734
Factoring Newton equation for gravitation by velocity of light 17 p3123 N67-31494
NEWTONIAN FLUID
Flow patterns observed and torque and angular velocity measured to study velocity field induced in Newtonian liquid by rotating cone 05 p0693 N67-14516
Melt-flow instability of extruded polymers - failure criterion and equations of state, and linearized stability analysis in Newtonian fluid, power-law fluid, and elastic fluids 05 p0723 N67-14536
Viscometric flows of incompressible, isotropic, nonnewtonian fluids [TR-19] 10 p1615 N67-21377
Rheological study of glass fibers in Newtonian oil [NASA-CR-85257] 16 p2881 N67-30073
Injection of drag reducing fluid into turbulent pipe flow of Newtonian fluid [NASA-CR-852] 18 p3256 N67-31795
NICHROME
Heat resistance and oxide film of nichrome alloy [FTD-TT-65-1910] 01 p0088 N67-11141
Stress strain characteristics of austenitic chromium-nickel stainless steel [ZZL-66-813] 07 p1099 N67-17098
Properties of vacuum deposited thin film nichrome resistors for microelectronic circuit applications 18 p3242 N67-31573
NICKEL
Corrosion of chromium-nickel stainless steel in lithium 01 p0082 N67-10092
Oxidation of titanium and its alloys, and strengthening Ti alloys for use at high temperatures by using Al-Ni protective coating 02 p0276 N67-11806
Determination of iron and nickel in uranium by atomic absorption spectrophotometry [RFP-696] 04 p0506 N67-14619
Inelastic scattering cross sections of neutrons with iron, nickel, and niobium nuclei 06 p0924 N67-15586
Angular distribution of protons elastically scattered by calcium, nickel, and zinc isotopes 06 p0924 N67-15591
Inelastic scattering of protons calculated by distorted wave method using nickel 58 06 p0925 N67-15592
Angular distribution of elastically scattered 6.8 MeV protons on chromium, cobalt, nickel, copper, and zinc nuclei targets 06 p0928 N67-15614
Electron microscopic studies of defect clusters in xenon ion bombarded aluminum and nickel 07 p1173 N67-16760
Annealing of vacancy agglomerates responsible for critical shear stress enhancement of neutron irradiated nickel 07 p1174 N67-16766
Microscopic description of nickel isotopes by inelastic proton scattering [UCRL-16964] 07 p1152 N67-17552
Vacancy and interstitial defect clusters in neutron irradiated nickel foil at 40 deg [BNWL-SA-782] 07 p1102 N67-17577
Wet and dry blending nickel-aluminum oxide submicron powders for dispersion-strengthened alloys [NASA-TN-D-3834] 07 p1102 N67-17625
Spectrometric resonance line identifications in nickel, copper, and zinc spectra [NASA-TM-X-55684] 08 p1237 N67-18648
Newly identified lines of highly ionized nickel, copper, and zinc in sodium I isoelectronic sequences [NASA-TM-X-55693] 08 p1238 N67-18752
Microstructure of nickel-iron spherules from Aouelloul glass 09 p1439 N67-19397
Initial steps in oxidation of nickel surface studied using low energy back-reflection electron diffraction [NASA-CR-82951] 09 p1462 N67-19948
Desorption probability for Bi-210 on Ni and Au surfaces [BMWF-FBK-66-17] 09 p1486 N67-20205
Secondary electron emission statistics of nickel and iron determined and compared with Poisson distribution [TIL/T-5706] 09 p1504 N67-20315
Method for studying galvanomagnetic interactions in ferromagnetic resonance and application to thin films of nickel and Permalloy [PIBMRI-1237-66] 10 p1745 N67-20520
Effect of impurities on recovery stages of electrical resistivity in nickel bombarded by electrons at low temperatures [AI-TRANS-230] 10 p1696 N67-20732
Proton inelastic scattering from C-12, Ni-58, Ni-60, and Ni-64 studied by measuring de-excitation gamma radiation along axis perpendicular to scattering plane [RLO-1388-14] 10 p1713 N67-20997
Lattice dynamics of nickel, and Krebs model 10 p1750 N67-21033
Bibliography of carcinogenic effects of nickel, including clinical and experimental studies as well as occupational parameters of respiratory tract carcinogenesis [ORO-3461-8B] 10 p1565 N67-21817
Tension and torsion tests, and metallurgical evaluation of aluminum-nickel bonded joints [NASA-CR-72168] 11 p1897 N67-22889
Austenitic grain growth of manganese-molybdenum and manganese-nickel-molybdenum steels during heat cycle simulating vertical slag welding conditions [EUR-3860] 11 p1899 N67-23184
Edgewise compressive properties of titanium and nickel-base sandwich constructions at elevated temperatures [FPL-66] 12 p2219 N67-23496
Transmission electron microscopy studies of pseudo-fivefold symmetry in carbonyl process nickel 12 p2118 N67-24261
Electroplating pressure bonding techniques for nickel alumina whisker composites [AD-646919] 12 p2120 N67-24658
Design study of hydrogen production by electrolysis using uncatalyzed porous nickel electrodes [ACSDS-6106643, VOL. I] 12 p2045 N67-24674
Fluidized aluminum oxide beds for intergranular penetration in nickel [BMI-X-617] 13 p2271 N67-25934
Recrystallization, elevated temperature strengthening, and mechanical working effects on tensile strength of TD nickel [NASA-CR-84160] 14 p2550 N67-26504
Heat transfer limits of nickel heat pipes 14 p2631 N67-26793
Angular distribution measurements of elastically scattered neutrons for iron, nickel, cobalt, copper, and indium [AE-270] 15 p2756 N67-27855
Nickel and chromium ratio effect on behavior of stainless steels in sodium over 600 to 900 deg temperature range [SM-85/51] 15 p2723 N67-28179
Metallization and hard soldering techniques for obtaining vacuum tight cermet joints through infusion of molybdenum manganese paste and nickel [FTD-HT-66-711] 15 p2717 N67-28245
Factors affecting wetting and bonding of nickel to sapphire [AMRA-CR-66-01/3] 15 p2661 N67-28607
Field ion microscopic determination of screw dislocations during degradation of tungsten, tantalum, and nickel monocrystals [TIL/T-5666] 15 p2782 N67-28941
Ferromagnetic domain studies in near-perfect single crystal platelets and whiskers of nickel and nickel alloy [AFCRL-67-0107] 16 p2959 N67-29085
Radiation effects on crystal structure of molybdenum, nickel, and rhenium [BNWL-361] 16 p2960 N67-29792
Exchange current measurements on nickel-nickel II couple in molten fluorides [ORO-3518-3] 16 p2851 N67-29821
Packing defects in nickel powders, and displacement lines in electrolytic and carbonyl nickel [JPRS-41504] 17 p3060 N67-31121
Dispersion strengthened, nickel molybdenum, nonoxidation resistant alloy [NASA-CR-85779] 17 p3061 N67-31239
Optical and calorimetric tests of nickel mirrors for use as power source for thermionic generators [NASA-CR-85750] 17 p3122 N67-31481
Monel and nickel surface corrosion in nonaqueous nitrogen oxide hydrogen fluoride solutions [BNL-50007] 18 p3278 N67-31791
Oxygen chemisorption and penetration of nickel surface by measuring surface potential changes [REPT.-66-C-227] 20 p3598 N67-32211
Unit cell constants for 10 ternary compounds formed when rare earths are alloyed with nickel and gallium 21 p3786 N67-36321
Phase equilibria in cerium-iron and cerium-nickel binary systems from differential thermal analysis, metallography and X-ray diffraction 21 p3871 N67-36369
Thermal strain fatigue damage of nickel under two strain-block cycling history [AROD-4116-1-E] 22 p4152 N67-36911
Molecular collision investigation using molecular beam techniques to measure flux distribution and speeds of thermal energy particles scattered from polycrystalline nickel surfaces [NASA-CR-86758] 22 p4026 N67-37289
Magnetic susceptibilities of 19 nickel-bearing and cobalt-bearing minerals [BM-IC-8351] 22 p3990 N67-37675
Hydrogen-deuterium exchange reaction on clean nickel surface using modulated molecular beam techniques [GA-7927] 23 p4200 N67-38068
Spin wave spectra and surface effects in nickel thin films deposited in ultrahigh vacuum [ORO-3430-39] 23 p4328 N67-38286
Migration of gold and nickel ions in thin films of silicon dioxide 23 p4329 N67-38619
Temperature and time dependence of hardness in iron and nickel [ORNL-TM-1861] 23 p4264 N67-38888
Chemical interactions between nickel surface and molten lithium nitrate 23 p4296 N67-38978
Kinetics and mechanisms of diffusion of iron and nickel in single crystals of magnesium oxide [UCRL-17411] 23 p4332 N67-38999
Bibliography of aluminum nickel uranium bonding - bonding processes, plating, and diffusion [BNWL-CC-1185] 23 p4260 N67-38782
Electroplating of uranium with protective nickel coating [SCL-DR-67-43] 23 p4261 N67-38929
Improved electroplating process for protective nickel coating of uranium [SCL-DR-67-44] 23 p4261 N67-38929
Convective heat transfer between high parameter steam and solid wall of nickel or steel tubing in supercritical region [NASA-TT-F-11232] 24 p4551 N67-40318
NICKEL ALLOY
SA INCONEL
SA PERMALLOY
High temperature creep behavior of

recrystallized nickel-thorium oxide alloys studied with vacuum constant-stress creep conditions
[NASA-CR-54639] 01 p0065 N67-10757
Casting properties of vacuum melted and teemed austenitic steel and nickel alloys 03 p0411 N67-12813
Investment casting of chromium-nickel steel compressor blades 03 p0403 N67-12815
Influence of alloy and heat treatment variations on microstructure of permanent aluminum-nickel-cobalt-iron magnets 03 p0411 N67-12887
Pitting corrosion tests on austenitic chromium-nickel steels in electrochemical solutions
[NSTIC-TRANS-1305] 03 p0412 N67-13035
Neutron diffraction study of ordered nickel-manganese alloys
[ANL-TRANS-344] 04 p0561 N67-13986
Transformation kinetics, microplasticity, and aging of martensite in iron-31 nickel
[AD-641428] 06 p0893 N67-15975
Mechanical and structural properties of high temperature nickel alloy during cooling
[ATD-66-105] 07 p1099 N67-17020
Hydrogen corrosion effects on tensile strength and bending property of nickel-copper alloy
[ZZL-65-027] 07 p1099 N67-17089
Machining characteristics of nickel maraging steel 08 p1389 N67-18214
Stabilized precipitate method for preparing nickel base alloy containing dispersed chromium, titanium, and aluminum
[NASA-CR-54523] 09 p1465 N67-19675
Oxidation of nickel-aluminum and nickel-niobium alloy systems
[FTD-HT-66-129] 09 p1464 N67-20181
Phase composition, structure, and properties of steel and high temperature nickel alloys
[FTD-MT-66-16] 10 p1649 N67-20474
Phase shift analysis of nickel alloys containing intermetallic compounds and variable carbon content 10 p1650 N67-20476
Surface oxidation and phase change in heat resistant nickel alloys in loaded state 10 p1650 N67-20477
Phase composition of heat resistant nickel alloy surface layers after heat treatment in nitrogen containing media 10 p1650 N67-20478
Effect of titanium, aluminum, carbon, and boron on structure and phase composition of nickel base alloy
[FTD-TT-65-1412] 10 p1651 N67-20685
Stress corrosion cracking of Fe-Ni-Cr alloy in dilute chloride at 500 deg F and in boiling magnesium chloride
[COO-1319-42] 10 p1653 N67-20690
Band structure photoemission of ferromagnetic nickel-aluminum alloys
[UCRL-50118] 11 p1966 N67-22316
Polarization characteristics of high purity Ni-high Fe-Cr-Ni alloys in sulfuric acid solutions
[COO-1319-46] 12 p2115 N67-23595
External loading procedures for stress corrosion tests of aluminum alloys, and ferrous and nickel alloys
[NASA-TM-X-53483] 12 p2130 N67-24636
Electroforming of nickel composites reinforced with high strength filaments
[WVT-6709] 12 p2132 N67-24963
Diffuse X-ray scattering measurements from nickel-palladium single crystals to determine relation between physical and thermal properties and local atomic arrangements
[NASA-CR-53923] 13 p2338 N67-25890
Accelerated stress corrosion test for iron and nickel alloys
[NASA-CR-53970] 13 p2340 N67-26161
Literature review of arc welding processes for nickel steel construction
[AECL-2630] 13 p2330 N67-26211
Recovery kinetics in nickel aluminum system: line shifts due to stacking faults
[TR-3] 14 p2552 N67-26935
Tungsten, niobium, zirconium, and molybdenum effects on austenitic stability and hardenability of chrome-nickel steel 14 p2553 N67-27022
Isothermal treatment of chromium-nickel steel for improved workability by cutting 14 p2554 N67-27026
Carbides, nitrocarbides of nickel, cobalt alloys, and nickel-cobalt alloys evaluated for electrocatalysts in low temperature hydrogen peroxide fuel cells with alkaline electrolyte
[NASA-CR-54440] 14 p2481 N67-27431
Dispersion-hardened corrosion resistant nickel alloys by vapor plating in fluidized bed of oxide particles
[NASA-CR-54560] 15 p2728 N67-28796
High temperature research on metal-ceramic composite materials and nickel alloys for small gas turbine use
[DA-3298] 15 p2786 N67-28910
Dependence of irradiation behavior of tempered nickel chromium iron alloy on precipitation state
[ANL-TRANS-421] 16 p2911 N67-29630
Procurement, process, and nondestructive test specifications for development of 200-SL motor chamber and nozzle shell fabrication of high nickel maraging steel
[NASA-CR-72126, V. V, APPEND. A] 16 p2964 N67-30033
Material and process evaluation program for 200-SL motor chamber and nozzle shell fabrication of 18 percent nickel maraging steel - appendix
[NASA-CR-72126, V. V, APPEND. B] 16 p2964 N67-30034
Preparation and evaluation of alloy powders having nominal composition of 60 Ni-20 Co-10 Mo-10W and containing dispersions of thoria, yttria, alumina, magnesia, and lanthana
[NASA-CR-85790] 17 p3060 N67-31129
Feasibility of using ductile nickel-chromium alloy claddings to protect chromium alloy turbine vanes and blades
[NASA-CR-85869] 17 p3061 N67-31162
Cold working effects on dispersion strengthened nickel alloys containing thorium dioxide
[NASA-CR-72240] 19 p3468 N67-32816
Heat transfer from cylinders during free movement of air in rarefied space, and X-ray analysis of surface layer of heat resisting alloys after heat treatment in various gas media
[FTD-MT-65-469] 19 p3550 N67-33101
X-ray study of surface layer of two heat resisting alloys after heat treatment in various gas media 19 p3470 N67-33103
Dispersion-strengthened nickel-molybdenum nonoxidation resistant alloys
[NASA-CR-54562] 19 p3472 N67-33365
Neutron irradiation effects on high temperature tensile properties of nickel-containing alloys
[AECL-2677] 20 p3642 N67-35256
High temperature nickel-base alloy mechanical properties, metallography, and workability testing for jet engine turbine blade application
[NASA-CR-54567] 21 p3847 N67-35342
Dendrite structure, grain size, and mechanical property of iron and nickel base alloys solidified at large degree of undercooling
[AMRA-CR-64-07/3] 21 p3867 N67-35355
Error sources and failure mechanisms in sheathed nickel alloy thermocouples 21 p3858 N67-36546
Stress rupture evaluation of refractory metal fiber nickel alloy composites at high temperatures
[NASA-TM-X-52342] 22 p4060 N67-36793
Fatigue behavior of annealed 70-30 copper-nickel alloy
[REPT.-2445] 22 p4071 N67-37237
Arc heating process for preparation of dispersion strengthened nickel base alloy powder
[NASA-CR-54520] 22 p4072 N67-37592
Solidification, structure, and properties of eutectic alloy - aluminum, nickel, and intermetallic aluminum nickel mixtures
[NASA-CR-88858] 22 p4073 N67-37991
Calibration drift effects in nickel alloy thermocouples
[TRG-1510/R/] 22 p4061 N67-38008
Corrosion potentials of Raney nickel and cobalt alloys, carbides, iron, and nitrocarbides for test evaluation as anodic catalysts for fuel cell electrolytes
[NASA-CR-89398] 22 p4388 N67-38943
Neutron irradiation effect on mechanical properties of nickel chromium iron alloy 600, nickel chromium iron weld metal, and Type 347 stainless steel
[KAPL-3161] 23 p4386 N67-39025
Dilute alloys effect on wetting and bonding of nickel and nickel alloys to single crystal sapphire
[AMRA-CR-66-01/4] 24 p4484 N67-39834
Thermomagnetic effects on internal friction and shear modulus of Permalloys 24 p4488 N67-40112
Stress relaxation in iron-nickel alloys after work hardening and tempering 24 p4488 N67-40113

NICKEL-CADMIUM BATTERY

Improvement of electrochemical cells such as nickel-cadmium and silver-zinc batteries 01 p0007 N67-10383
Factors influencing charge capacity of nickel-cadmium cell
[NASA-TM-X-55610] 02 p0175 N67-11393
Irradiation effects of high energy protons studied on silver-cadmium and nickel-cadmium cells containing battery electrodes and potassium hydroxide electrolytes
[NASA-CR-73535] 02 p0175 N67-11732
Oxygen recombination and control of electrodes for spacecraft nickel-cadmium cells
[NASA-CR-80480] 03 p0335 N67-13133
Computer programs for processing and analyzing nickel-cadmium battery and time-dependent data
[NASA-TM-X-55619] 03 p0372 N67-13164
Nickel-cadmium cell heat sterilization test program
[NASA-CR-80629] 04 p0484 N67-14214
Isothermal flow calorimeter developed to measure thermal characteristics of batteries undergoing orbital cycling
[NASA-CR-81350] 06 p0795 N67-16689
Fabrication and testing of hermetically sealed cells capable of overcharge and overdischarge
[NASA-CR-81389] 06 p0796 N67-16640
Control of electrolyte level in sealed Ni-Cd and Ag-Cd cells with bellows action
[NASA-CR-81386] 06 p0797 N67-16697
Life cycle tests, failure analysis,and capacity of nickel-cadium, silver-cadmium, and silver-zinc fuel cells
[NASA-CR-82500] 08 p1223 N67-19073
Acceptance tests of auxiliary electrode nickel cadmium secondary spacecraft cells
[NASA-CR-82596] 08 p1234 N67-19110
Development work for pile type, nickel-cadmium squib battery
[NASA-CR-82452] 08 p1234 N67-19127
Sealed nickel cadmium secondary spacecraft cell acceptance tests
[NASA-CR-82866] 08 p1234 N67-19150
Characterization of recombination and control electrodes for spacecraft nickel cadmium cells
[NASA-CR-82483] 08 p1234 N67-19157
Continuous charge-discharge cycling effects on hermetically sealed nickel-cadmium battery
[RAE-TR-66045] 11 p1786 N67-22712
High current densities in nickel cadmium bipolar batteries with foil-type electrodes
[AD-647468] 12 p2019 N67-24733
Characterization of recombination and control electrodes for spacecraft nickel-cadmium batteries
[NASA-CR-83998] 13 p2350 N67-26170
Characterization of recombination and control electrodes for spacecraft nickel-cadmium batteries
[NASA-CR-84003] 13 p2350 N67-26174
Operation, life, and failure mechanisms of nickel cadmium battery
[NASA-CR-84028] 13 p2353 N67-26339
Accelerated and nondestructive testing techniques for various type batteries - lead acid, sealed nickel, nickel cadmium, silver cadmium, and silver zinc cells
[NASA-TM-X-53674] 13 p2353 N67-26364
Life cycle and capacity test data on nickel-cadmium, silver-cadmium, and silver-zinc batteries
[NASA-CR-84477] 14 p2449 N67-27511
Pile type high discharge rate nickel-cadmium squib batteries - cell sealing using rubber to metal adhesive bonding
[NASA-CR-84478] 14 p2449 N67-27514
Cycling, charge efficiency, and transducer studies with nickel-cadmium cell for spacecraft power supply systems
[NASA-CR-84509] 15 p2845 N67-28772
Optimum structures for miniature nickel-cadmium sealed cells and batteries
[REPT.-1] 16 p2832 N67-29618
Design and electric characteristics of 100 A-h nickel-cadmium battery cells with active Adhydrode third electrode
[NASA-CR-86309] 18 p3238 N67-32662
Differences in design of Explorer and Ariel I satellites solar array regulators for accommodating requirements of nickel-cadmium and silver-cadmium batteries

[NASA-TN-D-3963] 16 p2823 N67-30026
Prototype nickel cadmium cells for future meteorological satellite
[NASA-CR-84867] 17 p2998 N67-31137
Acceptance test results for nickel-cadmium secondary spacecraft battery
[NASA-CR-85825] 17 p3000 N67-31450
Life cycle tests of nickel-cadmium space cell packs
[NASA-CR-85976] 18 p3199 N67-32259
Electrochemical performance of optimum structures for miniature nickel cadmium sealed cells and batteries
[REPT.-2] 18 p3199 N67-32515
Advanced development models of vented nickel cadmium batteries
[NA-121] 19 p3369 N67-32967
Twelve-volt fourteen-ampere hour nickel-cadmium vented battery housed in glass fiber case
[ECOM-01580-F] 19 p3371 N67-33711
Acceptance testing of four ampere hour flooded sealed nickel-cadmium secondary spacecraft cells
[NASA-CR-87175] 19 p3371 N67-33848
Electric performance of heat sterilized nickel-cadmium cell
[NASA-CR-87815] 20 p3569 N67-34737
Heat sterilized nickel-cadmium cell failure analysis
[NASA-CR-88128] 21 p3764 N67-36411
Pile type high discharge rate nickel-cadmium squib battery
[NASA-CR-88607] 22 p3963 N67-37011
Cycling and gassing characteristics of nickel-cadmium cells with active adsorbed hydrogen electrodes and fuel cell scavenger electrodes
[NASA-CR-88869] 22 p3965 N67-37405
Thermal sterilization of nickel-cadmium batteries
[NASA-CR-66458] 22 p3967 N67-37994
Cycle life testing and evaluation of nickel-cadmium spacecraft batteries - voltage characteristics
[NASA-CR-89314] 23 p4183 N67-38985
Cryptanalytic technique for evaluating nickel-cadmium battery cell failure characteristic data
[NASA-CR-89323] 23 p4183 N67-38986
Effects of variations in positive electrode behavior and selected impurities on performance of sealed nickel-cadmium cells
[NASA-CR-89316] 23 p4183 N67-39045
Computer methods for collection, reduction, correlation, and analysis of spacecraft nickel-cadmium battery test data
[NASA-CR-89322] 23 p4184 N67-39129
Pile type, high discharge rate, nickel-cadmium squib battery development
[NASA-CR-89327] 23 p4184 N67-39236
Acceptance test data and mechanical pressure effects on 20 ampere-hour nickel-cadmium secondary spacecraft cells
[NASA-CR-89536] 24 p4375 N67-39388
NICKEL COMPOUND
Spinel additives for nickel hydroxide electrodes to improve reversibility on charge and discharge
[NASA-CR-53885] 07 p1033 N67-18194
Magnetic properties of isostructural dihydrated ferrous, manganous, and nickelous formates measured between 1.4 deg and 20 deg K
[TR-4] 09 p1501 N67-19669
Bibliography of toxicology of nickel carbonyl
[ORO-3461-8A] 10 p1565 N67-21815
Nickel and cobalt complexes derived from carborane reactions
[TR-35] 12 p2043 N67-24411
Pentakis-2,8,9-trioxa-1-phosphaadamantane nickel/III/ perchlorate crystal structure determined by X-ray diffraction
[IS-T-153] 21 p3913 N67-35458
Shock induced demagnetization of nickel ferrite, yttrium-iron garnet, and iron
[UCRL-70340] 23 p4296 N67-39118
NICKEL OXIDE
Identification and characterization of battery active compound structures formed on nickel oxide electrode during charging and discharging
[NASA-CR-72138] 05 p0668 N67-15153
Electrochemical and dissolution properties of nickel oxide
[TR-2] 12 p2048 N67-24969
Phase diagrams of solid solutions of nickel oxide, magnesium oxide, and cadmium oxide with chromium oxide and oxygen gas 19 p3397 N67-33903
Photodesorption of oxygen from nickel oxide at room temperature using 635, 705, and 1079 millimicron light
[NASA-TN-D-4160] 21 p3791 N67-36420
NICKEL PLATING
Thick nickel high purity deposits produced by autocatalytic reduction in solutions containing nickel acetate, glycolic acid, hydrazine, and sodium salt of EDTA
[SCL-DC-66-22] 10 p1573 N67-20916
Plating of uniform nickel film on glass fiber cemented with epoxy resin
[K-L-2338] 10 p1639 N67-20960
Electroless nickel plating of graphite specimens to preserve edge and surface detail 12 p2149 N67-24259
Electroplating nickel onto uranium and anodic etching techniques for uranium
[BNWL-SA-1030] 20 p3569 N67-34169
Determination of indent depth and configuration for maximum reliability connections of nickel plated copper wire in gold plated connector contacts
[NASA-CR-86481] 22 p3909 N67-36733
Aluminum collimating mirror nickel plated for use in space simulator
[NASA-CR-85755] 24 p4460 N67-40367
NICOTINIC ACID
S VITAMIN
NIGHT
Nocturnal heat sources of moon surface 18 p3228 N67-31953
NIGHT IONOSPHERE
SA AIRGLOW
Weak shock effects and chemistry of lower D region, and blunt supersonic probe theory and first order corrections
[NASA-CR-80374] 03 p0389 N67-12996
Mass spectrometric determination of nighttime topside ionosphere composition
[NASA-CR-82512] 08 p1276 N67-19085
Intensity and spectrum of electron stream in ionosphere, and night ionosphere and aurora disturbances caused by sporadic increase of electrons 19 p3437 N67-32819
Nightglow spectral line shape of oxygen lambda 6300 and lambda 5577 radiation measured with Fabry-Perot interferometer
[NASA-CR-89317] 23 p4246 N67-39053
NIGHT SKY
Night glow of atmosphere in lambda 6300 A region 05 p0703 N67-14668
Intensity variations of H alpha and N II 6 583 A lines in night sky spectrum
[NASA-CR-83561] 11 p1774 N67-22287
Absolute radiance distribution of night sky in spectral region from 1.5 to 3.3 microns
[DOUGLAS PAPER-4137] 11 p1872 N67-23355
Spatial variations of nightglow in 5893 angstrom region 15 p2695 N67-27883
Possibility of tracking cloudiness of night sky from meteorological satellites 18 p3263 N67-31913
NIGHT VISION
Problems in near real time reconnaissance dealing with night air operations and design of imaging systems 04 p0548 N67-13473
Effects of cockpit lighting color on dark adaptation
[AFFDL-TR-67-56] 21 p3771 N67-35585
NIKE-AJAX ROCKET
Systems engineering approach to multidisciplinary problems in industry, with notes on microwave relay systems and Nike-Ajax rocket 23 p4368 N67-38511
NIKE-APACHE ROCKET
Meteorological data for Nike-Apache rocket launch
[DR-72] 03 p0420 N67-13028
Aeroelastic bending of upper atmosphere sounding rocket and its application to payloads on Nike-Capache 04 p0490 N67-14182
Theoretical and experimental studies in aeronomy dealing with direct measurements of ionospheric density and drifts by Nike-Apache and other rockets
[NASA-CR-80855] 05 p0699 N67-14641
Electron densities and collision frequencies from Nike-Apache rocket firings, results of eclipse experiment in South America, and instrumentation for rocket propagation studies 05 p0700 N67-14644
Payload and trajectory data for Nike Apache firings tracked by radar - January-June 1965
[NASA-TM-X-55723] 10 p1762 N67-21396
Payload and trajectory data for Nike Apache firings tracked by radar - July-December 1965
[NASA-TM-X-55726] 10 p1762 N67-21399
Nike-Apache rocket performance handbook
[NASA-TM-X-55706] 13 p2406 N67-25999
D-layer differential absorption and Faraday rotation measurements with Nike-Apache rockets
[NASA-CR-83839] 13 p2312 N67-25729
Nike-Apache sodium vapor trails used in determining dynamics of upper atmosphere
[NASA-CR-85903] 18 p3261 N67-31761
Preliminary results of electric field measurements in auroral zone by means of barium release and electron density experiments launched by Nike-Apache rocket 19 p3449 N67-33001
Flight and altitude tests of scientific instrument package for German research satellite using Nike-Apache for launch in Canada 21 p3937 N67-36139
Analysis of upper atmospheric pressure measurements from cone cylinder pitot-static probes of Nike-Apache rockets
[SC-RR-251] 22 p4037 N67-37199
NIKE-CAJUN ROCKET
Antenna voltage breakdown and rocket charging experiments on supersonic flight of Nike-Cajun rocket
[AFCRL-66-585] 01 p0041 N67-11099
NIKE-TOMAHAWK ROCKET
Analysis of flight characteristics and static stability of Tomahawk vehicle for use with 100-kilometer sounding rocket
[NASA-TM-X-55736] 11 p1980 N67-23075
Nose selection and vehicle motion dynamics for Nike-Tomahawk rocket
[NASA-TM-X-55739] 11 p1980 N67-23077
Aerodynamic stability of Tomahawk sounding rocket flown as second stage of Nitehawk 9 system
[CONF-670208-1] 19 p3539 N67-33199
Aeroballistic development of single-stage Nike-Tomahawk solid-propellant sounding rocket
[SC-RR-2606] 21 p3937 N67-36138
Pitch-damping characteristics of Nike-Tomahawk rocket configuration
[SC-RR-66-690] 23 p4349 N67-38211
NIMBUS CLOUD
Mesoscale and turbulent vertical currents inside peak of cumulonimbus 05 p0732 N67-14387
Markov process in continuous growth of cloud drops at small-scale fluctuations and effect on development of cumulonimbus
[EMM-67-155] 22 p4066 N67-36830
NIMBUS SATELLITE
Modified electronic Nimbus satellite receiving equipment for weather picture transmission 01 p0038 N67-10421
Automatic picture transmission station operation, and Nimbus C data evaluation 01 p0157 N67-11139
Flight performance, system integration, and test program for Nimbus II and B spacecraft and launch vehicle
[NASA-CR-80347] 03 p0467 N67-12981
Meteorological and geomorphological data acquired from Nimbus II satellite during period May 20 through June 30 1966
[NASA-CR-80342] 03 p0419 N67-12980
Performance and reliability studies of solar conversion power supply subsystem for Nimbus-B satellite
[NASA-CR-80336] 03 p0335 N67-12979
Synoptic and Nimbus I infrared radiometer data used to investigate peripheral subsidence in hurricane outflow
[NASA-CR-80333] 03 p0419 N67-12991
Nimbus II Data Code information for acquiring and locating Automatic Picture Transmission and Direct Readout Infrared Radiometer data
[NASA-CR-80162] 03 p0367 N67-12978
Nimbus II users guide
[NASA-CR-80361] 03 p0389 N67-12989
Meteorological and geomorphological data acquired by Nimbus satellite during July, 1966
[NASA-TM-X-59176] 03 p0419 N67-13021
Preliminary design of spacecraft configuration and performance analysis of passive attitude control subsystem for gravity gradient stabilized Nimbus satellite
[NASA-CR-80660] 04 p0615 N67-14179
Nimbus II observation in visible and infrared regions to predict development of storms and frontal systems
[NASA-TM-X-55638] 05 p0733 N67-15139
Method for manual geographical referencing of direct readout infrared radiometer data from Nimbus C satellite
[NASA-CR-81133] 05 p0700 N67-15254
Design and performance of Nimbus

satellite mechanisms and subsystems 07 p0996 N67-16902
Performance in flight of Nimbus 1 automatic picture transmission television-camera system
[NASA-TM-X-55689] 08 p1282 N67-18640
Spectrometer measurements made from jet aircraft and Nimbus II satellite of reflected solar and emitted thermal radiation from earth from 1.8 to 5.4 microns
[NASA-TM-X-55662] 08 p1305 N67-18691
Michelson interferometer to obtain vertical temperature and humidity profile from Nimbus satellite
[NASA-TM-X-55678] 08 p1282 N67-18697
Cloud albedo measurements from airborne mi-a-meters, infrared radiometers, and Nimbus II radiometer
[NASA-TM-X-55765] 08 p1277 N67-18769
Intermediate and microwave radiative measurements from weather satellites to determine reflections and surface emissions from sea water
[NASA-CR-83518] 11 p1865 N67-22259
Thermal performance of Nimbus B/SNAP-19 materials and mechanical joints
[MND-3607-112] 12 p2144 N67-23693
Low Reynolds number hypersonic force tests of SNAP-19 capsule and Nimbus B satellite solar panel
[MND-3607-89] 12 p2145 N67-23735
Proposed uses of operational meteorological satellite data in weather analysis 12 p2137 N67-24291
Nimbus satellite design study - failure rate data sheets, vibration tests of pulse code modulation and telemetry electronics, encoding accuracy, and metal oxide silicon field effect transistors
[NASA-CR-83739] 12 p2218 N67-24621
Nimbus pulse code modulation telemetry subsystem design study
[NASA-CR-83996] 13 p2280 N67-26001
Addendum to final report for Nimbus pulse code modulation design study
[NASA-CR-83997] 13 p2280 N67-26002
Nimbus breadboard microwave meteorological radiometer and scanning antenna evaluation
[NASA-CR-84485] 14 p2495 N67-27660
Nimbus D versatile information processor
[NASA-TM-X-55821] 16 p2863 N67-30141
Thermal scale model test to determine temperature distribution in Nimbus B sensory ring with antennae removed - SNAP 19 expanded safety program
[MND-3607-94] 17 p3178 N67-31138
Heat distribution on 19 percent scale model Nimbus B sensory ring and SNAP-19 generator at Mach 10
[MND-3607-95] 17 p3180 N67-31388
Nimbus-B solar conversion power supply subsystem
[NASA-CR-86860] 18 p3196 N67-31505
Solar conversion and energy storage power systems for Explorer XXXIII, Nimbus I, and Applications Technology Satellite /ATS-I/
[NASA-TM-X-55826] 18 p3197 N67-32037
Solar-conversion power-supply subsystem for Nimbus B, using pulse width modulated voltage regulator
[NASA-TM-X-55852] 18 p3198 N67-32093
Reentry thermal analysis of Agena destruct and generator eject systems on Nimbus B/SNAP-19 mission
[SC-RR-66-2672] 19 p3491 N67-33562
Cloud mapping by Nimbus I and II high resolution radiometers
[NASA-TM-X-55873] 19 p3488 N67-33966
Nimbus satellite component and materials environmental investigations, failure analyses, and quality control procedures
[NASA-CR-87481] 20 p3732 N67-34431
Test programs for prototype and flight models of Nimbus high resolution infrared nighttime cloud cover radiometer
[NASA-CR-87983] 21 p3846 N67-35360
Global radiation balance of earth-atmosphere system obtained from Nimbus satellite data
[NASA-TM-X-55896] 21 p3843 N67-36392
Stratospheric temperature patterns derived from Nimbus II measurements
[NASA-TM-X-55921] 22 p4067 N67-37554
Radiometric high resolution infrared measurements of sea-surface temperatures and ocean current by Nimbus II
[X-622-67-435] 22 p4040 N67-37679
Heat balance over polar regions obtained by Nimbus II radiation measurements
[NASA-TM-X-55954] 23 p4245 N67-38789
Nimbus II satellite remote sensing of temperature in stratosphere
[NASA-TM-X-55958] 23 p4223 N67-39366
Atlas of total outgoing long-wave radiation and of short-wave reflectances from Nimbus II
[NASA-TM-X-55974] 24 p4485 N67-39654
Integration support equipment functions, operation, and physical characteristics for interrogation, recording, and location subsystem used in Nimbus B satellite
[NASA-CR-89559] 24 p4426 N67-39834
Design and operation of ground station for Nimbus weather satellite automatic picture transmission
[NASA-TM-X-55977] 24 p4409 N67-40202
NIMONIC ALLOY
Empirical representation of creep strain data for problems involving time varying stresses and temperatures
[ARC-CP-945] 22 p4152 N67-38928
NIMPHE
S HYDRAZINE ENGINE /NIMPHE/
NIMROD ACCELERATOR
Feasibility of using 15 to 70 MeV separated orbit cyclotron as booster injector for Nimrod
[RHEL/R-122] 01 p0116 N67-10711
Servocontrolled hydraulic mechanism to plunge one-ton magnet for Nimrod extracted proton beam
[RHEL/R-117] 04 p0524 N67-13354
Electrostatic inflection system for Nimrod accelerator
[RHEL/R-125] 07 p1153 N67-17569
Proton beam transport system from linear accelerator to Nimrod accelerator
[RHEL/R-141] 21 p3827 N67-36287
Nimrod operation and equipment
[RHEL/R-142] 21 p3830 N67-36486
NIOBIUM
Recrystallization parameters of niobium and tungsten - Titanium and molybdenum effects on recrystallization temperature and hardening of niobium alloys
[FTD-MT-65-413] 02 p0358 N67-11251
Temperature dependence of linear growth rate of niobium and tungsten recrystallization centers 02 p0349 N67-11252
Differential thermal analysis of niobium oxytrichloride melt with rubidium and cesium chlorides 03 p0856 N67-12384
Niobium 93 decay, and energy levels in zirconium 93 03 p0437 N67-12383
Conference on pure materials in science and technology - synthesis of high purity beryllium oxide and separation of titanium, niobium, and tantalum through liquid-liquid extraction
[FTD-TT-65-837] 03 p0356 N67-12838
Separation of titanium, niobium, and tantalum through liquid-liquid extraction 03 p0359 N67-12840
Angular correlation of cascade gamma rays in niobium
[NASA-CR-80193] 03 p0443 N67-12923
Effect of low density inert gas flush on oxygen-niobium reaction
[NASA-CR-80940] 05 p0667 N67-14895
Inelastic scattering cross sections of neutrons with iron, nickel, and niobium nuclei 06 p0924 N67-15586
Attenuation of ultrasonic waves in superconducting niobium
[NASA-TN-D-3817] 06 p0951 N67-16892
Superconducting niobium thin film production
[NASA-CR-72174] 08 p1351 N67-18689
Measured differential niobium 93 cross section at 14 MeV and varying scattering angles 08 p1338 N67-18832
Discrepancy between measured and predicted neutron cross section values for niobium 93 to niobium 92 reaction 08 p1339 N67-18833
Equilibrium solubilities of niobium and tantalum in molten potassium 09 p1407 N67-19585
Solubility parameters for niobium and zirconium in lithium and potassium, and calcium solubility in eutectic sodium potassium alloy 09 p1408 N67-19586
Corrosion mechanisms in niobium oxygen potassium system 09 p1458 N67-19688
Electrical properties and temperature dependence of niobium, vanadium, and tantalum in superconducting state investigated by ultrasonic radiation
[TR-36] 10 p1748 N67-20603
Neutron irradiation effect on plastic deformation in niobium single crystals
[ORNL-TM-1583] 10 p1752 N67-21467
Low magnetic field ultrasonic attenuation of impure superconducting niobium
[NASA-CR-83423] 11 p1966 N67-23473
Chemisorption of oxygen on molybdenum and niobium surfaces in ultrahigh vacuum
[SRIA-425-9] 12 p2099 N67-23685
Chromatographic separations of niobium, tantalum, molybdenum, and tungsten
[IS-T-113] 13 p2041 N67-23758
Effect of nitrogen on tensile and creep-rupture properties of niobium
[NRL-6464] 12 p2121 N67-24025
Structure of uranium alloys containing niobium affected by aging treatment
[RT/MET/66/1] 13 p2337 N67-25689
Coated niobium combustion chamber for Apollo spacecraft
[NASA-CR-65615] 14 p2600 N67-27309
Sorption kinetics and mechanical properties of dilute niobium-hydrogen solutions
[ORO-2570-10] 15 p2725 N67-28344
Oxidation protection of tantalum and niobium by silicide coatings
[NASA-CR-84874] 15 p2664 N67-28927
Metastable phases in uranium alloys with low niobium content and their thermal decomposition
[RT/MET/66/2] 16 p2910 N67-29612
Liquid-liquid extraction of niobium 97
[SGAE-CH-66/1967] 16 p2853 N67-29962
Oxidation rate of niobium and niobium-zirconium alloys under low pressures and high temperatures
[NASA-CR-72264] 16 p2914 N67-30151
Electrical resistance of niobium single crystal at 4.2 deg K from superconducting transition to 80 kDe
[CEA-R-3149] 17 p3147 N67-30234
Cavitation-erosion characteristics of niobium, tantalum, and steel in mercury at 500 deg F
[NASA-CR-67000] 18 p3281 N67-32578
Fcc solid solutions of silver and niobium-base bcc solid solutions
[TID-23747] 19 p3468 N67-32909
Stabilization of niobium 40 percent titanium in high current density 56 kG superconducting solenoid
[AVCO-EVERETT RES. REPT.-270] 19 p3469 N67-32907
Steel, iron, and niobium samples examined for effects of radiation on mechanical properties and crystal structure
[ORNL-4097] 19 p3470 N67-33202
Corrosion of niobium and niobium alloys in flowing liquid sodium between 400 deg and 600 deg C
[CEA-R-3028] 19 p3489 N67-33213
Crack propagation studies of welds in tantalum and niobium sheet
[B-70-67-18] 19 p3465 N67-33634
Porous bodies of tantalum, niobium, and aluminum fabricated by plasma arc metal spraying in argon atmosphere for electrode applications
[REPT.-66-C-318] 20 p3649 N67-34498
Electrochemical measurements of film growth on polished heated niobium exposed to sulfuric acid and potassium sulfate
[ORNL-TM-1883] 21 p3785 N67-36294
Superconducting transition temperature and electronic structure in pseudobinaries of niobium with tin and aluminum or antimony
[ESD-TR-67-299] 23 p4236 N67-38104
Phase equilibria of niobium rich regions in ternary alloys and effect of interstitial additions
[DRI-2397] 23 p4264 N67-38671
Oxidation protection of niobium and tantalum by their silicides
[NASA-CR-84935] 24 p4487 N67-40040
NIOBIUM ALLOY
Effect of interstitial addition on phase equilibria of niobium-rich region of oxygen bearing alloy system
[DRI-1692-232] 01 p0084 N67-10653
Oxygen influence on mechanical properties of niobium-zirconium alloys
[IS-T-92] 01 p0084 N67-10690
Titanium and molybdenum effect on recrystallization temperature and hardening of niobium alloys 02 p0359 N67-11253
Changes in structure and mechanical properties due to loss of interstitials to reactive metal coatings studied in dispersion strengthened niobium alloys
[NASA-CR-70546] 02 p0359 N67-11727
Phase diagram of titanium vanadium niobium molybdenum

system 02 p0270 N67-11765
Microstructural and X-ray phase analysis of alloys of titanium niobium chromium system 02 p0270 N67-11766
Tensile stress effect on critical current-carrying capacity of niobium-zirconium wire and niobium-tin ribbon superconductors at liquid helium temperature
[NASA-TN-D-3745] 02 p0294 N67-11815
Hydrogen supersaturation in zirconium and zirconium-2.5wt percent niobium alloy
[AECL-2599] 03 p0411 N67-12826
Stress reorientation of hydride precipitates in cold drawn zirconium-niobium pressure tubes
[AECL-2634] 03 p0412 N67-12895
Examination and analysis of bimetallic - stainless steel and Nb-1 per cent Zr - liquid metal systems to define design limits for long life system applications
[KDR-4719] 04 p0558 N67-13632
Transmission electron microscopy used to study formation of athermal and isothermal omega in Zr-Nb alloys
[ITR-9] 04 p0560 N67-13979
Structural changes in niobium base alloys induced by exposure to titanium interstitial sink at elevated temperature
[NASA-CR-81140] 05 p0719 N67-15250
Superconductivity and critical temperature studied in niobium carbonitride solid solutions
[NASA-TT-F-10446] 06 p0845 N67-15689
Effect of 1000 hour thermal exposures on tensile properties of refractory metal alloys
[NASA-CR-72995] 06 p0895 N67-16564
Contamination exposures of columbium, zirconium, and tantalum alloys under conditions of low pressures and high temperatures
[NASA-CR-54934] 06 p0896 N67-16673
Structure of zirconium carbon niobium alloys
[NASA-TT-F-10493] 07 p1101 N67-17515
Fabrication of Zircaloy-4 clad zirconium-2.5 niobium pressure tubing by extrusion and cold drawing process
[REPT.-1] 07 p1094 N67-17885
Corrosion resistance of Nb and Ta tubing alloys to boiling K 09 p1459 N67-19681
High strength niobium alloy corrosion testing and evaluation of alkali metal containment
[NASA-CR-72995] 09 p1463 N67-20013
Oxidation of nickel-aluminum and nickel-niobium alloy systems
[FTD-HT-66-129] 09 p1464 N67-20181
Tensile and creep properties of niobium-vanadium alloys as influenced by strain rate
[KAPL-3145] 10 p1652 N67-20838
Effect of interstitial addition on phase equilibrium of niobium-rich region of niobium tungsten hafnium and niobium tungsten zirconium alloy systems
[DRI-1662-235] 10 p1656 N67-21568
Effects of dissolved oxygen on mechanical properties of zirconium-2.5 weight percent niobium alloy
[AECL-3623] 11 p1898 N67-22994
Mechanical properties and corrosion behavior at high temperatures of zirconium niobium tin alloy used for cladding in water cooled reactors
[EURAEC-1725] 12 p2116 N67-23689
Twinning and low temperature mechanical properties of polycrystalline niobium, molybdenum, and niobium molybdenum alloys
[AD-646682] 12 p2121 N67-24756
Extrusion and cold drawing fabrication of zirconium niobium pressure tubes, and metallurgical evaluation
[AECL-3652] 14 p2547 N67-27764
Phase and microhardness data on hafnium niobium tungsten zirconium alloy systems containing interstitial carbon or dioxide
[DRI-3269] 15 p2723 N67-28217
Stress corrosion test of biaxially stressed niobium-base refractory alloy with refluxing potassium
[NASA-CR-907] 15 p2728 N67-28748
Precipitation reactions in carbon containing niobium alloys after heat treatment
[AFML-TR-66-259] 16 p2907 N67-29645
Thermal properties, electrical and oxidation resistance, tensile strength, hardness, and workability of niobium and tantalum alloys
[BM-RI-6964] 17 p3081 N67-31195
Mechanical and thermal properties and oxidation resistance of high temperature niobium base alloys
[BM-RI-6988] 17 p3083 N67-31375
Ion exchange analysis of niobium alloys
[AMRA-TR-67-17] 19 p3395 N67-33688
Tensile properties of gamma quenched and aged uranium rich niobium alloys
[RFP-933] 22 p4061 N67-37112
Metastable polymorphic transformations in niobium and zirconium alloys during quenching in beta region 22 p4063 N67-37131
Interatomic bond strength in monophasic titanium niobium chromium alloys 22 p4066 N67-37146
Heat-treated Zr-2.5 percent Nb pressure tubes for water-cooled power reactors
[AECL-3890] 23 p4285 N67-38377
Mechanical properties of refractory niobium alloys
[JPRS-43171] 24 p4467 N67-39940
Metallurgical properties of alpha-gamma uranium alloys from uranium molybdenum niobium vanadium titanium system
[AMRA-TR-67-18] 24 p4467 N67-39997

NIOBIUM CARBIDE
Physical and mechanical properties of tantalum carbide and niobium carbide composites
[NASA-CR-79757] 02 p0277 N67-12972
Interaction of zirconium dioxide with titanium, niobium, and chromium carbides
[NASA-TT-F-10649] 07 p1028 N67-17518
Temperature effect on grain size of niobium carbide in vacuum and argon atmosphere
[NASA-TT-F-10610] 13 p2338 N67-25812
Precipitation reactions in carbon containing niobium alloys after heat treatment
[AFML-TR-66-259] 16 p2907 N67-29645
Band structure model for thermal conductivity of zirconium and niobium carbides
[NASA-TT-F-11118] 17 p3019 N67-31336
Specific heats of vanadium, molybdenum, and niobium carbides in 3 deg to 9 deg K range
[ONERA-TP-480/1967/] 19 p3558 N67-33425
Hall coefficient dependence on niobium monocarbide composition
[NASA-TT-F-11304] 23 p4327 N67-38125

NIOBIUM COMPOUND
SA CALCIUM NIOBATE
Properties of high field superconductors at high temperatures - magnetization experiments on niobium and niobium compounds
[NASA-CR-80154] 03 p0453 N67-12913
Chemistry of vanadium, niobium, and tantalum in compounds and solvents
[ARL-66-0062] 05 p0664 N67-14718
Width of homogeneity region of intermetallic phases in niobium tin and vanadium gallium systems
[ATD-66-101] 06 p0691 N67-15770
Interaction of niobium pentachloride with oxygen at temperatures above chloride melting point
[LA-TR-66-70] 11 p1815 N67-23209
Vapor-liquid equilibria of binary system uranium hexafluoride-niobium pentafluoride
[ORNL-TM-1683] 12 p2038 N67-23600
Improvement in growth and reproducibility of single crystal potassium tantalate niobate and electooptical evaluation for use in laser technology
[QPR-1] 15 p2783 N67-28902
Chemical kinetics of vapor phase chlorination of niobium oxytrichloride using carbonyl chloride
[IS-T-146] 21 p3783 N67-35662
Emittance testing of calcium titanate and iron titanate coated stainless steel tubes and thermal cycling tests of iron titanate coated niobium-zirconium tubes
[NASA-CR-72294] 22 p4162 N67-37318

NIOBIUM STANNIDE
Magnetic field calculations for superconducting quadrupole lens with currents in niobium stannide ribbon
[BNL-10495] 03 p0455 N67-13293
Production method for niobium strips having protective layer of niobium stannide
[INR-749/XIV/PS] 11 p1967 N67-23007
Tubular superconducting electromagnet of niobium stannide
[FTD-HT-66-509] 14 p2581 N67-28961
Niobium stannide current sheet for superconducting quadrupole lens 17 p3149 N67-30998

NIOBIUM 95
Calibration of zirconium 95, niobium 9 mixtures by gamma spectrometry
[CNEA-177] 10 p1575 N67-21141

NIRO SOUNDING ROCKET
Aerodynamic and flight characteristics and trajectory analysis of NIRO sounding rocke - graphs
[SGC-916FR-1, APPEND. A] 05 p0767 N67-14488
Niro sounding rocket instrumentation fo auroral measurements
[AFCRL-66-738] 09 p1451 N67-20
Design and test of antenna for Niro rocke
[AFCRL-67-0082] 14 p2488 N67-26

NITRATE
SA AMMONIUM NITRATE
SA HYDRAZINE NITRATE
SA PENTAERYTHRITOL TETRANITRATE /PETN/
SA POTASSIUM NITRATE
SA SODIUM NITRATE
Denitration of high nitrate plutonia sol by baking
[ORNL-TM-1558] 01 p0033 N67-1
Mathematical model for recovery o aluminum nitrate nonahydrate from Redo acid waste by crystallization from concentrated nitric acid solution
[HW-82771, PT. 3] 02 p0226 N67-11
Roentgenographic characteristics of nitrates and perchlorates of nitroge containing bases
[JPRS-39282] 05 p0668 N67-13
Binary alloy composition relation to electron backscatter yield, infrared spectro study of metal nitrate complexes, and machining of uranium fuel cores
[NLCO-980] 07 p1029 N67-17
Density-concentration ratios of aqueou uranyl nitrate solutions
[JEN-166-DMA/I-20] 10 p1580 N67-21
Stability of uranium /IV/ nitrate sta in aqueous nitric acid phase, in organic phase, and in emulsion of aqueous pha with organic phase
[NP-16328] 10 p1582 N67-21
Neutron poisoned ion exchange columns in purifying plutonium nitrate solutions
[RFP-782] 11 p1809 N67-23
Potentiometric determination of fluorid with lanthanum nitrate and its application to micro-determination of fluorine in organic compounds
[RAE-TR-66346] 12 p2042 N67-24
Molecular spectroscopy - multiplicities o phosphorescent states of organic molecule polarization of absorption of uranyl nitrate and electronic structure of S-S bon
[TID-23756] 17 p3132 N67-30
Uranyl nitrate purification by zone refining 21 p3777 N67-35
Electron paramagnetic resonance angula spectra of gadolinium in rare earth double nitrate single crystals 21 p3919 N67-36
Rare earth oxides precipitated from anhydrous molten nitrate salts 21 p3782 N67-36
Pyrex membrane potential in binary nitrate melts
[AD-657447] 23 p4203 N67-38
Chemical interactions between nickel surface and molten lithium nitrate 23 p4206 N67-38

NITRATION
Preparation of methyl cellulose by nitration with 98-percent nitric acid dissolved in methylene chloride and in 9 percent nitric acid without solvent
[PA-TR-3476] 23 p4201 N67-38

NITRIC ACID
Raw materials, processes, principles properties, and applications of sulfuric nitric, phosphoric, and hydrochloric acids caustic soda, soda ash, and washing so
[JPRS-39267] 05 p0668 N67-13
Neutron activation analytical method for determining amounts of manganese in nitric and hydrochloric acids 06 p0824 N67-16
Extraction of mineral acids by alkyl sulfoxides 06 p0827 N67-16
Sorption kinetics of uranium from nitric acid solutions on anion exchange resin
[LA-3541] 11 p1809 N67-23
Direct estimation of free fluoride ion i twenty percent nitric acid etching solution
[Y-1569] 11 p1806 N67-23
Beryllium oxide dissolution in nitric aci solutions for grind-leach processing
[AAEC-E-154] 11 p1815 N67-23
Dissolution of plutonium-bearing residue

in nitric acid-calcium fluoride solvent system
[RFP-776] 12 p3040 N67-33746
Equilibrium anion exchange of uranium /VI/ from nitric acid solution
[LA-3540] 12 p3044 N67-34575
Uptake of plutonium in different valence states by urania gels in nitric acid solution
[BAW-3714-1] 20 p3597 N67-35127
Cesium capture by potassium sulfate crystals growing in nitric acid solutions 21 p3777 N67-35498
Comparison of TBP and DZEHPA solvents in production of rare earth nitrate acid systems 21 p3790 N67-34351
Preparation of methyl cellulose by nitration with 98-percent nitric acid dissolved in methylene chloride and in 98-percent nitric acid without solvent
[PA-TR-3476] 23 p4301 N67-38267
Spectrophotometry of neptunium in nitric acid solutions
[RFP-958] 23 p4206 N67-38703
Corrosion resistance of construction materials in boiling 13 M nitric acid and 0.1 M hydrofluoric acid solution
[BMI-X-434] 23 p4209 N67-38990
NITRIC OXIDE
Simulation of chemiluminescent reaction of nitric oxide with atomic oxygen in supersonic low density wind tunnel
[AEDC-TR-66-254] 10 p1628 N67-21857
Determination of D-region nitric oxide density distribution by VLF radio propagation
[SR-1] 15 p3707 N67-28979
Detector using photoionization technique for measuring nitric oxide in lower ionosphere
[DASA-1887] 16 p2885 N67-29443
Infrared chemiluminescence and vibraluminescence from low pressure gas phase nitric oxide-oxygen atom reaction system 17 p3012 N67-30271
Distributions and lifetimes of nitrogen atom and nitric oxide in upper atmosphere
[NASA-CR-86618] 18 p3260 N67-31506
Flight and wind tunnel experiments of nitric oxide and oxygen chemiluminescence
[MC-65-197-R2] 19 p3392 N67-33328
Mass spectrometric detection of nitric oxide dimers and other polyatomic molecules
[AD-655454] 22 p3982 N67-36852
Preparation of oxygen-17 and oxygen-18 enriched water from enriched nitric oxide gas
[LA-3698] 23 p3988 N67-37432
Negative ions, loss coefficient, nitric oxide, electron, and positive ion distributions in lower ionosphere
[SR-299] 24 p4445 N67-40142
NITRIDATION
Low pressure nitriding effects on diffusion layer structure of titanium alloy 22 p4065 N67-37139
NITRIDE
SA ALUMINUM NITRIDE
SA BORON NITRIDE
SA SILICON NITRIDE
SA TITANIUM NITRIDE
SA ZIRCONIUM NITRIDE
Bonding, stability, and formation of cubic refractory monocarbides, mononitrides, and monoxides
[CU-3553-5] 10 p1579 N67-21574
Carbides, nitrides, nitrocarbides, and carbonitrides of iron examined for catalytic activity in oxygen reduction reaction in potassium hydroxide - peroxide fuel cells
[NASA-CR-84459] 14 p2483 N67-27546
Improved Kjeldahl method for determining nitrogen in plutonium mononitride and uranium nitrides
[AERE-R-5329] 14 p2484 N67-27622
Uranium-plutonium mononitride fuel for fast reactor application 18 p3293 N67-31903
Uranium plutonium nitride fuel materials for liquid metal fast breeder reactors 18 p3294 N67-32355
Thermodynamic property correlations and high pressure experiments on boron antimonide, boron nitride, and aluminum nitride
[SR-1] 19 p3388 N67-32902
Formation of uranium nitrides, LiF, and other complexes by chemical vapor deposition techniques
[ORNL-TM-1812] 19 p3397 N67-32898
Electronic structure of transition carbides and nitrides
[ONERA-TP-481/1967/] 19 p3527 N67-33967
Preparation of two chromium nitrides by nitriding chromium powder
[ARL/MET-44] 20 p3596 N67-34948
Calculation of reduced thermodynamic potentials for some carbides and nitrides
[NASA-TT-F-11117] 21 p3950 N67-36443
Physical properties of pyrolytic Group IV metal carbides and nitrides
[NASA-TT-F-11186] 21 p3924 N67-36535
Synthesis and fabrication of uranium nitride - diffusion, creep, crystallogenics, particle size distribution, and solubility of high temperature nuclear fuels
[UCID-15135, PT. 1] 23 p4192 N67-39818
Phosphorus nitride salt synthesis
[SR-1] 24 p4400 N67-40354
Preparation of plutonium nitride as possible nuclear fuel
[AERE-R-5441] 24 p4462 N67-40505
NITRILE
SA ACETONITRILE
SA ACRYLONITRILE
SA PHOSPHONITRILE
Synthesis of alkyl cyanopropionates and measurement of spreading coefficients on aqueous casein and water
[TR-6701] 15 p3683 N67-28690
Prediction of shelf-storage life in rubbers from accelerated heat aging tests - oven aging experiments with nitrile, neoprene, and hypalon
[RAE-TR-67118] 23 p4269 N67-38444
NITRITE
Crystallography of sodium hyponitrite
[AFOSR-67-1629] 17 p3017 N67-30717
NITRO COMPOUND
Radiation studies and gamma radiolyses to determine properties of nitrous solutions and compounds 08 p1243 N67-19944
Photosensitivity of polyvinylcinnamate and its nitro derivatives to ultraviolet radiation
[FTD-HT-66-145] 10 p1578 N67-21379
Required structure of aromatic nitro compounds for photochromic reaction to visible and ultraviolet light
[AD-634651] 15 p3656 N67-27995
Fluorinated nitroalcohols obtained by condensation of difluoronitromethane with aldehydes and ketones in presence of potash catalyst
[FTD-HT-66-624] 21 p3780 N67-35641
Voltammetric studies of electroreduction of nitroaromatic compounds in nonaqueous organic solvents
[ECOM-02464-1] 22 p3983 N67-36918
Determination of molecular basis for transport properties of organic nitro compound solutions used in high capacity fuel cells and batteries
[NOLC-737] 24 p4376 N67-39486
NITROBENZENE
Fabrication of A size cylindrical magnesium/ magnesium perchlorate/m-dinitrobenzene cells
[ECOM-01401-2] 06 p0792 N67-15971
Electrochemical techniques used to determine reduction mechanism of nitrobenzene in lithium nitrate and lithium perchlorate ammoniate solvents
[NOLC-697] 13 p2286 N67-25328
NITROGEN
SA LIQUID NITROGEN
Nitriding of titanium alloys at reduced pressures
[FTD-TT-65-1630] 01 p0083 N67-10273
Critical flow rate of two-phase nitrogen through orifice
[NASA-TM-X-53492] 01 p0186 N67-10756
Proton polarization from carbon 12/helium 3 proton/nitrogen 14 reaction
[JINR-P-2735] 01 p0132 N67-10778
Spectroscopic measurements of near infrared spectrum of shock heated air and nitrogen
[CAL-QM-1756-A-1] 01 p0118 N67-10962
Charts of normal shock wave properties in imperfect nitrogen
[AEDC-TR-66-116] 01 p0061 N67-10995
Blood changes in mice exposed to nitrogen-oxygen and helium-oxygen atmospheres 02 p0190 N67-11493
Helium replacement of nitrogen in chamber without regenerative oxygen supply increases lifespan of rabbits in simulated atmosphere 02 p0191 N67-11503
Gamma-aminobutyric acid system in cerebral cortex of animals under action of accelerations 02 p0207 N67-11650
Relaxation of non-dissociated nitrogen in hypersonic wind tunnel measured by use of one-dimensional flow equations, transformations, and numerical integration 02 p0252 N67-11964
Nitrogen content relationship to high-purity 20-20 austenitic stainless steel to stress corrosion
[AROD-4099-2] 03 p0408 N67-12287
Ion laser experiments, molecular nitrogen laser, and gas laser theory 03 p0407 N67-12649
Simulation of liquid-hydrogen turbine-type flow meter calibrations using high-pressure nitrogen gas at liquid-hydrogen density
[NASA-TN-D-3773] 03 p0390 N67-13174
Oxidation processes and kinetics involving oxides of nitrogen and ozone 04 p0504 N67-13628
Viscosity and thermal conductivity coefficients for dilute nitrogen and oxygen
[NASA-CR-81126] 05 p0697 N67-13214
Chemical synthesis of new hypofluorites containing nitrogen
[AR-3] 06 p0817 N67-13946
Performance of detector and its use in measuring differential cross section of inelastic scattering of nitrogen from first excited state in carbon 12 06 p0829 N67-13620
Rotational temperature measurement of electron beam excited nitrogen for free jet flow conditions 06 p0865 N67-15743
Gas flow permeability of nuclear grade graphite to argon, helium, hydrogen, oxygen, and nitrogen
[AERE-R-3994] 06 p0818 N67-15768
Spectroscopic investigation of Venus atmosphere to determine nitrogen, oxygen, carbon dioxide, water vapor, and other components 07 p1186 N67-16062
Comparison of visible and near ultraviolet spectra from low density, arc heated nitrogen plasma, and argon plasma
[AEDC-TR-66-139] 07 p1162 N67-16597
Ionizing radiation induced isotope exchange in gaseous nitrogen
[RPI-321-9] 07 p1029 N67-17641
Sleeve tube combustion used to determine nitrogen in organic compounds
[FTD-TT-65-883] 07 p1029 N67-17668
Centered one-dimensional unsteady expansion of vibrationally relaxing nitrogen-oxygen mixture
[NASA-TN-D-3905] 07 p1067 N67-17796
Interpretation of Rydberg and valence states of nitrogen below first ionization limit
[NASA-CR-81777] 07 p1186 N67-18166
Immobilization effects on phosphorus, calcium, and nitrogen balance in monkeys, and rapid analytical procedures 08 p1236 N67-18701
Rapid procedures for analyzing daily calcium, nitrogen, and phosphorus balance of inactive monkeys 08 p1236 N67-18702
Immobilization of monkeys, and effects on calcium, phosphorus, and nitrogen balance 08 p1236 N67-18703
Differential measurements of neutron scattering cross sections from nitrogen 08 p1236 N67-18830
Heat conductivity, electrical conductivity, and viscosity calculated for thermic argon and nitrogen plasmas
[DVL-569] 08 p1259 N67-19180
Neutron activation determination of oxygen in steel on industrial scale with similar possibilities for determining nitrogen and hydrogen in steel
[EUR-3161.F, VOL. I] 08 p1240 N67-19186
Zero pressure thermodynamic properties of nitrogen gas
[BM-IC-8319] 08 p1284 N67-19393
Fabric and solid burning rates in hyperbaric atmospheres containing oxygen, nitrogen, and/or helium
[NRL-6470, PT. 1] 08 p1285 N67-19527
Nitrogen content of metallic spherules in tektite and impactite glasses 09 p1440 N67-19563
Physical and analytical chemistry of carbon, nitrogen, and oxygen in alkali metals 09 p1458 N67-19589
Dissociation rate of carbon dioxide in excess of argon or nitrogen in heated shock tube
[ARL-66-0116] 09 p1460 N67-19757
Thermophysical properties of argon, oxygen, and nitrogen at cryogenic temperatures
[NASA-CR-82961] 09 p1504 N67-19907
Qualification testing of gaseous nitrogen storage bottles
[NASA-CR-82964] 09 p1454 N67-19926
Reactivity of titanium and other materials

with liquid oxygen and nitrogen tetroxide
[NASA-CR-83849] 09 p1413 N67-30257
Phase composition of heat resistant nickel alloy surface layers after heat treatment in nitrogen containing media 10 p1650 N67-30478
Nucleon transfer in N-14 plus B-10 and in N-14 plus Ca-40 reactions
[ORNL-TM-1567] 10 p1706 N67-30683
Thermodynamic values for air, carbon dioxide, and nitrogen at high temperatures and pressures
[JUL-383-RB] 10 p1770 N67-30917
Interstitial nitrogen effects on mechanical properties of iron after neutron bombardment
[EUR-2393.E] 10 p1654 N67-21157
Comparative annealing behaviors of low temperature neutron-irradiated tris-acetylacetone cobalt /III/ in presence of oxygen and absence of nitrogen
[AEET-256] 10 p1655 N67-21503
Monocarbide mononitride monoxide region of quaternary system investigated in production of high temperature nuclear reactor fuels 11 p1886 N67-22291
Rotational temperature measurements of nitrogen fluorescence spectra using electron beam
[USCAE-104] 11 p1937 N67-22545
Langmuir probe used in nitrogen plasma studies 11 p1960 N67-22765
Austenitic stainless steel nitrogen content relationship to stress corrosion cracking susceptibility
[EURAEC-1755] 11 p1899 N67-23182
Measurement of normal component of transfer momentum from nitrogen ion molecular beam normally incident to copper target
[RAE-TR-66246] 11 p1944 N67-23340
Nitrogen effect in iron and steel under fast neutron irradiation
[EURAEC-1736] 12 p2116 N67-23681
Fissiochemical nitrogen fixation, fission fragment radiolysis of carbon dioxide, new chemical systems selection, technology, and irradiation, and process design and application analysis
[AGN-8196, VOL. 2] 12 p2039 N67-23696
Measuring equipment for angular distribution of nitrogen 17 produced in heavy ion transfer reactions
[JINR-P13-2965] 12 p2164 N67-23769
Effect of alveolar nitrogen concentration and environmental pressure on gas absorption rate from nonventilated lung
[FPRC/1242] 12 p2021 N67-23989
Calcium, phosphorus, and nitrogen mobilization resulting from conditions of inactivity in Macaca irus monkeys
[SAM-TR-66-94] 12 p2024 N67-24416
Nitrogen line spectrum classification and thermodynamic intensity calculation
[NONR-562/35//18] 12 p2239 N67-24814
Effect of nitrogen on tensile and creep-rupture properties of niobium
[NRL-6464] 12 p2121 N67-24925
Influence of nitrogen in iron and steel under fast neutron irradiation on magnetic properties
[SORIN-M/442] 13 p2340 N67-25994
Spontaneous Brillouin scattering in carbon dioxide and nitrogen gases 14 p2547 N67-26705
Stimulated Brillouin scattering effects in nitrogen and methane gases using giant pulse laser 14 p2548 N67-26707
Heat transfer from nitrogen arc in cross flow for calculating arc radius, and centerline and peripheral temperatures
[ARL-66-0193] 14 p2631 N67-26742
Rotational temperature measurements in nitrogen flow field of low density free jet from sonic orifice made using electron beam fluorescence with spectrograph
[USCAE-103] 14 p2516 N67-26950
Isotopic abundance of neon, argon, and nitrogen in natural gases containing helium
[BM-RI-6936] 14 p2491 N67-27400
Improved Kjeldahl method for determining nitrogen in plutonium mononitride and uranium nitrides
[AERE-R-5339] 14 p2484 N67-27622
Determination of nitrogen in uranium nitrides by inert gas fusion
[AERE-R-5347] 15 p2654 N67-27814
Vibrational levels of nitrogen band system of polar aurora observed at different latitudes 15 p2696 N67-27893
Structure of cerium oxygen nitrogen system
[COO-716-026] 15 p2655 N67-27916
Nitrogen impurity distribution in turbulent flow of molten lithium coolant
[SM-85/52] 15 p2745 N67-28178
Electron emission from tungsten under proton bombardment - effect of nitrogen adsorption
[SC-R-67-1038] 15 p2762 N67-28354
Momentum transfer to solid surfaces by nitrogen molecules at satellite velocities
[NASA-CR-85372] 15 p2790 N67-28365
Permeation of nitrogen through arc-cast tungsten
[NASA-CR-72238] 15 p2725 N67-28370
Relation of nitrogen content of austenitic stainless steels to stress corrosion
[EURAEC-1806] 15 p2726 N67-28600
Mechanism and cause of nitrogen tetroxide attack on polymeric elastomer materials
[NASA-CR-84844] 15 p2663 N67-28828
Nitrogen solubility in liquid and solid chromium at elevated gas phase pressure
[NASA-TT-F-11053] 16 p2842 N67-29018
Effect of oxygen, nitrogen, and carbon on lattice parameter uranium monocarbide
[ORNL-TR-1433] 16 p2961 N67-29276
Nitrogen effect on mechanical properties of neutron irradiated pure iron - interstitial atoms
[SORIN-67] 16 p2913 N67-30096
Infrared vibraluminescent emission of carbon monoxide excited by active nitrogen 17 p3013 N67-30274
Inelastic collision processes using active nitrogen and carbon monoxide 17 p3013 N67-30275
Emission spectra of nitrogen, oxygen, and atmospheric mixture of nitrogen and oxygen excited by proton impact 17 p3013 N67-30276
Nitrogen 14, deuteron, alpha reaction
[LYCEN-6659] 17 p3125 N67-30294
Screening of flame resistant materials and comparison of helium with nitrogen for diving atmospheres
[ASR-1] 17 p3010 N67-30618
Molecular biology of nitrogen fixing nodules in common legumes
[NASA-CR-85610] 17 p3003 N67-30777
Theory and tabulated numerical values of viscosity and mean free paths as function of temperature for argon and nitrogen
[DLR-MITT.-67-06] 17 p3048 N67-30792
Nitrogen injection effects on boundary layer of graphite surface in high-temperature dissociated airflow
[NASA-TN-D-4060] 17 p3179 N67-31285
Prediction of heat transfer and skin friction for mass transfer cooled zero pressure gradient surfaces exposed to high velocity laminar flow of nitrogen and carbon dioxide gas streams
[NASA-CR-85699] 17 p3179 N67-31323
Oxygen and nitrogen lines in solar spectrum
[AFCRL-67-0095] 19 p3531 N67-32716
Nitrogen thermodynamic data in Mollier diagram form
[NOLTR-67-32] 19 p3550 N67-32961
Background effect, and nitrogen and para hydrogen concentration factors effect on accuracy of thermal conductivity coefficient measurements of multilayer insulations
[JINR-P9-3236] 19 p3556 N67-33079
Human performance and behavior in hyperbaric environments 20 p3582 N67-34368
Influence of nitrogen in iron and steel under fast neutron irradiation
[EURAEC-1773] 20 p3661 N67-35094
Determining carbon, nitrogen, and oxygen impurities in silicon by activation analysis
[AFCRL-67-0227] 21 p3781 N67-35494
Atmospheric effect on sintering high surface area uranium dioxide powders
[NIJS-R-501] 21 p3874 N67-35746
Capture of stopped negative pion mesons in mixture of helium 3 and nitrogen
[JINR-P1-3255] 21 p3902 N67-35909
Nitrogen solid solubility in stainless steel as function of temperature and stress corrosion
[EURAEC-1838] 21 p3872 N67-36629
Nitrogen and propane cold gas systems used in microthrust propulsion for satellite attitude control - storage tanks, boilers, nozzles 21 p3928 N67-36674
Nitrogen condensation effects on pitot and static pressures in hypersonic gun tunnel
[ARC-CP-956] 22 p4023 N67-36883
Sorption pumps to remove inert gases and attain higher vacuum by periodic flushing with gaseous nitrogen
[FTD-HT-67-17] 23 p4053 N67-37227
Singularity of thermodynamic quantities at liquid-vapor critical point of argon, nitrogen, and oxygen 22 p4167 N67-37900
Proton homonuclear diatomic molecule collisions
[PSI-67-10] 23 p4297 N67-38131
Equilibrium thermodynamic properties of high-temperature nitrogen - alkali metal vapor mixture
[NASA-TN-D-4106] 23 p4300 N67-38179
Nitrogen metabolism in rats exposed to hypokinesia 23 p4194 N67-39107
Measurement of solar X-ray emission from carbon 4 and nitrogen 7 ions
[LA-3729] 24 p4524 N67-39888
Wavelength range of radio frequency excited nitrogen spectrum in nozzle exhaust flow jet
[CARDE-TR-574/67] 24 p4433 N67-40117

NITROGEN ATOM
Fractionation factors and partition functions for stable isotopes of nitrogen and oxygen
[NYO-3462-2] 04 p0507 N67-14480
Spectral absorption coefficients of carbon, nitrogen, and oxygen atoms tabulated for use in radiant energy transfer calculations
[NASA-CR-73049] 06 p0935 N67-15888
Chemical reactivity of hydrogen, nitrogen, and oxygen atoms at temperatures below 100 deg K
[NASA-CR-82983] 09 p1414 N67-29077
Angular distribution of neutrons from carbon 12 nitrogen 14 nuclear reactions
[JINR-P3-3079] 12 p2171 N67-24478
Fine structure of terms in atomic spectra of carbon and nitrogen
[T-R-617] 13 p2381 N67-26236
Distributions and lifetimes of nitrogen atom and nitric oxide in upper atmosphere
[NASA-CR-86618] 18 p3260 N67-31836
Structural elements for building living organism, and chemical interaction between atoms of hydrogen, oxygen, carbon, nitrogen, sulfur, and phosphorus 20 p3580 N67-35307
Short-duration afterglow of nitrogen studied in terms of theories of metastable atoms and molecules
[AFCRL-67-0253] 21 p3836 N67-35491

NITROGEN COMPOUND
Electrorefining of titanium-nitrogen alloys
[BM-RI-6878] 03 p0412 N67-12965
Thermodynamic analysis of dissociating nitrogen tetroxide system
[NASA-TT-F-10400] 04 p0565 N67-13826
Roentgenographic characteristics of nitrates and perchlorates of nitrogen containing bases
[JPRS-39285] 05 p0668 N67-15161
Deoxygenation of benzoyl cyanide, studies of vinyl nitrenes and diene isocyanates, and other aspects of nitrogen chemistry significant to primordial biological systems
[NASA-CR-81785] 07 p1017 N67-19128
Synthesis of phosphorus-nitrogen reagents
[ARL-66-0003] 12 p2048 N67-24478
Thermodynamic properties for compounds of the elements carbon, hydrogen, nitrogen, oxygen, phosphorus, and sulfur
[NASA-CR-83875] 13 p2270 N67-25861
Nitrogen resin modified baking enamel vehicles analyzed by infrared spectrophotometry
[CCL-224] 17 p3015 N67-30619
Flame structure of hydrazine droplet burning in nitrogen tetroxide vapor
[NASA-CR-72261] 19 p3554 N67-33107
Synthesis of polymers containing ferrocene nitrogen with system of conjugated bonds
[FTD-HT-66-416] 19 p3395 N67-33208
Fluorimino compound syntheses, properties, and copolymerization, fluoroaziridine syntheses, and other perfluorinated heterocyclic syntheses for use in heat resistant elastomers
[RMD-5086-F] 20 p3663 N67-34137
Phase studies, X-ray, and metallographic examination of uranium nitrides and carbonitrides for reactor fuel application
[JUL-472-RW] 20 p3589 N67-34156
Corrosion test results of spacecraft construction materials stored with nitrogen tetroxide in sealed capsule
[NASA-CR-88121] 21 p3870 N67-36256
Thermal reaction battery electrolytes from pyrolysis of oxime derivatives
[HDL-TR-1351] 22 p3964 N67-36981
Aluminum-nitrogen and aluminum-

phosphorus polymers
[AFML-TR-67-69] 22 p3986 N67-37342
NITROGEN FLUORIDE
High energy propellant possibilities and decomposition chemistry of nitrogen fluoride compounds
[TP-383] 05 p0668 N67-15116
Quantum mechanical study of molecules - prediction of ground, ionized, and excited states of unknown nitrogen fluoride molecule
[NASA-CR-688] 06 p0945 N67-15668
Preparation of nitrogen fluorides by electrolysis
[DVL-566] 06 p1241 N67-19220
NITROGEN-FLUORINE COMPOUND
Synthesis of 3-trifluoromethylglutarimides by cyclization from fluorinated alpha, beta unsaturated carbonyls and cyanoacetamide
[FA-A66-12] 06 p0629 N67-16498
NITROGEN ION
Charge transfer of nitrogen and oxygen molecular ions with sodium atoms
[NASA-CR-82856] 09 p1490 N67-20250
NITROGEN OXIDE
Mixing and reaction studies of hydrazine and nitrogen tetroxide using photographic and spectral techniques
[NASA-TM-X-52344] 02 p0225 N67-11231
Measurement of recombination rate of nitrogen oxide with electrons
[AFCRL-66-474] 05 p0665 N67-14743
Thermally excited infrared beam laser using carbon dioxide, nitrogen oxide, and hydrocyanic acid molecular energy levels
[ATD-66-102] 06 p0689 N67-15769
Nitrogen tetroxide and hydrazine compatibility with aluminum alloy storage tanks
[NASA-CR-81294] 06 p0953 N67-16559
Synthesis of fluoropolymers for elastomeric bladders for containment of nitrogen tetroxide and hydrazine fuels
[NASA-CR-81645] 07 p1107 N67-18000
Abundance, photodissociation, and microbiological production of atmospheric nitrous oxide
[AFCRL-66-823] 10 p1627 N67-21695
Oxides of nitrogen in engine exhaust with ammonia fuel
[TS-66-4] 10 p1581 N67-21718
Titanium stress corrosion in nitrogen tetroxide
[NASA-TM-X-59615] 11 p1900 N67-23277
Ozone and nitrous oxide formation by gamma irradiation of nitrogen oxygen gas mixture in flowing system at elevated pressure
[BNL-50017] 13 p2267 N67-25432
Rate of nitrogen oxide ion recombination in aurora
[NASA-CR-84187] 13 p2313 N67-25840
Structure and decomposition kinetics studied of dioxygenyl metal fluorides, nitrogen oxides, and oxygen fluorides
[IITRI-C227-17] 13 p2271 N67-25976
Infrared spectroscopic analysis of combustion products released by nitrogen tetroxide disposal unit
[NASA-TN-D-3965] 14 p2510 N67-26544
Pathological effects on animals exposed to ozone and nitrogen dioxide at ambient air and 5 psia 100 percent oxygen atmosphere 14 p3455 N67-26732
Effect of mixed gas atmosphere on toxicity of nitrogen dioxide and ozone to exposed animals 14 p3455 N67-26735
Nitrogen tetroxide-stainless steel cryopanel corrosion and coating degradation
[AEDC-TR-66-228] 18 p2906 N67-29070
Mechanical properties and nitrogen tetroxide stress corrosion resistance of Ti-6Al-4V alloy with different heat treatments
[NASA-CR-65635] 16 p2906 N67-29174
Resistance of polyethylene structures to nitrogen tetroxide degradation
[NASA-CR-85012] 17 p3067 N67-31418
Monel and nickel surface corrosion in nonaqueous nitrogen oxide hydrogen fluoride solutions
[BNL-50007] 18 p3278 N67-31718
Performance characteristics of thin metal film portable sensor used for detecting low concentrations of nitrogen tetroxide, fluorine, and unsymmetrical dimethyl hydrazine propellants
[TRW-6302-6001-R0000] 19 p3380 N67-32874
Rapid colormetric method for field determination of nitrogen dioxide in fumes from explosives
[BM-RI-6981] 19 p3391 N67-32352
Nitrogen tetroxide and hydrogen fluoride propellant vapors effect on plant life on and near Kennedy Space Center
[NASA-CR-87903] 20 p3579 N67-35195
Raman spectra of polycrystalline carbon dioxide and nitrogen oxide in lattice region at several temperatures
[TR-34] 21 p3914 N67-35535
Analysis based on dielectric properties and using oscillometry to determine water in nitrogen tetroxide
[TR-1001/2210-10/-8] 21 p3781 N67-35692
Chemical kinetics of nitration of propane with nitrogen dioxide
[NASA-TT-F-11115] 21 p3785 N67-36286
Effects of nitrogen dioxide-nitrogen tetroxide on oxyhemoglobin molecule dissociation in dogs after exposure
[SAM-TR-67-33] 22 p3969 N67-36996
Chemiluminescence of nitrogen dioxide in upper atmosphere
[CPD-116] 23 p4241 N67-38153
Reactivity and expansion characteristics of Aerozine-50 and nitrogen tetroxide from vacuum chamber tests
[NASA-CR-65749] 23 p4335 N67-38400
Nonequilibrium combustion effect on propellant performance for hydrazine/nitrogen tetroxide combination
[TS-67-3] 24 p4520 N67-39539
Selective absorption followed by gas chromatography for determining oxides of nitrogen in reactor loop cover gas consisting of carbon dioxide with small amounts of oxides
[AECL-2770] 24 p4492 N67-40002
Energetic positive ions from photoionization of gases
[D1-82-0543] 24 p4399 N67-40240
NITROGEN PLASMA
Comparison of visible and near ultraviolet spectra from low density, arc heated nitrogen plasma, and argon plasma
[AEDC-TR-66-139] 07 p1162 N67-16997
Afterglow studies in nitrogen plasma
[AFCRL-67-0423] 23 p4317 N67-38500
NITROGEN POLYMER
Nitrogen-phosphorus polymer chemistry
[AFML-TR-64-417, PT. II] 17 p3015 N67-30661
NITROGEN 15
Photoelectric method, and spectroscopic determination of isotopic composition of nitrogen 03 p0355 N67-12372
Oxygen 16 triton-alpha nitrogen 15 and oxygen 18 triton-proton oxygen 18 differential cross sections
[JINR-P-2796] 07 p1151 N67-17524
Phase defined calculations of mirror transitions in nitrogen 15 mass
[LFEN.61/BETA/] 08 p1345 N67-19270
Angular distributions of five alpha particle groups from fluorine 19 and nitrogen 15 nuclear reactions
[NASA-TN-D-3813] 11 p1937 N67-23861
Cross section calculation for dipole gamma quanta absorption in photodisintegration of nitrogen 15 nucleus
[JINR-P4-3177] 17 p3126 N67-30227
NITROGEN 16
Two-particle spin-orbit nucleon-nucleon interaction of oxygen 16 and nitrogen 16 nuclei
[NASA-CR-81059] 05 p0742 N67-15022
Diffusion calculations applied to nitrogen 16 specific activity 17 p3105 N67-30307
Use of nitrogen 16 for measuring channel outlet temperatures in gas cooled reactors
[PG-790/W/] 23 p4290 N67-38924
NITROGEN 17
Measuring equipment for angular distribution of nitrogen 17 produced in heavy ion transfer reactions
[JINR-P13-2965] 12 p2164 N67-23769
NITROGLYCERIN
Uniform execution standards of Abel heat test to check stability of nitroglycerin
[TIL/T-5727] 20 p3597 N67-35065
NITROLYSIS
Ammonification and nitrification tests of desert soils
[NASA-CR-80071] 05 p0640 N67-14290
NITROMETHANE
Air-blast wave measurements at long ranges from multiple row nitromethane charges
[PNE-607F] 07 p1072 N67-17420
Synthesis of fluorinated nitromethanes containing hydrogen
[FTD-HT-66-625] 24 p4401 N67-40472
NITROSO COMPOUND
Formation, structures, and chemical reactions of nitroso compounds
[NASA-CR-79491] 02 p0236 N67-11725
Nuclear magnetic resonance study for determining structure of nitroso rubber 08 p1234 N67-18239
Network density of filled composites, nitroso compound reactions with hydrocarbons, cryogenic bladder bag materials, thermoplastic rubbers as binders, and other polymer research studies 12 p2123 N67-23654
NOBELIUM
Half-life and energy of alpha particles for nobelium 255, and energy of alpha decay of nobelium 256
[JINR-P-2938] 10 p1718 N67-21683
Adsorption of nobelium chloride from gaseous phase
[JINR-E6-3076] 16 p2845 N67-29335
NOBLE GAS
S RARE GAS
NOBLE METAL
Combined interpolation scheme for calculating energy bands of transition and noble metals
[NASA-CR-80129] 02 p0295 N67-12173
Instability of noble and refractory metal thermocouples at high temperatures 09 p1447 N67-19636
Oxydation rates and high temperature diffusion in noble metal alloy claddings for radioisotope capsules
[STL-517-0049, VOL. III] 13 p2358 N67-25517
Noble metals used as methanation catalysts in hydrocarbon synthesis
[RI-BM-6974] 16 p2852 N67-29846
Noble and refractory metal thermocouples in experimental irradiation equipment 18 p3302 N67-32447
Preparation and structure of ionic and anionic carbon oxide complexes from noble metals 20 p3580 N67-34118
NOCTILUCENT CLOUD
Upper atmosphere dynamics effect on noctilucent cloud formation
[NASA-TT-F-10901] 01 p0065 N67-10211
Ice particles in noctilucent clouds, and low air humidity in mesosphere
[NASA-TT-F-10902] 01 p0065 N67-10212
Evaluation of rocket soundings of noctilucent clouds in upper atmosphere
[NASA-TT-F-10904] 01 p0065 N67-10214
Seasonal and latitudinal temperature effects on noctilucent cloud distribution in mesopause region
[NASA-TT-F-10905] 01 p0066 N67-10215
Atmospheric dynamics in upper atmosphere and noctilucent clouds
[NASA-TT-F-10906] 01 p0066 N67-10216
Theories on origin of ball lightning and noctilucent clouds
[JPRS-29032] 05 p0701 N67-14654
Theories on origin and composition of noctilucent clouds 05 p0701 N67-14655
Acoustic grenade soundings to determine relation between temperature structure in atmosphere and occurrence of noctilucent clouds
[NASA-TM-X-55648] 06 p0676 N67-16550
Optical radar and airglow observations of noctilucent clouds 14 p2852 N67-27089
Meteorological research by Soviet Union during International Geophysical Year program
[REPT.-12] 15 p2698 N67-28021
Rocket sounding data on noctilucent clouds 15 p2698 N67-28022
Climatology of noctilucent clouds 15 p2699 N67-28023
Refraction and visibility investigation of noctilucent clouds 15 p2699 N67-28024
Geophysical observation from earth surface of noctilucent clouds 15 p2699 N67-28025
Determination of parameters of noctilucent clouds in 1964 15 p2699 N67-28026
Spatial coordinates of noctilucent clouds measured by microscope 15 p2699 N67-28027
Projection of noctilucent clouds on earth surface 15 p2699 N67-28028
Noctilucent cloud nature, and some questions of photochemistry and dynamics of earth atmosphere 15 p2699 N67-28029
Rocket sounding of noctilucent clouds 15 p2700 N67-28031
Seasonal and latitudinal dependence of temperature to investigate correlation between temperature mesopause and noctilucent cloud distribution 15 p2700 N67-28032
Dynamics of upper atmosphere and

noctilucent clouds 15 p2700 N67-28033
Morphology of noctilucent clouds 15 p2700 N67-28034
Meteorological conditions for noctilucent cloud formation 15 p2700 N67-28035
Meteorological and ionospheric conditions of occurrence of noctilucent clouds in Siberia 15 p2700 N67-28036
Noctilucent cloud observations made at Novosibirsk by Astronomo Geodetic Society 15 p2700 N67-28037
Noctilucent cloud observations made by Gorky Department of Astronomo Geodetic Society in 1964 15 p2700 N67-28038
Noctilucent cloud formation and extraterrestrial dust concentrations in upper atmosphere 18 p3365 N67-33973

NODE
Branch points in angular momentum plane [UCRL-17068] 10 p1706 N67-30926
Conformal mapping procedure using interpolation of Lagrange polynomials to determine stress concentration at nodal points in structural elements 12 p2238 N67-34535
Algorithms for arc capacity influence on maximal flows between nodes in undirected networks [ORC-67-22] 24 p4479 N67-39701

NOISE
SA AERODYNAMIC NOISE
SA AIRCRAFT NOISE
SA BACKGROUND NOISE
SA CONTINUOUS NOISE
SA COSMIC NOISE
SA GAUSSIAN NOISE
SA IMPULSE NOISE
SA IONOSPHERIC NOISE
SA JET NOISE
SA RADIO NOISE
SA RANDOM NOISE
SA ROCKET ENGINE NOISE
SA SHOT NOISE
SA SIGNAL NOISE
SA SIGNAL TO NOISE RATIO
SA SPECTRAL NOISE
SA THERMAL NOISE
SA WHITE NOISE
Memory process reaction to limited mobility, partial isolation, and noise 02 p0221 N67-11641
Generation-recombination noise and its influence on energy resolution of diffused silicon p-n junction radiation detectors 03 p0452 N67-12612
Noise and nonlinearities influencing guidance accuracy of beam-riding missile [ARC-R+M-3417] 07 p1037 N67-17280
Space-time correlation function of noise field 08 p1326 N67-18515
Diagnostic noise study of X-19 power transmission systems [C-2979] 10 p1636 N67-30558
Airport crisis in commerical aviation involving noise, congestion, and delays 11 p2002 N67-32363
Test methods for assessing hearing impairment effects on receptive communicative efficiency in noise environment and methods of detecting individuals with deteriorated hearing [AD-645616] 11 p1792 N67-33119
Sound detectors and flow noise of simple lines and perforated pipes in motion, and sampling pressure fields beneath turbulent boundary layer [BR-4073] 12 p2088 N67-34701
Noise analyzing techniques in nuclear reactor - finite measuring time effect [RCN-64] 13 p2382 N67-36472
Channel noise effects on performance of adaptive compressive telemetry techniques 14 p2493 N67-37413
Optimum detection of signal source including costs of decisions, equipment, and location, operation, and maintenance [RM-5211-PR] 16 p2891 N67-38997
Rail test to evaluate psychomotor performance in low level wideband noise [AMRL-TR-66-85] 16 p2834 N67-39691
Signal optimization for additive noise channels with feedback 16 p2963 N67-39905
Filtering, prediction, and smoothing procedures for multi-stage linear dynamic systems using sampled data with sequentially correlated noise [NASA-CR-87502] 20 p3614 N67-34745
Multidimensional optimal control systems with nonlinear combination of useful signal and noise 21 p3790 N67-35628
Optical coherence and transcorrelation functions for nongaussian noise [USCEE-196] 21 p3895 N67-36007
Digital data processing system for very low frequency radio noise and propagation experiment aboard OGO-I [NASA-CR-88518] 22 p3997 N67-37021
Abstracts on sound and vibration projects - structures, industrial acoustics, audiology, aerodynamics, and instrumentation 23 p4293 N67-38199

NOISE ATTENUATION
Electronic system design, ear enclosures, and speech pickup system for transducer and interphone system for operation in high ambient noise [REPT.-6] 06 p0632 N67-15418
Elastic-walled concentric tubes for fluidborne noise attenuation evaluated in expansion chamber acoustic filter [MEL-448/66] 11 p1928 N67-32563
Air traffic growth, airline finances, and public benefits in relation to cost of new programs to alleviate jet aircraft noise near airports [XG-489-67] 14 p2447 N67-37471
Factors influencing subterranean radio wave propagation - geological formations, earth surface curvature, rock electrical parameters, and noise 15 p2667 N67-38150
Circumaural earmuffs evaluated for use in audiometry of noise attenuation [AD-656097] 15 p2653 N67-38635
Shock wave and noise problem of sonic boom 20 p3567 N67-34810
Noise attenuation of aircraft annoyance around airports 20 p3567 N67-35031
Sound attenuation characteristics of Navy SPH-3 helmet [USAARU-67-8] 22 p3978 N67-37090

NOISE ELIMINATION
Sound and vibration research for industrial noise problems 01 p0168 N67-10476

NOISE INTENSITY
Carbon brush noises in small machines due to commutator [TIL/T-5686] 09 p1455 N67-20352
Capacitive pressure transducers for conditions of high noise intensity, large frequency range, strong vibrations, and high heat flux [TP-413/1966/] 13 p2369 N67-36123
Modified stethoscope acceptability and effectiveness for use in areas of high noise levels on aircraft carrier [NAEC-ACEL-543] 16 p2834 N67-29637
Flyover noise signals produced by jet transport aircraft [DS-67-18] 23 p4177 N67-38664
Potential noise problems and operational restrictions for future VTOL aircraft [AMRL-TR-66-245] 24 p4374 N67-39988

NOISE MEASUREMENT
Problem of measuring sensitivity and noise factor of regenerative systems [TIL/T-5616] 01 p0026 N67-10088
Method for determination of noise from turbojet aircraft on takeoff trajectories [NASA-TT-F-10351] 01 p0004 N67-10325
Techniques for measuring aircraft noise and predicting community response [RD-66-31] 01 p0005 N67-10402
Extremely low frequency surface electric and magnetic fields and underwater electric field noise measurements [NEL-1379] 01 p0040 N67-10029
Influence of conductor connecting noise generator and two-port network during noise measurements [TIL/T-5650] 02 p0247 N67-11749
General-case equations for application to mismatch errors in Y-factor measurements for calibration of receiver - radio frequency technique for noise temperature measurement errors 02 p0237 N67-12138
Low temperature waveguide termination for noise temperature calibration facility in receiving system of communication satellite ground station 03 p0390 N67-12315
Noise measurements as tool developing electronic devices - noise suppression in thin film diodes and in space charge limited field emission cathodes - light and electron emission [ECOM-66028-F] 03 p0373 N67-13872
Noise measurement evaluations of various takeoff-climbout profiles of four engine turbojet transport airplane [NASA-TN-D-3715] 03 p0333 N67-12793
Sodium chloride aerosol penetration, and noise level measurements in airhoods and airblouses of personnel working with radioactive materials [AERE-R-5184] 04 p0497 N67-13817
Noise measurements of crossed field microwave tube [ECOM-2746] 05 p0684 N67-15052
Amplitude probability distribution of received noise and current in lightning discharges and of ELF and VLF radio noise [RR-511] 06 p0670 N67-15420
Low noise receivers - traveling wave maser development 06 p0838 N67-15913
Voltage controlled oscillator noise measurement and optimum tracking filters 06 p0839 N67-15919
Octave and one-third octave acoustic noise spectrum analysis [NASA-CR-81251] 06 p0917 N67-16058
Sensitive S-band noise receiver for Mariner Mars 1964 spacecraft program [NASA-CR-81637] 07 p1039 N67-17824
Characteristics of ambient noise fields, and instrument response of subarrays for determining optimum design criteria for predetection multichannel filters - seismic array [ESD-TR-66-553] 10 p1629 N67-30406
Tabulated radio antenna noise measurements [IER-18-ITSA-18-27] 12 p2091 N67-33837
Noise measurements of sound propagation related to jet aircraft takeoffs [NASA-CR-767] 12 p2157 N67-35053
Performance, inlet flow characteristics, and radiated noise measurement for turbojet engine with choked inlet flow [NASA-TN-D-3929] 12 p2200 N67-35089
Noise measurements of small arms [IZF-1966-21] 13 p2367 N67-35564
Noise measurement on air conditioning system of Dutch ship Van Speyk [IZF-1967-1] 13 p2367 N67-35594
Motor and air noise levels measured on centrifugal ventilator designed for submarines [REPT.-608.116, VIII] 13 p2367 N67-35749
Correlation between noise measurement and failure in transistors as screening technique [NASA-CR-83896] 13 p2294 N67-35989
Proposal for integrating aircraft noise dosimeter [AAEE/TECH/336/ENG] 13 p2323 N67-36141
Design and performance characteristics of rocketborne instrumentation system to measure radio frequency noise energy [NASA-CR-84151] 14 p2529 N67-36513
Noise measurement and analysis for J57-P21 turbojet engine [AFFDL-TR-66-147] 14 p2607 N67-36877
Identification of linear time invariance stochastic dynamical systems by nonlinear weighting of noisy measurements [NASA-CR-84509] 14 p2566 N67-37677
Structural noise measured on frictional hydraulic four-way servo valve [MEL-55/67] 15 p2717 N67-32347
Effects of measurement noise, measurement bias, and station location uncertainties on Apollo mission phases [NASA-TM-X-55803] 15 p2689 N67-38823
Noise performance and circuitry of charge sensitive field effect transistor preamplifier used in high resolution solid state radiation detectors [AFWL-TR-67-39] 17 p3035 N67-30421
Characteristics of flyover acoustics produced by commercial jet transport aircraft [DS-67-6] 17 p2995 N67-31235
Acoustic noise measurements during launching of improved Delta, TAT/Agena-D, and Atlas Agena-D launch vehicles 18 p3340 N67-31698
Mathematical analysis of noisy nonlinear devices by generalized random processes and comparison of quadratic and correlation detectors [ARL-67-0048] 18 p3305 N67-32276
Low noise amplifier design with field effect transistors, random noise characteristics, and noise measurements on commercial devices [NASA-CR-87325] 19 p3415 N67-33221
State of randomly excited dynamical system estimated from noise measurements having finite duration, and optimal linear filter synthesized from conditional probability theory 19 p3421 N67-33262
Subcriticality measurements of reactor parameters by determination of neutron noise

[ORNL-P-2979] 19 p3492 N67-33663
Prompt neutron decay kinetics in fast thermal reactor determined by noise analysis
[KFK-522] 19 p3493 N67-33775
Noise measurement in secondary electron conduction vidicons and channel multipliers
[ECOM-01880-3] 20 p3611 N67-34270
Far-field acoustic environmental predictions for launch of Saturn V and Saturn V MLV configuration
[NASA-TN-D-4117] 21 p3935 N67-35775
Comparison of laboratory and field noise measurement tests - subjective ratings vs physical noise measure
[DS-67-3] 22 p4099 N67-37386
Noise measurements in computer simulated rod model of plasma 22 p4118 N67-37742
Noise measurement under certain vibration and temperature effects
[ONERA-TP-448/1967] 22 p4101 N67-37967
Low frequency noise measurements related to uniformity of current distribution in avalanche diode breakdown 23 p4225 N67-38483
Conversion tables for underwater noise levels of submarines measured on various acoustical ranges
[REPT.-708.103/2] 23 p4295 N67-38935
Noise characteristics of unified S-band tracking system high speed range rate and X-Y angular data obtained during aircraft flyby tests
[NASA-TM-X-55987] 24 p4405 N67-39651

NOISE METER

SA VELA PROJECT
ARN-3 type atmospheric noise measuring equipment - manual
[AD-653780] 20 p3639 N67-34260

NOISE PROPAGATION

Signal attenuation, signal distortion, and radio noise generation due to ion engine exhaust beam
[NASA-CR-81651] 07 p1041 N67-17992
Communist Chinese studies on underwater sound measuring devices, acoustics, cavitation bubble motion, and noise transmission
[JPRS-39185] 08 p1387 N67-18511
Broadband noise generation mechanism in space charge of miniature microwave noise generator
[AD-642188] 10 p1591 N67-20586
Propagation characteristics of finite amplitude acoustic pressure wave, and contribution of entropy-producing regions to mechanisms of aerodynamic noise generation
[NASA-CR-736] 11 p1927 N67-21981
Helicopter rotor vortex noise generation and propagation
[USAAVLABS-TR-66-4] 11 p1781 N67-22600
Noise sources in varactor p-n junction diode and use in parametric amplifier circuit to reduce total output noise power
[RCS-OSD-1366] 11 p1834 N67-23106
Sound measurement in application to excessive noise propagation from static test firing of large space booster power plants 17 p3130 N67-30589
Digital computer program for study of acoustic noise transmission in machinery systems aboard ships
[MEL-548/66] 18 p3238 N67-32483
Noise spectral and directional characteristics of air stream escaping from conical nozzle under excess pressure
[FTD-HT-66-380] 21 p3894 N67-35391
Irregular pulsations of diminishing period events and generation in magnetosphere
[D1-82-0616] 21 p3838 N67-35749

NOISE REDUCTION

SA EAR PROTECTOR
Reduction of high magnetic field induced noise in traveling wave tubes
[ECOM-2737] 01 p0138 N67-10365
Cardiovascular changes and noise reduction in electrocardiograph signals studied on human and dog during vibration
[NASA-CR-80356] 05 p0346 N67-12980
Digital noise reduction in hybrid computers 04 p0517 N67-13604
Decision theory and binary detection of signal transmission in noisy channel, and determination of noise caused by tape in magnetic recording system 05 p0674 N67-14622
Conditions analyzed for low-noise operation of crossed field microwave amplifiers
[ERL-66-17] 06 p0856 N67-16457
Thermal, shot, random, and impulse noise reduction in amplifiers
[ECOM-2778] 10 p1584 N67-20631
Photoelectric and television devices for combating noise from atmospheric turbulence during astronomical observations 11 p1975 N67-22508
Tip vortex core thickening for application to helicopter rotor noise reduction
[R-469A] 11 p1781 N67-22692
Downstream stator contribution to interaction noise of single-stage axial flow compressor
[NASA-TN-D-3892] 11 p1891 N67-23288
Noise reduction and vibration control measures aboard Soviet ships
[JPRS-39876] 12 p2106 N67-23941
Literature review and methods for reducing noise and vibration aboard ships 12 p2107 N67-23942
Noise reduction and vibration control aboard Soviet diesel-powered river barge 12 p2107 N67-23943
Noise reduction, electrical modifications, radiant cone shield design, and simulator and radiometer calibrations for high resolution nighttime cloud cover radiometer
[NASA-CR-83814] 13 p2329 N67-25676
Sound measurements on hydraulic control valves of submarine to improve noise reduction
[TDCK-47317] 13 p2328 N67-26031
Sound measurements on submarine ventilator and electric motor to reduce noise
[TDCK-47319] 13 p2328 N67-26032
Sound measurements performed on seawater pump and electric motor to reduce noise levels
[TDCK-46824] 13 p2328 N67-26034
Noise reduction capacity of ear protectors measured over 125 Hz to 8000 Hz range
[A66/KLU/000] 13 p2264 N67-26036
Improvements and tests to determine effectiveness of noise reduction on seawater cooling pump of ship
[REPT.-608.112, II] 13 p2329 N67-26060
Cost allocation for alleviating subsonic jet aircraft noise
[AD-648748] 14 p2446 N67-27178
Noise measurements of water flow, with and without polymer additives, in two-dimensional variable angle diffuser, for flow noise reduction
[AD-648066] 15 p2690 N67-28089
NASA research on noise-abatement steepened approaches for multiengine jet transports
[NASA-TN-D-4044] 16 p2818 N67-29358
Plasma noise and multimode noise in dc discharge gas lasers
[NASA-CR-66361] 17 p3075 N67-30514
Hemispherical wind screens tested for effective wind noise reduction and improvement in signal to noise ratio
[ECOM-5119] 19 p3451 N67-33873
Physical and psychoacoustical measurements to determine attenuation properties of earmuffs at low audio and infrasonic frequencies
[AMRL-TR-67-37] 23 p4197 N67-38192
Jet propulsion airboat noise reduction and impeller design
[TR-532-1] 23 p4335 N67-38245
Design and performance of ripple filter for fuse power supplies
[HDL-TM-67-14] 23 p4181 N67-38248
Large transport approach and landing simulation - direct lift control applied to noise abatement approaches, and supersonic transport handling capabilities
[NASA-CR-73148] 23 p4178 N67-38661
Airborne sound insulation of various types of partitions 23 p4296 N67-38664
Aircraft noise - Selected bibliography with abstracts
[TDCK-15250-SII] 24 p4374 N67-39906
Transmitter tube studies involving spurious noise generation
[RADC-TR-67-343] 24 p4421 N67-40363

NOISE SPECTRUM

Noise spectrum of single-sideband phase modulation 02 p0237 N67-12134
Space dependent theory for reactor noise spectral density function applied to cubical reactors and compared with space independent theory 07 p1124 N67-17657
Voltage margin tests, infrared scanning, and RF noise spectra measurements for digital test circuits 08 p1306 N67-18313
Computer analysis of reactor noise spectrum 08 p1310 N67-18504
Digitizing noise effects on spectral signal to noise ratio in Fourier spectroscopy
[NASA-TM-X-55679] 08 p1248 N67-18748
Turbulence measurements relevant to jet noise
[UTIAS-119] 11 p1861 N67-23155
Measurement of frequency spectrum of pulsed sine wave reverberation
[NADC-AE-6713] 17 p3022 N67-30351
Fortran IV program for automatic analysis of Gaussian peak spectra
[CEA-R-3024] 19 p3419 N67-33258
Calculation of maximum noise pressure spectrum from turbojets on takeoff trajectory
[ONERA-TP-108/1967/] 20 p3564 N67-34013
Electric and magnetic properties of earth crust and mantle - spectral characteristics of natural electromagnetic noise
[KGO-665] 20 p3629 N67-34276
Signal and noise responsiveness at large aperture seismic array
[ESD-TR-67-24] 21 p3837 N67-35725
Fast sweep spectrum analyser for noise pulse analysis 23 p4252 N67-38771

NOISE SUPPRESSOR

Evaluation of acoustic linears for suppression of screech in hydrogen oxygen rockets
[NASA-TN-D-3822] 07 p1182 N67-17504
Gating devices for rejection of false air traffic control radar beacon system replies
[FAA-RD-67-1] 12 p2143 N67-24830
Stability characteristics of screech suppression concepts in hydrogen-oxygen rocket
[NASA-TM-X-1435] 20 p3746 N67-34758
Testing Helmholtz resonator arrays in rocket engine and cold flow testing of single Helmholtz resonator to determine mean flow and high wave amplitude effects on acoustic liners
[NASA-TM-X-52367] 24 p4521 N67-39652

NOISE THRESHOLD

Recovery from impulse noise induced acoustic trauma
[REPT.-686] 11 p1793 N67-23105
Effects of variable duration noise impulses on human hearing threshold
[REPT.-680] 12 p2028 N67-24817
Auditory perception and noise thresholds in man 14 p2468 N67-26689
Noise suppression capacity or noise resistance of healthy young flying personnel 14 p2489 N67-26606
Reliability of individual and group mean temporary threshold shifts and hearing losses in humans subjected to repeated gunfire noise
[AD-634690] 15 p2647 N67-27968
Noise threshold sensitivities of television camera image orthicon tubes and vidicons 19 p3419 N67-33819

NOISE TOLERANCE

Organism reaction and tolerance to noise 02 p0207 N67-11646
Sound shock effects on physiological functioning of human body 02 p0210 N67-11677
Methods of assessment and reduction of aircraft noise nuisance at airports - supersonic transport noise tolerance problems
[ISAV-148] 08 p1326 N67-18369
Sound intensity measured at manned ship stations to determine excess over tolerable level
[IZF-1966-19] 11 p2007 N67-23974
Weight standardization, tilt and stopped rotor optimization, and noise sensitivity analysis of V/STOL concepts for short-haul transport aircraft
[NASA-CR-73111] 18 p3195 N67-32478
Subsonic and supersonic aircraft used to test and measure sonic boom effects on human subjects, animals, and structures
[NSBEO-1-67] 22 p3959 N67-36765
Vibration and noise effects on human performance in timed work situations
[NASA-TT-F-11142] 22 p3970 N67-37353
Bibliography and discussion of non-auditory effect of high-intensity noise and low frequency vibration on humans
[A66/KLU/039] 22 p3971 N67-37413
Effect of vibration and noise on mental faculty of man under time stress 23 p4192 N67-38922

NOMENCLATURE

Kinematics nomenclature for physiological accelerations, particularly vestibular applications
[NASA-CR-81715] 07 p1016 N67-18006

Electronic systems test equipment nomenclature assignments
[AD-654106] 23 p4222 N67-38129
Nomenclature assignment, abbreviations, and alphanumeric reference list of electronic test equipment
[SETE-210/74, VOL. II] 23 p4236 N67-38720
Electronic test equipment components and systems nomenclature listings
[SETE-210/74, VOL. III] 23 p4237 N67-38868
NOMOGRAPH
Nomograph for calculating hydraulic projection in channel diverging from horizontal head 01 p0169 N67-10577
Nomograph for calculating signal-to-noise ratio for given set of parameters on single path line-of-site radio link
[RAE-TR-66091] 02 p0235 N67-11078
Absorption analysis to determine lead in polymetallic ore samples - nomograph method 06 p0825 N67-16290
Method for predicting maximum hourly durations of high and low atmospheric temperatures
[AD-643361] 09 p1473 N67-19726
Nomograph for field determination of launcher settings to obtain theoretical impact for unguided rockets
[ECOM-5088] 10 p1762 N67-21334
Nomogram for Saha equation to determine plasma electron density
[AD-647747] 12 p2185 N67-24404
Nomogram for determining artificial earth satellite lifetime based on atmospheric density data
[NASA-CR-84465] 14 p2615 N67-27517
Thrust and stiffness nomograms for hydrostatic bearing calculations
[COA-M+P-NOTE-13] 16 p2901 N67-30089
Relationship between daily and annual rainfall mass distribution in Thailand, based on prediction equations and nomograms 24 p4487 N67-39823
Conference on nomographs 24 p4480 N67-39870
Construction of nomograms 24 p4480 N67-39871
Representation of class of functions difficult to reduce to nomographic determinant 24 p4480 N67-39872
Nomographs for design and revision of elements of reinforced concrete 24 p4544 N67-39873
Construction of nomograph for calculating forces in reinforced concrete beam 24 p4481 N67-39874
Errors in reading nomographs 24 p4481 N67-39875
Criteria for improving scales of nomographs 24 p4481 N67-39876
Nomograph for distortion of photographs 24 p4451 N67-39877
Nomograph for calculating thicknesses of flat concrete slabs 24 p4544 N67-39878
NON-NEWTONIAN FLOW
Nonnewtonian effects in flow through tubes 05 p0692 N67-14473
Nonisothermal stationary flow of nonnewtonian fluid between two parallel planes, headless axial flow in annular gap, and flow between two rotating cylinders in presence of dissociation 06 p1264 N67-18241
NON-NEWTONIAN FLUID
Stability of flow of nonnewtonian liquid between two rotating cylinders in presence of circular magnetic field 05 p0743 N67-14480
Acoustic wave propagation in non-Newtonian viscous fluid 12 p2086 N67-24145
Laminar-nonlaminar transition for non-Newtonian axial isothermal flow in annuli
[LA-DC-8679] 21 p3831 N67-35877
Quasi-linear elliptic equation arising in non-Newtonian fluids theory
[MRC-TSR-734] 24 p4429 N67-39436
NONABLATING MATERIAL
Laminar boundary layer separation and reattachment on ablating and nonablating axisymmetric bodies at low Reynolds number and high Mach number 06 p1271 N67-19286
NONADIABATIC THEORY
Theoretical study of variable field nonadiabatic magnetic trap
[NASA-TT-F-10752] 12 p2187 N67-25022
NONDESTRUCTIVE TESTING
SA DESTRUCTIVE TESTING
SA FLAW DETECTION
Selective chromate conversion of integrated circuit interconnecting aluminization for failure analysis 01 p0051 N67-10132
Acoustic measurements on ship models having continuously welded, and spot welded steel sections
[TDCK-46297] 01 p0115 N67-10464
Nondestructive testing of PM-2A reactor pressure vessel to obtain data for predicting brittle fracture failure
[WAPD-TM-604] 01 p0169 N67-10771
Guide for interpretation of nondestructive tests of welds in ship hull structures
[SSC-177] 01 p0079 N67-10937
Annotated bibliography on ultrasonic testing
[AMRA-MS-66-05] 01 p0075 N67-10963
Nondestructive methods for determining residual stress and fatigue damage in metals
[NASA-CR-79304] 02 p0318 N67-12227
Nondestructive test of carbon beds for reactor confinement applications
[DP-1053] 03 p0427 N67-13255
Focused ultrasonic beams
[TR-66-40] 05 p0738 N67-14365
Harmonic analysis method for nondestructive determination of case depth of carburized steel
[SA-TR19-1520] 05 p0711 N67-14707
Materials analysis branch for environmental and nondestructive testing of spacecraft components
[NASA-TM-X-59274] 05 p0691 N67-14940
Acoustic analysis of materials in dynamic applications to detect malfunctions by sound spectrograph
[M67-6-1] 05 p0712 N67-14982
Development of nondestructive testing system, using ultrasonic techniques, for detecting disbonds in composite honeycomb heat shields of Saturn launch vehicle
[NASA-CR-81145] 05 p0714 N67-15279
Nondestructive infrared radiation method for testing reliability and life of transistors
[RADC-TR-66-360] 06 p0857 N67-16597
Literature and industrial surveys of nondestructive testing equipment and techniques for application to honeycomb heat shields, including partially annotated bibliography
[NASA-CR-81525] 07 p1069 N67-17138
Nondestructive testing of nuclear fuel elements during and after canning - detectors, signal interpretation, leak rates, and leak test
[AI-TRANS-206] 07 p1133 N67-17540
Method for estimating high temperature low cycle fatigue behavior of materials
[NASA-TM-X-52270] 07 p1203 N67-17830
Nondestructive testing of metal-metal bonds and honeycomb core laminates by ultrasonic pulse echo test apparatus
[TIL/T-5680] 08 p1284 N67-18274
Nondestructive testing methods to evaluate refractory-metal alloy tubing for nuclear application 09 p1452 N67-19591
Ultrasonic techniques using reradiated sound energies for nondestructive testing of weldments
[TR-66-32] 10 p1636 N67-20473
Ultrasonic nondestructive inspection technique for evaluation of weldments
[TR-66-19] 10 p1637 N67-20581
Nondestructive electrical resistance measurements on metals for purity control
[JUL-317-RW] 10 p1654 N67-21066
Microwave and beta ray backscatter techniques for detecting voids and inhomogeneities in glass fiber reinforced plastics
[SA-TR19-1519] 10 p1662 N67-21350
Nondestructive, automatic technique for monitoring and recording fatigue crack growth
[NASA-CR-66320] 11 p1888 N67-22070
Nondestructive boron distribution analysis in steel by neutron flux depression
[SGAE-IB/IA-11/1966] 11 p1813 N67-23036
Destructive and nondestructive testing, results, and specifications for reliability of integrated circuit and semiconductor devices
[NASA-CR-731] 11 p1840 N67-23322
Engineering methods for design and selection of materials against fracture
[REPT.-66-9B4-315-R1] 11 p1892 N67-23366
Nondestructive inspection of reinforced plastic structures by nuclear quadrupole resonance method
[ARA-77] 11 p1905 N67-23378
Mechanized nondestructive testing for steel quality control 11 p1893 N67-23424
Nondestructive testing and inspection methods using infrared microscopy, X-ray television, and ultrasonic measurements - Conference
[NASA-SP-5062] 12 p2105 N67-23667
Axial transverse laminography and mutual coupling nondestructive techniques for inspection of multilayer printed circuit boards 12 p2063 N67-23668
Nondestructive impedance techniques to test adhesive bonded composite materials used in launch vehicles and aircraft 12 p2105 N67-23669
Acoustic spectrometer system for ultrasonic nondestructive testing by triangulation method 12 p2105 N67-23672
Ultrasonic emission detector for nondestructive determination of bond strength 12 p2106 N67-23673
Semiautomated X-ray television for nondestructive testing and inspection 12 p2106 N67-23674
Quality of hardware and faster methods for nondestructive testing techniques in industry, medicine, and space environment 12 p2106 N67-23675
Codes, specifications, and acceptance standards for weldments
[ORNL-P-2615] 12 p2106 N67-23728
Ultrasonic in-process inspection of resistance spot welds
[R-1811] 12 p2109 N67-24788
Resonant beam and ultrasonic methods for evaluation of sintered powder steel compacts
[SA-TR19-1521] 12 p2111 N67-24987
Nondestructive test development, including coil impedance, beat-frequency eddy current measuring device, ultrasonic detection, fiber optics, and monitoring U235 in core blanks for fuel plates 13 p2324 N67-25921
Nondestructive magnetic methods for detecting cracks in cannon bores
[AMRA-TR-67-06] 13 p2325 N67-25454
Prospects for ultrasonic testing of welded structures in India 13 p2329 N67-26089
Accelerated and nondestructive testing techniques for various type batteries - lead acid, sealed nickel, nickel cadmium, silver cadmium, and silver zinc cells
[NASA-TM-X-59674] 13 p2352 N67-26391
Ultrasonic pulse-echo spectroscopic methods for nondestructive determination of defect characteristics and to distinguish microstructures of steel specimens
[AMRA-TR-66-38] 14 p2531 N67-26743
Nondestructive testing of metal plates for pressure vessel application 14 p2552 N67-26989
Feasibility and preliminary design study of nondestructive testing for space applications
[NASA-CR-84442] 14 p2545 N67-27429
Nondestructive testing infrared and ultrasonic inspection, and high density slurries for propellant tank testing
[NASA-TM-X-53602] 14 p2547 N67-27751
Ultrasonic emission detector for adhesive bond strength determinations in stressed composite structures 14 p2547 N67-27755
Solid state physics research projects including work on titanium and aluminum alloys, nondestructive testing, fatigue, and superconductivity 14 p2605 N67-27757
Scanning of rocket motors for bond between propellant liner and case
[NOLTR-67-36] 15 p2714 N67-28830
Ultrasonic techniques using reradiated sound energies for nondestructive testing of weldments
[TR-67-21] 15 p2720 N67-28954
Reradiated ultrasonic sound energy for nondestructive testing of steel butt welds
[QPR-5] 15 p2720 N67-28962
Nondestructive, ultrasonic testing - bibliography and abstracts
[AMRA-MS-67-03] 16 p2893 N67-29114
Materials research - diffusion bonding methods, stress corrosion tests, nondestructive testing, material designs for electronic equipment, and nonmetallic material development
[NASA-TM-X-53610] 16 p2906 N67-29931
Nondestructive test methods for detecting and measuring stress corrosion and residual stress 16 p2907 N67-29994
Electronic methods for coupling automated instrumental activation analysis system to cooled lithium drifted germanium detector 16 p2893 N67-29995
Applicability of automatic activation analysis facilities of Texas A and M University to problems involving public benefit and interest 16 p2942 N67-29996

Nondestructive testing of thermal follow bridge circuit for measuring electrothermal parameters of bridge wires
[NOLTR-66-113] 16 p2894 N67-29417
Nondestructive determination of filament wound glass fiber-epoxy panel composition
[SCL-CR-66-154] 16 p2916 N67-29963
Procurement, process, and nondestructive test specifications for development of 260-SL motor chamber and nozzle shell fabrication of high nickel maraging steel
[NASA-CR-72126, V. V, APPEND. A] 16 p2964 N67-30033
Nondestructive method for determining residual gas life of charcoal beds, and motor and lubricant for vacuum operation at cryogenic temperatures
[PB-173179] 17 p3180 N67-30282
Nondestructive method for determining residual gas life in charcoal beds 17 p3013 N67-30283
Nondestructive testing methods for quality control in nuclear industry
[BNWL-SA-1142] 17 p3105 N67-30321
Nondestructive inspection of structural materials 17 p3072 N67-30573
Scanning electron microscope for evaluating failure mechanisms in semiconductor devices, and for three-dimensional representation of biological specimens 18 p3246 N67-31599
Fabrication and inspection of irradiation capsules for EBR-II - nondestructive testing of thin sodium annuli to detect voids 18 p3303 N67-32451
Microwave techniques using basic transmission, reflection and scattering phenomena for nondestructive testing of nonmetallic materials
[FA-T67-9-1] 18 p3276 N67-32641
Eddy current tests used for measuring hardness of steels after heat treatment
[FA-M67-24-1] 19 p3468 N67-32844
Annotated bibliography of literature on fatigue testing
[AMRA-MS-67-05] 19 p3468 N67-32858
Ultrasonic testing applied in machine and boiler construction to detect material flaws and determine strength
[ORNL-TR-1949] 20 p3645 N67-34001
Nondestructive methods for testing and inspection of materials and assemblies for military application
[AD-649892] 20 p3646 N67-34467
Quality control testing of 81 mm mortar shell 20 p3646 N67-34468
Component reliability and nondestructive testing of torpedo parts 20 p3647 N67-34469
Nondestructive detection of defects in M149, 400 gallon water tanks 20 p3647 N67-34470
Ultrasonic crack depth estimation in high strength steel and titanium structural weldments 20 p3647 N67-34471
Eddy current inspection of turbojet engine turbine disks for loss of strength 20 p3717 N67-34473
Microwave nondestructive testing of dielectric materials to detect flaws 20 p3647 N67-34474
Infrared multiple scan system for bond inspection 20 p3640 N67-34475
Nondestructive technique to inspect solder connections 20 p3647 N67-34476
Neutron radiography to determine condition of charge in explosive devices 20 p3647 N67-34477
Nondestructive inspection of adhesive bonded metal helicopter rotor blades 20 p3647 N67-34478
Field maintenance of weapons systems, service inspection, and nondestructive testing by Air Force 20 p3648 N67-34480
Inspection and reliability testing of metal to metal bonding for aircraft structures 20 p3648 N67-34481
Ultrasonic method for measuring thickness of nose cone annuli 20 p3648 N67-34482
Nondestructive evaluation of metal fatigue
[REPT.-15-1688-2] 20 p3660 N67-34867
Liquid crystals for nondestructive thermographic analysis of flaws in bonded structures
[NASA-CR-88196] 21 p3858 N67-35747
Wide line nuclear magnetic resonance method for determining oil content in single kernel samples of corn and sunflower seeds
[NJS-R-506] 21 p3785 N67-35755
Nondestructive flaw detection in reactor pressure vessel and primary loop, using acoustic emissions
[IDO-17230] 21 p3859 N67-35849
Thumpatron for determining polarization direction of fragile piezoelectric samples
[SC-DR-67-494] 22 p4048 N67-37484
Nondestructive testing of plutonium dioxide and uranium dioxide fast reactor fuels
[NUMEC-3524-27] 22 p4095 N67-37939
X-ray television system for use in inspection and evaluation of spacecraft electronic parts
[TG-920] 23 p4251 N67-38336
Radiographic and ultrasonic testing of welds in steel thicknesses up to 300 mm
[EURAEC-1859] 23 p4250 N67-38915
Neutron activation analysis of Roman copper coins dating 250 to 500 A.D.
[NAEM-35] 23 p4210 N67-39219
Statistical correlation between infrared heat radiation and weld joint quality, and nondestructive inspection techniques
[NASA-CR-89649] 24 p4460 N67-40315
Delta ultrasonic inspection technique using rarefiated sound energies for nondestructive testing of weldments
[TR-67-53] 24 p4480 N67-40409

NONEQUILIBRIUM
SA EQUILIBRIUM
Finite difference solution of multicomponent steady inviscid streamtube flows using novel stepping technique
[DOC.-67SD241] 14 p2517 N67-27186
Local thermodynamic equilibrium and nonequilibrium values for bound state populations of hydrogenic ions in steady state
[UCRL-50135] 16 p2950 N67-29860

NONEQUILIBRIUM FLOW
Nonequilibrium dissociation of heat protective materials in hot gas stream 04 p0622 N67-13703
Nonequilibrium flow and three-dimensionality effects on shock reflection coefficient behavior
[BRL-MR-1775] 05 p0695 N67-15001
Computer techniques for calculating supersonic nonequilibrium flow of reacting and relaxing ideal gas over wedge and cone
[D1-82-0548] 06 p0667 N67-16134
Numerical analysis of homogeneous gas flow, and gas dispersion during nonuniform energy release
[FTD-MT-65-563] 07 p1065 N67-17396
Numerical solution to problem of flat layer gas dispersion during nonuniform energy release 07 p1065 N67-17398
Centered one-dimensional unsteady expansion calculated for reacting gas mixture subject to vibrational and chemical nonequilibrium
[NASA-TN-D-3851] 07 p1067 N67-17797
Equation for sonic line in nonequilibrium nozzle flows of gas and application in supersonic flow computations
[NASA-CR-70298] 07 p1068 N67-17852
Pressure and temperature distributions in shock layer along rays in three-ray scheme for solving singularities of hypersonic nonequilibrium gas flow around blunt body 08 p1270 N67-19174
Probe for determining molecular speed ratio in low density flows from nonequilibrium nozzle and free-jet expansions
[CAL-AF-2041-A-1] 10 p1607 N67-23584
Interferometric measurement of nonequilibrium flow field around cone
[BRL-1333] 11 p1858 N67-22510
Numerical computations for nonequilibrium hydrogen oxygen rocket nozzle flow 11 p2000 N67-22902
Hypersonic nonequilibrium flow at reentry of space vehicles and thermodynamic relations 12 p2211 N67-24280
Linearized unsteady nonequilibrium flows of compressible gas
[NASA-TT-F-10980] 12 p2091 N67-25025
Revised computer program for solving inviscid nonequilibrium flow behind normal shock waves
[NASA-CR-83975] 13 p2309 N67-26167
Nonequilibrium supersonic flows past pointed bodies
[ARL-66-0260] 14 p2516 N67-26968
Expansion analysis for near-frozen nonequilibrium nozzle flow in reservoir region
[ARC-28248] 14 p2519 N67-27634
Analytical method for calculating one-dimensional flow in hypersonic nozzles using simplified air model
[NOLTR-66-104] 15 p2891 N67-28344
Mach-Zehnder interferometer density measurements and piezoelectric transducer pressure measurements made to study dissociated oxygen nonequilibrium corner expansion flows
[UTIAS-134] 15 p2892 N67-28617
Rapid quench sampling probe for determining free stream composition from gaseous composition of captured sample in nonequilibrium air flows
[AEDC-TR-67-85] 15 p2894 N67-28899
Two different interpretations of measured dissociation rate constants and effects on coupled vibrational dissociational flows of oxygen over wedge
[NASA-TN-D-4028] 16 p2880 N67-29028
Breakdown of near-equilibrium solutions in expanding non-equilibrium flows for vibrationally relaxing gas
[ARC-CP-923] 20 p3624 N67-34730
Numerical integration methods for computing flow of gas in chemical nonequilibrium behind normal shock wave
[NASA-TN-D-4109] 20 p3671 N67-35012
Nonequilibrium flow and kinetics of chemical reactions in char zone
[NASA-CR-66455] 21 p3949 N67-36409
One-dimensional inviscid nozzle flows with coupled vibrational and dissociational nonequilibrium
[NASA-CR-66474] 22 p4025 N67-37259
Perturbation technique using selective decoupling method for analysing nonequilibrium flows and calculating asymptotic wall values
[CAL-158] 22 p4027 N67-37410
Thermodynamic theory and small perturbations in flows beyond equilibrium
[REPT.-67-4] 23 p4067 N67-39826
Extended Navier-Stokes equations for diffusion and chemical reaction rate analysis of gas mixture flow over cylinder
[R67SD56] 24 p4432 N67-40094

NONEQUILIBRIUM IONIZATION
Design, operation, and evaluation of large, segmented electrode nonequilibrium magnetohydrodynamic generator 05 p0744 N67-14631
Ion collision frequencies and energy transfer in gaseous thermal nonequilibrium 06 p1290 N67-18426
Magnetohydrodynamic boundary layers involving nonequilibrium ionization
[NASA-CR-86695] 18 p3218 N67-32114
Magnetohydrodynamic boundary layers involving nonequilibrium ionization
[NASA-CR-87588] 20 p3710 N67-34921

NONEQUILIBRIUM PLASMA
Optimum seed concentrations in cesium and potassium non-equilibrium plasmas
[NASA-CR-79518] 02 p0298 N67-12212
Correlation of experimental data on nonequilibrium seeded plasma obtained from generalized Saha equation and Joule heating effects on plasma bulk temperatures 05 p0747 N67-15237
Generalized ionization equation for optically thin nonequilibrium plasmas, based on corona formula and Saha equation 05 p0748 N67-15239
Combined influence of electric conductivity and ionization rate on magneto-fluid dynamic wave propagation through plasma 05 p0748 N67-15244
Motion equations for collisionless electron and ion plasma 09 p1498 N67-30238
Charged particle interaction with nonequilibrium plasma and conversion of transverse electromagnetic waves into longitudinal waves 11 p1948 N67-21830
Transformation and scattering of electromagnetic waves in nonequilibrium plasma 11 p1957 N67-21964
Nonequilibrium plasma for magnetohydrodynamic generator - plasma conditions of krypton
[DGRR/WGLR PAPER-66-12] 13 p2304 N67-25688
Nonequilibrium properties of arc plasmas - electron temperature and density of ionized argon gas
[NASA-CR-87430] 20 p3708 N67-34459
Blowing of current patterns in nonequilibrium plasmas
[R67SD38] 21 p3909 N67-35563
Plasma diagnostics based on lasers 23 p4122 N67-37834
Nonequilibrium excitation analysis of neutral helium in plasma 23 p4221 N67-38745
Statistical mechanics of one-dimensional

plasma 23 p4322 N67-38755
Statistical mechanics of one-dimensional plasma exposed to external magnetic fields 23 p4322 N67-38756
Characterization of reentry plasmas in hypersonic Hotshot wind tunnels - importance of nonequilibrium effects and triple probe for determining electron density and temperature
[ONERA-TP-488/1967/] 23 p4334 N67-39126
Microwave emission theory for nonequilibrium plasmas in indium antimonide subject to magnetic fields
[D1-82-0623] 23 p4334 N67-39154
Extension of matrix formulation of nonlinear statistical mechanics to Bogolubov gas - perturbation solutions for plasma electron distribution and correlation functions
[ARL-67-0103] 24 p4508 N67-39644
NONEQUILIBRIUM RADIATION
Nonequilibrium radiation and ionization in shock waves
[NASA-CR-89069] 23 p4334 N67-39000
NONFERROUS METAL
Painting and protective coating of nonferrous metals
[TIL/T-5687] 03 p0411 N67-12859
Chemical reactions of volatile corrosion inhibitor compounds with nonferrous metals
[RIA-66-2346] 05 p0669 N67-15292
Mechanical property and production of nonferrous metal sheet manufacturing 06 p0885 N67-15513
Level gauges with cobalt 60 gamma sources for use in automation of nonferrous metallurgical processes 10 p1632 N67-21256
Radiometric density gauges for control of pulp density and corrosive liquids at nonferrous metallurgical plants 10 p1632 N67-21259
Standard identification symbols adopted by metallurgical industry of Chinese Peoples Republic for iron and steel, nonferrous metals, and alloy products
[JPRS-40131] 14 p2557 N67-27382
Welding of nonferrous metals and alloys
[FTD-MT-65-272] 22 p4058 N67-37877
NONFLAMMABLE MATERIAL
Shielding material evaluation for resistance to sodium potassium fires in air and nitrogen
[NASA-TM-X-1365] 11 p1900 N67-23334
NONGRAY ATMOSPHERE
SA GRAY GAS
Infrared radiative heat transfer in nongray nonisothermal gases
[ARL-67-0015] 16 p2984 N67-29224
NONLIFTING VEHICLE
Static aerodynamic characteristics of experimental nonlifting reentry capsule in combination with rocket booster at Mach numbers from 0.60 to 1.20
[NASA-TM-X-318] 18 p3242 N67-32918
NONLINEAR EQUATION
SA LINEAR EQUATION
Convergence theorems for iterative methods of solving nonlinear operator equations
[MRC-TSR-649] 01 p0095 N67-10517
Numerical procedure for solution of nonlinear equations governing large axisymmetric deflections of thin shells of revolution
[AMRA-TR-66-11] 01 p0160 N67-10581
Nonlinear equations for discontinuities in one-dimensional magnetogasdynamics
[AFOSR-66-1062] 01 p0135 N67-10627
Method of steepest descent applied to solution of nonlinear equation systems
[TG-230-T483] 01 p0096 N67-10941
Existence and uniqueness solutions to ordinary differential equations with values in Hilbert space
[TR-9] 01 p0097 N67-11036
Approximation solution of nonlinear equation in partial differentials in oscillation theory
[FTD-TT-65-1917] 01 p0097 N67-11099
Digital computer program developed for solving nonlinear algebraic equations characteristic of filter circuits
[NASA-CR-79566] 02 p0346 N67-11738
Iterative process with cubic rate of convergence developed for solving nonlinear operator equations in Banach spaces
[MRC-647] 03 p0416 N67-12439
Applicability of nonlinear differential equation with discontinuous coefficient to development of mathematical model for simulating excitation properties of nerve tissue 04 p0487 N67-13447
Applicability of nonlinear differential equation with discontinuous coefficient to development of mathematical model for excitation of nerve tissue 04 p0488 N67-13448
Applicability of nonlinear differential equation with discontinuous coefficient to development of mathematical model for studying spontaneous rhythm of neurons 04 p0488 N67-13449
Perturbation technique used for approximate solutions to nonlinear hydromagnetic equations of cold collisionless plasma
[NASA-TN-D-3778] 04 p0594 N67-13879
Mathematical model for solution to boundary value problem for high order nonlinear differential equation 04 p0568 N67-13704
Motion equation for longitudinal stability of airframe having nonlinear aerodynamic characteristics
[COA-AERO-171] 04 p0480 N67-13818
Finite difference algorithm for solving boundary value problem for system of equations describing nonlinear airflow around obstacle 05 p0752 N67-14393
Two variable expansion procedure for approximate solution of nonlinear differential equations with applications to satellite orbital motion 05 p0727 N67-14408
Approximation of nonlinear motion equations of autonomous system using asymptotic polynomials
[TG-230-T497] 05 p0728 N67-14737
Nonlinear shell equilibrium equations 06 p0976 N67-15938
Nonlinear study of reactor systems with linear feedback 07 p1122 N67-17043
Nonlinear P-compact operators in Banach space 07 p1112 N67-17267
Convergence proof and procedure for third-order and fourth-order iteration process for nonlinear equations - Newton-Raphson second-order iteration
[NASA-CR-81744] 07 p1115 N67-18068
Asymptotic method applied to stability of forced vibrations described by second order nonlinear differential equation 07 p1206 N67-18185
Nonlinear curve fit method for estimating parameters of equations for biological models
[NASA-CR-81799] 08 p1225 N67-18203
Step response prediction for third-order nonlinear control systems
[TM-638.2141-02] 08 p1259 N67-18288
Approximate solutions of nonlinear functional equations 08 p1299 N67-18452
Reflection laws of systems of elliptic equations, on-line programming to numerically solve nonlinear integral equations, and reduction of electrostriction problem
[NASA-CR-82472] 08 p1301 N67-19035
Finite difference method of solving first order nonlinear equation with many independent variables 08 p1362 N67-19173
Methods for evaluating constants and calculating variances and covariances when solving nonlinear regression problems
[BM-RI-6900] 08 p1303 N67-19255
Iterative methods of solving nonlinear equation based on linearization by Newton interpolation formula
[MRC-TSR-680] 09 p1467 N67-19698
Three nonlinear estimation procedures generalized for simultaneous application to mutiple regression model
[NASA-CR-82967] 09 p1470 N67-19923
Linear and nonlinear equations of simple nonshallow shells for deriving stability equations of sandwich shell 09 p1531 N67-20091
Semimembrane nonlinear theory applied to prismatic shells with finite number of thin rectangular plates 09 p1536 N67-20127
Nonlinear differential equation describing extensional motion of freely spinning and gravitationally stabilized spring-mass system in orbit plane
[TR-1001/2307/-4] 09 p1513 N67-20184
Variational theory of nonlinear operators and equations
[MRC-666] 10 p1665 N67-20644
Method for determining ignition conditions based on linearization of initial nonlinear equations
[FTD-HT-66-456] 10 p1769 N67-20691
Density effect model, nonlinear equations, and mechanism for oscillatory behavior of heated channels
[CEA-R-3049, PT. I] 10 p1769 N67-20730
Approximation method solution of nonlinear differential equation for time variation of overpotential during galvanostatic charging in electrochemical cell 11 p1785 N67-22169
Problems in theory of approximating solutions of differential-operator equations in Hilbert space
[TG-230-T508] 12 p2127 N67-23498
Singularity point of Briot-Bouquet type of two ordinary nonlinear differential equations
[MRC-TSR-640] 13 p2346 N67-25220
Convergent power series solution for ordinary nonlinear differential equations
[MRC-TSR-641] 13 p2346 N67-25317
Extremals of functionals of boundary value problems for nonlinear differential equations
[MRC-TSR-689] 13 p2346 N67-25318
Accelerating convergence of discretization algorithms of approximate solution of nonlinear operator equations
[NASA-CR-83845] 13 p2347 N67-25320
Use of auxiliary differential equations derived from nonlinear differential equations to find Lyapunov function
[NASA-CR-799] 14 p2562 N67-26516
Approximate solution of nonlinear reactor kinetic equations by continuous analytic continuation method
[LA-3518] 14 p2586 N67-26839
Phase stability of intermediate frequency carrier in radar site, and approximate solution to nonlinear differential equation of oscillators
[JPRS-40722] 14 p2489 N67-27200
Method and computer program for solving arbitrary simultaneous system of nonlinear algebraic and transcendental equations
[NASA-CR-84448] 14 p2565 N67-27432
Asymptotic representation of limit cycle of Van der Pol equation for small damping coefficients
[D1-82-0598] 15 p2733 N67-28230
Solution to motion equations for nonlinear vibrations of one-dimensional elastic body under free flight conditions 15 p2802 N67-28819
Orbit calculation by solving nonlinear integral equations
[MRC-TSR-668] 17 p3156 N67-30185
General iterative method for solving nonlinear equations
[TR-9] 18 p3287 N67-32138
Nonlinear Boltzmann equation and kinetic theory for hypersonic plasma flows
[AFOSR-67-0805] 19 p3512 N67-32881
Discrete ordinate technique for Boltzmann equation of hard sphere molecules and application to pseudo-shock relaxation 19 p3512 N67-32884
Nonlinear analytic study of long period features of particle motion in Earth-Moon system
[NASA-CR-87312] 19 p3536 N67-32439
New class of subharmonic solutions to Duffing equations
[COA-AERO-195] 20 p3671 N67-34305
Least squares method used to evaluate nonlinear functions of unknown parameters 20 p3616 N67-35284
Operator homotopy approach to develop constructive methods for solving nonlinear equations
[NASA-CR-88708] 22 p4083 N67-37275
Nonlinear thermomechanical oscillator studies
[NASA-TM-X-60382] 22 p4099 N67-37377
Stability behavior of solutions of systems of linear and nonlinear differential equations
[TR-11] 22 p4084 N67-37644
Continuity of nonlinear integral operator
[TG-230-T525] 23 p4273 N67-38333
S-matrix from asymptotic solutions of nonlinear equation describing Born-Infeld scalar field in two-dimensional space
[JINR-P2-3330] 23 p4306 N67-38661
Nonlinear differential equations for position and attitude of spacecraft with time dependent mass and mass properties
[TG-910] 23 p4344 N67-38670
NONLINEAR FEEDBACK
Nonlinear feedback solution for minimum-time injection into circular orbit with constant thrust acceleration magnitude
[NASA-CR-81474] 07 p1185 N67-16797
Nonlinear stability of coupled nuclear systems 07 p1122 N67-17045
Optimal control with quadratic

performance index and fixed terminal time 11 p1906 N67-22219
Statistical procedure using random parameters to determine accuracy of nonlinear automatic control systems 12 p2071 N67-24222
NONLINEAR FILTER
Minimum mean squared error nonlinear filtering of signals in additive noise [TR-16] 11 p1849 N67-23178
Nonlinear filtering - exact dynamical equations satisfied by conditional mode [NASA-CR-83911] 13 p2299 N67-25953
Valid equations derived for approximate continuous nonlinear minimal variance filtering - mathematical models [NASA-CR-84517] 14 p2566 N67-27675
Continuous nonlinear recursive filtering theory applied to optimum analog demodulation, using Markov processes and state variable concepts 16 p2863 N67-29903
Determination of mathematical equivalence of ideal bandpass limiter discriminator followed by non-linear feedback filter and bandpass limiter followed by phase-lock loop [NASA-CR-85769] 17 p3041 N67-30906
Signal and noise problem as solution to nonlinear stochastic differential equations [NASA-CR-85852] 17 p3042 N67-31463
Iteration method for finding optimal nonlinear filter for stationary random process 20 p3617 N67-35301
Nonlinear wave effects on tide gauges [HEL-16-2] 23 p4047 N67-37427
NONLINEAR PROGRAMMING
SA DUAL CONTROL PROBLEM
Duality problem for nonlinear programming in real Banach space [MRC-TSR-627] 03 p0416 N67-12644
Nonlinear programming used for network design 04 p0622 N67-13350
Algorithm for solving linear integer programming problem over finite additive group, with extensions to solving general linear and certain nonlinear integer problems [ORC-66-29] 06 p0904 N67-16462
Approximate solutions for quadratic control problem with energy constraint - nonlinear programming [SRL-66-0008] 07 p1114 N67-17903
Slacked unconstrained minimization algorithm for optimization in convex programming [RAC-TP-227] 07 p1114 N67-17911
Sequential unconstrained minimization algorithm without parameters for optimization in convex programming [RAC-TP-228] 07 p1114 N67-17912
Discrete optimal control problems solved by nonlinear programming [TR-66-104] 08 p1259 N67-18194
Fortran system for numerical approximation of complicated or nonlinear functions [NASA-CR-83664] 08 p1255 N67-19106
Algorithm applied to second order representation of nonlinear programming problem [AD-641196] 09 p1466 N67-19683
Values of major features of digital computer programs used for nonlinear transient circuit analysis, from user point of view 11 p1847 N67-22634
Reduction of integer nonlinear programming problems to zero-one linear programming problems [P-3509] 11 p1906 N67-22736
Nonlinear programming model for launch vehicle design and costing [RAE-TP-231] 12 p2218 N67-24944
Elastic plastic torsion problems in nonlinear programming [DOMIIT-1-33] 13 p2416 N67-25637
Linear, nonlinear, and dynamic programming techniques used to solve minimum maximum response problems of dynamic systems 14 p2615 N67-27046
Voting function for continuous quantities and nonlinear programming with linear fractional function and application to economic problem [JPRS-40493] 16 p2930 N67-29537
Problem of nonlinear programming with linear fractional function and application to optimization of enterprises work fund 16 p2930 N67-29539
Generalized integration method for generating explicit functions on analog computer [HDL-TR-1341] 18 p3288 N67-33464
Limit analysis of rotationally symmetric shells through nonlinear programming [DOMIIT-1-31] 19 p3547 N67-35179
Nonlinear nonconvex programming problem and applications in reliability theory and economics 23 p4272 N67-38063
Mathematical programming using generalized sequential unconstrained methods [MEMO-178] 23 p4273 N67-38094
Mathematical characterizations of relative optima to nonlinear programming problems [RAC-TP-290] 24 p4475 N67-39397
Lagrange multiplier method of defining auxiliary problems in nonlinear programming [RAC-TP-263] 24 p4478 N67-39559
NONLINEAR SYSTEM
SA LINEAR SYSTEM
Nonlinear interaction between plasma waves on low pressure mercury vapor discharge surrounded by cylindrical waveguide [SR-7] 01 p0132 N67-10287
Nonlinear study of beam plasma amplification [TR-33] 01 p0155 N67-10938
Direct method application in nonlinear theory of shallow shells [FTD-TT-65-1744] 01 p0162 N67-11079
Functional analysis of nonlinear systems characterized by differential equations [NASA-CR-79493] 02 p0246 N67-11727
Nonlinear system stability investigated with restriction of random signal at input 03 p0377 N67-12523
Optimal nonlinear control system selected according to maximum probability criterion 03 p0377 N67-12524
Periodic solution stability investigated for nonlinear systems having coefficients of harmonically linearized characteristic equation 03 p0377 N67-12525
Determination of characteristics of nonlinear objects using statistical properties of input and output signals 03 p0378 N67-12773
Stochastic nonlinear system with correlation in nuclear reactor theory [EUR-3074.E] 03 p0427 N67-12892
Incremental procedure for solution of nonlinear problems with applications to plates and shells [NASA-TN-D-3768] 03 p0471 N67-13257
Stability domain determination for nonlinear dynamical system [NASA-CR-80713] 04 p0560 N67-13609
Determination of displacements in nonlinearly elastic plates and shells 04 p0620 N67-14145
Nonlinear acoustic oscillations of cylindrical shell [FTD-TT-65-1948] 04 p0621 N67-14299
Numerical method of determining transient processes in nonlinear electric networks on digital computers [TG-230-T487] 05 p0657 N67-15048
Nonlinear and time-varying models in relation to manual control problems of human operator 06 p0899 N67-15859
Fluid and fluid jet systems and controls [NASA-CR-80023] 06 p0856 N67-16061
Nonlinear system evaluation by observing eigenvalue motion 06 p0858 N67-16066
Method of predicting step response of control systems described by third order nonlinear differential equations 06 p0858 N67-16068
Machine computation of aerodynamic loads in linear and nonlinear situations [AFOSR-66-1440] 06 p0787 N67-16199
Statistical and nondeterministic aspects of nonlinear control theory [AD-641361] 06 p0859 N67-16322
Nonlinear theory of simple force multipoles for deformable surface embedded in Euclidean 3-space [AM-66-8] 07 p1199 N67-16929
Nonlinear system stability, optimal control, reactor dynamics, space-time effects, and pulsed neutron research covered in symposium on neutron dynamics and control [CONF-650413] 07 p1122 N67-17041
Second Method of Liapunov for studying asymptotic stability of coupled core reactors 07 p1122 N67-17046
Finite amplitude elastic wave motions with only constitutive nonlinearities, and circularly polarized wave propagation in isotropic elastic medium [AM-66-9] 07 p1201 N67-17194
Noise and nonlinearities influencing guidance accuracy of beam-riding missile [ARC-R+M-3417] 07 p1037 N67-17280
Control of nonlinear nonautonomous multivariable systems, based on Liapunov function [NASA-CR-716] 07 p1115 N67-18189
Analysis of equation for conditional probability distribution of state of nonlinear system and application to nonlinear filtering 08 p1245 N67-18366
Analysis logic in Likely computer program for maximum likelihood nonlinear vector fields 08 p1251 N67-18502
Evolution of wave correlations in uniformly turbulent, weakly nonlinear systems [NASA-CR-82471] 08 p1349 N67-19040
Linear and nonlinear control systems via state variable feedback with applications in nuclear reactor control [NASA-CR-82516] 08 p1260 N67-19063
Optimization of nonlinear systems with inequality constraints [NASA-CR-83653] 09 p1902 N67-19111
Stability of nonlinear circuits with periodic inputs [R-230] 09 p1438 N67-19631
Nonlinear formulation for stability of reinforced cylindrical shells under axial compression 09 p1595 N67-20121
Supersonic panel flutter of cylindrical shells, liquid-solid interaction in dynamics of large elastic container, and nonlinear continuum mechanics problems in bioengineering [AFOSR-66-2724] 09 p1539 N67-20360
Describing function analysis of control systems containing multiple nonlinearities [NASA-CR-82905] 09 p1429 N67-20375
Time dependent perturbation theory used to determine output boundedness and stability of nonlinear reactor system [ANL-7189] 11 p1830 N67-22305
Nonstationary oscillatory processes in nonlinear systems with slowly varying parameters [FTD-MT-65-117] 11 p1844 N67-22446
Modulator transfer functions for fixed and ramp input waveforms, and nonlinear homomorphic system for echo removal 11 p1830 N67-22658
Analysis of nonlinear wave oscillation on surface of dielectric fluid 12 p2153 N67-23708
Nonlinear flutter of rectangular plate in supersonic gas flow 12 p2221 N67-23709
New method for system identification based on relaxation technique used in pattern recognition [NASA-CR-756] 12 p2067 N67-23716
Computer programs for reentry tracking of ballistic vehicles, identification on nonlinear dynamic systems, and algorithm for Fourier transform 12 p2056 N67-23952
Nonlinear preprocessing of inputs to linear neural nets [REPT.-9500-920059] 12 p2068 N67-23956
Finite difference methods of solving nonlinear compressible flow processes with application to Benard problem [LA-3522] 12 p2096 N67-24158
Maximum principle established as necessary condition for optimal control of nonlinear system of partial differential equations with distributed parameters 12 p2071 N67-24224
Semiclassical quantum formulation of mode mixing in nonlinear media using statistical density operator [Q-61] 12 p2173 N67-24794
Kalman filter relationships used to estimate linearized state of two different state-variable representations of same nonlinear system [TN-1967-6] 12 p2055 N67-24838
Sensitivity analysis of nonlinear control systems [R-235] 12 p2073 N67-24890
Brownian motion and Wiener canonical analysis and synthesis applied to nonlinear systems [REPT.-102-3] 13 p2347 N67-25234
Asymptotic stability and response of nonlinear systems [NASA-CR-82708] 13 p2296 N67-25498
Approximation method for determining response of nonlinear dynamic systems to random disturbances [NASA-CR-84007] 13 p2349 N67-26179
Numerical procedure for determining stability domains in nonlinear dynamical systems

[NASA-CR-84042] 13 p2300 N67-26293
Nonlinear wing theory for aerodynamic design of small aspect ratio wing
[NASA-TT-F-10915] 15 p2838 N67-28293
Equivalent gain and stochastic analysis for nonlinear sampled-data control systems
[AFIT-TR-67-1] 15 p2685 N67-28572
Algol procedure for solution of nonlinear least squares problems with constraints on parameters
[RCN-67] 15 p2675 N67-28703
Procedure for formulating problem of estimating domain of attraction of equilibrium solution of nonlinear dynamical system and development of numerical algorithm
[NASA-CR-84817] 15 p2737 N67-28767
Modified quasilinearization concept for solving nonlinear two point boundary value problem
[NASA-TN-D-4025] 16 p2917 N67-29034
Elliptic orbits in three-body problem, error analysis for Mariner Mars celestial mechanics experiment, and mathematics for sample point spacing and nonlinear system dispersions 16 p2966 N67-29142
Functional analysis approach to stability of nonlinear systems
[RADC-TR-67-30] 17 p3040 N67-30541
Stability of nonlinear time-dependent networks
[ERL-67-1] 17 p3040 N67-30600
Nonlinear interaction of laser radiation - laser induced gas breakdown and parametric amplification at optical frequencies
[AROD-6038-2-P] 17 p3076 N67-30731
Unstable nonlinear integrodifferential system
[NASA-CR-85604] 17 p3083 N67-30781
Newton-Raphson method applied to solution of boundary value problems in trajectory optimization
[NASA-CR-85752] 17 p3094 N67-31286
Digital adaptive control system
[NASA-CR-810] 18 p3252 N67-32096
Nonlinear coupling between slow and fast waves in circular waveguide filled with plasma
[SR-17] 19 p3512 N67-32762
Controller design for non-linear and time varying plants
[NASA-CR-87275] 19 p3421 N67-33234
Information theory in relation to state space perturbation of the Zubor equation and global stability for nonlinear systems 19 p3423 N67-33598
Communication science engineering developments on nonlinear circuits and systems 19 p3423 N67-33611
Nonlinear circuit network analysis on certain new network elements 19 p3424 N67-33612
Phase locked loop studies and gain in parametric amplifiers 19 p3424 N67-33613
Electromagnetic wave propagation in non-Maxwellian nonlinear plasma
[M-65-4FR] 20 p3709 N67-34652
Analysis and design of nonlinear space vehicle flight control systems
[NASA-CR-823] 20 p3734 N67-34940
Evaluation of nonlinear function when observing signal noise 20 p3617 N67-35296
Orthogonal method for investigating nonlinear automatic control systems under random effects 20 p3617 N67-35300
Formulas for investigating transient processes in nonlinear automatic control systems 20 p3617 N67-35302
Identification procedure for mathematical models of unknown nonlinear, nonstationary objects 21 p3799 N67-35427
Modern control theory application to solution of nonlinear parameter estimation problem associated with radar point target tracking
[TN-1967-8] 21 p3799 N67-35885
On-off gas jet systems used for satellite attitude control, and stability of linear and nonlinear systems 21 p3885 N67-36675
Nonlinear steady state solutions to moving load problems
[AFOSR-67-1439] 22 p4153 N67-36933
Partial regularity results for nonlinear elliptic systems
[AD-655293] 22 p4081 N67-36934
Nonlinear large amplitude electrostatic and electromagnetic oscillations in cold plasma
[NASA-CR-86714] 22 p4115 N67-37340
Minimum sensitivity optimal control for nonlinear systems
[NASA-CR-88863] 22 p4018 N67-37663
Computer methods for solving many-body and charged particle problems and nonlinear systems, classification and bibliography 22 p4120 N67-37760
Stability theory for nonlinear distributed electric networks
[EE-1256-5-67] 23 p4229 N67-38256
Parameter plane interpretation of Popov inequality appearing in stability analysis of nonlinear systems
[NASA-CR-89340] 23 p4230 N67-38716
Derivation of equation for vanishing coefficient in nonlinear dispersive plasma problems 23 p4323 N67-38761
Highly accurate discrete methods for solution of nonlinear problems
[MRC-TSR-749] 24 p4475 N67-39435
Realistic error bound determination for class of imperfect nonlinear controllers synthesized using Liapunov techniques
[NASA-CR-89833] 24 p4423 N67-39530
Calculation of difference, sum, and harmonic currents due to interacting plasma waves with velocity dependent collisions using Cartesian tensor expansion
[ARL-67-0102] 24 p4506 N67-39841
Numerical analysis of physically nonlinear structures 24 p4547 N67-40477

NONLINEARITY
SA LINEARITY
SA VOLTERRA EQUATION
Phase nonlinearities in telemetry-receiving systems, and data degradation sources
[G-71-F] 01 p0037 N67-10359
Imposition of conditions on nonlinear function of scalar so that system will be stable or asymptotically stable
[NASA-CR-79765] 02 p0351 N67-12075
Nonlinear effects in lateral sloshing due to propellant tank geometries 06 p0866 N67-15887
Analytical method using series expansion to determine effect of nonlinearities on output of coherent optical correlator
[NASA-CR-81335] 06 p0919 N67-16630
Test signals, AC analysis, transfer function determination, and nonlinear components for single parameter testing of amplifier
[NASA-CR-81164] 07 p1038 N67-17632
Nonlinear processes in uniform and one component plasma 09 p1496 N67-20239
Nonlinear theory of low frequency oscillations excited by ion bundle in plasma 09 p1496 N67-20241
Apparatus for measuring ion cyclotron resonance at difference frequency - nonlinear phenomena in plasma waveguide 09 p1497 N67-20242
High speed nonlinear multiplier with argon and neon tubes as light source, and photomultiplier tubes 12 p2056 N67-23782
Concentration of moments at holes in thin plates whose material follows nonlinear law of elasticity 12 p2227 N67-24532
Nonlinear elastic plates weakened by square holes with reinforced corners 12 p2238 N67-24541
Nonlinear aspects of hypersonic panel flutter
[NASA-CR-83908] 13 p2418 N67-25956
Nonlinear aspects of hypersonic panel flutter
[NASA-CR-84515] 14 p2628 N67-27673
Nonlinearity error analysis of storing circuits containing detectors and storing capacitors 15 p2682 N67-27841
Quality performance of servomechanism with gap-type nonlinearity in feedback circuit 15 p2683 N67-28111
Functional converter design based on nonlinear semiconductor resistors for reproducing power relationships 15 p2677 N67-28119
Nonlinearity in elastic and aerodynamic characteristics and its influence on vibrations of rod in gas flow 16 p2916 N67-29054
Nonlinear aspects of combustion instability in liquid propellant rocket engines
[NASA-CR-72270] 20 p3718 N67-35123
Nonlinear microwave effects in conductors
[NSF-12] 21 p3913 N67-35959
Multidimensional optimal control systems with nonlinear combination of useful signal and noise 21 p3799 N67-35628
Basic aspects of continuum mechanics of nonlinear materials
[SC-M-67-326] 21 p3896 N67-36646
Hydrodynamic differential and difference equations and computer algorithm for nonlinear combustion instability in liquid propellant rocket engines, and Fortran IV listing
[NASA-CR-88763] 22 p4133 N67-37282
Nonlinear interaction between electroacoustic and transverse electromagnetic waves microwave frequencies
[IPP-3/54] 24 p4509 N67-39908

NONMETAL
SA CERAMICS
SA METAL
SA PLASTIC MATERIAL
Mechanical behavior of polycrystalline nonmetallics at elevated temperature
[NASA-CR-80102] 03 p0453 N67-12926
Thermal emission characteristics of transition metals, alloys, and compounds with nonmetals
[FTD-HT-66-178] 11 p1967 N67-22725
Fracture mechanisms in polycrystalline nonmetallic materials
[IITRI-B6057-12] 12 p2123 N67-23601
Nonmetallic materials development - cryogenic insulation, adhesives research, and membrane diffusion theory 16 p2914 N67-29036
Nonmetallic additive effects on properties of vapor deposited tungsten
[NASA-CR-85906] 17 p3081 N67-31223

NONOHMIC EFFECT
Volt ampere characteristics of thin cadmium sulfide single crystals with nonohmic contacts
[NASA-TT-F-10489] 15 p2781 N67-28226

NONUNIFORM MAGNETIC FIELD
Shape of electric arc discharge rotating in annular gap under influence of nonuniform longitudinal applied magnetic field
[ARC-CP-856] 07 p1168 N67-18119
Flute oscillation stability of hot ion plasma in nonuniform magnetic field 09 p1492 N67-19631
Motion of plasma jet across nonuniform transverse magnetic field
[NASA-TT-F-11016] 15 p2773 N67-28220
Theoretical and experimental investigation to determine performance of pair spectrometer with high-focusing magnetic field
[DISS-3869] 17 p3063 N67-30898

NONUNIFORM PLASMA
Valid kinetic equation for both stable and unstable plasmas
[NASA-TM-X-57293] 06 p1347 N67-18433
Diffusion perpendicular to magnetic field studied in potassium plasma of nonuniform density with universal instability 09 p1492 N67-19632
Current beam instability development in nonuniform highly ionized collisionless potassium plasma
[UCRL-TRANS-10067] 12 p2177 N67-23581
Current density equation for coupling analysis of transverse and longitudinal waves in plasma 12 p2179 N67-23847
Nonuniform fluid velocity effect at surface of earth core on nature of surface flow
[NASA-84-69] 13 p2316 N67-26376
Theory and experimental confirmation of dynamic shield response, or propagating ionization front generated by intense microwave irradiation of nonuniform plasma
[GCA-TR-66-11-A] 14 p2596 N67-26943
Ion cyclotron wave generation in uniform and nonuniform plasma including electron inertia effects - radio frequency power transfer
[NASA-TN-D-4056] 17 p3145 N67-31235
Hydrodynamic and Maxwell equations for describing plane wave propagation through compressible inhomogeneous plasma
[AFCRL-67-0289] 20 p3705 N67-34698

NONVISCOUS FLOW
Thin-walled cylindrical shell stability during immersion in restricted nonviscous fluid medium under dynamic loading 09 p1532 N67-20160
Shock layer and viscous and nonviscous effects on sharp and blunt cones 18 p3189 N67-32180
Boundary layer and nonviscous wake on sharp and blunted cones at incidence in hypersonic flow 22 p4030 N67-37907

NORMAL DISTRIBUTION
Unsupervised adaptive signal detection and pattern recognition for multivariate normal distribution
[RADC-TR-66-486] 07 p1036 N67-17178
Differential difference equations involving noncentral chi-square density and

distribution functions for solving minimization problem in selection from multivariate normal populations
[NASA-CR-81773] 07 p1116 N67-18181
Approximation of normal, binomial, F, and related distributions
[TR-13] 09 p1471 N67-20174
Approximation method applied to binomial and statistical distributions
[TR-12] 10 p1864 N67-20529
Statistical analysis of speech pattern recognition with unequal covariance matrices, and normal distribution of random vector representing audio image 13 p2349 N67-25787
Normal values of precipitation highs in France
[REPT.-55] 13 p2352 N67-26023
Geometrical approach to special stable distributions
[NASA-CR-83999] 13 p2349 N67-26171
Distribution plots of electrical parameters as means of investigating potential reliability of integrated circuits 18 p3347 N67-31602
Ionospheric drift calculated using characteristic function and deviations from normal distribution 19 p3438 N67-32823
Tables of two-sided tolerance factors for normal distributions
[NASA-CR-87306] 19 p3479 N67-32975
Feasibility of numerical calculation of probability integrals of n-dimensional normal distribution
[DLR-MITT.-67-07] 19 p3482 N67-33466
Application of logarithmically normal control in finishing longitudinal and transverse welded joints in panels of single and double curvature 23 p4360 N67-39187
NORMAL FORCE DISTRIBUTION
Normal force characteristics of slender delta wings with rhombic cross sections in subsonic conical flow
[ARC-CP-923] 20 p3560 N67-34566
Normal-force, pitching-moment and axial-force coefficients for axisymmetry models with hammerhead noses at transonic speeds in wind tunnel
[NASA-TM-X-1433] 20 p3563 N67-35113
NORMAL SHOCK WAVE
Blasius boundary layer equation solution for vaporization and combustion on flat wall behind normal shock
[NASA-CR-72335] 20 p3745 N67-34546
Finite difference method to obtain numerical results on normal shock wave diffraction by sphere and subsequent transient flow
[NASA-TR-R-268] 21 p3831 N67-35725
NORTH AMERICA
Correlation and chronology of ore deposits and volcanic rocks in western North America
[COO-689-60] 07 p1072 N67-17442
Relation between solar activity and tree ring growth in western North America
[NASA-CR-81788] 07 p1075 N67-18132
Tectonic features of earth crust and upper mantle from Rayleigh wave phase velocity map of North America
[AFOSR-67-1797] 24 p4437 N67-39526
North American meteorological station network surface observations of snow and ice for correlation with aircraft and satellite reconnaissance data 24 p4439 N67-39828
NORTH AMERICAN MILITARY AIRCRAFT
S F-100 AIRCRAFT
S X-15 AIRCRAFT
S XB-70 AIRCRAFT
NORTHERN HEMISPHERE
Daily and median meteorological data for Northern Hemisphere during June, 1965 01 p0101 N67-10463
Defining cold region boundaries of Northern Hemisphere by using parameters of air temperature, snow depth, ice cover, and frozen ground
[CRREL-TR-178] 01 p0069 N67-11027
Water vapor distribution charts for atmosphere over Northern Hemisphere
[AFCRL-66-621] 07 p1117 N67-17665
Interpolated meteorological sounding profiles of Northern Hemisphere for 15 micron carbon dioxide absorption band
[NASA-CR-723] 10 p1673 N67-21447
Cold stratus precipitation, cloud seeding, long range weather forecasting, climatic element fields by orthogonal functions, wind perturbation, and Northern Hemisphere vorticity
[JPRS-39684] 11 p1914 N67-22601
Subtropical high in Northern Hemisphere for winter by balance equation of vorticity 11 p1915 N67-22607
Long range cloud forecasting technique 12 p2134 N67-23491
U.S.S.R. study results on atmospheric composition during International Geophysical Year /IGY/-meteorological flight over Antarctica, and circulation anomalies over both hemispheres
[REPT.-11] 15 p2738 N67-27856
Development characteristics, and circulation frequencies of atmospheric processes over Southern and Northern Hemispheres during pressure anomalies 15 p2739 N67-27859
Storage and other capabilities of massive underground ice wedges in northern regions
[AD-634664] 15 p2697 N67-27947
Climatological probability of aircraft icing in Northern Hemisphere
[AWS-TR-194] 16 p2816 N67-28906
Spread echoes in middle and high latitudes of northern hemisphere from measurements by Topside sounder aboard Alouette satellite 16 p2856 N67-29285
Sound velocity and temperature data for North Atlantic area in terms of monthly and seasonal variations
[NADC-AE-6710, VOL. I] 16 p2897 N67-29655
Structure of major Northern Hemisphere meteor streams producing regular annual showers observed by radio 18 p3331 N67-32053
Computer program for northern hemisphere weather prediction
[JPRS-40969] 18 p3290 N67-32459
Distribution of wind shear from surface to 25 kilometers along 90 degree west longitude in Northern Hemisphere - charts
[RR-TR-67-4] 19 p3483 N67-32730
Atmospheric circulation changes in Northern Hemisphere as related to solar activity 19 p3485 N67-33524
Color photography for visual showing of atmospheric processes in Northern Hemisphere - synoptic meteorology 19 p3485 N67-33526
Synoptic analyses of upper stratospheric circulation over northern hemisphere during late winter storm of 1966
[ECOM-5126] 21 p3883 N67-35781
Stratospheric warming in Northern Hemisphere during January 18 to February 10, 1958
[REPT.-67-2] 22 p4038 N67-37411
Seasonal wind statistical data applied to zonal and meridional wind components over Northern Hemisphere
[REPT.-63] 23 p4342 N67-38247
May 1967 world weather summary, daily, and mean ground and 850-mb charts of Northern Hemisphere 23 p4278 N67-38554
World weather summary, daily, and mean ground and 850-mb charts of Northern Hemisphere, June 1967 23 p4279 N67-38599
March 1967 world weather summary and daily, mean, 850-mb, and ground charts for Northern Hemisphere 23 p4279 N67-38601
March through June 1966 daily and monthly weather charts for 100-mb level, and stratospheric circulation data for Northern Hemisphere
[QR-2] 23 p4279 N67-38602
February 1967 weather charts and meteorological data for Berlin and Germany, and articles on storm phenomena, polar and arctic research, weather radar, and heat budget of earth 23 p4279 N67-38603
March through June 1966 stratospheric circulation and meteorological charts for Northern Hemisphere
[QR-2] 23 p4279 N67-38604
June through September 1966 daily and monthly mean meteorological charts and data for Northern Hemisphere
[QR-3] 23 p4280 N67-38605
Daily and average weather maps for Northern Hemisphere during 1967 23 p4281 N67-39242
Daily weather maps and data for Northern Hemisphere during 1951 through 1960, and study on mesosphere wind circulation 23 p4281 N67-39246
Grid telescoping by numerical integration for weather forecasting covering entire Northern Hemisphere 24 p4437 N67-39618
NORWAY
Long range propagation studies, and step frequency oblique soundings in northern Norway
[E-91] 08 p1251 N67-19225
Polar hydrological front in Greenland and Norwegian seas
[TRANS-342] 17 p3057 N67-31498
Site selection for seismic array station and crustal studies in Norway 1965
[AFOSR-67-1370] 20 p3628 N67-34188
NOSE
SA OLFACTORY PERCEPTION
Evaluation of sandwich shaped nose fairings for Saturn launch vehicle
[NASA-CR-84822] 15 p2802 N67-28837
Centaur AC-6 nose fairing separation tests
[NASA-TM-X-52290] 21 p3894 N67-35375
NOSE CAP
Automated nose fairing design ring, skin and stringer construction - Fortran computer program
[NASA-CR-83566] 11 p1985 N67-22258
Computer program for near optimum structural designs of ring stiffened honeycomb sandwich nose fairings
[NASA-CR-83919] 13 p2417 N67-25699
NOSE CONE
SA ABLATING NOSE CONE
SA ROCKET NOSE CONE
Nose bluntness effects on static and dynamic pitching moment derivatives of slender cones 07 p0988 N67-16979
Computer program for optimizing design of ring-stiffened sheet metal nose fairings
[NASA-CR-83316] 11 p1985 N67-22100
Computer programs for synthesizing structural arrangements for ring-stiffened, honeycomb sandwich, and ring-stringer stiffened methods of construction for Saturn nose fairings
[NASA-CR-83809] 13 p2416 N67-25757
Ultrasonic method for measuring thickness of nose cone annuli 20 p3648 N67-34482
Vibration and shock tests on reentry nose configurations
[NASA-CR-66467] 21 p3944 N67-36559
Ground test simulation of high performance reentry vehicle flight conditions for ablation testing of nose tip materials
[TR-1001/2240-10/-6] 22 p4019 N67-36830
Pressure and heat transfer on flat 9-degree cones in hypersonic flow 22 p4021 N67-37613
Time-acceleration traces for cylindrical ogival nose projectiles penetrating soil medium
[SC-DC-66-2424] 23 p4356 N67-38359
NOSE INLET
Flow on airfoil profiles with blowing out from nose slots - measurement of pressure, temperature and velocity distributions in boundary layer wind tunnel
[NASA-TT-F-10906] 16 p3186 N67-31850
NOTCH
Drag force measurements on two-dimensional v-shaped notches in transonic and supersonic turbulent flows
[NASA-CR-81691] 07 p0990 N67-18031
Stability of infinite plate weakened by hole with sharp notches 12 p2325 N67-24514
Influence of notch sharpness on welded connections of high strength steel
[EURAEC-1761] 13 p2337 N67-25801
Path independent integral and approximate analysis of strain concentration by notches and cracks
[E39] 20 p3737 N67-34247
NOTCH SENSITIVITY
Effects of notches and saltwater corrosion on flexural fatigue properties of steels for hydrospace vehicles
[MEL-439/66] 10 p1858 N67-21738
Effective crack length of edge slot in semi-infinite sheet under tension
[AMRA-TR-66-35] 11 p1988 N67-23118
Effects of sheet width and notch length on calculated fracture toughness of low interstitial titanium alloy sheet
[NASA-TN-D-4016] 15 p2788 N67-28299
Structural ductility for titanium alloy and maraging steel
[NASA-CR-89260] 23 p4365 N67-38511
NOTCH STRENGTH
Effect of gas saturated layers on strength and plastic properties of titanium alloys 02 p0272 N67-11777
Strengthening and fracture mechanisms in composite materials
[NASA-CR-80824] 04 p0562 N67-14209
Fatigue properties of titanium aluminum vanadium tin alloy
[KAPL-2158] 09 p1484 N67-20217
Notch tensile strength and mechanical properties of aluminum, titanium, uranium,

and steel alloys
[AMRA-TR-66-13] 12 p2119 N67-24412
Charpy V notch impact data for steel bars obtained as function of temperature according to NATO method
[M67-95-VDBU/VDK] 13 p2340 N67-26024
Effect of mechanically drilled hole distribution on notch strength of iron alloys
[NASA-CR-84112] 13 p2342 N67-26455
Notch strength of irradiated A302-B steel measured in simulated reactor pressure vessel walls
[NRL-6575] 24 p4463 N67-39485
NOTCHED METAL
Fatigue testing of refractory alloys to determine effect of notch geometry on fatigue strength
[NASA-CR-72039] 01 p0066 N67-10661
Hydrogen embrittlement of notched steel in black oxide and zinc phosphatize finishing processes
[RIA-66-3006] 05 p0716 N67-14711
Low cycle fatigue of notched steel and aluminum alloy specimens by consideration of crack initiation and propagation
[NASA-TN-D-3146] 15 p2799 N67-28371
Effects of high initial tensile and compressive loads and elevated temperatures on room temperature fatigue life of notched titanium alloy sheets
[NASA-TN-D-4061] 18 p3348 N67-31539
Determination of fracture toughness of notched bend specimens of EGCR-type AGOT graphite
[ORNL-4030] 20 p3686 N67-35040
Actual and predicted fatigue behavior of 24S-T and 2L.65 alluminum alloy notched specimens under both symmetric and asymmetric random loading spectra
[ARL/SM-313] 20 p3642 N67-35278
NOTCHED STEEL
Flow and brittle fracture propensity of notched steel plates using photoelastic model
[AD-638458] 03 p0469 N67-12459
Direct stress cumulative loading fatigue tests of notched mild steel and polished aluminum alloy
[NEL-304] 04 p0559 N67-13772
Cadmium plated notched high strength steel specimens load tested to determine size effect on embrittlement
[RAE-TR-66168] 04 p0562 N67-14116
Hydrogen embrittlement effects on mechanical properties of Charpy V notched low carbon steel
[SU-DMS-66-8] 10 p1657 N67-21699
Stress-notch tests of effects of prestresses on fatigue strength of notched and unnotched steel bars
[FB-53] 13 p2340 N67-26192
NOVA
SA HERCULES NOVA
SA SUPERNOVA
Reduction of stellar spectra from nova outburst
[AD-639747] 05 p0763 N67-15061
NOVA OUTBURST
Stellar evolution processes involving instability in binary systems, variable stars, and novae outbursts 04 p0609 N67-13410
Physical properties and peculiarities of nova outburst 04 p0610 N67-13413
Physical processes of novae outbursts and related spectroscopic phenomenon 04 p0610 N67-13417
NOZZLE
SA ACOUSTIC NOZZLE
SA ANNULAR NOZZLE
SA CONICAL NOZZLE
SA CONVERGENT-DIVERGENT NOZZLE
SA CONVERGENT NOZZLE
SA DE LAVAL NOZZLE
SA DIVERGENT NOZZLE
SA EXHAUST NOZZLE
SA HYPERSONIC NOZZLE
SA JET NOZZLE
SA PLUG NOZZLE
SA ROCKET NOZZLE
SA SHROUDED NOZZLE
SA SONIC NOZZLE
SA SUPERSONIC NOZZLE
SA TRANSONIC NOZZLE
SA WIND TUNNEL NOZZLE
Design graphs for determining flexibility of nozzles in spherical shells
[TID-23344] 07 p1302 N67-17542
Numerical solution of flow field in throat region of nozzle
[NASA-CR-82601] 08 p1275 N67-19355
Performance characteristics of centerbody propelling nozzle with shroud in external flow
[ARC-CP-894] 10 p1550 N67-21186
Motor chamber and nozzle shell designs, material and process evaluation studies, and fabrication methods for pressure vessel components of two 260-SL motors
[NASA-CR-72126, VOL. V.] 16 p2964 N67-30032
Procurement, process, and nondestructive test specifications for development of 260-SL motor chamber and nozzle shell fabrication of high nickel maraging steel
[NASA-CR-72126, V. V, APPEND. A] 16 p2964 N67-30033
Material and process evaluation program for 260-SL motor chamber and nozzle shell fabrication of 18 percent nickel maraging steel - appendix
[NASA-CR-72126, V. V, APPEND. B] 16 p2964 N67-30034
Static and dynamic characteristics of nozzle gate hydraulic cylinder drive for aircraft control system 19 p3570 N67-33544
NOZZLE EFFICIENCY
Performance of centerbody propelling nozzle with parallel shroud in external flow
[ARC-CP-841] 02 p0298 N67-11748
Carbon phenolic, graphite phenolic, and silica phenolic nozzle ablative materials performance for large solid propellant rocket boosters
[NASA-CR-72060] 05 p0755 N67-15157
Ground and altitude testing to evaluate rocket nozzle and injector performance
[NASA-CR-56428] 07 p1183 N67-17856
Theoretical and experimental stresses determined on steel spherical shell models with single radially attached nozzle
[ORNL-TM-1634] 10 p1765 N67-30756
Partial admission performance characteristics of single stage supersonic turbine
[NASA-TM-X-90] 18 p3321 N67-32157
NOZZLE EXPANSION
Probe for determining molecular speed ratio in low density flows from nonequilibrium nozzle and free-jet expansions
[CAL-AF-3041-A-I] 10 p1607 N67-30584
Spectrophotometric measurements of vibrational relaxation of CO in shock wave and nozzle expansion-flow environments
[NASA-CR-87276] 19 p3550 N67-33015
Asymptotic exponential laws for contraction of plane and axisymmetric jets of weightless fluids at large distances from nozzle
[NASA-TT-F-11150] 21 p3833 N67-36145
NOZZLE FLOW
Annular supersonic nozzle flow
[PIBAL-666] 01 p0061 N67-10979
Digital computer program for rocket nozzle and exhaust plum flow field analysis by characteristic method
[NASA-CR-81143] 05 p0681 N67-15253
Thermodynamics of nozzle flow in physical model of mixed flow colloid thrustor to improve particle formation efficiency
[NASA-TM-X-52365] 06 p0955 N67-16045
Reacting gas system measured as passing from state of thermodynamic equilibrium to chemical nonequilibrium by flowing through nozzle 07 p1064 N67-17299
Shell theories and computer programs for evaluating internal and external pressures at nozzles in pressure vessels
[TID-23343] 07 p1202 N67-17431
Equation for sonic line in nonequilibrium nozzle flows of gas and application in supersonic flow computations
[NASA-CR-70208] 07 p1068 N67-17852
Uniform two-zone perfect gas expansions in convergent-divergent nozzles
[NASA-CR-65598] 08 p1355 N67-18943
Three-dimensional effects in shock separated flow regions ahead of lateral control jets issuing from slot nozzles of finite length 08 p1274 N67-19302
Experimental investigation of formation of gas jet behind front of shock wave in outflow of divergent and supersonic nozzles
[FTD-HT-66-137] 09 p1436 N67-30008
Flow characteristics of convergent-divergent nozzles with area ratios 2.44 and 2.14 in external flow
[ARC-CP-893] 10 p1612 N67-21158
Real gas effect test on nozzle flow in hypersonic low density wind tunnel
[DLR-FB-66-62] 11 p1853 N67-22134
Numerical computations for nonequilibrium hydrogen oxygen rocket nozzle flow 11 p2000 N67-22902
Flow fields of vertical and inclined jets when stationary or moving over horizontal surface
[ARC-CP-911] 13 p2342 N67-26046
Particle injection, tuft and vane probes, directional probes, and glow discharge density probes for nozzle flow visualization
[NASA-CR-83976] 13 p2309 N67-26168
Spectrographic analysis of combustion product radiation in supersonic rocket nozzle flow
[TG-877] 14 p2630 N67-28498
Design calculations for helium heater
[NASA-CR-84458] 14 p2514 N67-27821
Steady flow duration in hypersonic reflected shock tunnel - unsteady wave starting process in nozzle
[ARC-CP-883] 16 p2880 N67-29915
Nonideal magnetogasdynamic flows in boundary layer approximation for slender nozzle flows
[SR-42] 17 p3142 N67-30657
Nozzle gate hydraulic amplifier for use in electrohydraulic control surface actuator 19 p3570 N67-33545
Calculation method for mass flow of real gases through critical-flow nozzles
[NASA-CR-87318] 19 p3555 N67-33835
Dynamic response of pressure measuring systems, fatigue tests on wing center section tension skins, unsteady pressure distribution estimates, and variable Laval nozzle design 21 p3851 N67-36124
Initial value and boundary perturbation problems in designing Laval nozzle flows
[NLR-TR-T.124] 21 p3827 N67-36127
Flow theory and model of chemically reacting and radiating ionized gas through supersonic expansion nozzle
[MIT-DSR-78052] 22 p4114 N67-36968
Mayer theory of condensation and homogeneous nucleation
[REPT.-9] 22 p4025 N67-37240
One-dimensional inviscid nozzle flows with coupled vibrational and dissociational nonequilibrium
[NASA-CR-66474] 22 p4025 N67-37159
Silvers model for saturated water flow through nozzles
[AEEW-M-732] 23 p4235 N67-38335
Air and nitrogen liquefaction in hypersonic nozzle flow
[ARL-65-159] 24 p4429 N67-39445
Exhaust flow measurements on nozzle or orifice of free-piston gas generator engine
[ME-223] 24 p4523 N67-40119
NOZZLE GEOMETRY
Fluid controlled solid rocket motor using fully oxidized solid propellant grain configured with oversized nozzle throat area 02 p0296 N67-12120
Effects of aspect ratio on spreading of semi-confined jets formed by round and sharp edged nozzle profiles 06 p0792 N67-16063
Experimental analysis of vacuum deterioration due to nozzle geometry of charge-exchange chamber for supersonic gas jet 11 p1857 N67-21950
Blow-down type 50 cm hypersonic wind tunnel with interchangeable solid axisymmetric nozzles of Mach numbers 5, 7, 9, and 11
[NAL-TR-116] 16 p2875 N67-29927
Nozzle inlet geometry effects on thrust and flow coefficients of swiveled convergent-divergent nozzle
[NASA-TM-X-98] 18 p3320 N67-31734
Nozzle geometry to improve deliverable thrust chamber performance of fluorine/hydrogen propellant combination
[NASA-CR-72038] 19 p3527 N67-33148
Normal motor and nozzle performance reported for static test firing of 44-SS-4 motor
[NASA-CR-72287] 22 p4134 N67-37894
NOZZLE INSERT
Near wake of slender body studied by upstream aerodynamically-shaped holder passing through nozzle throat 22 p4029 N67-37605
NOZZLE THRUST COEFFICIENT
Air and propane used in measuring discharge coefficients of jet control valve and nozzle for satellite attitude control
[RAE-TR-65014] 07 p1000 N67-17681
Static test rig for measuring thrust efficiency and discharge coefficient of propelling nozzle systems

[ARA-WTN-62] 20 p3642 N67-34839
NOZZLE WALL
Gaseous film cooling of rocket motor with injection near throat
[NASA-TN-D-3836] 07 p1208 N67-17506
Development and testing of coatings for tantalum alloy nozzle vanes
[NASA-CR-54520] 21 p3869 N67-36159
NRX-A REACTOR
S NUCLEAR ENGINE FOR ROCKET VEHICLE /NERVA/
NUCLEAR AIRCRAFT
Wind tunnel measurements on two wing-end plate aircraft model configurations
[NASA-TM-X-1454] 24 p4374 N67-40102
NUCLEAR AUXILIARY POWER
SA SNAP PROGRAM
Criteria for selecting radioactive isotopes for space propulsion systems and auxiliary power generation and synthesis of radio guidance and tracking stations 12 p2209 N67-23911
Criteria for selecting radioactive isotopes for space propulsion systems and auxiliary power generation 12 p2148 N67-23913
Thermionic reactors as power supply systems for space vehicles - conference
[DGRR/WGLR PAPER-66-092] 13 p2364 N67-26464
NUCLEAR CHEMISTRY
SA REACTOR CHEMISTRY
Reactor technology, nuclear chemistry, fission product recovery, separations chemistry, and fuel cycle processing
[ORNL-3945] 08 p1209 N67-18475
Research progress reported for studies in nuclear, isotope, radiation, organic, and physical chemistry, electrochemical kinetics, and aqueous and nonaqueous systems
[ORNL-3994] 08 p1242 N67-19341
Nuclear chemistry studies of isotope neutron cross sections, nuclear charge distribution in fission, gamma radiation, energy levels, and decay properties and schemes 08 p1242 N67-19342
Reaction rates and kinetics of organic compounds determined in nuclear chemistry studies 08 p1243 N67-19345
Nuclear chemistry and geochemistry technological developments
[NYO-844-67] 09 p1487 N67-19430
Nuclear chemistry - radioactive decay, energy levels, separation processes, charged particles, and emission spectroscopy
[PPAD-593E] 10 p1763 N67-20834
Nuclear chemistry research in high energy nuclear reactions
[NYO-2897-17] 10 p1731 N67-21782
Chemical microstructure of liquids and solids using nuclear techniques
[ORO-3345-2] 15 p2658 N67-28342
Research projects in nuclear chemistry, instrumental chemistry, uses of organic isotopes, and physical chemistry
[MIT-905-81] 15 p2660 N67-28483
Chemistry and nuclear chemistry of heavy elements
[COO-347-28] 16 p2850 N67-29714
Nuclear energy studies in Chinese Peoples Republic - technician training, nuclear chemistry, and applications in medicine 17 p3127 N67-30394
Irradiation, nuclear reaction, fission, and decay studies involving high proton energies, heavy elements, mesons, and neutretio mass 18 p3312 N67-33347
Nuclear chemistry report index
[UCRL-17290] 19 p3390 N67-33390
Recuperation of cesium 137 by phosphotungstate precipitation
[EUR-3473.F] 20 p3503 N67-34567
Nuclear spectroscopy - nuclear reactions and scattering - structure theory - fission - hyperfine interactions - mass spectroscopy - chemistry - instrumentation
[UCRL-17299] 20 p3704 N67-35233
Analytical methods in nuclear chemistry
[IN-1063] 23 p3987 N67-37362
NUCLEAR DEFORMATION
Quadrupole plus pairing force for deformed nuclei calculation and theory 03 p0436 N67-12569
Energy level structures in neutron-deficient barium isotopes
[LR-13] 07 p1143 N67-17160
Shell correction to nucleus mass as function of nuclear deformation
[UCRL-17070] 10 p1762 N67-20801
Ground state equilibrium deformation, electric quadrapole moment, and deformation energy calculations for heavy nuclei using projected wave functions
[JINR-E4-2934] 10 p1722 N67-21550
Dependence of ground state energy and quadrupole moment on deformation for heavy nuclei
[JINR-E4-2940] 10 p1722 N67-21551
Energy and wave function calculations for nonrotating states of deformed nuclei
[JINR-E4-3051] 13 p2376 N67-25914
Intermediate resonances of neutrons scattered by permanently deformed even even nuclei
[IC/66/109] 13 p2382 N67-26473
Relation of elementary particles deformable sphere model to quark
[NUP-A-67-8] 20 p3494 N67-34520
Selection rules for electromagnetic transitions with spin-flip in deformed odd-odd nuclei, and degree of forbidden transitions
[ZFK-PHA-36] 21 p3900 N67-35600
Comparison of rotation-vibration models with experimental data on rare earth even-even nuclei
[NP-16666] 21 p3905 N67-36290
Core polarization effects in mass 15 and mass 17
[PUC-937-263] 23 p4307 N67-38673
Shells in deformed nuclei
[LA-TR-67-36] 23 p4313 N67-39093
NUCLEAR EFFECT
Nuclear Ramsauer effect to interpret neutron giant resonances as maxima created by interference between neutron wave components 06 p0926 N67-15694
Nuclear behavior, physical, and radiological effects of SNAP-10A reactor destructive test
[IDO-17186] 12 p2357 N67-25503
Mechanical, thermal-hydraulic, and nuclear characteristics of low enriched PM replacement core
[HIT-3583-43, VOL. I] 16 p2930 N67-29239
Magnetic moments of excited nuclei in study of extra-nuclear effects in angular correlations
[REPT.-31-5-1967] 22 p4104 N67-37236
Formulae for analyzing penetration effects in internal conversion /K and L shells/, and tables of bound and free electron wave functions at nucleus appearing as normalization constants
[BNL-50002] 23 p4310 N67-38926
NUCLEAR-ELECTRIC MOMENT
Static quadrupole moments of spherical even-even nuclei
[JINR-E4-3285] 21 p3901 N67-35907
Covalent bond in crystals - anisotropy and quadrupole moments
[AD-657434] 23 p4321 N67-38677
NUCLEAR-ELECTRIC POWER SUPPLY
Spacecraft propulsion, and nuclear-electric power supply for space travel
[NASA-TT-F-8-8907] 01 p0104 N67-10189
Nuclear energy in aerospace technology - space power reactor developments, thermionic energy conversion techniques, and emitter materials
[DLR-MITT.-66-07] 08 p1307 N67-18221
Zirconium hydride, yttrium hydride, and beryllium hydride moderator thermionic reactor systems for space vehicle power supply 08 p1308 N67-18224
Fast reactor plant evaluation for space vehicle power source 08 p1309 N67-18231
Thermionic cell for nuclear thermal energy conversion into electricity
[LA-TR-66-22] 08 p1312 N67-18541
Water cooled modular design of 300 kW dc power supply for thermonuclear system
[UCRL-70017] 10 p1556 N67-20760
NUCLEAR-ELECTRIC PROPULSION
Low-thrust trajectory requirements for solar system exploration using nuclear electric propulsion
[NASA-CR-79297] 02 p0308 N67-12234
Spacecraft and radiator interrelations defined for nuclear Rankine systems using Saturn launch vehicles
[NASA-CR-72245] 14 p2619 N67-27231
Nuclear-electric space propulsion system with lithium arc jet unit
[LA-DC-8463] 14 p2578 N67-27449
Supporting research on electronics, space vehicle, electronics, communication, human factor, and chemical propulsion systems
[NASA-CR-88078] 21 p3936 N67-36013
NUCLEAR EMULSION
Total cross section of double charge exchange of 50 to 176 MeV pion mesons in photo emulsions
[JINR-P-2906] 01 p0129 N67-10619
Computer program to calculate neutron energy from knock-on proton trajectory length and orientation in nuclear emulsion
[NDL-TM-34] 01 p0045 N67-10974
Energy and angular distributions of protons and charged pi mesons produced by inelastic proton-neutron interactions determined by nuclear emulsion method
[JINR-P-2909] 03 p0443 N67-12271
Non-mesic hypernuclei produced by kaon captures in light nuclear emulsions 07 p1141 N67-17123
Elementary particle, bubble chamber, nuclear emulsion, computer programming, S-matrix theory, mesic atom, field theory, accelerator, and gravitation research
[UCRL-16863] 08 p1244 N67-19143
Astronaut radiation exposure on Mercury missions MA-8 and MA-9 measured with nuclear emulsion
[NASA-CR-82574] 08 p1229 N67-19149
Nuclear emulsion, bubble chamber analysis, high energy photons, and nuclear groups
[NYO-1984-10] 10 p1706 N67-20887
Nuclear photographic emulsions, materials, and techniques used in autoradiography 10 p1661 N67-21235
Radiation monitoring results of small nuclear emulsion packs worn by astronauts on Gemini VII
[NASA-CR-83543] 11 p1795 N67-23270
Photoelectric determination of particle track width in nuclear emulsions
[IS-1465] 15 p2760 N67-28267
Emission of fast deuterons in very large stars induced by 9 GeV protons in nuclear emulsion
[REPT.-775/VI/PH] 17 p3162 N67-31649
Sounding rocket nuclear emulsion techniques for determining composition and energy spectra of low energy cosmic ray heavy nuclei
[NASA-TM-X-53640] 18 p3222 N67-31550
Coherent particle production in collisions of 200 GeV pions with nuclear emulsion
[INR-774/VI/PH] 20 p3694 N67-34448
Application of stars produced in nuclear emulsion to determination of high neutron energy spectrum
[UCRL-17063] 20 p3697 N67-34729
Double charge exchange of pions by nuclei in photoemulsion
[JINR-P1-3248] 20 p3701 N67-34942
Nuclear emulsion stacks from high altitude balloons used to determine energy spectrum of cosmic ray nuclei
[CR-90] 22 p4135 N67-36896
Fragmentation parameters and interaction mean free path of cosmic ray nuclei as functions of energy in nuclear emulsion
[CR-98] 22 p4137 N67-37459
Intermittent cobalt 60 gamma irradiation to find mean lifetime of growing chains for radiation induced emulsion polymerization
[BMWF-FBK-67-21] 22 p3992 N67-37923
Bubble chamber and emulsion methods to study pion decay of K-plus mesons and high energy interactions, electromagnetic processes induced by electrons, and hypernuclei of K-nog mesons
[UCR-P107-46] 22 p4111 N67-37971
Angular distributions for determination of energy on electromagnetic cascades in emulsions
[BMWF-FBK-67-28] 22 p4112 N67-38024
Delta electrons in nuclear emulsions used in determining nature and energy of cosmic ray particles 23 p4239 N67-39231
Determination of fragmentation parameters of multicharge component of primary cosmic rays
[NASA-CR-88971] 23 p4239 N67-39349
Cosmic radiation tissue dose measurements by nuclear emulsions 23 p4194 N67-39106
Proton dose measurements of Gemini astronauts with nuclear emulsions
[NASA-TT-F-11237] 24 p4367 N67-40329
NUCLEAR ENERGY
Scientific and technological publications of European Atomic Energy Commission 01 p0168 N67-10472
Direct conversion of electricity from atomic energy by use of magnetohydrodynamic thermoelectric, and thermionic devices in conjunction with nuclear reactor heat sources
[RISO-M-399] 01 p0109 N67-10715
Theory and operation of nuclear magnetometer

[NASA-CR-79314] 02 p0262 N67-12216
Activity plan of Metallurgical Department of National Atomic Energy Commission of Argentina 05 p0780 N67-14905
Chemonuclear and radiation chemical process research and development 06 p0817 N67-15534
Influence of nuclear shells on binding energy surfaces, proton number, and neutron number, and distances between energy surfaces of different parities 06 p0935 N67-15655
Feynman diagram based on energy of system and transferred momentum 07 p1145 N67-17296
Atomic Energy Commission unclassified programs for Fiscal Year 1966 [NAA-SR-12010] 08 p1319 N67-18891
Production and investigation of carbide heaters for thermionic converter operating with nuclear energy [BMWF-FBK-66-28, PT. I] 10 p1689 N67-21689
Calculation on feedback energy reactivity coefficient for coupled-drum impulse transient test in SNAPTRAN program [IDO-17167] 13 p2358 N67-25504
Ultrasonic energy and instrumentation for nuclear applications [BMPR-31] 13 p2319 N67-25540
Indexed bibliography of current nuclear safety information [ORNL-NSIC-20] 13 p2361 N67-25616
Human behavior toward and social ethics of using nuclear energy and radiations [EUR-2772.E] 13 p2441 N67-26104
Theoretical and experimental low energy nuclear physics studies with tandem accelerator [AFOSR-67-0668] 14 p2586 N67-26889
Policy, criteria, and outlook of First Target Program for European Atomic Energy Community - uranium and thorium supplies, economic markets for electric and nuclear energy [EUR-2773.E] 14 p2579 N67-27551
Industrial safety practices applied to handling of critical masses safely in nuclear energy [LA-DC-8396] 15 p2743 N67-27907
Construction of nuclear level schemes using precise relative neutron-gamma energies [BNL-10096] 15 p2761 N67-28320
Iterative Hartree-Fock method for calculating energy values of atomic electrons by accounting for interparticle correlation [NYO-1480-68] 16 p2949 N67-29856
Yield, energy, and angular distributions of sputtered atoms elected from metal surfaces under ion bombardment 17 p3132 N67-30670
Nuclear energy in aircraft engines [NASA-TT-F-11690] 17 p3118 N67-31454
Operation and performance of microcalorimeter for in-pile nuclear energy measurements [CONF-651154-3] 17 p3119 N67-31470
Instrumentation problems associated with measuring mechanical and nuclear energy during burst irradiation capsule experiments 18 p3303 N67-32454
Computers in nuclear energy field - reactors, weapon systems, and data acquisition in nuclear laboratories [UCRL-70422] 19 p3500 N67-32785
Nuclear energy levels of potassium-37 [AD-654156] 19 p3506 N67-33562
Magnesium 23 nuclear energy levels determined by magnetic analysis of alpha particles from reaction Mg 24 /He 3, alpha/ Mg 23 [AD-654155] 19 p3509 N67-33776
Oceanographic nuclear instrumentation, seawater desalinization, radiation preservation of seafood, and Plowshare Project 21 p3836 N67-35531
Magnetohydrodynamic thermoelectric and thermionic devices with nuclear reactors or radioisotopes as heat sources, for direct production of electricity from atomic energy [NASA-TT-F-10650] 21 p3889 N67-36239
Techniques for measuring electromagnetic lifetimes of nuclear levels in light-weight and medium-weight nuclei using small accelerators [BNL-11484] 23 p4304 N67-38557
Performance requirements and evaluation of fire resistant air filters for atomic energy systems 23 p4285 N67-38854
Exhaust gas filter removal and replacement in nuclear facility 23 p4286 N67-38868
Indian Government atomic energy research facilities 24 p4501 N67-40129

NUCLEAR ENERGY LABORATORY
High energy physics laboratory and relations between accelerator centers and their users [CERN-67-4] 13 p2302 N67-25587
Scintillation counter, and magnetic field intensity measurements at Adonis facility [LNF-67/3] 13 p2369 N67-26120
Evaluated compilation of neutron data relevant to development of nuclear energy [CCDN-NW/5] 18 p3307 N67-31551
Oak Ridge National Laboratory annual report - 1966 [AR-1966] 18 p3304 N67-32576

NUCLEAR ENGINE FOR ROCKET VEHICLE /NERVA/
High temperature thermometry for nuclear engine for rocket vehicle reactor 09 p1479 N67-19644
Hot gas thermometry for nuclear engine for rocket vehicle reactor applications 09 p1479 N67-19647
Design and development of all welded and brazed instrumentation ports for nuclear engine for rocket vehicle applications reactors [NASA-CR-83309] 10 p1674 N67-20739
Frequency response and transport functions for NERVA-type rocket engine [NASA-TN-D-3979] 13 p2361 N67-25798
Control analysis of NERVA engine at power range operating conditions [NASA-TN-D-3978] 13 p2298 N67-25641
Analysis of debris from simulated destruction system test of full scale Rover/NERVA reactor [NASA-CR-84000] 13 p2363 N67-26172
Scale model test results on subsonic turn ejector in nuclear exhaust system for Nerva engine test stand [NASA-CR-85231] 16 p2936 N67-29956
Structural dynamics analysis of nuclear exhaust system duct for Nerva engine test stand [NASA-CR-85232] 16 p2921 N67-29959
Vehicle design, performance, and propulsion of Nuclear Engine for Rocket Vehicle /NERVA/ 17 p3108 N67-30610
Heat and mass transfer characteristics of axial-flow liquid-core nuclear rocket engine employing radiation heat transfer [NASA-TN-D-4127] 19 p3494 N67-33877

NUCLEAR EXPLOSION
SA HIGH ALTITUDE NUCLEAR DETECTION STUDIES /HANDS/
SA SEDAN PROJECT
SA UNDERGROUND NUCLEAR EXPLOSION
SA VELA PROJECT
Destructive factors of small and high power nuclear explosions [FTD-TT-64-1369] 01 p0168 N67-10274
Dipole radio signal from nuclear explosion computed using Maxwell equations - [RM-4988] 01 p0118 N67-11041
Effects of plasma produced by high altitude nuclear explosion on radar wave propagation 04 p0510 N67-12889
Phenomena and technology of contained /nonexcavation/ nuclear explosions for industrial applications [UCRL-14756] 04 p0579 N67-14061
Propagation of electromagnetic waves through nuclear detonation produced radiation field [GUO-2250] 04 p0546 N67-14319
Truncation error in particle-in-cell numerical process for solving hypervelocity impact and nuclear burst problems [RM-4876-PR] 05 p0729 N67-14941
Theoretical seismograms for propagation in flat and spherical earth, seismic travel times from Pacific nuclear explosions, and abstracts of papers on seismological research [AD-641201] 06 p0670 N67-15354
Reversibly frostible transparent window for nuclear flash eye protection shutter [AD-643733] 06 p0615 N67-16351
Threshold distances for retinal burns from low yield nuclear detonations [SAM-TR-66-49] 06 p0604 N67-16360
Calculations of energy deposition and air fluorescence from radiation produced by nuclear explosion in space [LA-3439-MS] 06 p0939 N67-16396
Study and conclusions for developing safe-distance charts for eye and retina from nuclear explosions - mathematical model [AD-641191] 06 p0605 N67-16451
Sampling, analyses, and mathematical model of stratosphere contamination and radioactive fallout from nuclear explosions - Star Dust project [DASA-1821] 06 p0678 N67-16586
Equipment and techniques for generation and measurement of simulated nuclear detonation electromagnetic pulse environment 07 p1138 N67-16996
Theoretical inviscid fluid mechanics conference - flow theory and hydrodynamic calculations for shock wave propagation problems [NOLTR-66-191] 07 p1063 N67-17021
Numerical calculation on blast shock resulting from nuclear explosion 07 p1064 N67-17030
Short-period propagation of infrasonic waves from nuclear explosions [RM-5103-ARPA] 07 p1073 N67-17714
Fission neutron cross section measurements of plutonium 241 determined from nuclear explosion 08 p1341 N67-18883
Nuclear explosions as pulsed neutron sources for cross section measurements 08 p1342 N67-18886
Compilation of data on craters produced by explosives 09 p1438 N67-19286
Nuclear cloud sampling system [UCRL-12215] 09 p1480 N67-20146
Cosmos V registration of fragment gamma radiation following United States nuclear explosion over Johnston Island 10 p1737 N67-20291
Image tube spectrometers for observation of aurora, airglow, and nuclear tests adapted for aircraft installation [DASA-1874] 10 p1620 N67-20618
Effect of depth of focus on seismic pulses from nuclear explosions and earthquakes [AFCRL-66-764] 12 p2093 N67-24600
Cratering theory of shock interactions for single and multiple nuclear explosions [AD-634674] 15 p2697 N67-27864
Theoretical study of propagation of long-period infrasonic waves from nuclear explosions in atmosphere, including bibliography [AVSSD-0059-67-RR] 16 p2882 N67-28984
Transmission loss of LF and VLF radio waves in lower ionosphere due to absorption in nuclear explosion environment [RM-5249-PR] 16 p2882 N67-29113
F layer irregularities following high altitude nuclear explosion 16 p2880 N67-29318
Effects on visual acuity and chorioretinal burns to eyes of two patients exposed to nighttime nuclear detonation during Fishbowl operation 16 p2831 N67-29941
Retinal burn and flash blindness from nuclear explosions of various intensities 16 p2833 N67-29952
Spectral estimates of seismic events, detection of nuclear explosions in presence of large natural events, and location of epicenters by beam splitting in large aperture seismic array study [ESD-TR-67-382] 17 p3054 N67-30626
Conversion of analog film data records obtained from nuclear explosions to cross sections as function of neutron energy [LA-3478, PT. II] 18 p3310 N67-32025
Mathematical model for retinal burn and other eye effects from nuclear flashes [AD-653984] 19 p3378 N67-33631
Airborne extremely high frequency radar system for cloud detection [UCRL-50195] 20 p3672 N67-34415
Collection of models to simulate atmospheric transport of local fallout from nuclear detonations [TO-B-66-80] 20 p3632 N67-34570
Photon-photon scattering experiments - laser beams, X-rays, synchrotron radiation, and nuclear explosions [CERN-67-15] 20 p3697 N67-34708
Amplitudes and travel times calculated for first half-cycle of seismic P waves generated by nuclear explosions [UCRL-50232] 21 p3836 N67-35454
Infrared thermal mapping of hypothetical nuclear explosions [REPT.-9711-F] 22 p4045 N67-36901
Thermochemistry of water at high temperatures and pressures [RM-4969-PR] 24 p4306 N67-39739
Mathematical model for magnetohydrodynamic wave generation in case of high-altitude nuclear bursts [RM-5301-ARPA] 24 p4511 N67-40304

NUCLEAR FORCE
Composite equations of state for determining effects of nuclear forces on neutron star models
[NASA-TM-X-57347] 06 p1329 N67-18354
Influence of three-body forces in tritium problem using nonlocal factorizing potential
[JINR-P4-2929] 10 p1734 N67-21580
Elastic neutron-neutron scattering in meson model of nuclear forces
[JINR-P4-3135] 15 p2767 N67-28524
Nuclear forces and binding energy, and single particle potential energies of excited states
[INR-778/VII/PL] 17 p3131 N67-30808
NUCLEAR FUEL
SA FUEL ELEMENT
SA REACTOR FUEL
Thermoelastic stress in epitrochoidal cylindrical nuclear fuel elements
[AAEC-TM-312] 01 p0106 N67-10692
Pyrolitic graphite and other coatings for nuclear fuel particles used in gas cooled reactor - Irradiation testing of advanced reactor components and materials
[ORNL-3951] 01 p0109 N67-10709
Structural design of nuclear-fueled thermionic converter
[BMWF-FBK-66-06] 01 p0110 N67-10638
Importance of fission product chains on high burnup thermal reactor fuel cycles - assessment of inaccuracies introduced by errors in fission yields
[EUR-3119.E] 02 p0287 N67-11989
Zirconium alloy nuclear fuel cladding
[GEAP-5134] 03 p0427 N67-13288
Chemical reactions of carbides and oxides suitable for construction of nuclear fueled thermionic emitter
[BMWF-FBK-66-07] 03 p0362 N67-13317
Plutonium and fission product redistribution in fast reactor mixed-oxide fuel operation
[GEAP-4466] 05 p0735 N67-14685
Effect of fuel opacity on temperature distribution in gaseous nuclear rocket engine
[NASA-CR-695] 06 p0954 N67-16013
Catalog of nuclear reactors fueled with uranium hexafluoride, gases, or plasmas
[ANL-7180] 06 p0915 N67-16533
Mixing and sampling characteristics of enriched uranium 235 fluid in cylindrical storage tanks
[Y-1502] 07 p1024 N67-17080
Crossed-progeny fuel cycles for combining advantages of thorium and uranium fuel cycles
[BNWL-289] 07 p1129 N67-17406
Chemical decladding and gaseous reprocessing of heterogeneous nuclear fuel elements
[EURAEC-1659] 07 p1130 N67-17435
Fuel specifications for heat source using cobalt 60 for small underwater craft
[AGN-8163, VOL. III] 07 p1130 N67-17436
Fuels and materials for fast reactors listed by contractor
[TID-6506, PT. 1] 07 p1131 N67-17472
Nondestructive testing of nuclear fuel elements during and after canning - detectors, signal interpretation, leak rates, and leak test
[AI-TRANS-206] 07 p1133 N67-17540
Nuclear energy in aerospace technology - space power reactor developments, thermionic energy conversion techniques, and emitter materials
[DLR-MITT.-66-07] 08 p1307 N67-18221
High temperature effects on tungsten coated uranium oxide-molybdenum cermets for thermionic reactor
08 p1308 N67-18229
Methods for accurate determination of nuclear fuel burnup - measurement of U-233 and U-235 thermal fission yields
08 p1309 N67-18327
Fuels and materials for Liquid Metal Fast Breeder Reactor Program /LMFBR/
[TID-6506, PT. 3, 4TH ED.]
08 p1321 N67-19063
Brazing of Zircaloy in nuclear fuel
[AECL-2913] 08 p1323 N67-19154
Plutonium Recycle Test Reactor fuel element performance and fabrication, on mash-spot resistance welding for Transient Reactor Test capsules
08 p1324 N67-19323
Irradiation tests of Experimental Breeder Water Reactor prototype fuel rods, fabrication of plates to test Phoenix fuel concept, and ultrasonic examination of thermally cycled tubes
08 p1324 N67-19324
Fiber-reinforced metal matrix composites for strengthening core and cladding elements in advanced nuclear fuels
08 p1324 N67-19325
Radiation protection practices for handling reactor fuel elements
[CEA-R-3019] 09 p1490 N67-20149
Operating performance measurements of plutonium fuel reactor - Saxon project
[EURAEC-1713] 09 p1490 N67-20151
Personnel, equipment, and tasks considered in application of safeguards to uranium nuclear fuel processing plant
[BNWL-301, APPEND.] 10 p1674 N67-20745
Fabrication methods for beryllium oxide pellets containing uranium or uranium-thorium fuel particles
[GA-7130] 10 p1675 N67-20819
Safeguard procedures for nuclear fuel processing plants having flowsheets
[BNWL-301] 10 p1600 N67-20820
Uranium oxide fuel for thermionic energy conversion
[CONF-661003-9] 10 p1676 N67-20843
Irradiation behavior of low density uranium oxide-SS cermet fuel for fast breeder ordered bed reactor
[BNL-10521] 10 p1678 N67-20910
Activation of emergency cooling system to prevent nuclear reactor fuel element melting during water flow breakdown
[JUL-235-RE] 10 p1681 N67-21064
Theoretical evaluation of fuel elements, structural materials, and electronics for planned impulse reactor
[JUL-343-RE] 10 p1683 N67-21080
Southwest experimental fast oxide reactor development program, and nuclear fuel technology
[GEAP-5206] 10 p1688 N67-21631
Mathematical models for estimating thermal conductivity of cermet fuel materials used in nuclear reactor
[NASA-TN-D-3956] 11 p1922 N67-22566
Literature review on pulsed nuclear reactor technology
[JUL-BIBL-9] 11 p1925 N67-23028
Physical properties of fluoride molten-salt combinations of nuclear reactor fuel elements, and reactor cooling systems
[JUL-368-RG] 11 p1925 N67-23030
Evaluation of thorium fuel cycles for fast breeder reactor systems
[JUL-276-RG] 11 p1925 N67-23032
Out of pile evaluation of tungsten rhenium thermocouple systems for use in measuring plutonium oxide and uranium oxide fuel temperatures
[GEAP-5166] 12 p2098 N67-23567
Compatibility of nuclear fuel materials UN, UC, and uranium dioxide with metals
[KFK-455] 12 p2144 N67-23591
Tests and analysis of experimental assembly of nuclear fuel with sintered uranium dioxide cores in zirconium alloy jackets with maximum uranium burnup
[IAE-1181] 12 p2145 N67-23724
Thermal conductivity of ceramic nuclear fuel at high temperatures
[KFK-415] 12 p2146 N67-23804
Design and construction features of alpha-gamma metallographic facility for handling nuclear fuels and radioactive isotopes
12 p2149 N67-24252
Design, fabrication, and performance testing of high heat flux heater for use in nuclear reactor - fuel element
[NAA-SR-12342] 12 p2150 N67-24556
Thermochemical deposition processes to prepare fuel compounds and refractory alloys from volatile halides
13 p2354 N67-25360
Development and deposition of particle coatings for gas cooled reactor fuels
13 p2355 N67-25367
Burnup determination of nuclear fuels, measuring fission products and capture-fission ratio for uranium 233 and 235
[IDO-14678] 13 p2357 N67-25391
Mechanical properties and fission product retention capabilities of beryllium oxide matrix fuel concepts
[GA-7042] 13 p2361 N67-25905
Fission rate data from neutron activation method for calculating reactor power for fuel element geometry
[IN-1047] 13 p2362 N67-25908
Reactor fuel reprocessing, waste management, and reactor technology
[IDO-14680] 14 p2476 N67-26840
Reactor technology on nuclear materials and propulsion operation
[GEMP-63] 14 p2574 N67-26921
High temperature reactor research on carbides for fuel and structural applications
14 p2575 N67-26922
Supplementary and background material for preparation of nuclear fuel requirements and costs of reactors in Germany
[KFK-466] 15 p2746 N67-28207
Isotope dilution mass spectrometric method for determining burn up of irradiated uranium nuclear reactor fuels
[AERE-R-5310] 15 p2750 N67-28656
Fission gas diffusion and release of cylindrical uranium oxide fuel rods
[HMI-B-49] 16 p2822 N67-29725
Reactor tests on high power density fuel bundle cores
[GEAP-5405] 16 p2823 N67-29726
Burning process of nuclear fuels - uranium 235 thermal fission yields and spectrophotometric method for determining technetium fission yields for uranium 233 and 235
[IN-1064] 16 p2824 N67-29856
Self-diffusion measurements and fission product transport and release mechanisms in high temperature nuclear uranium fuels
[BMWF-FBK-66-22] 17 p3107 N67-30220
Aqueous corrosion and irradiation behavior of uranium silicide nuclear fuel used in CANDU type reactors - energy cost
[AECL-2874] 17 p2998 N67-30942
Aerospace nuclear safety analysis of nuclear heat source for radioisojet thruster
[NASA-TM-X-55044] 18 p3294 N67-32111
Accurate nuclear fuel burnup analysis of capsule of plutonium 239
[GEAP-5403] 19 p3489 N67-32240
Acoustical thermometer for graphite matrix nuclear fuel element
[GA-7413] 19 p3495 N67-32298
Chromatographic separation of neodymium for measuring burn-up of irradiated nuclear fuel solutions using mass spectrometry
[TRG-1496/D/] 20 p3582 N67-34369
Radiochemical methods of determining nuclear fuel burnup
[UJV-1633] 20 p3685 N67-35119
Gas diffusion plant, organizational, uranium fuel, and manpower resources at Lanchow nuclear base, and rocket delivery capabilities
[JPRS-41810] 20 p3752 N67-35141
Uranium, scientific manpower, scientific research organizations, and gas diffusion plant resources of Lanchow nuclear base
20 p3622 N67-35143
Diffusion analysis on radiant heat transfer from gaseous nuclear fuel container to annulus of flowing hydrogen
[NASA-TN-D-4164] 21 p3947 N67-35784
Approximation analysis on deformation pressure and collapse of Zircaloy fuel rod cladding
[WAPD-TM-591] 21 p3887 N67-35787
Failure mechanism and crack formation in cylindrical fuel rod cladding due to plastic instability
[WAPD-TM-651] 21 p3887 N67-35789
Computer program for evaluation of irradiation tests on Zircaloy-clad bulk oxide fuel rods
[WAPD-TM-583, ADDEND. 1]
21 p3887 N67-35790
Thermal conductivity data on nuclear oxide fuels
[WAPD-TM-596, REV.] 21 p3947 N67-35791
Instrumented fuel assembly used to measure incore thermal and hydraulic characteristics of JPDR reactor
[JAERI-1136] 21 p3889 N67-36144
Short and long term criteria for plutonium fueled fast reactor systems
[KFK-569] 21 p3889 N67-36289
Production engineering for cylindrical seed and blanket type nuclear fuel pellets
[WAPD-TM-576] 21 p3890 N67-36297
Phase relations, production, and characteristics of substoichiometric oxide fuels - uranium oxide and uranium plutonium oxide
[KFK-543] 21 p3892 N67-36584
Design, operation, and rupture evaluation on Mark III nuclear fuel rod bundle with Inconel cladding
[GEAP-5416] 21 p3892 N67-36653
Uranium-plutonium nitride fuel developments and irradiation effects on reactor cladding material
[BMI-1798] 22 p4091 N67-37313
Destructive and nondestructive techniques

for measuring nuclear fuel burnup and neutron flux
[TRG-1494/D/] 22 p4001 N67-37333
Improving uptake of plutonium on uranium oxide gel spheres, decreasing attrition and losses of gel spheres, and determining plutonium distribution in contacted gel and fired oxide spheres
[BAW-3714-3] 22 p3988 N67-37486
Calculations on collisional coalescence of fission gas bubbles in solid nuclear fuels
[BMI-1805] 22 p4002 N67-37516
Chlorine fluorides for reprocessing Zircaloy clad uranium oxide and plutonium oxide nuclear fuels
[ANL-TRANS-478] 22 p3989 N67-37571
Integrated fuel and blanket processing for molten salt breeder reactor
[ORNL-TM-1852] 22 p4004 N67-37854
Irradiation behavior of uranium oxide-plutonium oxide and thorium oxide-plutonium oxide fuel assemblies
[AECL-2674] 22 p4004 N67-37875
Reactor cooling, materials, and safety - control rods, fuel subassemblies, and crack propagation tests
[BNWL-367] 22 p4006 N67-37988
Rodded uranium oxide fuel bundles for high power reactor output
[AECL-2945] 23 p4283 N67-38073
Design of Zircaloy-2 uranium oxide nuclear fuel elements for Canadian heavy water power reactor
[AECL-2949] 23 p4283 N67-38101
Trapping plant filter tests on iodine release from uranium fuel into vented reactor containment system
[AECL-2939] 23 p4289 N67-38696
Fission gas collection technique for quantitative gas retention measurements in irradiated molybdenum-uranium dioxide cermet fuel
[LA-3718] 23 p4210 N67-39297
Synthesis and fabrication of uranium nitride - diffusion, creep, crystallogenics, particle size distribution, and solubility of high temperature nuclear fuels
[UCID-15135, PT. 1] 23 p4292 N67-39318
Preparation of plutonium nitride as possible nuclear fuel
[AERE-R-5441] 24 p4402 N67-40505

NUCLEAR FUSION
Conferences on plasma physics and nuclear fusion activities
[NP-16154] 01 p0134 N67-10814
Nuclear fusion studies on plasma radiation and instability, electromagnetic wave probing, interaction of plasmoids with magnetic field barriers, and pyrometric probes
[AEC-TR-6473] 07 p1163 N67-17303
Nuclear fusion studies on plasma jet collisions, plasma oscillation stability, plasma beam oscillations, and diffusion perpendicular to magnetic field in universal instability
[AEC-TR-6674] 09 p1491 N67-19529
Plasma magnetohydrodynamic flow, waves, and oscillations, and applied plasma physics to controlled nuclear fusion 11 p1959 N67-22656
Plasma physics and controlled nuclear fusion conference papers
[AEC-TR-6760] 12 p2180 N67-24161
Nonlinear plasma wave interaction 12 p2182 N67-24179
Plasma instability and nuclear fusion
[NASA-CR-83937] 13 p2385 N67-25881
Technological advancements in nuclear fusion, plasma physics, magnetohydrodynamic flow, and related topics 14 p2596 N67-27094
Muon catalysis of chain fusion reactions
[CONF-661115-1] 16 p2933 N67-29789

NUCLEAR GYROSCOPE
Nuclear induction gyroscope used as angular velocity detector - gyrometer study utilizing nuclear magnetic resonance methods
[ONERA-PUBL.-118/1967/] 20 p3644 N67-35167

NUCLEAR HEAT
Primary cooling pump failure effects on nuclear core of fast reactor
[JUL-250-RE] 10 p1682 N67-21070
Heat gain to nuclear reactor elements from burnt out fuel
[JUL-316-RE] 10 p1684 N67-21090

NUCLEAR INTERACTION
Charged and neutral pion-pion resonances from pion-proton interactions
[BNL-10466] 01 p0129 N67-10853
Gamma rays investigated during interaction of neutrons with sodium, sulfur, chlorine, potassium, and lead
[USNRDL-TR-1043] 02 p0291 N67-12084
Energy, angular, and multiplicity distributions of gamma quanta produced by negative pi meson interactions with xenon nuclei
[JINR-P-2736] 03 p0443 N67-13270
Derivation of Adler-Weisberger relation and dispersion sum rules in theory of strong interactions
[JINR-E-2876] 04 p0584 N67-13385
Hellman-Feynman theorem used for internuclear separation derivatives of diatomic molecule energy
[NASA-CR-80738] 04 p0585 N67-13664
Generalized Hartree-Fock calculation for zirconium 90 using effective interaction
[CONF-660906-6] 04 p0586 N67-13964
Proton transfer reaction on carbon, aluminum, vanadium, silver, tantalum, and niobium target nuclei
[JINR-E-2834] 04 p0589 N67-14051
Two-particle spin-orbit nucleon-nucleon interaction of oxygen 16 and nitrogen 16 nuclei
[NASA-CR-61659] 05 p0742 N67-15032
Coulomb effects studied in energy states and particle emission of nuclear interaction 06 p0923 N67-15579
Shell model used to describe properties of light and heavy nuclei and nuclear reactions 06 p0934 N67-15649
Negative parity level shifts of O16 due to low momentum energy shell transitions calculated for neutrons and protons
[NASA-CR-81236] 06 p0941 N67-16629
Effective mass distributions and cross sections of multi-pion final states from pion proton interactions at 3.2 and 4.2 BeV/c
[UCRL-16881] 07 p1147 N67-17409
Nucleon-phonon interaction effects in nuclear model
[JINR-E-2772] 07 p1150 N67-17499
Pion-proton interaction in heavy liquid bubble chamber
[NP-16278] 07 p1152 N67-17541
Production of kaon antikaon pairs in pion-proton interactions
[UCRL-16833] 07 p1153 N67-17594
Nuclear interaction and trajectory spiral effects in reentrant cosmic ray albedo calculations
[NASA-TM-X-57252] 08 p1356 N67-18490
Beta decay and muon capture, with form factors describing weak nuclear interactions
[TH/171] 09 p1490 N67-20273
Phenomenological and microscopic analysis of properties of even-even nuclei - microscopic models
[AD-641192] 10 p1697 N67-20479
Approximation method with expanded wave functions for solving three-nucleon problem with central interaction
[JINR-P-2990] 10 p1702 N67-20903
Low energy pion-pion interaction from particle decay
[UCRL-17088] 10 p1711 N67-20963
Chemical reaction products from nuclear transformation of iridium IV hexachloro-complexes for thermal and gamma radiation curing
[JUL-181-RC] 10 p1574 N67-21061
Massless spinor interaction with massive vector mesons in two dimensions
[NYO-1932-115] 10 p1718 N67-21477
Monte Carlo method used to study neutron interactions with matter
[ORNL-TR-1380] 10 p1724 N67-21581
Scanning and measuring projector for particle interactions from bubble chamber photographs
[COO-1195-81] 10 p1635 N67-21600
Many particle mechanism of interaction of cosmic rays with atomic nuclei
[JINR-P2-3065] 10 p1737 N67-21630
Introduction to charge exchange scattering 11 p1923 N67-22122
Interaction of neutrons with uranium-235 to determine average cross sections of fission and radiation capture
[FTD-HT-66-336] 11 p1925 N67-22443
Total reaction cross sections for high energy alpha particle interactions with chromium, iron, nickel, cobalt, copper, and zinc nuclei
[NP-583/PL] 11 p1928 N67-22911
Hyperon-nucleon interactions and associate production on deuteron
[TH/175] 11 p1940 N67-23090
Unified explanation of forbidden modes of decay by introducing meso-strong interactions between baryons and mesons 11 p1940 N67-23096
Final state lambda hyperon-neutron interactions in reaction gamma plus deuteron yields positive kaon plus lambda hyperon plus neutron
[TH/176] 11 p1941 N67-23060
Cross sections for double charge exchange of pions by nuclei calculated by Monte Carlo method
[JINR-P2-3064] 11 p1942 N67-23191
Inelastic interaction role in calculation of extended air shower characteristics
[NASA-CR-83530] 11 p1972 N67-23236
Nuclear reactions involving two-body interaction and existence of resonating states
[CEA-R-2985] 12 p2163 N67-23718
Correlative force effects on Coulomb interaction of nucleons in nuclei
[JINR-P4-2961] 12 p2170 N67-24071
Residual interaction in nuclei using single particle potential of generalized Hartree-Fock method
[JINR-E4-3034] 12 p2171 N67-24084
Resonances in proton-alpha and alpha-proton reactions in light nuclei
[NP-16461] 12 p2172 N67-24097
Energy level of oxygen-19 nucleus calculated with nucleon interaction model and group theory techniques
[NP-16415] 12 p2172 N67-24098
Quasi-elastic antiproton-proton interaction mechanisms
[NP-16423] 12 p2172 N67-24099
Collision induced luminescence phenomena in irradiated noble gas systems
[ARL-66-0180] 12 p2174 N67-24013
Multipole expansion of Woods Saxon potential, LYNNE code
[ORNL-TM-1709] 13 p2372 N67-25434
Electron-positron pair production in pion-nucleon interactions
[TH/190] 14 p2588 N67-27131
Nuclear physics nucleon-nucleon interaction models
[JINR-P4-3136] 15 p2768 N67-28325
Lambda hyperon-proton scattering and lambda hyperon-neutron interaction
[IC/67/16] 15 p2771 N67-28391
Interactions and fission product distributions of irradiated plutonium fuels with sodium
[LA-3697] 16 p2933 N67-29776
Model of weak interactions and applications to pi-and K-meson decays
[NUP-67-4] 16 p2951 N67-30011
Two-body interaction measurements in neutron cross section of beryllium at 14 MeV
[CEA-R-2986] 17 p3126 N67-30190
Polarization effects on nuclear structure
[INP-536/PL] 17 p3126 N67-31128
Weak interaction matrix elements between initial and final nuclear states and form factors
[TH/193] 17 p3140 N67-31491
Nuclear transformation theory and instability boundaries of nuclei and effects of assumed collisions of cosmic body material with antimatter
[NASA-CR-86637] 18 p3310 N67-32033
Experiment to detect interaction of photon with electric field with subsequent emission of two photons
[NASA-TM-X-1403] 18 p3311 N67-32331
Theory of resonant dissociative recombination 19 p3502 N67-32706
Proton proton and meson proton interactions with polarized proton targets
[UCRL-17433] 19 p3504 N67-32808
Classical methods of calculating neutronic interactions of multiplying media
[CEA-R-2949] 19 p3505 N67-32829
Elementary neutron-nucleus interactions, reactor constants, neutron cross section calculations by optical model and data processing for single-crystal fast-neutron scintillation spectrometry
[ANL-TRANS-168] 19 p3506 N67-32705
Bubble chamber study of elastic neutrino interactions, elastic production of hyperons, and single pion production
[CERN-67-12] 20 p3696 N67-34621
Calculation of energy level scheme of vanadium 52 by shell model
[ZFK-PHA-25] 21 p3902 N67-36697
Semiclassical and quantum theoretical

analyses for two particle interaction nucleon-transfer model
[YALE-1907-45] 22 p4111 N67-37965
Correlated proton pair emission during negative pion interaction with xenon nuclei
[INR-787/VI/PH] 22 p4112 N67-37999
Cosmic ray facility for study of strong interaction physics
[REPT.-03106-30-T] 23 p4336 N67-38135
Coupling coefficients for mesons passing through atmosphere taking into account nuclear interactions 23 p4298 N67-38225
Photon meson productions and electromagnetic couplings of baryonic resonances
[TH/210] 23 p4298 N67-38256
Condensation of Regge cuts, vanishing total cross sections, and twisting trajectories
[NP-16370] 23 p4302 N67-38505
NUCLEAR MAGNETIC RESONANCE
Derivatives of trifluoromethylsulfenyl chloride investigated by nuclear magnetic resonance 02 p0229 N67-12123
Spectrometer using polarized neutron beam for improved accuracy in high angle magnetic reflection measurements 03 p0394 N67-12619
Nuclear magnetic resonance techniques extended to continuous magnetic fields
[TP-596/1966/] 03 p0429 N67-12858
Summary reports on research in radioelements and analytical instrumentation - half-life determination, gamma spectra, spectroscopy, gas chromatography, and nuclear magnetic resonance
[MLM-1325] 04 p0501 N67-13637
Field stabilization of nuclear magnetic resonance spectrometers by means of samples coaxial and external to receiver coil 06 p0679 N67-15737
Continuous flow system constructed to study moderately fast reactions of polynuclear hydroxo complexes and organometallic compounds
[AFOSR-66-2739] 06 p0628 N67-16447
Approximate boron quadrupole coupling constant in dimethoxy borane relaxation
[TR-1] 08 p1233 N67-18395
Nuclear magnetic resonance study for determining structure of nitroso rubber 08 p1234 N67-18329
Chemical analyses, Raman and infrared spectra determinations, and nuclear magnetic resonance spectroscopy involving boron, carbon, oxygen, and nitrogen isotopes 08 p1242 N67-19343
Polymethyl methacrylate elongation effects on second moments of nuclear magnetic resonance spectrum
[FTD-TT-65-2007] 09 p1410 N67-19647
Nuclear magnetic resonance spectra applications in theoretical organic chemistry research
[FTD-HT-66-423] 09 p1411 N67-20191
Machine computation of nuclear magnetic resonance spectra
[AFML-TR-66-196] 10 p1587 N67-20704
Nuclear magnetic resonance study of water exchange from first coordination sphere of gadolinium ion
[UCRL-17069] 10 p1571 N67-20755
Nuclear magnetic resonance magnetic field discriminator and automation of magnetometer operation
[JINR-P9-3014] 10 p1634 N67-21533
Wideband, variable frequency nuclear magnetic resonance spectrometer for frequency range from 2 to 90 MHz
[IS-1477] 10 p1595 N67-21634
Microwave spectroscopy - electric field effects in nuclear magnetic resonance of fluids, expansion of velocity surfaces in spherical harmonics, and electron cross relaxation in dilute ruby 11 p1966 N67-22643
Gas chromatography and infrared and nuclear magnetic resonance spectroscopy procedures for characterizing bis phenoxyphenyl ethers
[NASA-CR-72196] 11 p1611 N67-22852
Magnetic resonance in doped crystal, nickel-copper alloy, europium compounds, and Mossbauer effect on iron beryllium compounds 12 p2189 N67-23644
Stabilization of magnetic field based on sensors of nuclear magnetic resonances
[FTD-TT-65-2045] 12 p2072 N67-24765
Nuclear magnetic resonance spectral analyses of platinum compounds with tertiary phosphines
[AFOSR-67-0417] 12 p2647 N67-24816
Electronic and nuclear paramagnetism and energy exchange mechanisms
[RADC-TR-66-627] 12 p2194 N67-24908
Water ethanol mixtures studied using nuclear magnetic resonance
[ISS-66/28] 13 p2372 N67-26694
Solid state physics research on nuclear magnetic resonance 14 p2661 N67-26819
Properties of nonaqueous electrolytes - preparation of electrolytes, nuclear magnetic resonance structural studies, and physical property determinations
[NASA-CR-72665] 14 p2474 N67-26828
Spectrometer for simultaneous NMR spectra, gas chromatography, relativistic collapse to Schwarzschild sphere, and Gibbs phenomenon 16 p2968 N67-29161
Electron spin resonance and nuclear magnetic resonance studies of radiation damage in solids
[NYO-2024-10] 16 p2941 N67-29328
Nuclear magnetic resonance spectrometer with automatic tuning to signal maximum
[FTD-HT-66-701] 16 p2893 N67-29405
Impurity and vacancy effect on nuclear magnetic resonance line shapes in intermetallic compounds
[IS-T-123] 16 p2852 N67-29869
Spin-echo nuclear magnetic resonance studies of internal rotation in 1,1-difluoro-1,2-dibromodichloroethane
[TR-7] 17 p3014 N67-30400
Radiospectrometer electromagnet for observing nuclear magnetic and electron paramagnetic resonance, and instability of electron flow in dielectric or semiconductor media
[FTD-TT-65-1548] 17 p3037 N67-30795
Radiospectrometer electromagnet for observation of nuclear magnetic and electron paramagnetic resonance 17 p3037 N67-30796
Nuclear magnetic resonance technique for high precision measurement of magnetic moment of helium 3 and hyperfine structure 18 p3209 N67-31915
Nuclear magnetic resonance measurement of impurities in magnetic garnets - ferromagnetic relaxation in metals and in magnetic oxides - ultrasonic attenuation in magnetic oxides 18 p3217 N67-32230
Chemical shift in nuclear magnetic resonance of fluoride ions in crystals and solutions, and internal friction peaks occurring during tempering of high and low carbon martensites
[FTD-TT-65-1051] 19 p3470 N67-33214
Chemical shift in nuclear magnetic resonance of fluoride ions in crystals and solutions 19 p3391 N67-33315
Anisotropy of nuclear magnetic resonance spectra of oriented polymers 19 p3477 N67-33494
Preparation, nuclear magnetic resonance structural studies, and physical property determinations of aprotic electrolytes in organic solvents
[NASA-CR-72377] 20 p3594 N67-34595
Nuclear induction gyroscope used as angular velocity detector - gyrometer study utilizing nuclear magnetic resonance methods
[ONERA-PUBL.-118/1967/] 20 p3644 N67-35167
Biochemistry, organic and inorganic material structural properties, molecular physics and biology, public health, metallurgy, and nuclear magnetic resonance spectroscopy
[AR-54] 21 p3951 N67-35530
Wide line nuclear magnetic resonance method for determining oil content in single kernel samples of corn and sunflower seeds
[NLIS-R-509] 21 p3785 N67-35785
Proton spin relaxation times of sodium-ammonia solutions measured by nuclear spin resonance 21 p3784 N67-36149
Phosphorus nuclear magnetic resonance measurements in NaCl-type rare earth group VA intermetallic compounds 21 p3910 N67-36313
High resolution and spin echo nuclear magnetic resonance analyses of internal rotation in 1-fluoro-1,1,2,2-tetrachloroethane
[TR-10] 21 p3792 N67-36498
Nuclear magnetic resonance method for studying solubility of helium and hydrogen in liquid nitrogen
[NASA-TT-F-10602] 22 p3982 N67-36732
Polonium-210 half-life determination, polonium fluorine neutron sources, uranium-234 separation and purification, neutron activation analysis and nuclear magnetic resonance
[MLM-1388] 22 p3989 N67-37617
Polarization of indium nuclei in ferromagnets and nuclear magnetic resonance of polarized cobalt in iron
[UCRL-17586] 23 p3999 N67-37689
Nuclear magnetic resonance relaxation of oxygen 17 in aqueous solutions of ferric ion
[UCRL-17561] 23 p4306 N67-38063
Nuclear magnetic resonance method for differential measurements in geomagnetic field
[JPRS-43048] 24 p4437 N67-39576
Spin generator and applications in magnetometry, constant magnetic field stabilizers, and nuclear magnetic resonance spectrometry
[FTD-HT-66-479] 24 p4434 N67-40363
NUCLEAR PARTICLE
SA BARYON
SA MESON
SA MUON
SA NEUTRON
SA POSITRON
SA PROTON
Preparation of lithium-drifted semiconductor nuclear particle detectors
[NASA-CR-79718] 01 p0140 N67-10874
Literature survey of radiochemical cross sections below 425 MeV
[NASA-CR-79196] 02 p0230 N67-12214
Evidence for baryon minus eta enhancement near threshold
[COO-881-75] 03 p0443 N67-12365
Orbital angular momentum of polarized sigma-positive decay
[COO-881-76] 03 p0444 N67-12379
Quantum system with three or four identical spinless particles of specified mass interacting through pair forces 06 p0630 N67-15565
Particle emission, energy levels, and decay states due to gamma quantum studied in nucleon clusters during deep photodisintegration of light nuclei 06 p0681 N67-15629
Proton and neutron single-particle level in diffuse potential well with spin-orbit calculated for Z greater than 82 and N greater than 126
[JINR-P-2793] 07 p1151 N67-17560
Search through nuclear reaction for trineutron stable particle
[ORNL-P-3412] 07 p1153 N67-17554
Nuclear particle counters using n-p type and homogeneous semiconductors
[FTD-MT-65-136] 10 p1633 N67-21807
Quark model of backward scattering
[JINR-E1-2941] 10 p1722 N67-21880
Angular distribution of sputtered heavy particles from tantalum or graphite targets and of scattered particle from gadolinium 150 ion beam
[SGAE-PH-50/1966] 13 p2381 N67-26315
Superconducting thin film for detection of nuclear particles
[AD-634684] 15 p2789 N67-27962
Instrumentation for nuclear particle detection in spark and bubble chambers, digitized readout systems, and automatic scanning processes
[CONF-660918] 17 p3063 N67-30065
Description of large liquid filled bubble chamber for particle tracking 17 p3065 N67-30973
Digital time sorter for improved resolution of nuclear detectors 17 p3066 N67-30985
Primary cosmic radiation by tracks of nuclear particles in meteorites and tektites
[NASA-CR-86636] 18 p3222 N67-31988
Fortran computer program employing optical model for calculating elastic scattering from collision of nuclear particles
[USC-136-119] 19 p3509 N67-32794
Determination of electromagnetic form factors of spin 1 particle
[JINR-P2-3237] 19 p3595 N67-33201
Accuracy of approximate methods in superfluid nuclear model
[JINR-P4-3124] 19 p3512 N67-33951
Highly interacting particle photoproduction with absorption of 5 to 6 GeV bremsstrahlung in thick copper and lead targets
[ORNL-TR-1534] 20 p3692 N67-34315
Neutron bombardment influence on certain properties of tungsten
[JPRS-42211] 20 p3712 N67-34330
Elastic electron scattering from nuclei and nucleon-nucleon correlations
[INF-540/PL] 20 p3694 N67-34494

Research papers presented at Atomic Energy Commission Nuclear Cross Sections Advisory Group Meeting at Argonne, Illinois
[WASH-1071] 20 p3699 N67-34972
Nuclear particle identification solid state detector telescope systems
[TR-163] 21 p3848 N67-35889
Particle transport and dispersion model for estimating air concentration and deposit density of SNAP fuel particles in atmosphere
[SC-CR-67-2534] 22 p4039 N67-37592
Coincidence measurements of absolute cross sections for breakup of deuterons by 42 MeV alpha particles
[NASA-TN-D-4203] 23 p4299 N67-38220
Strong decays of baryonic resonances in baryons, pseudoscalar mesons, and SU/3/ symmetry
[TH/214] 23 p4312 N67-39052
Computer program for aerosol fall and dispersion in atmosphere for nuclear particle safety hazard analysis
[SC-CR-67-2530] 24 p4437 N67-39640
ODRA 1003 digital computer program for computing angular distributions for elastic scattering of particles on atomic nuclei
[INP-532/PL] 24 p4503 N67-40457

NUCLEAR PHYSICS
SA FEYNMAN DIAGRAM
SA PLASMA PHYSICS
SA REACTOR PHYSICS
Nuclear physics research - cyclotron, betatron, low energy and theoretical physics, high energy events in nuclear emulsions, magnetic resonance, and atomic physics experiments
[AD-632349] 01 p0120 N67-10369
Biochemistry, organic and inorganic chemistry, molecular and nuclear physics, and metallurgy
[AR-53] 01 p0028 N67-10453
Bibliography of publications on quantum field theory, Regge poles, cosmic radiation, elementary particles, and radiation detection
[AED-C-12-13, PT. III] 01 p0134 N67-10654
Nuclear research activities - reactors, equipment, fuel processing, isotopes, theory, chemical and biological studies, electronics, health and radiation medicine, and atmospheric radiation
[NP-16171] 01 p0128 N67-10665
Investigation of positronium and annihilation in particle physics and nuclear decay experiments
[AROD-3347-7] 02 p0291 N67-12200
Nuclear physics technology studies on particle decay, fission, directional correlation, reactor components, neutron cross section, and related topics 03 p0432 N67-12541
Certain technological developments in nuclear physics 03 p0432 N67-12542
Nuclear physics problems studied in light of hypernuclei concept 03 p0435 N67-12564
Search for long living lambda particles
[JINR-P-2849] 03 p0446 N67-13310
Extension of atomistics to part of space unoccupied by particles - new version of field theory of ether with globular structure
[RIFP-55] 04 p0586 N67-12964
Polish articles on neutron activation analysis, trace elements, reactor technology, and nuclear physics and chemistry
[AEC-TR-4919] 06 p0821 N67-16221
Pressurized electrostatic accelerator for Polish studies on physics of atomic nuclei 06 p0862 N67-16223
System for evaluation and processing of nuclear data for reactor calculations
[NAA-SR-11900, VOL. I] 06 p1319 N67-18892
Physics related topics including proton transfer reactions, computer uses, and mass spectrometry
[ANL-7318] 06 p1344 N67-19058
Thermal conductivity of rhenium and problem notes in chemistry, electricity, aluminum alloy fracture toughness, metallurgy and ceramics, nuclear and atomic physics, and optical physics
[PB-173549] 09 p1486 N67-19963
Cost estimates of bubble chamber events for different scanning and measuring methods
[UCRL-17006] 09 p1421 N67-36150
Effective forces in nuclei from nucleon-nucleon force
[PUC-937-229] 10 p1701 N67-20787
Angular distributions of products of proton transfer in weakly bound states
[JINR-P-3794] 10 p1712 N67-20906
Neutron spectrometry in natural uranium assembly using lithium 6 /neutron, triton/ helium 4 reaction and surface barrier junction
[EUR-2981.F] 10 p1575 N67-21155
Nuclear physics research using tandem accelerator
[PR-P-72] 10 p1716 N67-21210
Research in nuclear, general, neutron, and theoretical physics
[AECL-2610] 10 p1718 N67-21485
Bibliography on nuclear sciences, reactor technology, physics, and radiation medicine
[JUL-BIBL-7] 10 p1731 N67-21748
Nuclear and atomic physics, thermodynamic properties of matter, and radiation and plasma physics
[UCRL-14744] 11 p1934 N67-22130
Theoretical and experimental aspects of nuclear and atomic physics 11 p1934 N67-22131
Compilation of abstracts on research reports, presentations, and publications in nuclear physics
[ANL-7247] 11 p1935 N67-22330
Low energy behavior of 7 equals zero, S-wave, pion-pion scattering phase shift and possible scalar meson nonet 11 p1939 N67-22951
Two-nucleon emission process in negative pion meson absorption
[RIFP-59] 11 p1939 N67-22952
Tomonaga field theory development and applications to quantum electrodynamics and elementary particles 11 p1939 N67-22954
Elementary particle structure, based on Sukarta quark-type model 11 p1939 N67-22956
Studies in electronics, optics, thermodynamics, and nuclear physics, and related instrumentation
[FTD-MT-64-178] 12 p2152 N67-23501
Nuclear physics studies of energy levels, particle decay, and gamma transitions
[UCD-CNL-67] 12 p2162 N67-23742
National Bureau of Standards linear electron accelerator 12 p2075 N67-24064
Computer control of Los Alamos Meson Physics Facility 12 p2061 N67-24132
Experimental and theoretical studies in electron scattering
[AD-646244] 12 p2173 N67-24887
University research in nuclear physics, lasers, thermodynamics, hydrodynamics, radiation physics, and programming
[UCRL-50001-66-1] 13 p2333 N67-25400
Nuclear physics technological developments
[PAECL/NP-5] 13 p2374 N67-25593
Research work in fields of elementary particle physics, nuclear physics, solid state physics, and electromagnetic interactions
[ISS-66/35] 13 p2380 N67-26102
Compilation of research activities in plasma physics, solid state physics, low temperature physics, low and high energy nuclear physics, and history of science
[NUP-67-2] 13 p2380 N67-26159
Equipment at Agesta Nuclear Power station in Sweden
[AE-269] 13 p2363 N67-26463
Theoretical and experimental research in solid state physics, nuclear physics, plasma physics, and general physics conducted at Illinois University 14 p2580 N67-26611
Scientific research in atomic physics, solid state physics, and radio and X-ray astronomy
[NASA-CR-84299] 14 p2584 N67-26616
Atomic research on metastable atoms, resonance spectroscopy, and collision phenomena 14 p2584 N67-26617
Research activities in theoretical and experimental nuclear physics
[AD-647915] 14 p2586 N67-26892
Need in U.S.S.R. for increased production of nuclear geophysical and X-ray spectral analyses instrumentation and equipment
[JPRS-40534] 14 p2537 N67-27294
High energy research, cosmic ray research, nuclear physics, theoretical physics, and plasma physics experiments
[UCRL-17282] 14 p2592 N67-27584
Tunnel diode applications in fast electronic circuits used for nuclear physics
[UJV-1675] 15 p2679 N67-28408
Physics and applications of meson factories
[LA-DC-8598] 15 p2768 N67-28533
Nuclear physics nucleon-nucleon interaction models
[JINR-P4-3136] 15 p2768 N67-28535
Neutron and scattering cross section, elastic scattering, angular correlation, and decay data
[AEET-267] 16 p2943 N67-29237
Nuclear democracy, high energy elastic scattering, and Regge parameters dominating high energy behavior
[TUEP-67-11] 16 p2943 N67-29440
Nuclear physics experiments involving Brookhaven cosmotron
[BNL-11035] 16 p2946 N67-29710
Advanced Test Reactor /ATR/ noise research, and effects of flux techniques and outer shim positions on power distribution
[IN-1048] 16 p2935 N67-29888
Biophysics, genetics, bacteriology, and nuclear physics - conference papers
[ISS-66/50] 16 p2836 N67-29979
State-of-art in computer controlled fast-logic circuits for high energy physics experiments 17 p3041 N67-30980
Electronic circuitry for scintillation counters in high energy physics 17 p3041 N67-30987
State-of-art in bubble chamber and large magnetic field developments 17 p3067 N67-31011
Electronics, photomultipliers, Cerenkov counters, and new detector devices for high-energy physics 17 p3068 N67-31013
Nuclear, neutron, theoretical, and general physics research progress report
[AECL-2687] 17 p3139 N67-31445
Nuclear physics and chemistry experiments conducted in German tandem accelerator and cyclotron research facilities
[AR-3] 18 p3311 N67-32341
Research projects and facilities of Illinois University physics department counter and spark chamber and bubble chamber groups
[COO-1195-91] 19 p3505 N67-32343
Neutron physics, nuclear reactions with charged particles, spectroscopy, muonic X-rays and nuclear structures, neutron interactions with matter, neutron gas kinetics, and instruments
[NYO-GEN-72-122] 19 p3507 N67-32583
Nuclear technology application of column crystallization and comparison with zone melting methods
[KFK-502] 19 p3396 N67-33728
Nuclear physics, radioactive dating and fallout, radiation and isotope applications, and isotope geochemistry research and instrumentation
[INS-229] 20 p3693 N67-34339
Nuclear and atomic physics research summaries, and annotated report bibliography
[ANL-7284] 20 p3701 N67-34976
Solid state detectors used in nuclear physics research
[PAECL/NP-6] 21 p3853 N67-36522
High conversion critical experiments for extending range of measured nuclear parameters of light water moderated slightly enriched uranium dioxide lattices
[ANL-7203] 21 p3893 N67-36595
Neutron crystal spectrometer for research and training
[CNAEM-33] 22 p4045 N67-37075
Atomic and molecular physics of hyperfine structures by molecular beam method
[AD-656734] 22 p4103 N67-37091
Nuclear physics research with emphasis on proton-proton reactions, proton scattering and polarization, and shell structure
[ORNL-4122] 22 p4105 N67-37379
Lithium-6 and lithium-7 isotope data for Evaluated Nuclear Data File /ENDF-B/ tape
[LA-3695-MS] 22 p4106 N67-37438
Instrumentation and facilities planning for meson physics program
[LA-3712-MS] 22 p4107 N67-37585
Nuclear and theoretical physics studies at University of Montreal
[LPN-UM-5] 22 p4107 N67-37712
Instrumentation and control systems for nuclear physics research
[ORNL-4091] 23 p4251 N67-38301
Experimental and theoretical high energy physics research projects
[TID-4095, PT. 6, REV.] 23 p4300 N67-38544
Argonne National Laboratory Physics Division summary report
[ANL-7312] 23 p4294 N67-38421
Graphic representation of spherical harmonics, tensor, and rotation matrices of nuclear physics problems
[LYCEN-6663] 23 p4314 N67-38906
Jet analysis of pion-proton interactions
[INR-P-307/VI/PH] 24 p4429 N67-39439

Excited states of gadolinium 155
[INP-546/PL] 24 p4498 N67-39431
Nuclear physics laboratory progress summary, including cyclotron work, atomic beams research, and nuclear theory and reactions studies
[PUC-937-360] 24 p4505 N67-40573
NUCLEAR POWER
Isotopic battery using strontium 90 decay for energy source 06 p1308 N67-18330
Future neutron cross section needs for nuclear power industry 06 p1318 N67-18864
Dynamic property, reactivity, power distribution, and fine structure measurements of Agesta reactor
[AE-244] 12 p2147 N67-23901
Reactivity, power distribution, and fine structure measurements in Agesta reactor 12 p2148 N67-23903
Integral fuel rod spacer fabrication techniques
[WAPD-TM-580] 13 p2359 N67-25527
Influence of development and installation of fast breeder reactors on future role of plutonium
[RM-5148-PR] 14 p2574 N67-26712
Attaining high neutron flux by operating small number of fuel elements at very high specific powers and by using very light lattice to achieve long neutron lifetimes
[DP-1076] 19 p3467 N67-32956
Chemical research in atmosphere purification and control on nuclear powered submarines
[NRL-6491] 19 p3385 N67-33761
Utilization of thorium in nuclear power reactors
[AEET-269] 20 p3682 N67-34487
Reactivity properties of Agesta nuclear power reactor at zero power
[AE-269] 21 p3887 N67-35790
Out-of-pile power excursion tests - energy dissipation, flux, adiabatic heating of plates, and air pressurization
[ANL-TRANS-468] 21 p3890 N67-36510
Boiling water capsule for continuous power measurements on irradiated fuel rod
[EURAEC-1867] 23 p4292 N67-39333
Initial planning of wide range digital nuclear instrumentation channel for reactor power level monitoring and displaying
[NYO-3738-7] 24 p4454 N67-40402
NUCLEAR POWER CONVERSION
Nuclear energy in aerospace technology - space power reactor developments, thermionic energy conversion techniques, and emitter materials
[DLR-MITT.-66-07] 06 p1307 N67-18221
Development of inpile nuclear thermionic energy converter 06 p1308 N67-18236
Emitters with carbide fuel for nuclear thermionic converters 06 p1308 N67-18238
Design and performance of SNAP-8 nuclear reactor simulator for nonnuclear testing of space power systems
[NASA-TN-D-4095] 18 p3295 N67-32371
Use of radioisotopic generators as electric power sources
[JPRS-42391] 21 p3893 N67-36838
Parametric screening studies, system definitions, and experimental verification to determine electrical component technology for 0.25 to 10.0 megawatt space power system
[SAN-679-2] 24 p4377 N67-39752
Design study for electrical components for 0.25 to 10.0 megawatt space power systems using Rankine conversion cycle
[SAN-679-1] 24 p4377 N67-39754
NUCLEAR POWER PLANT
SA ML-1 NUCLEAR POWER PLANT
Solar and nuclear power plants for future space missions 01 p0008 N67-10371
Nuclear research ship and its reactor power plant
[EUR-3066.D] 02 p0386 N67-11906
Operational performance and procedures for Agesta nuclear power and heating station
[AE-246] 03 p0421 N67-12461
Summary of plant circuits for Agesta nuclear power and heating station 03 p0421 N67-12462
Operational summary for Agesta nuclear power plant from 1964 through 1966 03 p0422 N67-12463
Heavy water components for Agesta nuclear power plant 03 p0422 N67-12464
Operational procedures for Agesta nuclear power plant warm-up and cool-down 03 p0422 N67-12465
Instrumentation and control for Agesta nuclear power plant 03 p0422 N67-12466
Fuel and control rod operations for Agesta nuclear power plant 03 p0422 N67-12467
Water chemistry control for stress corrosion prevention in Agesta nuclear power plant 03 p0422 N67-12468
Operational radiation hazards of Agesta nuclear power plant 03 p0422 N67-12469
Electrical installations for Agesta nuclear power plant 03 p0423 N67-12470
Reactor physics experiments with various fuel elements in Agesta nuclear power plant 03 p0423 N67-12471
Nuclear power plants construction cost analysis with possible cost reduction
[EUR-3093.D, PT. I AND II] 03 p0423 N67-12476
Heavy water leakage due to cracks in Inconel inspection tubes at Agesta nuclear power station
[AE-346, SUPPL.] 03 p0401 N67-12635
Fouling, corrosion, and heat transfer study for underwater nuclear power system
[R-470] 03 p0427 N67-13036
Construction and operational development of nuclear power plant in West Germany
[EUR-3067.D] 04 p0573 N67-13440
Latina nuclear power plant
[EUR-3115.I] 04 p0575 N67-13720
Steady state and transient measurements on forced recirculation boiler steam drum
[AEEW-M-631] 04 p0623 N67-14016
Development and operation of 50 MWe nuclear power plant
[EUR-3116.N] 04 p0580 N67-14336
Emittance and thermal cycling tests of stainless steel tubes coated with iron and calcium titanate, and niobium-zirconium tubes coated with iron titanate
[NASA-CR-72149] 06 p0902 N67-16569
Control system set points for use during initial plant tests and operation of nuclear power plant
[NYO-3356-7] 07 p1123 N67-17523
European aspects on developments of middle-range electric space power plants 08 p1285 N67-18223
Design study of nuclear thermionic power plant for space vehicle 08 p1307 N67-18223
Reactor shielding at minimum weight for nuclear thermionic space power plant 08 p1309 N67-18232
Reactor shutdown procedures for nuclear power plants 09 p1478 N67-19448
Applications of fluidic multiplexer in nuclear plants 10 p1610 N67-21115
Tissue dose equivalent rates from cosmic ray neutrons and in low level environment of reactor
[PG-734] 12 p2021 N67-23754
Power distribution and initial reactivity calculations for mobile nuclear power plant reactor
[ORNL-TM-1654] 13 p2358 N67-25507
Design of thermionic reactor power source for unmanned spacecraft
[BMWF-FBK-66-30] 13 p2362 N67-25936
Research program for nuclear power plant
[EURAEC-1653] 15 p2746 N67-28314
Improved components for sodium-cooled nuclear power plants
[ORNL-3955, VOL. I] 16 p2935 N67-29814
Use of plutonium as fuel in nuclear reactors
[EURAEC-1774] 19 p3494 N67-33861
Alternating current circuit breakers and direct current engine contactors for space nuclear electrical systems
[NASA-CR-54401] 23 p4236 N67-38613
Air cleaning filters and systems for reactor control and environmental safety, contamination prevention, aerosol exhaust, and fission product confinement and containment
[CONF-660904, VOL. I] 23 p4287 N67-38880
Sources, effects, and radiation aspects of sodium coolant spill and aerosol transport in nuclear power plant 23 p4288 N67-38882
Performance of air filtration and adsorption system in ventilation exhaust of nuclear power plant 23 p4289 N67-38896
Gaseous waste disposal and monitoring system for radioactive contaminant removal from nuclear plant exhaust 23 p4290 N67-38903
Nuclear reactor sites global distribution in relation to air pollution 23 p4291 N67-38900
Pebble bed reactor compared to gas turbine coupled reactor to achieve optimum gas cooled reactor design for nuclear power plant
[THTR-32] 23 p4293 N67-38944
Technical dust control and air filtering systems for industrial plants - particle pollution density measurement in asbestos processing, and radioactive aerosol filters in nuclear plants
[TT-66-51159/10] 24 p4556 N67-40516
Efficiency and permeability of high efficiency fiber filters for polluted air in nuclear plants 24 p4557 N67-40522
Efficiency of asbestos - cellulose and glass fiber filters in air filtration systems of large nuclear plants 24 p4557 N67-40523
NUCLEAR PROPULSION
Nuclear ship propulsion - Bibliography
[AED-C-22-06] 03 p0420 N67-12323
Production of slush hydrogen for nuclear rocket propulsion testing
[NASA-CR-51185] 06 p0951 N67-15455
Conference papers on radioactive isotopes, power reactors, nuclear propulsion, radiation therapy, and related topics
[DP-1066, VOL. I] 06 p0950 N67-15525
Isotope power for nuclear propulsion and reactor fuel applications 06 p0950 N67-15527
Atomic rocket, electric rocket engine, and space atomic electric power supply research
[FTD-MT-66-23] 11 p1971 N67-23359
Manned and unmanned space flights, ground support system, international cooperation, and advanced technology and nuclear propulsion - NASA report for January through June 1966
[NASA-TM-X-58654] 12 p2440 N67-23648
Cryogenic research facilities for high thrust nuclear space propulsion systems
[LA-DC-8725] 21 p3880 N67-35905
Characteristics of radioactive pollutant from ground testing of nuclear propulsion reactors
[LA-DC-8534] 21 p3888 N67-35906
NUCLEAR RADIATION
SA GAMMA RADIATION
Disturbance of capacitance liquid level gauges by nuclear radiation
[LA-DC-7654] 01 p0108 N67-10701
IBM 7040 computer program for computing potential radiological doses resulting from release of radioactive fission products into atmosphere - nuclear safety
[IDO-17151] 03 p0427 N67-12348
Gamma transition analysis of holmium 160 decay mode
[JINR-P-2817] 05 p0740 N67-14683
Transient radiation effects on power reactor thermocouples determined at various levels of nuclear radiation
[NASA-CR-81333] 06 p0915 N67-16621
Infrared spectra of plastics and elastomers after nuclear irradiation
[ORO-3418-1] 07 p1106 N67-17301
Embrittlement of steels by neutron radiation
[EURAEC-1691] 07 p1101 N67-17544
Reliability of electronic components in nuclear radiation environment
[NASA-CR-81582] 07 p1065 N67-17969
Fluorocarbons used for chemical dosimetric determination of gamma and fast neutron doses in nuclear reactor radiation fields
[SGAE-CH-48/1966] 08 p1322 N67-19187
Mechanical properties of pyrolytic and single crystal graphite examined to determine effects of neutron damage
[TID-23396] 10 p1661 N67-20751
Conference on Soviet industrial applications of radioactive isotopes and nuclear radiations
[AEC-TR-6466/3] 10 p1640 N67-21221
Radioisotopes and nuclear radiation methods in metallurgy and mining operations and research 10 p1654 N67-21247
Conference papers on U.S.S.R. uses of radioactive isotopes and nuclear radiation in locating, prospecting, and exploiting mineral resources
[AEC-TR-6466/4] 10 p1621 N67-21281
Nuclear radiation in X-ray fluorescence spectrometry, and application to identifying minerals 10 p1577 N67-21307
Radioactive isotopes and nuclear radiations for studying geological section and technical condition of wells 10 p1635 N67-21308
Nuclear radiation damage to semiconductor devices and materials, and effect on performance characteristics
[ARD-66-42R] 10 p1751 N67-21323
Neutron-gamma Monte Carlo transport code to provide differential data for use in

mapping initial radiation environment created by nuclear detonation
[NDL-TM-35] 10 p1589 N67-21854
Nuclear and space radiation effects on materials and components used in space vehicles
[NASA-TM-X-53556] 12 p2168 N67-24547
Application of radioactive isotopes and nuclear radiation to construction of building materials industry, light industry, and medicine in U.S.S.R. - Conference
[AEC-TR-6466/2] 13 p2150 N67-24557
Radiometric methods for determining boron distribution in steel during irradiation with thermal neutrons
[SGAE-IB/IA-12/1966] 13 p2272 N67-26118
Nuclear radiation effects on reverse breakdown voltage, reverse leakage current, series resistance, transition time, storage time, and carrier lifetime of step recovery diodes
[HDL-TR-1339] 14 p2506 N67-27002
Nuclear and gamma radiation effects on electronic equipment 16 p2867 N67-29149
Nuclear radiation effects on semiconductor materials, device surfaces, and devices
[AFCRL-67-0068] 16 p2868 N67-29514
Neutron irradiation effect on mechanical property and grain size in iron
[SORIN-100] 16 p2911 N67-29929
Electronic equipment for measuring nuclear radiation effects in silicon p-n junctions
[COO-1634-6] 17 p3035 N67-30330
Cross section calculation for dipole gamma quanta absorption in photodisintegration of nitrogen 15 nucleus
[JINR-P4-3177] 17 p3136 N67-30327
Dielectric leakage current from capacitors exposed to nuclear radiation
[SC-TM-66-3625] 17 p3089 N67-31319
Effects of spontaneous fluctuations in application of semiconductor diodes as detectors of nuclear radiation
[DISS-3845] 18 p3312 N67-32469
Nuclear radiation effects on oxidized silicon surfaces
[SC-CR-67-2571] 19 p3526 N67-33953
Portable instrument design for measuring radioactive contamination in foodstuffs after nuclear accident
[EUR-3265.F] 20 p3638 N67-34090
Dead time corrections for losses in slow particle counting rate systems
[HEPL-481] 21 p3898 N67-35432
Spontaneous fluctuations in application of semiconductor diodes as nuclear radiation detectors
[NP-16027] 23 p4228 N67-39206

NUCLEAR REACTION
SA FISSION
SA FUSION
SA INELASTIC SCATTERING
SA RESONANCE SCATTERING
SA SPALLING

Automatic control system for sample transport in investigation of nuclear reaction products
[INR-696/I/PL] 01 p0055 N67-10060
Experimental photonuclear reaction data on isotopes and nuclides - tables 01 p0120 N67-10441
Charge exchange reaction negative pion plus proton yields neutral pion plus neutron investigated at 2.8 GeV/c
[ITEF-401] 01 p0127 N67-10740
Using extracted beam of electron synchrotron to study reactions /e,e prime p/, /e, prime n/, and /e, e prime alpha/
[ISS-66/20] 01 p0127 N67-10774
Pion meson capture by helium 3, nuclear decay reactions, and pulse spectra of secondary charged particles
[JINR-P-2805] 01 p0129 N67-10845
Gamma rays measured from nuclear reactions on vibrational nuclei
[INSJ-98] 01 p0130 N67-10902
Deuterium deuteron-neutron helium 3, and tritium deuteron-neutron helium 4 reactions for fast neutron radiation meter calibrations
[NP-16304] 01 p0130 N67-10911
Statistical theories of nuclear collision cross sections 02 p0433 N67-12546
Vanadium 51 proton-neutron chromium 51 reaction mechanism 02 p0434 N67-12554
Carbon 13 alpha-neutron oxygen 16 and vanadium 51 proton-neutron chromium 51 reactions 02 p0434 N67-12556
Two-nucleon stripping reaction calcium 40 helium 3-proton scandium 42 03 p0434 N67-12559
Spins and proton-gamma ray angular correlation measurements in magnesium 26 deuteron proton gamma magnesium 27 reaction 03 p0435 N67-12560
Two-parameter analyzing facility for coincidence experiments in nuclear reactions 03 p0434 N67-12615
Stochastic nonlinear system with correlation in nuclear reactor theory
[EUR-3074.E] 03 p0427 N67-12892
Nuclear reaction and structure studies by modified Van de Graaff accelerator
[AEET-254] 03 p0441 N67-12900
Hydrogen/deuterium isotope effects in formation of hydrogen from combination of two radicals in aqueous solutions
[IA-1074] 03 p0361 N67-12367
High temperature nuclear fission detection using mica and quartz glass
[JINR-P-2795] 03 p0444 N67-12278
Determination of deuterium /deuteron, neutron/ helium 3 and tritium /deuteron, neutron/ helium 4 nuclear reaction yields in thick targets at energies up to 100 keV
[NP-16303] 03 p0445 N67-12291
Activation cross section of neutron reactions in selenium and iron samples measured with high resolution detectors at 14.4 MeV
[ORO-3346-2] 03 p0445 N67-12300
Design and performance of beta spectrometer for measurements of nuclear reaction conversion electrons
[INSJ-99] 03 p0400 N67-12313
Neutron cross sections of germanium at 14.4 MeV measured
[ORO-3346-3] 03 p0446 N67-12327
Alpha, deuteron reaction on calcium 40 nuclei using alpha particle beam
[REPT.-478/PL] 04 p0585 N67-13765
Analysis of decay reaction of type neutron to positive pion negative pion gamma
[UCRL-16923] 04 p0588 N67-14011
Multinucleon transfer reaction, and energy distributions of fluorine 18 reaction products
[JINR-P-2813] 04 p0589 N67-14022
Sulfur 32 deuteron-proton direct and compound nucleus reactions
[LA-DC-8082] 05 p0771 N67-14689
Proton spectra of transition states at saddle point of fissioning plutonium 239 and plutonium 240 nuclei
[LA-DC-7878] 05 p0741 N67-14694
Direct nuclear reactions, interaction of nuclei with heavy ions, reactions induced by charged particles and neutrons, and radiative capture and photonuclear reactions - conference
[AEC-TR-6465] 06 p0920 N67-15561
Stripping and other direct nuclear reactions characteristic of particle energies of less than 30 or 40 MeV 06 p0921 N67-15567
Angular distribution and spectra of direct reactions on light and medium weight elements at neutron energy of 14 MeV 06 p0921 N67-15572
Extracting reduced widths in deuteron stripping reactions 06 p0922 N67-15573
Energy dependence of differential cross sections of deuterons during formation of compound nucleus in silicon reaction 06 p0922 N67-15574
Polarization of neutrons in stripping reaction on carbon analyzed by elastic scattering 06 p0922 N67-15576
Energy dependence of angular distributions of four long-range proton groups in boron nuclear reaction 06 p0922 N67-15577
Unified theory of nuclear reaction that agrees with Bohr theory 06 p0923 N67-15582
Radiative capture, inelastic scattering, and polarization in reactions of nucleons with nuclei described by optical model 06 p0923 N67-15584
Optical model to calculate elastic scattering and reaction cross sections of deuterons on helium 4 06 p0927 N67-15607
Accuracy of evaporation model to represent reactions induced by 14 MeV neutrons and for nuclei with atomic number between 10 and 40 06 p0927 N67-15611
Angular distributions and correlations of inelastically scattered protons in carbon nuclear reaction 06 p0928 N67-15613
Irradiation of nuclear photoemulsions by heavy ions 06 p0929 N67-15617
Resonances in heavy ion reactions and results of study of carbon 12 plus carbon 13 reaction 06 p0930 N67-15623
Interaction between C-12 and C-13 ions on basis of alpha particle scattering 06 p0930 N67-15624
Methodology for studying fine structure and shape of giant resonance - monochromatic gamma rays, inverse reaction, and gamma detector techniques 06 p0930 N67-15625
Review of theory on total absorption and scattering of photons by nuclei - electric polarizability of atomic nuclei, elastic photon scattering, and optical anisotropy of nuclei 06 p0930 N67-15626
Differential angular and integral energy distributions of recoil nuclei studied in reaction Al27-Na30 06 p0931 N67-15630
Gamma quantum yield at 90 deg measured following capture of 11 MeV protons by B11, Na23, and Al27 nuclei 06 p0931 N67-15631
Energy and angular distributions of carbon recoil nuclei measured in irradiation with bremsstrahlung of 260 MeV maximum energy 06 p0931 N67-15633
Giant resonance studied in gamma-proton reaction on lead and bismuth nuclei 06 p0932 N67-15636
Angular and energy distributions of antimony photoprotons measured to determine reaction on nuclei near closed shell 06 p0932 N67-15638
Investigation of Cd 113-Cd 114 reaction for thermal neutrons 06 p0933 N67-15644
Fundamental mode shape difference found to account for spatial dependence of pulsed neutron reactivity measurements 07 p1123 N67-17054
Supporting studies for dynamic reactivity effect using telegrapher equation for slab geometry and diffusion equation for spherical and cylindrical geometries - mathematical model 07 p1126 N67-17068
Nuclear reactions of light and middle-weight elements in stellar evolution 07 p1143 N67-17138
Calcium 37 mass excess in calcium nuclear reaction determined to test isobaric multiplet mass equation
[UCRL-16990] 07 p1147 N67-17401
Correlation measurements of elastic and inelastic scattering in nuclear reactions - Cyclotrons, nuclear spectroscopy, space reactions, and cosmochemistry
[BMWF-FB-K-66-01] 07 p1148 N67-17413
Apparatus using crossed molecular beams for studying reaction dynamics
[CALT-532-3] 07 p1149 N67-17435
Multi-particle collision theory applied to study of direct nuclear reactions
[PUC-937-227] 07 p1149 N67-17438
Release time of nuclear reaction recoil products trapped in tantalum plate
[JINR-P-2804] 07 p1150 N67-17439
Oxygen 16 triton-alpha nitrogen 15 and oxygen 16 triton-proton oxygen 18 differential cross sections
[JINR-P-2796] 07 p1151 N67-17524
Elastic and inelastic neutron scattering, charged particle emissions, slow neutron reactions, and neutron cross sections - conference papers
[INDSWG-101] 07 p1152 N67-17533
Energy spectrum and angular distribution of protons from lithium 6 gamma-proton reaction
[MIT-2098-256] 07 p1152 N67-17549
Reaction channels in capture of kaons by complex nuclei
[UCRL-16602] 07 p1153 N67-17660
Extended coupled-channel calculation of data on analog state resonances in lead 208 nuclear reaction processes
[ORNL-P-2438] 07 p1154 N67-17681
Channel coupling in nuclear reactions applied to resonances in scattering of low energy neutrons by carbon 12
[PUC-937-219] 07 p1155 N67-17696
Negative kaon proton elastic diffraction and resonant scattering in GeV region
[COO-264-243] 08 p1333 N67-18588
Reactor safety as function of reactivity coefficients in neutron cross sections 08 p1316 N67-18614
Nuclear models of charged particle data to determine neutron cross section values 08 p1338 N67-18629
Interpretations of neutron cross sections of fissionable materials for resolved resonance region 08 p1340 N67-18680
Measurements and calculations of Doppler effect on uranium 238, uranium 235, and plutonium 239 reactions with neutrons 08 p1341 N67-18685

Fortran IV program SHADRACH to calculate nuclear reaction Q-values for certain radioactive isotopes
[UCRL-16964] 08 p1344 N67-19016
Deuteron and proton optical models, excitation energies for 23 levels of Zr 94, stripping and other direct reactions, and neutron capture and fission cross sections of uranium 08 p1346 N67-19223
Differential cross section for eta photoproduction in region from threshold to 940 MeV
[HEPL-465] 09 p1489 N67-19760
Fluorine contamination and depth distribution in Zircaloy studied by proton irradiation and detection of gamma radiation from nuclear reaction
[AE-237] 10 p1699 N67-20743
Collision and differential cross section of two body reactions produced at 3 BeV/c
[CEA-R-3037] 10 p1705 N67-20848
Nucleon transfer in N-14 plus B-10 and in N-14 plus Ca-40 reactions
[ORNL-TM-1567] 10 p1706 N67-20883
Form factors for DWBA calculations of 54, 52, 50 Cr, 3 He, alpha reactions leading to isobaric analog states
[ORNL-P-2437] 10 p1708 N67-20927
Tungsten neutron cross section, resonance parameters, and scattering matrixes for certain nuclear reaction concepts
[NASA-CR-83032] 10 p1708 N67-20931
Cyclotron improvements and operation optimization, nuclear reaction experiments, and higher shell pickup reactions and inelastic proton scattering
[TID-23339] 10 p1713 N67-21001
Total-partial width ratios defined by S-matrix theory for beryllium 7 resonance levels
[IC/66/105] 10 p1715 N67-21153
Energy levels of scandium 48 nucleus
[NP-491/PL] 10 p1717 N67-21405
Alpha particle reactions in atmospheric gases
[CAL-VC-2279-P-2] 10 p1721 N67-21538
Angular distribution, spectra, cross section, and elastic and inelastic scattering analyses of various nuclear reactions
[USC-136-114] 10 p1725 N67-21603
Nuclear reactions in light nuclei and Mossbauer studies
[NYO-2026-1] 10 p1725 N67-21606
Kaon pion system in three body final states, produced by 3 GeV/c negative kaon proton interaction
[CEA-R-3032] 10 p1727 N67-21633
Probability ratios for negative pion-deuterium reactions determined by gamma quanta yields from hydrogen and deuterium gas target
[JINR-P1-2996] 10 p1727 N67-21641
Origin of scale constants of physics
[AFOSR-66-2862] 10 p1731 N67-21722
Nuclear chemistry research in high energy nuclear reactions
[NYO-2897-17] 10 p1731 N67-21783
Nuclear reactions involving isobaric spin conservation and angular correlation measurements
[COO-1430-134] 10 p1734 N67-21831
Angular distributions of five alpha particle groups from fluorine 19 and nitrogen 15 nuclear reactions
[NASA-TN-D-3813] 11 p1937 N67-22861
Quasi-free electron scattering on nuclei and calculation of energy spectra and angular correlations of carbon-boron nuclear reaction
[ISS-66/44] 11 p1938 N67-22927
Ultraviolet corrections for positive electron plus negative electron yields positive muon plus negative muon plus photon process, and validity limit of Bloch Nordsieck method
[LNF-66/51] 11 p1940 N67-23022
Intermediate structure in nuclear cross sections analyzed in terms of intermediate amplitude with amplitudes
[MIT-2006-273] 12 p2157 N67-23557
Probability of channel realization of nuclear reaction, derived by maximum likelihood method
[JINR-P10-2935] 12 p2158 N67-23558
Reduction scheme of amplitude in electron pion nucleon interactions
[JINR-P2-3063] 12 p2158 N67-23560
Absolute cross sections and isomer yields ratios for deuteron proton nuclear reactions
[NYO-2771-19] 12 p2159 N67-23572
Energy level structure angular distribution of alpha particles in scandium 48 from titanium 50 scandium 48 nuclear reaction
[INP-491/PL] 12 p2159 N67-23574
Synthesis of 102 isotopes with mass numbers 256 and 255 in reactions induced by oxygen ions
[JINR-P7-3050] 12 p2040 N67-23721
Spectra and angular distributions of alpha particles from interaction of accelerated neon 22 and argon 40 ions with gold and thorium nuclei
[JINR-P7-3041] 12 p2162 N67-23722
Isomeric cross section ratios in nuclear reaction leading to tridium 190, gold 196, and americium 242
[JINR-P7-3065] 12 p2162 N67-23723
Bubble chamber bombarded with negative pions used to study interactions with at least one visible gamma quantum emitted
[JINR-P1-3068] 12 p2163 N67-23748
Diffusion of nuclear reaction recoil products in metals and oxides
[JINR-P13-3019] 12 p2163 N67-23784
Distorted wave calculation applied to elastic scattering and nuclear reaction processes
[LYCEN-6634] 12 p2165 N67-23884
Deuteron stripping reactions on deformed nuclei
[JINR-P4-3070] 12 p2165 N67-23887
Isobaric cross-section ratios from alpha and proton reactions at high energies
[UCD-34P75-1] 12 p2170 N67-24068
Angular distribution of neutrons from carbon 12 nitrogen 14 nuclear reaction
[JINR-P3-3079] 12 p2171 N67-24078
Investigations in system alkali fluoride lanthanide actinide fluoride, lithium, sodium, potassium, rubidium, lanthanum, rare earths, yttrium, neptunium, plutonium, americium
[KFK-491] 13 p2268 N67-25530
Neutron spectrometer and pulsed helium 3 beam to measure certain nuclear reactions
[NP-16393] 13 p2272 N67-25535
Angular distribution measured for elastic scattering of helium 3 in boron 10 nuclear reaction at 9.8 MeV
[ANU-P/372] 13 p2277 N67-25982
Internuclear cascades in solid body - Radionuclid production cross sections in copper - Meson spallation of copper - Angular distribution of nuclear reaction fragments
[COO-1107-1] 13 p2271 N67-25984
Inelastic scattering and nuclear reaction study
[ISS-66/31] 13 p2279 N67-26096
Generalized potential for inelastic scattering, and unified theory of nuclear reactions
[NASA-TN-D-4000] 14 p2584 N67-26554
Neutron reactions studied with distorted-wave Born approximation
[LYCEN-6638] 15 p2760 N67-28304
Continuous spectra produced by nuclear reactions with light nuclei
[CEA-R-3069] 15 p2761 N67-28318
Inelastic interactions of high energy particles with nuclei
[UCRL-TRANS-949, REV.] 15 p2765 N67-28472
Four body final state of protons and mesons from proton proton interactions at 8 GeV/c
[COO-1195-78] 15 p2770 N67-28597
Mass distributions of proton meson and neutron pion combinations for 114 cases of neutron proton reactions
[JINR-P1-3146] 15 p2770 N67-28598
Positive pion photoproduction at high photon energies and very small angles
[DESY-67/3] 16 p2947 N67-29729
Doppler measurements on reactivity changes due to sample heating by fast critical reactor assembly
[KFK-473] 16 p2953 N67-29797
Nuclear reactions for producing tungsten 189 and rhenium 190 radioisotopes, and decay characteristics
[CNEA-175] 16 p2951 N67-30096
One method of resonance identification
[JINR-P1-3164] 17 p3134 N67-30233
Interpretation of low lying states of germanium 74 excited by reaction germanium 73, neutron, gamma, germanium 74
[KFK-510] 17 p3134 N67-30241
Nitrogen 14, deuteron, alpha reaction
[LYCEN-6659] 17 p3135 N67-30294
Nondestructive testing methods for quality control in nuclear industry
[BNWL-SA-1142] 17 p3105 N67-30221
Revision of computer subroutine to treat Be-9/n,2n/ reaction
[UCID-15095] 17 p3032 N67-30854
Differential and total cross sections for nuclear reactions from hydrogen bubble chamber exposure to negative kaon beam
[TID-23785] 17 p3132 N67-30857
Energy dependence of average direct reaction cross sections and partial nuclear level densities
[TID-23787] 17 p3134 N67-31036
Review of theory and investigations of nuclear reaction mechanism and isomeric relationships
[INR-776/I/PL] 17 p3134 N67-31061
Effects on neutron spectra from helium produced by neutron neutron and neutron alpha reactions in beryllium
[CONF-651154-3] 17 p3135 N67-31083
Average cross sections for nuclear reaction for gamma radiation spectrum of fission products 17 p3114 N67-31258
Apparatus for obtaining positron electron annihilation in two bosons 18 p3309 N67-31982
Particle reactions and structures measured in experiments using German tandem accelerator 18 p3311 N67-32342
Elastic and inelastic scattering and transfer reactions of deuterons, and two-particle correlations in nuclear reactions studied in cyclotron facility 18 p3311 N67-32345
Elastic and inelastic scattering of 52 MeV deuterons and proton pickup on medium-weight nuclei studied in German isochronous cyclotron facility 18 p3311 N67-32346
Nuclear reactions induced by heavy ions with transfer of proton, helium 4, and one, two, and three neutrons
[JINR-E7-3155] 19 p3503 N67-32646
Nuclear reaction studies using polarized helium 3 targets and beams and asymmetry measurements for proton elastic scattering by polarized helium 3
[ORO-1316-23] 19 p3510 N67-32841
Pi proton interaction yielding pions and neutrons at 8 GeV/c
[NYO-2171-218] 19 p3510 N67-32857
Electromagnetic interactions, and analog resonance modulation of radioactive nuclear reactions
[NYO-3525-16] 19 p3511 N67-32927
Proton-proton reaction yielding proton, neutron, and pion at 19 GeV/c
[DESY-67/4] 19 p3512 N67-32957
Transfer functions in application to nuclear reactor
[CEA-R-3102] 19 p3497 N67-32974
Energy level in sodium 23 studied by means of nuclear reaction Mg 25/deuteron, alpha/Na 23
[AD-654153] 20 p3712 N67-34225
Inelastic sum rules for electromagnetic processes on nuclear targets in one photon exchange approximation
[LNF-67/34] 20 p3692 N67-34230
Elementary particle interactions and 200 GeV accelerator
[UCRL-17483] 20 p3693 N67-34397
Irradiation of hydrocarbons with 70-MeV bremsstrahlung and yield of c11-labeled products produced by c12/gamma, neutron/c11 process
[IS-T-118] 20 p3594 N67-34577
Current algebra applied to pion yields pi pi gamma decay mode 20 p3697 N67-34746
Spins of first two excited states in Mg 27 by angular correlation technique in reaction Mg 26 /deuteron, proton gamma/ Mg 27
[BARC-276] 20 p3690 N67-34788
Emission of correlated proton pairs in negative pion-xenon nucleus interaction in bubble chamber
[REPT.-787-V1-PH] 20 p3699 N67-34883
Use of carbon, nitrogen, and oxygen reactions as neutron sources
[EUR-3492.E] 20 p3701 N67-35002
Atmospheric nuclear interactions produced by extremely high energy cosmic ray nucleons observed in emulsion chamber exposed at high mountain altitudes 20 p3704 N67-35214
Gamma radiation and nuclear interactions produced in emulsion chamber exposed at high mountain altitude 21 p3830 N67-35230
Shock wave effects in various detonation systems 21 p3845 N67-35425
Effective cross sections for deuteron induced nuclear reactions in rhodium

[IAN-F-2] 21 p3898 N67-35427
Fission product release, transport, and deposition - bibliography
[IDO-17237] 21 p3898 N67-35451
Differential cross sections for Sc-45/deuteron, alpha particle/Ca-43 reaction
[NASA-TN-D-4140] 21 p3899 N67-35665
Complex angular momentum in helium 4 plus helium 4 nuclear reactions
[NP-16749] 21 p3901 N67-35856
High energy physics index - nuclear reactions and interactions, strange particles, accelerators, methods and instruments, experiments, symmetry principles, and field theory
[AED-C-23-12] 21 p3903 N67-36095
Lithium 8 production in capture of slow negative pions by carbon, nitrogen, and oxygen nuclei
[JINR-P1-3305] 21 p3906 N67-36453
Nuclear properties of 102 isotopes with mass numbers 255 and 256
[NASA-TT-F-11231] 22 p4101 N67-36728
Low energy nuclear reactions and level densities for medium mass nuclei
[ANL-7289] 22 p4102 N67-36982
Experimental study of /He-3,d/ stripping reaction
[AD-656735] 22 p4104 N67-37170
Computer production runs of low energy intranuclear cascade calculation in graphical form
[NASA-CR-86495] 22 p4104 N67-37215
Abstracts on nuclear physics reactions - proton and neutron scattering cross sections, particle capture, dipole moments, shell models, fission, emission, and radiative transition in isotopes
[ORNL-4082] 22 p4106 N67-37494
Methodical problems of positive kaon proton yields kaon neutron pion reactions in liquid hydrogen bubble chamber
[JINR-P1-3313] 22 p4109 N67-37906
Deexcitation processes in high-energy nuclear reactions
[COO-1505-17] 22 p4111 N67-37966
Method of inferring K-infinity from reaction rate measurements in thermal reactor systems
[AEEW-R-512] 23 p4285 N67-38450
Cross sections producing isomeric state of tantalum 180 formed in neutron-neutron reaction
[INR-795/I/PL] 24 p4498 N67-39427
Total cross section for transition to first excited state of beryllium 6 ion from reaction of helium 3 ion
[AD-657819] 24 p4501 N67-39947
Semiclassical model of direct nuclear reactions exhibiting backward peaking, and relation to bound-state radial wave functions and distorted wave Born approximation
[AAEC/TM388] 24 p4504 N67-40481

NUCLEAR REACTOR
S REACTOR

NUCLEAR REACTOR MATERIAL
Nuclear power reactor coolants
[JPRS-38717] 02 p0237 N67-12011
Reactor yield calculations for radioisotopes using computer program ISOTOPES
[ORNL-IIC-8] 06 p0915 N67-16527
Calculations and reactor experiments to improve shielding materials, geometry, and radiation measuring devices
[EUR-2960.D] 07 p1136 N67-18065
Water radiolysis effects on electrochemical potential of steel and plutonium
[EURAEC-1702] 08 p1311 N67-18601
Physical, mechanical, and corrosion properties of hafnium
[WAPD-TM-528] 08 p1312 N67-18602
Reactor materials and components - fuel studies, portable smoke photometer, coated-particle fuels, and corrosion studies of fluidized bed fluoride volatility process
[BMI-1778] 08 p1321 N67-19145
Sintered aluminum product and zirconium alloy for organic cooled reactors
[AECL-2640] 08 p1322 N67-19246
Improved fuel element design and materials for high temperature gas reactor
[GA-7163] 09 p1481 N67-20206
Electron beam welding application in fast reactor technology - weldability of reactor construction materials
[KFK-404] 13 p2106 N67-23686
Use of high boiling organic fluids as coolants and moderators in nuclear reactors
[ONI-TRANS-2347] 13 p2148 N67-24015
Comparative evaluation of reflector and control materials for fast spectrum nuclear rocket reactor cores
[ANL-7099] 12 p2150 N67-24558
Critical mass, fission ratios, and reactivity coefficients for computing nuclear parameters of fast plutonium and uranium assemblies
[BNWL-347] 13 p2262 N67-25925
Critical mass reduction of uranium 235 in polyethylene reactor core
[LA-3651] 19 p3488 N67-33009
Mechanical properties and corrosion resistance of metals and alloys evaluated for high temperature operation in molten-salt experimental reactor
[JUL-487-RW] 20 p3686 N67-35257
Nuclear thermohydromechanical coupled calculation for direct substitution of plutonium in commercial boiling water reactor
[JAERI-1123] 21 p3868 N67-36047
Method for locating and measuring nuclear material accumulations within process vessels at nuclear processing plants to obtain accurate material inventories
[RFP-856] 23 p4203 N67-38436
Specific heats and heats of transformation measured for Zircaloy-2 and low-nickel Zircaloy-2
[BMI-1803] 23 p4264 N67-38669
Fabrication of fast reactor fuel pins for test irradiations
[EURFNR-314] 23 p4291 N67-39144

NUCLEAR RESEARCH
Integrating storage display monitor with dark trace tube for nuclear two-parameter spectra
[EUR-3117.E] 01 p0043 N67-10551
Theory and experiments in plasma and particle acceleration, theta pinch, magnetic field, and related physics subjects
[JUL-284-PP] 03 p0450 N67-13241
Theory and experiments in plasma acceleration, theta pinch, and related physics subject
[JUL-301-PP] 03 p0450 N67-13242
Design and organization of wire spark chamber system with magnetostrictive readout for nuclear research
[CERN-66-30] 04 p0585 N67-13814
Analysis of polystyrene filters for selenium, dissolution of ternary fuels, analysis of irradiated thorium samples, and determination of copper and aluminum in Cu-Al alloys
06 p1235 N67-18391
Atomic Energy Commission unclassified programs for Fiscal Year 1966
[NAA-SR-12010] 06 p1319 N67-18891
Economy improvement with standardized movable in-cell boxes and equipment decontamination in nuclear research facility
[JUL-253-RW] 11 p1921 N67-22440
Automated activation analysis research
[TEES-2671-5] 16 p2942 N67-29389
Introductory remarks on reported developments in nuclear activation analysis
16 p2942 N67-29390
Additional basic and applied nuclear research projects of activation analysis research laboratory
16 p2943 N67-29396
SNAPTRAN experimental measurements and instrumentation for SNAP-10A-2 reactor
[IDO-17305] 17 p3105 N67-30243
Digitalization of wire spark chamber by magnetostrictive signals
[BMWF-FBK-67-07] 17 p3056 N67-30289
Decay of gadolinium 151
[JINR-P6-3127] 17 p3124 N67-30290
Nuclear research on sum rules, symmetry, and quark structure of currents
[JINR-P2-3195] 17 p3125 N67-30291
Spin quadrupole force effect on allowed beta decay rate
[JINR-P4-3171] 17 p3125 N67-30292
Shallow sea seismic investigations and nuclear research in Chinese Peoples Republic
[JPRS-40689] 17 p3181 N67-30392
Nuclear energy studies in Chinese Peoples Republic - technician training, nuclear chemistry, and applications in medicine
17 p3127 N67-30294
Nuclear research and radiation physics technological developments
17 p3129 N67-30555
Coincidence of horizontal and vertical focusing planes for electromagnetic isotope separators
[IA-1107] 17 p3109 N67-30847
Nuclear physics and chemistry experiments conducted in German tandem accelerator and cyclotron research facilities
[AR-3] 18 p3311 N67-32341
Criticality factor, coolant loss, and Doppler effect for fast reactors data accuracy and accuracy of basic nuclear input data
[IA-1113] 19 p3488 N67-33006
Ultrasonic instrumentation for nuclear applications - boiling detector and ultrasonic flow meter development
[NYO-3622-7] 19 p3455 N67-33756
Activities of European Organization for Nuclear Research, 1966
[AR-12] 20 p3694 N67-34485
Nuclear research center on-line data transmission system design and operation
[EUR-3470.D] 20 p3662 N67-34638
Direct nuclear reaction models and some adiabatic approximations for inelastic scattering
[INP-525/PL] 20 p3701 N67-34983
Survey of nuclear and solid state physics research in Germany
[JUL-CONF-1] 21 p3885 N67-35317
Retrospective study of Buenos Aires synchrocyclotron facility, with bibliography on its completed nuclear research
[CNEA-168] 21 p3829 N67-36562
Nuclear science research on thermodynamics, radiation damage, and kinetics
[AEC-TR-6646/2] 22 p4169 N67-36954

NUCLEAR ROCKET
SA KIWI B-4D REACTOR
Ground and flight safety aspects of nuclear rocket flight operations
[NASA-CR-79870] 01 p0111 N67-10915
Regeneratively cooled nozzle for tungsten water moderated nuclear rocket system
[NASA-TN-D-3771] 04 p0573 N67-13522
Optimal nuclear rocket engine control for minimization of propellant consumption
07 p1123 N67-17949
Linear optimal feedback control theory for synthesis of optimum nuclear rocket engine start-up
07 p1123 N67-17950
Control of nuclear rocket absorption cross section
07 p1123 N67-17951
Measurements of gamma and neutron dose distributions in core of thermal tungsten nuclear rocket experiment
[NASA-CR-72061] 07 p1126 N67-17181
Performance capabilities of nuclear rocket engines using gaseous hydrogen in ideal state at stagnation temperatures up to 200,000 R
[NASA-CR-696] 07 p1182 N67-17508
Transient pressure drop and heat transfer characteristics of regeneratively cooled nozzle assembly used in full scale, cold flow nuclear rocket test facility
[NASA-TN-D-3931] 12 p2083 N67-24618
Mixing phenomena of cold and arc heated jets from coaxial flows of helium or nitrogen related to gaseous core nuclear rockets
[NASA-CR-690] 16 p2877 N67-29259
NRX/EST nuclear rocket test system transfer function measurements by control drum perturbation, and comparison with analysis model predictions
[NASA-CR-87373] 19 p3495 N67-33923
Automatic control theory research and application to nuclear rocket dynamics and control
[NASA-CR-87475] 20 p3614 N67-34483
Cryogenic valve testing
[LA-DC-8846] 23 p4200 N67-39126
Revised computer program on feasibility of water injection-cooled diffuser for nuclear rocket engine/stage test stands
[NASA-CR-89643] 24 p4426 N67-40065

NUCLEAR SCATTERING
SA RESONANCE SCATTERING
Combination scattering of gamma rays by nuclei used to investigate tensor polarizability of nuclei
06 p0932 N67-15429
Polarization in elastic scattering of deuterons on atomic nuclei, and nuclear reactions with polarized deuterons
06 p0937 N67-16271
Formal scattering theory
[ZFK-TPH-20] 09 p1490 N67-20216
Soluble three-body model of deuteron stripping
[UCD-CNL-68] 10 p1702 N67-20730
Parametric relationship between scattering of proton-nucleus and proton-nucleon
[IC/66/120] 11 p1971 N67-23489
Kinematics of multiparticle scattering events within framework of S-matrix theory
[AD-644980] 11 p1942 N67-23173
Dispersion sum rules in Compton

scattering by baryons
[JINR-P2-3028] 11 p1943 N67-23202
Dispersion sum rules for pi-proton and kaon-proton scattering
[JINR-P2-3061] 12 p2171 N67-24689
Resonance poles in simple model of S-wave pseudoscalar meson baryon scattering
[AD-648614] 12 p2174 N67-24905
Regge pole model applied to high energy particle scattering by nuclei
[AD-648017] 14 p2585 N67-26667
Equivalent potential method for relativistic scattering
[UCRL-17311] 15 p2767 N67-28527
Regge-quark model of hadron scattering
[AD-651088] 15 p2772 N67-28976
Method for explicit treatment of identical particle effects in N-coupled channel problem, and anti-symmetrization and exchange scattering
[MIT-3098-302] 19 p3561 N67-32911
Pauli exclusion principle taken into account for identifying scattered particles
[JINR-P4-3399] 19 p3566 N67-33678
One-speed transport theory with anisotropic scattering applied to slab albedo problem
[NP-16508] 19 p3556 N67-33883
Real part of nuclear elastic scattering amplitude determined from interference of Coulomb and nuclear interactions
[JINR-E1-3267] 20 p3698 N67-34800
Scattering length as function of complex angular momentum and application to I equal 0 pion-pion S-wave scattering length studies 20 p3698 N67-34830
Equal time axial current-divergence commutator calculated with help of low energy theorem of pion-nucleon scattering
[TH-203] 20 p3699 N67-34831
Low energy behaviors of S-wave pion-pion scattering phase shifts studied in terms of forward dispersion relation 20 p3699 N67-34832
Pion-pion scattering and sum rule for axialvector coupling constant 20 p3702 N67-35041
Angular distribution determination of alpha particles scattered on cobalt nuclei influenced by experimental errors
[REPT.-544/PL] 20 p3704 N67-35207
X-ray analysis of atomic scattering and structural defects of titanium carbide
[NASA-TT-F-10426] 21 p3870 N67-36230
Fubini sum rules for vertex functions
[AFOSR-67-1637] 22 p4102 N67-36916
Vector and spinor current algebra and N/D method
[AFOSR-67-1640] 22 p4102 N67-36950
Total and differential detection efficiencies for circular detector viewing circular radiator of finite thickness
[AE-292] 22 p4103 N67-37066
Particle scattering method for establishing energy calibration of analyzing magnet in tandem Van de Graaff accelerator
[LA-3699] 22 p4105 N67-37433
Feynman diagrams for unitary representations of SL/2,C/
[AFOSR-67-1632] 22 p4106 N67-37478
Superconvergent sum rules derived for meson baryon scattering, and relationship to U/6,6/
[ICTP/67/17] 22 p4106 N67-37489
Electromagnetic current vertex and axial current divergence examined to determine limitations of pion pole dominance
[AFOSR-67-1652] 23 p4297 N67-38158
Resonance approximation in superconvergence relations
[ICTP/67/27] 23 p4298 N67-38242

NUCLEAR SHIELDING
U.S. nuclear shielding calculational methods, computer programs, and coding systems
[ORNL-P-2310] 01 p0131 N67-10014
Isotropically sensitive detector for measuring biological shielding of nuclear reactor 02 p0187 N67-11465
Monte Carlo analysis of fast neutron shielding properties of compound cubical and spherical shields
[ORNL-4000] 02 p0287 N67-12181
Facilities, capabilities, and experience in liquid metals and fast reactor research and development
[APDA-TPI-1] 04 p0577 N67-14017
Reactor shielding at minimum weight for nuclear thermionic space power plant 06 p1309 N67-18232
Weight scaling factor graphs for basic SNAP reactor shield configurations
[NAA-SR-MEMO-11971] 10 p1681 N67-21015
Theoretical models for providing neutron cross sections for reactor and shielding calculations
[KAPL-P-2176] 10 p1724 N67-21588
Effective resonance integral, thermal, and epithermal self-shielding factors, and cadmium ratios for 197 gold in 11E neutron flux spectra
[NAA-SR-MEMO-12164] 11 p1943 N67-23197
Shielding window design for use in reactor containment structure
[ANL-7157] 12 p2146 N67-23891
Application of Monte Carlo method to reactor shielding problems
[ORNL-TR-1381] 14 p2590 N67-27444
Nuclear particle transport with emphasis on Monte Carlo and shielding calculations
[RISO-136] 16 p2938 N67-29701
Pulsed neutron measurements on capture and transport cross sections in lead and uranium 238
[KFK-451] 16 p2948 N67-29799
Soviet articles on theoretical and experimental analyses of nuclear reactor shielding against penetrating radiation
[NASA-TT-F-411] 17 p3113 N67-31241
Unidirectional radiation sources for determining neutron distribution through nuclear reactor shielding 17 p3116 N67-31272
Radiation detectors for recording nuclear reactor shielding, and measuring gamma ray and neutron spectra 17 p3116 N67-31273
Scintillation and neutron counters and dosimeters for studying nuclear reactor shielding and shielding materials properties 17 p3116 N67-31274
Scintillation counters for measuring gamma radiation of tracers in nuclear reactor shielding studies 17 p3117 N67-31275
Measuring fast neutron fluxes in nuclear shielding on background of intense intermediate neutron fluxes 17 p3117 N67-31276
Computer program for calculating neutron spectra of water iron water reactor shielding assembly
[EUR-3472.D] 20 p3685 N67-35185

NUCLEAR SPECTROSCOPY
SA ISOTOPE SHIFT
Linear accelerator improvements, and research on nuclear and pion physics, nuclear spectroscopy, and storage rings
[LAL-1159] 01 p0121 N67-10610
Particle decay, and beta-gamma scintillation technique to investigate thulium 174 03 p0438 N67-12584
Mossbauer effect and nuclear spectroscopy studies
[NDL-TM-33] 05 p0709 N67-15037
Meson and baryon spectroscopy, and neutral currents in weak interaction
[AD-629664] 05 p0743 N67-15284
Triple angular correlation method for obtaining spectroscopic data of nuclei with high excited states 06 p0926 N67-15601
Radiative proton capture reactions investigated by gamma spectroscopy - spectrometer developed 06 p0933 N67-15642
Bibliography on gamma ray spectral analyses, equipment, and sample preparation
[AFRRI-SP66-16] 06 p0940 N67-16494
Correlation measurements of elastic and inelastic scattering in nuclear reactions - Cyclotrons, nuclear spectroscopy, space reactions, and cosmochemistry
[BMWF-FB-K-66-01] 07 p1148 N67-17418
Angular distributions, absolute cross sections, and spectroscopic factors in nuclear /p,d/ and /p,t/ reactions involving argon, vanadium, and chromium
[PUC-937-211] 10 p1704 N67-20625
Performance and packaging of stilbene spectrometer for simultaneous detection of neutron and gamma rays in mixed radiation field
[BRL-R-1335] 10 p1834 N67-21423
Computer code for unfolding of gamma and neutron pulse height spectra measured by stilbene crystal at two different electronic gain settings
[BRL-MR-1790] 10 p1869 N67-21855
Nuclear spectroscopy with semiconductor detector coincidence system
[IS-1478] 12 p2699 N67-23700
Nuclear spectroscopy and solar neutrino astrophysics
[BNL-TR-118] 12 p2200 N67-23745
Research projects in nucleosynthesis models, fission, nuclear spectroscopy and decay schemes, cosmic ray induced nuclear reactions, hot atom chemistry, and geochemistry and cosmochemistry
[ORO-3235-12] 15 p2858 N67-28283
Thermal neutron capture gamma rays using lithium drifted germanium spectrometer
[MITNE-80] 16 p2944 N67-29676
Photoneutron spectra from bismuth 209 target
[AD-651111] 17 p3127 N67-30356
Measuring oscillator strengths in arc spectrum of iron, line strengths in intermediate coupling for iron, inhomogeneous vector couplings in atomic spectra, and stellar evolution
[SAO-611-40] 18 p3234 N67-31798
Inhomogeneous vector couplings in atomic spectra 18 p3235 N67-31799
High resolution beta spectrometer used to study electron values, particle properties, and decay, and beta-gamma circular polarization correlation of Co 60 and Na 22 18 p3311 N67-32344
Dispersion curves in nuclear resonance fluorescence related to absorption lines - Faraday rotation
[CEA-R-2925] 19 p3504 N67-33162
Conference abstracts on nuclear spectroscopy
[CONF-661046] 19 p3504 N67-33176
Mossbauer spectra and effective field parameters calculated for iron compounds
[AROD-6328-5-P] 19 p3391 N67-33236
Rapid source preparation technique for high-resolution alpha particle spectroscopy
[IN-1081] 19 p3344 N67-33564
Neutron physics research project summaries in nuclear spectroscopy, scattering measurements, solid state studies, and fission processes
[JUL-462-NP] 20 p3691 N67-34205
Calculation of positions of particle-hole states in sd-shell
[AD-653978] 20 p3696 N67-34605
Semiconductor counting system for high resolution alpha particle spectroscopy
[IN-1062] 22 p4048 N67-37485
Ratios of E2 transition probabilities of deformed even-even nuclei
[LR-17] 23 p4299 N67-38307
Flexi-Kludge system of PDP-8 programs for on-line accumulation and summing of multiple parameter nuclear spectra
[NASA-CR-86974] 23 p4321 N67-38043
Noise/signal ratio calculation of nuclear pulse amplifier using gated active integration
[AERE-R-5021] 24 p4421 N67-40409

NUCLEAR SPIN
Baryon resonances with spin and parity, and meson resonances
[JINR-P-2790] 04 p0588 N67-14010
Spin correlation coefficients for elastic scattering of high energy polarized protons on protons
[JINR-P-2776] 04 p0588 N67-14012
Techniques for assignment of spins to nuclear states applied to 2.51 and 2.79 MeV levels of silicon 06 p0921 N67-15568
Identification technique for properties of spin levels in nuclei of elements in periodic table between oxygen and calcium - application to spin of 4.97 MeV level in silicon 28 06 p0921 N67-15570
Use of axial symmetry in obtaining spin assignments from triple correlation 07 p1142 N67-17129
Isospin and resonance reactions 07 p1143 N67-17136
Spin oscillator containing system of nuclear spins located in magnetic field
[FTD-TT-65-1899] 07 p1083 N67-17745
Nuclear spins and hyperfine structure separations of cesium 125 and cesium 136, and nuclear magnetic moments of cesium 125, cesium 136, and cesium 127
[UCRL-16998] 10 p1704 N67-20626
Spin correlation and relaxation in ferromagnets and antiferromagnets 10 p1750 N67-21029
Nuclear spin correlation effect on scattering of neutrons by molecules 10 p1714 N67-21046
Ground state of antiferromagnetically-coupled spin impurity in ferromagnet, and comparison with spin wave theory
[TR-33] 10 p1752 N67-21375
Nuclear spin polarization induced in low density gaseous helium 3 by optical pumping
[ORO-1316-17] 10 p1717 N67-21468

Spin deviation probabilities in ordered magnetic materials
[TR-31] 11 p1966 N67-22460
Neel temperature of maganese fluoride in two spin cluster variation limit
[NOLTR-66-193] 11 p1968 N67-23148
Spin quadrupole forces and collective states in deformed nuclei
[JINR-E4-3025] 12 p2163 N67-23763
Five-dimensional quasispin formalism used to factor out n, T-dependent parts of shell model matrix elements in seniority scheme and derive reduction formulas
[AD-648531] 14 p2585 N67-26675
Branching diagrams for SU/2/, SU/3/, U/2/, and U/3/ 19 p3503 N67-33662
Spin correlation parameters and measurements in proton-proton scattering from 11 to 26 MeV
[CEA-R-3193] 19 p3506 N67-33487
Covariant propagators and vertex functions for nuclear spins
[AFOSR-67-1609] 23 p4296 N67-38190
Spin, decay parameters, and density matrix of decaying states
[CERN-67-30] 23 p4301 N67-38432
Nuclear spin and hyperfine structure measurements of indium 110, rubidium 88, and tin 121
[UCRL-17472] 23 p4306 N67-38850
Hyperfine structure and magnetic moment of silver 110m and nuclear spin of thulium 163
[UCRL-17469] 23 p4309 N67-38861
Dipole-dipole interactions of nuclear spins with quadrupole-coupled nucleus - metal-hydrogen bonds
[TR-11] 23 p4310 N67-38960
Ultrasonic attenuation and temperature dependence of nuclear spin-lattice relaxation time of magnetic materials
[REPT.-6996.2-RT] 24 p4516 N67-39731
Spin of 2750-keV level in potassium 37 established at 5/2 /plus/
[AD-657991] 24 p4560 N67-39893
NUCLEAR STRUCTURE
Structure of argon k-series during atomic capture of negative muons in pure gas and in mixture with hydrogen
[JINR-P-2907] 03 p0443 N67-13368
Temperature dependence of magnetic hyperfine structure of dilute paramagnetic iron-57 impurity atoms in non-magnetic host lattice
[REPT.-480/PL] 04 p0601 N67-14169
Spins and parities of nuclei, stripping and pick-up reactions, and nuclear structure and mechanism of direct processes 06 p0921 N67-15566
Search for double dipole transition in C-12 nucleus 06 p0926 N67-15603
Quantitative analysis of competition between spin-orbit and two-body forces leading to formation of intermediate coupling in nuclei of p-shell 06 p0934 N67-15650
Mechanism of octupole vibrational states found in inelastic scattering and vibrational states of type two-plus found in nuclei with partially filled shells 06 p0934 N67-15651
Collective properties of d-shell nuclei studied by analyzing reduced widths from stripping reactions for application to nuclear structure analysis 06 p0935 N67-15656
Nuclear structure - shell model studies, giant dipole resonance, nuclear excitation properties, nuclear reactions in astrophysics, and resonance reactions and isospin - Conference
[ARL-66-0221] 07 p1142 N67-17127
Shell model studies in nuclear structure 07 p1142 N67-17128
Shell model calculations of sd-shell nuclei, and giant resonance of carbon 12 07 p1142 N67-17130
Group theory methods and nuclear structure in 2s-1d shell 07 p1143 N67-17132
X-ray diffraction study of atomic ordering in two sigma phases formed by transition metal alloys
[COO-1198-385] 07 p1152 N67-17550
Perturbation theory and new cell concept for substitution measurements of buckling heavy water assembly
[AE-256] 09 p1481 N67-20291
Theory and experimental arrangements for using 1-GeV protons for studying nuclear structures
[BNL-10666] 10 p1699 N67-20754
Safety criteria development for malfunction of nuclear reactor system
[IITRI-578P21-21] 10 p1677 N67-20864
Modification of effective particle-hole interaction by core polarization
[AD-645343] 10 p1731 N67-21731
Frascati linear accelerator used to study nuclear structure by means of pions
[LNF-66/57] 11 p1941 N67-23025
Intermediate structure in nuclear cross sections analyzed in terms of intermediate amplitude with amplitudes
[MIT-3090-273] 12 p2157 N67-23557
Improved Fortran program for single particle energy levels and wave functions in nuclear structure calculations
[NBS-TN-410] 13 p2381 N67-26318
Mathematical model of moments and moment distribution for nuclear structure
[UR-875-190] 14 p2587 N67-27048
Nuclear physics experiments involving Brookhaven cosmotron
[BNL-11035] 16 p2946 N67-29710
Theoretical and experimental research on radiation and plasma physics, hydrodynamics, thermodynamic property of matter, and nuclear structure
[UCRL-50001-66-2] 19 p3498 N67-33206
Nuclear structure and atomic research on scattering, cross sections and related physics research 19 p3504 N67-33207
Nuclear structure results derived from interactions of protons in GeV region
[BNL-11235] 19 p3505 N67-33342
Measurement of nuclear matrix element for 19.4 MeV level in carbon 12 following inelastic electron scattering
[SAL-6] 20 p3702 N67-35025
Short lived beta and gamma spectra of short lived isotopes in 2s 1d shell
[P-78] 21 p3899 N67-35564
Research reactors used for examining atomic and molecular structure of solids and liquids
[BNL-11401] 21 p3890 N67-36514
Nuclear physics research with emphasis on proton-proton reactions, proton scattering and polarization, and shell structure
[ORNL-4123] 22 p4165 N67-37379
One body Wigner-Moyal density for linear potential system of particles
[NYO-1480-75] 23 p4275 N67-38564
Nuclear structure determined by electromagnetic and weak interactions, force models, atomic phenomena, and meson interactions
[ORO-2915-79] 23 p4309 N67-38836
NUCLEAR SUBMARINE
Development and analysis of symbolic and pictorial display concepts for nuclear submarine control 06 p0811 N67-15666
Hydrocarbon contamination of nuclear submarine atmospheres due to diffusion of methyl chloroform through insulating and decorative materials 19 p3396 N67-33762
Deleterious effects of commercial grades of methyl chloroform used in cements for insulating materials on closed environment atmospheres of nuclear submarines 19 p3385 N67-33763
Mark IV analyzer improvement 19 p3455 N67-33764
Development of total hydrocarbon analyzer for determing total hydrocarbon concentration in nuclear submarine atmospheres 19 p3455 N67-33765
Feasibility of using activated carbon /charcoal/ in nuclear submarines for atmospheric filter applications and for collecting samples of atmospheric contaminants for subsequent analysis 19 p3385 N67-33766
Development of interior paints for nuclear submarines 19 p3477 N67-33767
Review of methods used for electrolytic production of oxygen in nuclear powered submarines 19 p3385 N67-33768
Potential of Chlorella pyrenoidosa as algal gas exchanger for submarine applications 19 p3378 N67-33769
NUCLEAR WARFARE
*S ATOMIC BOMB
*S HYDROGEN BOMB
NUCLEAR WEAPON
Nuclear weapon dynamics, aerodynamic flow fields and boundary layers at hypersonic velocities, gas-solid interactions, and high velocity impacts - abstracts
[ATD-66-70] 01 p0062 N67-10443
Transmissivity of atmosphere for thermal radiation from nuclear weapons
[USNRDL-TR-1066] 07 p1070 N67-17152
Nuclear reactors, nuclear weapons, and radioactive isotopes - Bibliography
[ORNL-RSIC-5, REV. 1] 12 p2144 N67-23543
Standard codes of machinery and type industry, iron ore dressing qualities, and nuclear missile capability
[JPRS-41649] 20 p3752 N67-35346
Chinese Peoples Republic capability for strategic employment of nuclear missiles 20 p3752 N67-35347
NUCLEATE BOILING
SA HEAT TRANSFER
Parameters influencing nonuniform heat flux distribution on departure from nucleate boiling predictions in thermal design of reactor cores
[EUR-3114.E] 01 p0164 N67-10538
Critical nucleate boiling of liquid helium in simulated wire wound magnet
[LA-DC-7801] 01 p0165 N67-10678
Three-rod geometry with triangular pitch for forced flow, transition, and film boiling measurements
[GEAP-5073] 01 p0111 N67-10686
Bubble mechanics, boiling heat transfer, and propellant tank venting in zero gravity environment - storage and handling of cryogenic liquid propellants in orbit
[NASA-CR-652] 03 p0382 N67-12760
Accurate burnout prediction for increased power output from pressurized water reactor core with constant hot channel
[EUR-3113.E] 03 p0473 N67-12990
Gravity effects on boiling from flat horizontal surface determined in heat flux range defined as discrete bubble region for various subcoolings, fluid properties, and heat transfer rates
[NASA-TM-X-52264] 06 p0981 N67-16044
Bubble growth parameters in saturated and subcooled nucleate boiling and analysis of single bubble generated by using laser beam on thermocouple or flat plat submerged in water
[NASA-CR-81673] 07 p1210 N67-17961
Direct relationship of temperature transients to bubble history during nucleate boiling
[EUR-3162.F] 08 p1384 N67-19198
Nucleate boiling heat flux measurements on high temperature supercritical pressure water loop
[WCAP-3056, ADDEND. 1] 10 p1688 N67-21644
Assessment of convection, conduction, and evaporation in nucleate boiling
[NASA-TN-D-3943] 12 p2236 N67-24478
Pool boiling of water on stainless steel etched with hydrochloric acid
[NASA-CR-84467] 14 p2633 N67-27513
Pressure-temperature history examined for effect on incipient boiling superheats in liquid metals
[ANL-7184] 15 p2726 N67-28518
Nucleate pool boiling heat transfer to sodium, and model for boiling stability of liquid metals
[DSR-76303-45] 17 p3106 N67-30638
Activation growth, and detachment of boiling bubbles in water from artificial nucleation sites of known geometry and size drilled in polished metal surface
[NASA-TN-D-4101] 18 p3357 N67-32560
Mechanism of gas phase formation at electrode and solution interface, mass transfer aspects of electrolytic gas evolution process, and analogy with nucleate boiling
[UCRL-17234] 20 p3744 N67-34354
Heat transfer with boiling potassium on stainless steel surface containing reentrant cavities
[ORNL-P-3083] 22 p4166 N67-37861
Effect of number of active nuclei on heat transfer rate in large-volume nucleate boiling
[NASA-TT-F-11305] 24 p4550 N67-40092
NUCLEATION
Nucleation of interstitial loops in iron 07 p1169 N67-16735
Nucleation of vacancy clusters in quenched aluminum and gold 07 p1170 N67-16737
Impurity role in nucleation of dislocation loops in aluminum 07 p1170 N67-16738
Aluminum colloid formation by homogenous nucleation for electrostatic thrustor propellant 10 p1756 N67-20615
Critical magnetic field theory for nucleation of superconductivity in dilute alloy materials in which coupling between electrons and lattice vibrations is strong
[TR-17] 12 p2192 N67-24363

Direct mass spectrometric sampling of high pressure inorganic gas systems
[AD-651458] 17 p3123 N67-30231
Aluminum colloid formation in supersonic nozzle by homogeneous nucleation 22 p4133 N67-36947
Mayer theory of condensation and homogeneous nucleation
[REPT.-9] 22 p4025 N67-37240
Mass spectrometric study of homogeneous nucleation in free jets and its application to beam formation and molecular beam sampling
[AD-655292] 22 p4026 N67-37409
NUCLEATION PROCESS
Kinetics of reactions in solid state - bulk thermodynamic properties, diffusion in metals and alloys, nucleation, growth in solids, evaporation, dislocations, and polymer structure
[AD-640424] 06 p0950 N67-16419
Condensation and nucleation processes of single crystal thin films
[AFML-TR-66-338] 10 p1744 N67-20494
Nucleation and moving mask experiments in single crystal thin film research program 10 p1744 N67-20495
Path probability method for deriving equations for nucleation and crystal growth 10 p1744 N67-20496
Nucleation and crystal growth of thin film and equilibrium two-dimensional liquid gas phases 10 p1745 N67-20497
Path probability method, and theory of nucleation and growth of thin film 10 p1745 N67-20498
NUCLEIC ACID
SA CHROMOSOME
SA DEOXYRIBONUCLEIC ACID /DNA/
Tracer studies on nucleic acid and protein synthesis control mechanisms, and relation to radiation damage
[NYO-2643-23] 01 p0016 N67-10852
Nucleic acids used in evaluation of neurochemical changes in rat brains affecting conditioned response
[MPL-4] 06 p0799 N67-15660
Acridine orange luminescence for studying secondary structure of nucleic acids
[TRANS-1483] 06 p0804 N67-16348
Conference on molecular aspects of biological development
[NASA-CR-673] 07 p1005 N67-16781
Molecular aspects of lens cell differentiation 07 p1006 N67-16785
Nucleic acid synthesis during differentiation of Blastocladiella emersonii fungus 07 p1007 N67-16792
Physical chemical studies on molecular aspect of nucleic acid interactions 07 p1007 N67-16794
Control of nucleic acid synthesis and extraction of RNA from salivary glands of Rhynchosciara angelae
[AD-640929] 07 p1010 N67-17220
Influence of ions of trivalent iron on physical-chemical properties of desoxyribonucleic acid solutions
[TT-67-60031] 07 p1014 N67-17756
Fluorescent emission measurements of nucleic acids - purine and purine nucleotide assays by chemical hydrolysis 08 p1235 N67-18335
Radioactive contamination, time measuring techniques, nucleic acid structure, and other topics discussed at conference on physics, of Instituto Superiore di Sanita
[ISS-66/29] 13 p2259 N67-26095
Fluorescent emission of proteins and nucleic acids in biological cell nucleus
[DISS-3834] 17 p3002 N67-30764
Asymmetric synthesis during reaction of 3-trifluormethyl pseudooxazolones-5 or oxazolones-5 with L-amino acid esters 20 p3592 N67-34403
Electric modeling of bond oscillations in nucleic acid and determination of nucleotide sequence 20 p3575 N67-34511
NUCLEON
Electromagnetic form factors of nucleons, and minimal interaction of quarks
[JINR-P-2757] 01 p0121 N67-10613
Influence of absorption corrections on peripheral photoproduction of pions and vector mesons, and joint photoproduction of vector mesons and first pi-N resonance on nucleons
[ER-19] 01 p0125 N67-10675
Underground scintillation detector for recording high energy fragments from baryon nonconserving nucleon decay
[COO-618-87] 01 p0128 N67-10801
Nucleon correlation with two-particle stripping reaction 03 p0434 N67-12358
Two-nucleon emission following absorption of stopped negative pions 03 p0441 N67-12982
Transverse momenta and four momentum transfers of recoil protons in nucleon-nucleon interactions of ultrahigh energy
[INR-736/VI/PH] 04 p0586 N67-13898
Multinucleon transfer reaction, and energy distributions of fluorine 18 reaction products
[JINR-P-2813] 04 p0589 N67-14022
Dispersion sum rules for strong and electromagnetic interactions of nucleons
[JINR-E-2822] 04 p0590 N67-14066
Recoil proton polarization in elastic pion-proton scattering and phase shift analysis of pion-nucleon scattering
[JINR-E-2860] 04 p0590 N67-14067
Two-particle spin-orbit nucleon-nucleon interaction of oxygen 16 and nitrogen 16 nuclei
[NASA-CR-81059] 05 p0742 N67-15022
Elastic and inelastic scattering and stationary and quasi-stationary states in few-nucleon systems 05 p0930 N67-15562
Collective excited states of even-even atomic nuclei 05 p0933 N67-15648
Formula for reduced width for emission of cluster of nucleons from nucleus with atomic number A - shell theory 05 p0935 N67-15657
Nucleonic mass measurement technique for detecting aeration in T-34 aircraft engine lubrication system 07 p1062 N67-16965
Quasiclassical model of asymptotic behavior of cross sections obtained in high energy interactions of pions with nucleons 07 p1145 N67-17289
Extrapolating pion-nucleon amplitude by dispersion relation and unitarity condition 07 p1145 N67-17210
Brueckner-Hartree-Fock calculations for light nuclei and nucleon-nucleon interaction
[ORNL-P-2468] 07 p1151 N67-17526
Determination of nuclei rotational spectra by optimum separability condition
[JINR-P-2866] 08 p1231 N67-18328
Propagation of cosmic ray nuclei in interstellar space and solar system
[NASA-TM-X-55674] 08 p1357 N67-18631
Nucleonic experiment fundamentals, nuclear detector types, synchronous detector applications, and experimental data reduction
[FTD-TT-65-552] 10 p1697 N67-20663
Bound isobaric analog states in medium-weight nuclei
[PUC-937-123] 10 p1702 N67-20806
Nucleon transfer in N-14 plus B-10 and in N-14 plus Ca-40 reactions
[ORNL-TM-1567] 10 p1706 N67-20823
Superconvergence relations saturation by nucleon and nucleon isobars within static SU/3/ model
[IC/67/3] 10 p1716 N67-21202
Dispersion sum rules for strong and electromagnetic nucleon interactions in static model
[JINR-P3-2930] 10 p1734 N67-21589
Many particle mechanism of interaction of cosmic rays with atomic nuclei
[JINR-P3-3005] 10 p1737 N67-21620
Quasiparticle second Tamm-Dancoff theory applied to study of even-parity states of even tin isotopes
[IC/67/5] 10 p1731 N67-21764
Quasispin formalism and applications to nucleon system and proton-neutron system
[NUP-66-16] 11 p1936 N67-22490
Parametric relationship between scattering of proton-nucleus and proton-nucleon
[IC/66/120] 11 p1971 N67-22489
Two-nucleon emission process in negative pion meson absorption
[RIFP-59] 11 p1939 N67-22952
Reduction scheme of amplitude in electron pion nucleon interactions
[JINR-P2-3063] 12 p2158 N67-23560
Approximate treatment of nucleon phonon interaction using simple model with quadrupole phonon
[JINR-P4-2985] 12 p2158 N67-23562
Correlative force effects on Coulomb interaction of nucleons in nuclei
[JINR-P4-2961] 12 p2170 N67-24671
Two and three nucleon systems obtained using polarized targets and beams
[SLAC-PUB-256] 13 p2374 N67-25666
Pion photoproduction from hydrogen near second and third pion-nucleon resonances 14 p2586 N67-27211
Cross section for photoproduction of charged pions in Regge pole model related to vector meson production in pion-nucleon collisions
[TH/191] 14 p2592 N67-27559
Composite model of pion use to derive relation between total cross section of pion nucleon scattering 14 p2595 N67-27761
Elastic scattering cross sections of high energy nucleons scattered from nuclei and numerical results for He-4 target nucleus
[INP-526/PL] 15 p2756 N67-27677
Nucleon-nucleon bremsstrahlung
[ORO-1316-28] 15 p2761 N67-28250
Coupling constant determination of N33 nucleon electromagnetic current using sum rule for isovector form factor and photoproduction results
[IC/67/11] 15 p2770 N67-28761
Extension of work on optical model description of nucleon-nucleus interactions by measuring polarization and differential and reaction cross sections of proton-oxygen system
[P-77] 18 p2940 N67-29683
Derivation of sum rules for isovector nucleon form factor from divergence condition
[DESY-67/2] 18 p2947 N67-29740
Dynamics of elementary particles and pion-nucleon interaction
[NP-16848] 18 p2947 N67-29755
Nucleon isobar production in proton-proton collisions
[UCRL-17257] 18 p2948 N67-29804
Cabibbo-Radicati sum rule and photodisintegration of three nucleon nuclei
[JINR-P4-3223] 19 p3506 N67-33427
Kaon-nucleon forward scattering amplitude evaluated from dispersion relations, and evidence for resonance
[HEP-67-2] 19 p3508 N67-33694
Pion-nucleon elastic scattering in backward hemisphere and application of Regge theory to backward angles other than cosine theta
[COO-1112-107] 23 p4362 N67-38825
Angular anisotropy and effect of nucleon pair correlation during fission of nuclei by nucleons
[FEI-67] 23 p4366 N67-38819
Symmetry matrix for construction of nucleon wave functions for mixed particle configurations
[UJV-1894] 23 p4314 N67-38909
Proton-nucleon elastic scattering cross section in high energy range
[INR-P-862/VI/PH] 24 p4498 N67-39432
Coincidence of Regge trajectories and Su/3/ symmetry for nucleon-meson interaction 24 p4504 N67-40475
NUCLEON-NUCLEON SCATTERING
Two-nucleon emission after absorption of stopped negative pions, theory of pion adsorption on light nuclei, lifetime measurement of positive pion, and nucleon-nucleon interactions
[UR-875-126] 03 p0440 N67-12881
High energy nucleon-nucleon bremsstrahlung 03 p0441 N67-12885
High energy neutron-proton interactions 03 p0441 N67-12886
Energy and angular distributions of protons and charged pi mesons produced by inelastic proton-neutron interactions determined by nuclear emulsion method
[JINR-P-2869] 03 p0443 N67-12971
Phase shift analysis of nucleon-nucleon scattering at 14.5 MeV
[JINR-P-2742] 03 p0446 N67-12995
One-dimensional dispersion relations in meson and nucleon scattering amplitudes 07 p1144 N67-17294
Effective forces in nuclei from nucleon-nucleon force
[PUC-937-229] 10 p1701 N67-20787
Specification of nucleon-nucleon phase shift analysis at 23.1 MeV
[JINR-E1-2982] 10 p1701 N67-20797
Specification of nucleon-nucleon phase shift analysis at 147 MeV
[JINR-E1-2983] 10 p1701 N67-20798
Elastic nucleon-nucleon scattering amplitudes calculated by phase shift analysis
[JINR-P-2861] 10 p1727 N67-21643
Phase shift analysis of nucleon-nucleon analysis
[JINR-E-2743] 10 p1732 N67-21788
Bibliography on experimental aspects of

nucleon-nucleon scattering
[AERE-BIB-149] 11 p1943 N67-23199
Axial current algebra tests in pion-nucleon physics
[TH/187] 12 p2168 N67-34281
Quasi-free scattering experiments and nuclear separation energy measurements
[ISS-67/2] 14 p2585 N67-37134
Electron pairs, secondary interactions, track tracing, and electromagnetic cascade in nucleon-nucleon collisions
[REPT.-734/VI/PH] 14 p2593 N67-37708
Nuclear physics nucleon-nucleon interaction models
[JINR-P4-3136] 15 p2768 N67-38535
Diffraction of high energy nucleons on nuclei and nucleon-nucleon scattering amplitude
[INP-534/PL] 17 p3139 N67-31485
Elastic electron scattering from nuclei and nucleon-nucleon correlations
[INP-540/PL] 20 p3694 N67-34484
Meson-nucleon and nucleon-nucleon collision cross sections at high energies in model unifying Regge poles and broken SU/3/ symmetry
[JINR-P2-3251] 20 p3700 N67-34541
Hypertriton problem solution - nucleon-nucleon and hypernucleon scattering
[REPT.-783/VII/PL] 20 p3701 N67-35006
Graphs of scattered particle energies versus scattering angles and center of mass scattering angles versus laboratory scattering angles for nucleon-nucleon and pion-nucleon
[NASA-CR-88976] 23 p4309 N67-38823
Least squares method for determining tensor meson exchange in nucleon-nucleon scattering phase shifts
[JINR-E1-3420] 23 p4314 N67-39329
NUCLEON POTENTIAL
Semi-empirical terms in nuclear potentials - well depths, even-even nucleus, and beta stability 03 p0436 N67-12573
Nucleon clusters in nucleus, nonconservation of isotopic spin, and nuclear single particle states 06 p0920 N67-15563
Excitation energy levels of residual interaction between nucleons within nucleus and photonuclear reactions in giant resonance region 06 p0930 N67-15628
Simultaneous phase shift analysis of nuclear potential and peak to peak data at 18.3 and 9.7 MeV
[JINR-E1-2969] 10 p1703 N67-20812
Separable non-local nucleon-nucleon potential for odd-parity spin triplet states
[IC/66/121] 11 p1936 N67-22484
NUCLEOSIDE
S RIBONUCLEIC ACID /RNA/
NUCLEOSYNTHESIS
Neutron capture reactions and stellar nucleosynthesis - heavy element buildup
[NASA-TM-X-53527] 02 p0289 N67-11352
Statistical concepts and experiments to study inhibition of ribonucleic acid synthesis by actinomycin
[NASA-TT-F-10369] 06 p0799 N67-15687
Stellar nucleosynthesis by neutron capture on rapid time scale
[LA-DC-7885] 07 p1151 N67-17525
Ribonuclease effect on polymerase activity during ribonucleic acid synthesis kinetics
[NASA-CR-69991] 08 p1225 N67-18251
Neutron capture cross sections for nucleosyntheses in stars and in thermonuclear explosions 08 p1327 N67-18815
Research projects in nucleosynthesis models, fission, nuclear spectroscopy and decay schemes, cosmic ray induced nuclear reactions, hot atom chemistry, and geochemistry and cosmochemistry
[ORO-3235-12] 15 p2659 N67-38353
Element abundance correlated with neutron capture cross sections at energies corresponding to interior stellar temperatures to demonstrate s-process for heavy element nucleosynthesis
[ORNL-P-3052] 23 p4300 N67-38357
Rapid neutron capture in supernova explosions
[NASA-TM-X-60443] 23 p4340 N67-39075
NUCLEOTIDE
SA RIBONUCLEIC ACID /RNA/
Incorporation of isotopically labeled nucleotides and amino acids studies in planaria
[NASA-CR-90257] 05 p0346 N67-12979
Fluorescent emission measurements of nucleic acids - purine and purine nucleotide assays by chemical hydrolysis 06 p1225 N67-18335
Nucleotide metabolism in repair of radiation injury
[NASA-CR-83540] 11 p1796 N67-22367
Role of nucleotide metabolism in repair of radiation injury
[NASA-CR-86379] 22 p3968 N67-36769
NUCLEUS
SA EVEN-EVEN NUCLEUS
SA HEAVY NUCLEUS
SA HYPERNUCLEUS
SA ICE NUCLEUS
Configuration splitting of dipole giant resonance for nonmagic nuclei of 1d-2s shell as demonstrated by S32
[UJV-1612] 01 p0123 N67-10647
Meson-nucleus reactions study for estimating cross sections of various processes involving elementary particles - tests of unitarity symmetry in nuclei
[BNL-10420] 01 p0128 N67-10818
Charge exchange of negative pi mesons stopped on light nuclei
[JINR-P-2780] 01 p0129 N67-10831
Gamma rays measured from nuclear reactions on vibrational nuclei
[INSJ-98] 01 p0130 N67-10902
Theory of pion absorption on light nuclei 03 p0441 N67-13682
Collective retardation model for mass 15 nuclei
[LFEN.41/BETA/] 03 p0442 N67-13142
High resolution study of inelastic proton scattering from nuclei in lead region
[CONF-660906-10] 04 p0586 N67-13965
Low nonrotational states and complex structure states in deformed odd mass actinide nuclei
[JINR-E-2857] 04 p0589 N67-14050
Helium 8 production and decay in negative pion capture by carbon and oxygen nuclei using photographic emulsion
[JINR-E-2774] 04 p0591 N67-14068
Direct interactions in inelastic scattering of 6.6 MeV protons by aluminum 27 nuclei 06 p0925 N67-15595
Collective properties of d-shell nuclei studied by analyzing reduced widths from stripping reactions for application to nuclear structure analysis 06 p0935 N67-15658
Pairing correlation effect on transitions in deformed nuclei of rare earths
[ZFK-PHA-21] 08 p1331 N67-18527
Multicolor photoelectric photometry of nuclei of galaxies, including Virgo star cluster region
[A66-4A] 09 p1510 N67-19673
Shell correction to nucleus mass as function of nuclear deformation
[UCRL-17970] 10 p1702 N67-20801
Impulse approximation for quasi-elastic scattering in high energy particle collisions with light nuclei
[JINR-P-2881] 10 p1702 N67-20807
High energy electron processes inducing nuclei reactions, cross section formula in impulse approximation, and scattering theory survey
[ISS-66/45] 10 p1731 N67-21757
Electromagnetic properties of excited states of nuclei - Radioactive decay and nuclear recoiling
[NYO-3525-12] 12 p2159 N67-33569
Shell model calculations of nuclei
[PUC-937-233] 13 p2161 N67-33599
Residual interaction in nuclei using single particle potential of generalized Hartree-Fock method
[JINR-E4-3034] 12 p2171 N67-34684
Method to solve Schroedinger equations allowing calculation of energies and wave functions of deformed axially symmetric nucleus single particle states
[JINR-P4-3976] 12 p2171 N67-34688
Effect of nucleus motion on fine and hyperfine structure of atomic species
[TR-632] 12 p2174 N67-34903
Energy and wave function calculations for nonrotating states of deformed nuclei
[JINR-E4-3651] 13 p2376 N67-35914
Separation energies, single particle energies, and proton-proton and electron-proton scattering reactions
[ISS-66/40] 13 p2379 N67-36093
Regge pole model applied to high energy particle scattering by nuclei
[AD-648617] 14 p2585 N67-36687
Properties of Fermi system with equal spacings between energy levels
[FTD-HT-66-495] 14 p2586 N67-36962
Decay characteristics of deformed nuclei with uneven nucleon numbers
[ZFK-PHA-23] 15 p2763 N67-38415
Inelastic interactions of high energy particles with nuclei
[UCRL-TRANS-949, REV.] 15 p2765 N67-38472
Extension of work on optical model description of nucleon-nucleus interactions by measuring polarization and differential and reaction cross sections of proton-oxygen system
[P-77] 16 p2940 N67-29063
Electromagnetic beta transition to low-lying vibrational level in atomic nucleus
[INST-102] 16 p2947 N67-29784
Virtual transitions in elastic scattering of electrons on nuclei
[JINR-P4-3174] 17 p3125 N67-30279
L-forbidden transitions in odd mass promethium isotopes nuclei
[AE-278] 17 p3131 N67-30753
Ternary fission of uranium 236
[INP-529/PL] 17 p3138 N67-31402
Kinematics and excitation energy distributions of nuclei in cascade process at 660-MeV proton energy
[JINR-P02-2301] 19 p3507 N67-33632
Isolation of nucleohistones from Ehrlich ascites tumor cells and fractionation into euchromatin and heterochromatin
[BMWF-FBK-66-36] 19 p3379 N67-33889
Parity and residual effects in collective energy level states of spherically symmetric nuclei
[NP-16596] 19 p3511 N67-33920
Selection rules for electromagnetic transitions with spin-flip in deformed odd-odd nuclei, and degree of forbidden transitions
[ZFK-PHA-26] 21 p3900 N67-35800
Spectrum shape measurements of first forbidden beta transitions in some nuclei
[NP-16764] 21 p3903 N67-36068
Low energy nuclear reactions and level densities for medium mass nuclei
[ANL-7269] 22 p4102 N67-36982
Negative pion capture by carbon, photoemulsion, and tetraneutron nuclei
[JINR-P1-3206] 22 p4108 N67-37730
Calculation method for neutron capture gamma spectra in light, magic, and near-magic nuclei
[ORNL-TM-1867] 22 p4108 N67-37843
Evaluation of resonance integrals of fission product nuclei
[RT/FI/67/4] 23 p4301 N67-38427
Techniques for measuring electromagnetic lifetimes of nuclear levels in light-weight and medium-weight nuclei using small accelerators
[BNL-11484] 23 p4304 N67-38557
Azimuthal angular distributions of secondaries from interactions of cosmic ray particles with emulsion nuclei
[INR-788/VI/PH] 23 p4305 N67-38618
Real photon approximation for electromagnetic processes on light nuclei
[LNF-67/51] 23 p4305 N67-38620
Shells in deformed nuclei
[LA-TR-67-36] 23 p4313 N67-39093
Effect of number of active nuclei on heat transfer rate in large-volume nucleate boiling
[NASA-TT-F-11305] 24 p4550 N67-40092
NUCLIDE
SA RADIOACTIVE NUCLIDE
Experimental photonuclear reaction data on isotopes and nuclides - tables 01 p0120 N67-10441
Decontamination experiments on intact pig skin contaminated with beta-gamma-emitting nuclides
[AE-255] 04 p0494 N67-14173
Computation of nuclide yield when given target is bombarded with charged particles in cyclotron
[TG-637] 05 p0741 N67-14725
Absolute beta activity measurements of thermal neutron activation cross-sections of phosphorus, iodine, and indium in relation to sodium and manganese using liquid scintillators 06 p0936 N67-16389
Neutron differential elastic scattering cross sections and total cross sections for nuclides
[LA-3538-MS, VOL. I] 06 p0940 N67-16399
Neutron differential elastic scattering cross sections and total cross sections for nuclides
[LA-3538-MS, VOL. II] 06 p0940 N67-16400
Low energy neutron cross section

measurements of nonfissile nuclides for thermal and intermediate energy reactor designs 06 p1313 N67-18763
Linear accelerator measurements of MeV total neutron cross sections for several nuclides 06 p1339 N67-18834
Fission resonance cross section requirements for reactor design 06 p1317 N67-18848
Measurement and analysis of fissile nuclide cross sections 06 p1340 N67-18849
Interpretations of neutron cross sections of fissionable materials for resolved resonance region 06 p1340 N67-18850
Neutron resonance spectroscopy approach using bremsstrahlung radiation to study highly excited nuclear states of heavy nuclides 06 p1342 N67-18868
Standardization of alpha emitting nuclides by liquid scintillation counting [JUL-411-PC] 10 p1576 N67-21209
Cesium 137 determined in presence of other cesium nuclides via its barium 137m daughter 17 p3123 N67-36211
Index to contents of neutron data compilation center master data tape [CCDN-NW/4] 17 p3138 N67-31410
Computer depletion program for time analysis of nuclide concentration in nuclear reactor [NASA-TN-D-4151] 21 p3886 N67-35761
NULL HYPOTHESIS
Significance level in statistical hypothesis testing of production method 07 p1060 N67-17184
Null geodesics in general theory of relativity 06 p1325 N67-18310
Construction of Lyapunov function for case of stability with constantly acting disturbances in nonlinear spaces [NASA-CR-82589] 06 p1302 N67-19218
Class of epsilon Bayes tests of simple null hypothesis on many parameters in exponential families [TR-57] 23 p4273 N67-38280
NUMBER
S FROUDE NUMBER
S KNUDSEN NUMBER
S LAVAL NUMBER
S MACH NUMBER
S QUANTUM NUMBER
S RANDOM NUMBER
S RAYLEIGH NUMBER
S REYNOLDS NUMBER
S RICHARDSON NUMBER
S SIMILARITY NUMBER
S STROUHAL NUMBER
NUMBER THEORY
Arithmetic divisible codes for correcting asymmetrical errors and bundles of errors in computing processes 03 p0370 N67-12520
Algorithm for solving linear integer programming problem over finite additive group, with extensions to solving general linear and certain nonlinear integer problems [ORC-66-29] 06 p0904 N67-16462
Conjecture of Hasse concerning multiplicative relations of Gaussian sums [MRC-TSR-676] 09 p1469 N67-19783
Canonical bases of ideals [MRC-692] 09 p1470 N67-19832
Consistency proofs and representable functions [REPT.-220] 10 p1565 N67-20689
Decision procedure for real number field and procedure for p-ADIC fields that reduces problems to statements concerning residue class rings [TR-3] 11 p1906 N67-22875
Infinite set of analytic solutions to differential difference equation 11 p1909 N67-22963
Algebraic approximations for transcendental equation 13 p2128 N67-23703
Properties of bounded internal functions determined by use of measure theory and number theory [TR-3] 18 p3289 N67-33866
Fraenkel-Mostowski type models used to prove notion of cardinal numbers in set theory [TR-26] 19 p3478 N67-33739
Canonical bases for subgroups of Abelian group [MRC-TSR-727] 19 p3480 N67-33903
Compilation of results from research in number theory using digital computers [TR-1091/9990/-3] 22 p4063 N67-37332
Finite field method for construction of orthogonalized squares [SP-2897] 24 p4481 N67-39687
NUMERICAL ANALYSIS
SA WISHART DISTRIBUTION
Methods for inverting positive definite matrices and solving simultaneous linear equations [RM-4963-PR] 01 p0094 N67-10379
Role of spline functions in numerical analysis and variation diminishing approximation methods [MRC-TSR-625] 01 p0094 N67-10469
Computation methods based on Molodenskii integral equation for disturbing potential [ACIC-TC-1092] 01 p0068 N67-10498
Numerical method for approximate solution of Fredholm integral equations [MRC-TSR-652] 01 p0095 N67-10509
Estimation of local anisotropic scattering properties using measurements of multiply scattered radiation - numerical analysis [RM-5075-PR] 01 p0118 N67-10970
Linear equation solutions and computing symmetric and asymmetric matrix eigenvalues [CS-46] 02 p0280 N67-11340
Numerical methods of solving differential and integral equations and quadrature formulas [FTD-TT-65-1655] 02 p0287 N67-11257
Diffraction of horizontal magnetic dipole field on two infinitely thin ideally conducting disks 02 p0288 N67-11258
Analytical solution for motion of lunar orbital satellite [NASA-TM-X-55295] 02 p0303 N67-11392
Numerical analysis of laminated elastomeric bearings, applying linear elastic and nonlinear elastic deformation theory [F-B2140-1] 02 p0304 N67-11670
Attenuation of strong plane shock produced in target by impact of thin striker studied by numerical method of characteristics [REPT.-125-8] 03 p0468 N67-12453
Numerical solutions to equations representing stresses in elastic-plastic half-space due to superseismic step load [TR-4] 03 p0469 N67-12680
Numerical solution of Navier-Stokes equations for different problems in flow of viscous fluid 04 p0528 N67-13397
Determination of distortion coefficient 04 p0560 N67-13551
Solution of blast waves by constant time scheme in method of characteristics [REPT.-125-9] 04 p0529 N67-13733
Analysis of relationships between radar and mission parameters pertaining to search and acquisition of target spacecraft 04 p0511 N67-13923
Numerical analysis of effective neutron temperature of given thermal neutron spectrum [RISO-33] 04 p0593 N67-14184
Direct measurements of electron and ion density by rockets, and equations for collision-dominated spherical probe of ionosphere 05 p0700 N67-14642
Truncation error in particle-in-cell numerical process for solving hypervelocity impact and nuclear burst problems [RM-4876-PR] 05 p0729 N67-14941
Limiting processes with numerical results for differential equation governing field around spherical plasma probes [ARL-66-0113] 06 p0943 N67-15659
Fortran computer program for calculating velocities and streamlines for two-dimensional incompressible flow in axial blade rows [NASA-TN-D-3782] 06 p0864 N67-15661
Numerical solution for supersonic flow with angle of attack on arbitrary smooth cones [NASA-TT-F-10481] 06 p0785 N67-15693
Devices for numerical treatment of ordinary differential equations [T+AM-295] 06 p0901 N67-15775
Machine computation of aerodynamic loads in linear and nonlinear situations [AFOSR-66-1440] 06 p0767 N67-16199
Dynamic programming technique and Lagrangian multiplier method for performing numerical computation of minimum distance from point to ellipsoid [BRL-R-1338] 06 p0903 N67-16210
Analytical prediction of defects for extrusion through conical dies, and Fortran program for numerical solution of temperature distribution problem [AD-641257] 06 p0888 N67-16647
Analysis of shallow shell structures by discrete element model [PB-169656] 07 p1197 N67-16779
Experimental use of satellite cloud photographs in numerical prediction [REPT.-38] 07 p1116 N67-16790
Numerical analysis of aircraft accelerations caused by rotational velocity of earth 07 p0969 N67-16964
Theoretical inviscid fluid mechanics conference - flow theory and hydrodynamic calculations for shock wave propagation problems [NOLTR-66-191] 07 p1063 N67-17021
Numerical calculation on blast shock resulting from nuclear explosion 07 p1064 N67-17030
Numerical methods for calculating two-dimensional unsteady flows caused by meteoritic impact on solid material 07 p1200 N67-17031
Generalized inverse of matrix, and numerical solutions of large approximately singular linear systems of equations [MRC-TSR-644] 07 p1110 N67-17221
Numerical solution of simultaneous linear algebraic equations 07 p1111 N67-17230
Numerical analysis of homogeneous gas flow, and gas dispersion during nonuniform energy release [FTD-MT-65-563] 07 p1065 N67-17296
Numerical calculation of turbulent mixing of two homogeneous gas fluxes 07 p1065 N67-17297
Numerical solution to problem of flat layer gas dispersion during nonuniform energy release 07 p1065 N67-17298
Mathematical techniques used to formulate theory for system identification - dynamic programming [RM-4768-PR] 07 p1113 N67-17661
Numerical method of Mercury autocode computer programs to find lifting surface theory calculations on wings oscillating harmonically in supersonic flow [ARC-CP-851] 07 p0991 N67-18118
Numerical analyses for series of polynomials in three-body problems [NASA-CR-81795] 08 p1359 N67-18261
Theory and numerical application of parametrix method for solving higher order differential equations and boundary value problems [REPT.-33] 08 p1297 N67-18283
Pulses in linear acoustics [ARD-66-66R] 08 p1235 N67-18289
Numerical solutions for librational motion of Mercury obtained by applying Runge-Kutta integration [NASA-TM-X-57295] 08 p1362 N67-18711
Effect of Coulomb collisions on instability of contrastreaming plasmas - numerical analysis [NASA-TM-X-57286] 08 p1348 N67-18712
Slow neutron resonance parameter and cross section numerical analysis by computer programs 08 p1316 N67-18819
Numerical experiments in plasma physics [MATT-441] 08 p1348 N67-18885
Neutron resonance absorption [IN-1021] 08 p1343 N67-18895
Richardson extrapolation applied to numerical evaluation of sonic boom integrals [NASA-TN-D-3806] 08 p1218 N67-18940
Forces and torques acting on satellites and dynamical equations for describing satellite attitude [NASA-CR-82668] 08 p1368 N67-19185
Fortran system for numerical approximation of complicated or nonlinear functions [NASA-CR-82664] 08 p1355 N67-19188
Numerical analysis of two-dimensional laminar flow with nonregular boundaries [NASA-CR-82655] 08 p1289 N67-19115
Numerical solution for quasi-linear parabolic equations [FTD-TT-65-1008] 08 p1302 N67-19222
Numerical iterative algorithm to analyze structural eigenproblems 08 p1300 N67-19317
Numerical analysis and electrical characteristics of artificial line with load distribution in steady state operation 09 p1423 N67-19875
Numerical calculation of turbulent mixing of two uniform gas flows [TG-220-T201] 09 p1423 N67-19497
Three numerical approaches to inverse problem in wave propagation and diffusion [RM-5173-PR] 09 p1484 N67-19581

Numerical analysis of viscous fluid effects on wave resistance of ship hull
[AD-640833] 09 p1434 N67-19500
Numerical solution to ablation problem with possible laser applications
[BRL-R-1343] 09 p1542 N67-19806
Numerical method for reducing data from thick calorimeter to determine heating rate to calorimeter surface
[NASA-TN-D-3846] 09 p1520 N67-19885
Method of sum representations applied to numerical solution of biharmonic problems dealing with rectangles 09 p1534 N67-20117
Glass temperatures of polymers having alkyl side chains
[RAE-TR-66292] 09 p1413 N67-20337
Numerical method applicable to solving problems of gas dynamics
[FTD-TT-65-1826] 09 p1437 N67-20339
Numerical simulation of formation and dissipation of convective roll-type cloud 10 p1671 N67-20432
Determination of parameters of outcropped disturbing layer bodies according to delta g anomalies
[ACIC-TC-1141] 10 p1618 N67-20484
Third-order elastic stiffnesses for various crystal classes
[ECOM-2766] 10 p1745 N67-20551
Error bounds on numerical solutions of Dirichlet problems for quasilinear elliptic equations
[ITR-10] 10 p1665 N67-20577
Numerical analysis of coupling effects in low energy proton linac
[BNL-10669] 10 p1795 N67-20845
Numerical method for solution of nonlinear Boltzmann equation for hard sphere molecules - rarefied gas dynamics
[AFOSR-66-1923] 10 p1814 N67-21304
Multiplication of polynomials for calculating Cauchy numbers
[NASA-TM-X-55721] 10 p1667 N67-21456
Numerical calculations of quantum mechanics two-center problem
[JINR-P3-3000] 10 p1734 N67-21592
Experimental and numerical analyses of unsteady state heat and mass transfer
[NASA-TT-F-432] 11 p1995 N67-22041
Numerical analysis of temperature fields and heat fluxes during grinding of metals 11 p1996 N67-22046
Numerical solutions of boundary layer equations for noncompressible pseudoplastic fluids on permeable flat plate and in vicinity of critical point 11 p1857 N67-22060
Arithmetic and transcendental functions evaluation routines for Joss program
[RM-5038-PR] 11 p1828 N67-22400
Numerical treatment of nonideal magnetogasdynamics basic equations
[SR-33] 11 p1958 N67-22449
Theory and numerical procedure for digital computer application of Greenhouse-effect for planetary atmosphere of finite depth
[RM-5076-PR] 11 p1976 N67-22562
Numerical approach for wave motions in nonlinear media 11 p1991 N67-22828
Numerical computations for nonequilibrium hydrogen oxygen rocket nozzle flow 11 p2000 N67-22902
Solid state scattering theory for localized defects 11 p1834 N67-23143
Calculations for determining buildup of ionospheric E region
[UCID-15064] 12 p2091 N67-23593
New method for defining stochastic integrals and differential equations 12 p2128 N67-23702
Numerical analysis for thermionic diode optimization
[LA-DC-8178] 12 p2064 N67-23885
Method for calculating polynomials of best approximation
[SEG-TR-66-32] 12 p2130 N67-24013
Numerical analysis of space charge effects 12 p2166 N67-24100
Molal freezing point depression curve of uranium hexafluoride and application to method of analysis
[K-1667] 12 p2043 N67-24152
Numerical analysis of regular and Mach reflection of shock waves in aluminum
[LA-3578] 12 p2118 N67-24153
Fortran program for numerical analysis of blunt trailing edge supersonic compressor
[ARL-66-0169] 12 p2010 N67-24366
Nonlinear numerical analysis of turbogenerators and other electromechanical energy converters
[AD-646371] 12 p2019 N67-24704
Nonlinear numerical analysis of large dc electromechanical energy converters
[AD-646370] 12 p2019 N67-24707
Numerical solution of Boltzmann equation for flow at large Knudsen numbers
[FTD-TT-65-1959] 12 p2089 N67-24729
Numerical interpretation of cloud data from meteorological satellites
[TR-462] 12 p2140 N67-24920
Near field approximations of transient elastic wave propagation in infinite anisotropic plates
[TR-4] 13 p2411 N67-25106
Problems of general theory of frequency scanning antennas 13 p2375 N67-25108
Properties of antennas with stepped phase distribution 13 p2375 N67-25112
Computation of initial wind fields for integration of primitive equations 13 p2351 N67-25122
Continuous method for numerical approximation solutions of heat equation
[APL-TG-863] 13 p2422 N67-25410
Numerical solution of Dirichlet problem for open axisymmetric surfaces 13 p2368 N67-25778
Some aspects of difference equations
[NASA-CR-83905] 13 p2349 N67-25947
Nonlinear aspects of hypersonic panel flutter
[NASA-CR-83908] 13 p2418 N67-25950
Numerical methods and computer program for analyzing lateral plane vibration characteristics of simple structure possessing hysteresis damping
[NASA-CR-83994] 13 p2418 N67-26004
Numerical procedure for determining stability domains in nonlinear dynamical systems
[NASA-CR-84042] 13 p2300 N67-26293
Improved Newton-Raphson method
[LNF-67/4] 13 p2350 N67-26304
Numerical solution of integral equation for current distribution in slender impedance dipole body of revolution 13 p2284 N67-26427
Mathematical analysis of electromagnetic radiation in uniformly moving generalized media
[AFCRL-66-827] 14 p2560 N67-26740
Programming research and development, numerical and mathematical analysis, computer utilization, computer engineering, and computer systems
[ANL-7286] 14 p2563 N67-27568
Analysis of structurally orthotropic shells by compliance method
[NASA-CR-84507] 14 p2628 N67-27685
Computational algorithms and techniques for solving variable time optimal control problems
[NASA-CR-84510] 14 p2510 N67-27670
Optimal control of distributed parameter systems using multilevel techniques
[NASA-CR-84511] 14 p2510 N67-27671
Differential equilibrium equations for numerical computation of elastic displacements and stresses in axially symmetric spherical shells
[EIC-67-BR + STR-2] 14 p2629 N67-27766
Numerical method for simultaneous computation of eigenvectors and eigenvalues of arbitrary dynamical matrices 15 p2732 N67-27874
Large deflection behavior of thin shells of revolution subjected to load
[AD-634634] 15 p2796 N67-27975
Analytical method for calculating one-dimensional flow in hypersonic nozzles using simplified air model
[NOLTR-66-104] 15 p2691 N67-28244
Numerical examples for calculating largest eigenvalue of linear integral equation
[MRC-TSR-704] 15 p2732 N67-28253
Some mathematical properties of multichannel variational synthesis equations and two-dimension numerical studies
[KAPL-M-6588] 15 p2784 N67-28454
Extension of Kantorovitch method proposed and demonstrated on torsion problem of beam of rectangular cross section
[NYU-AA-66-70] 15 p2800 N67-28619
Numerical calculations for anharmonic effects in neutron scattering by crystal lattice
[AE-274] 15 p2782 N67-28863
Integral equation eigenfunction problem concerning ability of radar to distinguish between two targets
[RAE-TR-66348] 15 p2871 N67-28897
Varying length floating point arithmetic for numerical analysis in programming
[CS-62] 16 p2917 N67-28901
Lower order linear filtering and prediction of nonstationary random sequences
[SRL-67-0003] 16 p2871 N67-29067
Characteristic method for numerical solution of one-dimensional flow problems in gas dynamics
[NASA-TT-F-298] 16 p2877 N67-29219
Supersonic gas flow around blunt bodies, and numerical algorithms constructed for calculating two-dimensional and three-dimensional bodies of various shapes
[NASA-TT-F-453] 16 p2877 N67-29885
Methods of regularization for computing orbits in celestial mechanics
[NASA-CR-769] 16 p2968 N67-29987
Precession quantities and numerical partial derivatives as power series in time from arbitrary epoch
[NASA-CR-84999] 16 p2885 N67-29422
Knudsen flows through long capillaries
[NONR-562/39//9] 16 p2876 N67-29489
Numerical approximation of Cauchy principal value integrals by ignoring singularity
[DTMB-2356] 16 p2920 N67-29908
Numerical analysis of inviscid flow field about right circular cone in unsteady planar flight using modified perturbation method
[FDL-TDR-64-148] 16 p2913 N67-29909
Signal flow graph methods for analyzing modulo-m linear sequential circuits and mixed systems containing both modulo-m adders and adders of real numbers
[TR-519] 16 p2869 N67-29986
Preliminary calculations on direct transmission of light through plane water surface and return by submerged retroreflector
[NRL-6422] 16 p2938 N67-29819
Method for calculating characteristic parameters of three-dimensional turbulent boundary layers based on assumption of third degree polynomial for temperature polar
[AD-659953] 16 p2879 N67-29615
Method for calculating kinetic problems of thermal reactors
[RT/FI/66/21] 16 p2932 N67-29741
Magnetic field compression computed by liner driven by explosion
[EUR-3288.E] 16 p2966 N67-29988
Methods for regulating problems in numerical solution of theory of optimal automatic control systems
[JPRS-41079] 16 p2922 N67-30017
Numerical determination of energy and mass transport characteristics of gas flowing axially through constricted arc plasma generator
[NASA-TN-D-4042] 16 p2957 N67-30122
Axisymmetric vibrations of partially liquid filled flexible cylindrical shell containers with rigid flat bottoms
[NASA-TN-D-4038] 16 p2983 N67-30134
Numerical analysis of on-line digital flight control systems and real-time hybrid simulations
[CS-495/33] 17 p3100 N67-30182
Numerical interpretation of cloud information obtained from satellites, and determination of geopotential field
[T-R-469] 17 p3050 N67-30200
Dynamic buckling of imperfect viscoelastic shallow arches with hinged ends under step loads of infinite duration
[TR-1] 17 p3169 N67-30249
Landau electrostatic space charge waves in isotropic hot electron plasmas
[ARL-67-0012] 17 p3140 N67-30255
Asymptotic numerical solution of reactor kinetics equations
[KAPL-M-6561] 17 p3105 N67-30261
Numerical calculations for ballistic interference effects on unguided missiles 17 p3100 N67-30435
Numerical solution of Fredholm integral equation of first kind
[NASA-CR-85609] 17 p3092 N67-30778
Diagnostic studies of weather systems of high and low latitudes using general balance model for small Rossby numbers
[NASA-CR-85515] 17 p3097 N67-30784
Numerical calculation of three-dimensional trajectories using balanced horizontal and vertical motions 17 p3098 N67-30787
Calculation of percentage area covered by convective clouds from moisture

convergence 17 p3098 N67-30790
Numerical method for determining free thermal expansion of finite cylinders of different length to diameter ratios having radially parabolic temperature distribution
[AECL-2660] 17 p3093 N67-30947
Automatic numerical weather analysis for Australia 17 p3099 N67-31047
One-dimensional heat equation for numerical solution of heat conduction problems
[NASA-CR-85812] 17 p3178 N67-31303
Numerical values for admittance of infinite cylindrical antenna in lossy, isotropic, compressible plasma
[NASA-CR-86619] 18 p3238 N67-31519
Numerical solutions for differences in ocean planetary boundary layer flow from that of steady-state spiral resulting from temporal wind variations
[NASA-CR-86803] 18 p3261 N67-31520
Numerical technique for solving Fredholm integral equation of second kind
[TR-10] 18 p3285 N67-31555
Digital computer program incorporating numerical method of optimizing camber surfaces for wing-body combinations at supersonic speeds
[NASA-CR-69181] 18 p3187 N67-31970
Numerical solution of optimal control and programming problems 18 p3252 N67-32218
Modulo comparison method for analyzing numbers represented in binary and Grey codes in development digital comparison circuit 18 p3297 N67-32238
Numerical solution of elastohydrodynamic film thickness in elliptic contact
[MTI-67TR25] 18 p3276 N67-32319
Numerical solution for longitudinal wave in cylindrical shell
[TR-41] 18 p3352 N67-32467
Thermal radiation effect on laminar, flat plate boundary layer flow
[AD-652365] 18 p3357 N67-32683
Tables for square root of complex numbers for determining propagation constant of electromagnetic field in dissipative medium
[SC-R-67-1052] 19 p3478 N67-32767
Elementary derivation of principal effects of earth oblateness on satellite orbits
[TR/RP-76] 19 p3522 N67-32780
Equation for describing heat conduction in moist porous media
[CRREL-RR-212] 19 p3549 N67-32788
Methods for normalization of Bethe-Salpeter amplitudes for bound states
[AD-651984] 19 p3501 N67-32853
Inertial ranges in two-dimensional turbulence
[RR-11] 19 p3430 N67-32862
Numerical method for computing equation of radiative transfer for plane parallel atmospheres
[B67SD22] 19 p3497 N67-32894
Finite difference solution of laminar compressible boundary layer equations in Von Mises variables with slot injection applications
[NYU-AA-66-56] 19 p3451 N67-32896
Numerical analysis of strong shock waves using Monte Carlo method - structure of shock wave in gas of hard spheres for Mach 1.5
[R-347-PT-8] 19 p3431 N67-32923
Calculation of scattering and reaction cross sections of atmospheric gases
[TM-560] 19 p3502 N67-32940
Semiempirical calculation of dissociative attachment in hot oxygen 19 p3502 N67-32944
Equations in momentum space representation for wave function of many body system with definite angular momentum 19 p3508 N67-32948
Theoretical analysis of slope energy curve entering continuum 19 p3505 N67-32949
Methods for computing total electron content of ionosphere 19 p3401 N67-32984
Study on refraction by computation of differential Doppler and Faraday effects at 20 and 40 Mc/s 19 p3401 N67-32987
Algebraic formulation of dynamic problems
[IC/67/18] 19 p3480 N67-33005
Error bounds on numerical solutions of Dirichlet problems for quasi-linear elliptic equations
[LA-3685] 19 p3481 N67-33234
Mathematical method for determining signal levels as function of time for communicating or tracking equipment before mission
[NASA-TM-X-55861] 19 p3404 N67-33254
Lunar and solar perturbations in motion of artificial satellite due to fourth degree Legendre polynomial
[NASA-TM-X-55864] 19 p3535 N67-33255
Numerical method for calculating equilibrium state in postbuckling region of thin wall cylindrical shells subjected to longitudinal load and radial pressure
[DLR-FB-67-25] 19 p3548 N67-33428
Theoretical calculation of aerodynamic lift and moment derivatives for pitching oscillations in incompressible flow - analysis of arrowhead and delta wings
[DLR-FB-67-26] 19 p3364 N67-33439
Feasibility of numerical calculation of probability integrals of n-dimensional normal distribution
[DLR-MITT.-67-07] 19 p3462 N67-33466
Experimental analysis of microphysical structure of cloud and fog fluctuations over Heng Shan, China
[EMM-66-130] 19 p3485 N67-33912
Heuristic discussion of general problem of computing and implications for constructing mathematical models
[NOLTR-67-54] 20 p3606 N67-34063
Numerical method for determining heat transfer characteristics of dilute solid-gas mixture in externally heated tube
[BM-IC-6343] 20 p3743 N67-34071
Creep deformation and buckling of column with arbitrary cross section
[FFA-R-107] 20 p3736 N67-34100
DIFF code using results of WDSN transport code to calculate neutron diffusion theory parameters for CRAM diffusion code
[AAEC/E174] 20 p3691 N67-34174
Path independent integral and approximate analysis of strain concentration by notches and cracks
[E39] 20 p3737 N67-34247
Optimal quadratures for analytic functions
[AD-653713] 20 p3669 N67-34275
Optimal allocation in a pure capital working model with withdrawals, such as asymptotic properties, and algorithms
[NASA-CR-87431] 20 p3670 N67-34373
Proposed solution for improving present method of gravimetric reduction of first order spirit leveling in United States
[REPT.-73] 20 p3631 N67-34416
Calculation of positions of particle-hole states in sd-shell
[AD-653978] 20 p3696 N67-34605
Determing continuous operating component of quasi-continuous pulse systems and synthesis of variation algorithms of adjustable coefficients in model reference adaptive control systems
[JPRS-42003] 20 p3615 N67-34815
Synthesis of variation algorithms of adjustable coefficients in model reference adaptive control systems 20 p3615 N67-34817
Earth atmosphere behavior simulation by six-layer numerical model based on integration of water vapor conservation, thermodynamic, and hydrodynamic equations 20 p3635 N67-34858
Analytic solution for acoustic pressure statistics in closed rectangular cavity behind supported rectangular plate excited by boundary layer turbulence
[USL-837] 20 p3689 N67-34913
Equations for gravitational collapse of spherically symmetric body with radial energy flow to obtain diagram of total energy emitted during collapse versus original mass 20 p3728 N67-34947
Numerical method for analysis of supersonic wing-body combinations and related flow fields, and for design of optimum wing camber surface in presence of body
[NASA-CR-73186] 20 p3542 N67-34967
Analytic description of merging of several waves
[NASA-CR-87652] 20 p3604 N67-35015
Theoretical curves for induced polarization method used in mineral prospecting
[T-476-R] 20 p3636 N67-35121
Numerical analysis procedure for screw extrusion of polymer melt
[SP/TN/8] 20 p3667 N67-35208
Numerical analysis of least squares method applied to geopotential and gradient field 21 p3823 N67-35400
Numerical analysis of crystal pressure transducer recordings of stress wave emerging from imparted samples
[UCRL-50233] 21 p3846 N67-35458
Numerical solution of linearized differential equations governing compressible axisymmetric laminar wake flows
[AS-67-5] 21 p3830 N67-35564
Calculation problems of heat exchangers with internal heat sources and sinks
[FTD-HT-66-436] 21 p3845 N67-35645
Finite difference solution to propagation of disturbances in infinitely wide foil bearing
[NASA-CR-86700] 21 p3838 N67-35702
Analysis of steam vapor vortex flow in submarine surface condenser
[MEL-461/66] 21 p3830 N67-35710
Difference methods for solving inviscid and viscous one-dimensional flow equations of compressible gas
[PIBAL-969] 21 p3831 N67-35714
On-line time sharing computer system designed for use by engineers to solve complex numerical problems
[RM-5223-PR] 21 p3678 N67-35750
Analysis of charging device for amplitude coder of high accuracy
[JINR-P13-3275] 21 p3818 N67-35910
Steady heat flow out of solids with temperature dependent conductivity
[NLIS-R-497] 21 p3947 N67-35912
Numerical solution for eigenvalue problem in matrix analysis on airfoil dynamics 21 p3895 N67-35954
Thermal stresses in thick-walled cones subjected to axisymmetric thermal gradients by finite difference equations
[TG-914] 21 p3943 N67-36070
Numerical methods for evaluating theoretical formulas specifying acoustic field resulting from scattering of acoustic wave by elastic sphere
[NRL-6551] 21 p3896 N67-36114
Extension of practical computational solution of nonhomogeneous Fredholm integral equations to eigenvalue problem for homogeneous integral equations
[RM-5261-PR] 21 p3899 N67-36162
System theory techniques and analysis of system with delay subject to generalized function inputs
[RM-4672-PR] 21 p3834 N67-36169
Numerical analysis of rarefied flows considering detailed molecular motion
[TAE-69] 21 p3833 N67-36170
Four-dimensional Hamiltonian formalism of ray tracing in anisotropic medium
[NASA-TT-F-11188] 21 p3896 N67-36180
Nonsimilar laminar boundary layer analysis applied to hypersonic inlet compression surfaces
[AFFDL-TR-66-146] 21 p3755 N67-36410
Spectrum of linearized Boltzmann equation for hard sphere case
[TR-11] 21 p3911 N67-36475
Computation of ionized meteor wake initial radius
[NASA-CR-81706] 21 p3982 N67-36610
Librational motion of satellite with large panels 21 p3984 N67-36666
Numerical solution of Boltzmann equation for two-dimensional gas
[AS-67-4] 22 p4022 N67-36684
Solution of three-body problem by convergent series
[NASA-TT-F-10477] 22 p4130 N67-36701
Fortran computer program for numerical solution of compressible laminar boundary equations using finite difference integration method
[NYU-AA-66-71] 22 p4023 N67-36707
Numerical investigation of one-dimensional search procedures in nonlinear regression problems
[RE-2001] 22 p4003 N67-36774
Multi-dimensional stochastic dynamical system for optimal control
[PIBMRI-1264-67] 22 p4015 N67-36781
Numerical solution of turbulent boundary layer equations for compressible and incompressible flows
[DAC-33735] 22 p4022 N67-36802
Accurate and stable numerical solutions to Schroedinger equations
[NRL-6556] 22 p4000 N67-36828
Spectral decomposition of cross correlation function
[NASA-TM-X-53669] 22 p4021 N67-36977
Systems of ordinary differential equations solution using expansion in power series method on quick response computers
[NASA-CR-86816] 22 p4021 N67-36979

Method for designing blades of highly loaded two-stage turbines, and performance of blades tested in single-stage and two-stage configurations
[ARC-CP-941] 22 p3955 N67-36884
Analytical determination of shutter type temperature control system effective radiative properties
[REPT.-655D329] 22 p4160 N67-36888
Analytical data on free vibrations of pressurized prestressed toroidal shell applied to simple toroidal shell structure models
[NASA-CR-885] 22 p4152 N67-36913
Empirical representation of creep strain data for problems involving time varying stresses and temperatures
[ARC-CP-945] 22 p4152 N67-36928
Comparative numerical applications of reverse flow theorem to oscillating wings and control surfaces
[ARC-R+M-3488] 22 p3956 N67-37181
Particle distribution model with unfolding formulas and computer program for estimating particle volume density
[BNWL-210] 22 p4105 N67-37395
Treatment of hydrogen scattering in multigroup Monte Carlo criticality calculations
[K-DP-2252] 22 p4106 N67-37482
Numerical solutions for time-dependent Navier Stokes equation for two-dimensional flow of dissociating gas over circular cylinder 22 p4031 N67-37614
Calculation of warp to produce load and pressures on thin slender wings in supersonic flow
[ARC-R+M-3471] 22 p3957 N67-37637
Mathematical investigations of semiconductor devices, based on two-dimensional numerical solution of ambipolar diffusion equations
[AFCRL-66-358/II/] 22 p4014 N67-37664
Numerical method for treating time transient gas lubrication equation
[NASA-CR-88639] 22 p4057 N67-37799
Computation based on experimental schlieren plot for determining distribution of molecular weight from equilibrium sedimentation
[AFML-TR-67-121, PT. I] 22 p3991 N67-37838
Dual finite element computer system for stretching and bending orthotropic plates
[NASA-CR-88866] 22 p4157 N67-37882
Multimode time synthesis approximation to space-time reactor kinetics - appraisal of finite differencing methods
[WAPD-TM-635] 22 p4095 N67-37894
Computer design and programming research on circuits, hardware and software systems, numerical analyses, and machine languages
[COO-1469-0064] 22 p4008 N67-37899
Computation of compressible fluid flow patterns in transonic region
[C5-70] 22 p4023 N67-38000
Numerical method for determining transient blade motions of rotor with flapping and lead-lag degrees of freedom
[NASA-TN-D-4195] 22 p3958 N67-38016
Transverse curvature effects on axisymmetric compressible laminar boundary layer
[NASA-TT-F-10979] 22 p4033 N67-38018
New method for calculating void content in glass reinforced plastics
[NOLTR-67-99] 23 p4289 N67-38118
Computer program solutions to space science problems
[AFCRL-67-0465] 23 p4341 N67-38137
Elastic membrane effect on stability of time independent soil
[ARPA-E47] 23 p4355 N67-38243
Numerical analysis of plasma columnar diffusion problem 23 p4317 N67-38283
Numerical solution for flow field of supersonic cone-cylinder entering and leaving blast sphere diametrically
[SC-CR-67-2532] 23 p4237 N67-38714
Numerical solutions for electrical conductivity of partially ionized gas in weak electric field 23 p4321 N67-38744
Physical-numerical model for inferring tropospheric structure from satellite radiation measurements - rain relationship to surface dew point, and atmospheric energetics 23 p4280 N67-38801
Physical numerical model for inferring tropospheric structure from satellite radiation measurements 23 p4280 N67-38802
Preview control system model with one or two fast-time scale loops
[NASA-CR-89264] 23 p4196 N67-39049
Solution of laminar boundary layer equations by numerical method
[R67SD54] 23 p4239 N67-39062
Experimental test of Coulomb law of force between charges
[COO-1112-118] 23 p4296 N67-39131
Seismological studies including work on mode filters, earth core models, surface wave velocity, wave excitation, and seismograph array data processing techniques
[AD-657067] 23 p4248 N67-39156
Synthesis of dilatation and rotation seismograms 23 p4248 N67-39157
Construction of optical mode filters for application with seismic data 23 p4248 N67-39158
Preliminary evaluation of series of earth core models 23 p4248 N67-39159
Derivation and solution of equations of hydrodynamic flow in tires
[NASA-CR-89234] 23 p4260 N67-39165
Accuracy of numerical calculation for aerodynamic heating of aircraft fuselage 23 p4266 N67-39170
Solution of problem of antisymmetric deformation of conical shell of linearly variable thickness on 2M fast electronic computer 23 p4242 N67-39376
Quasi-linear elliptic equation arising in non-Newtonian fluids theory
[MRC-TSR-734] 24 p4429 N67-39438
Problem solving by quantitative and numerical analyses
[AD-657323] 24 p4475 N67-39461
Computer analysis of mass action equations used to calculate expected pressure dependence for formation of point defects in binary compounds
[SRL-TR-590-C] 24 p4294 N67-39496
Numerical analysis of radiation effect on hypersonic flow near stagnation point
[NASA-TT-F-11274] 24 p4429 N67-39586
Lagrange multiplier method of defining auxiliary problems in nonlinear programming
[RAC-TP-263] 24 p4478 N67-39659
Numerical verification of stable, periodic, coplanar orbit existence about Sun perturbed Earth-Moon triangular point
[NASA-TM-X-53981] 24 p4527 N67-39680
Numerical analysis of axisymmetric hypersonic flow with strong viscous interaction
[TR-1081/2240-10/-11] 24 p4431 N67-39687
Exact solutions for vibrations of hollow elastic cylinder bonded to thin casing of different material
[NASA-TN-D-4221] 24 p4542 N67-39863
Iterative interpolation and numerical differentiation using divided differences
[NASA-TM-X-55976] 24 p4479 N67-39891
Weight coefficients of Luke applied to numerical evaluation of integral equation in linearized problem of impulsively-moving flat plate in rarefied gas flow
[ARL-67-0124] 24 p4432 N67-39736
Integral equation for current distribution of electrically thick tubular antenna driven by voltage across finite gap on infinitely large ground plane
[SR-17] 24 p4406 N67-39746
Numerical analysis of triangular elements which satisfy equilibrium conditions between adjacent elements in plate bending problems
[RAE-TR-67110] 24 p4544 N67-39801
ESSA and TIROS satellite data input to numerical weather analysis and forecasting 24 p4486 N67-39807
Numerical analysis of baroclinic zones applied to objective location of frontal areas 24 p4487 N67-39819
Numerical method for treating time transient Reynolds gas lubrication equation
[MTI-67TR14] 24 p4458 N67-39928
Numerical analysis of ionospheric electron density distribution with height from the vertical incidence ionogram 24 p4440 N67-39964
Measured virtual heights of reflection at series of frequencies used to calculate real heights at those frequencies by overlapping polynomial analysis of ionograms 24 p4441 N67-39969
Numerical analysis of phase refractive indicies for reducing virtual height at frequency curves to electron density profiles 24 p4442 N67-39970
Single polynomial analysis for direct manual calculation of ionospheric electron density parameters 24 p4442 N67-39974
Synoptic surveys of ionospheric morphology of systematic calculation of large numbers of electron density profiles 24 p4442 N67-39975
Fabrication, testing and processing of high performance composite materials
[HPC-67-28] 24 p4472 N67-40018
Optimal scaling of matrices with respect to vector norms, matrix bounds, and condition numbers of matrices
[ITR-15] 24 p4482 N67-40034
Algorithm for finding minimum equivalent graph of digraph
[RR-107] 24 p4482 N67-40154
Transonic panel flutter
[NASA-TT-F-11314] 24 p4545 N67-40157
Equations of motion used in numerical analysis of weak pressure wave propagation at very low pressure
[P-328] 24 p4433 N67-40173
Numerical analysis of spectral lines on photographic plates of nebulae to determine characteristic curves of spectrophotometric emulsion
[ARL-67-0125] 24 p4453 N67-40174
Numerical analysis of chemical kinetics in reacting gas equations applied to rocket nozzle and plume flows
[NASA-CR-89657] 24 p4400 N67-40231
Numerical analysis of physically nonlinear structures 24 p4547 N67-40477

NUMERICAL CONTROL
Numerically controlled equipment for contour formed metal components required by Saturn I and Saturn IB boosters 03 p0402 N67-12708
Comparison of two surface fitting computer programs for numerically controlled machine tools
[NEL-211] 04 p0555 N67-13771
Routine for fitting smooth curve to ordered set of points using normalized cubic polynomials for numerically controlled machine tools
[Y-1400, REV. 1] 08 p1298 N67-18277
Fluidics applied to numerical control of machine tools 10 p1609 N67-21107
Correction of form errors in numerically controlled machined point-defined surfaces of revolution
[Y-1576] 19 p3464 N67-33504
Automatic tool setting system for numerically controlled machines
[Y-1579] 19 p3464 N67-33511
Punched-tape read in circuit improvements for numerical control of machine tools
[Y-IA-44] 19 p3424 N67-33858
Information retrieval effectiveness based on numerical taxonomy method for evaluating and predicting equipment performance from environmental engineering data
[FA-R-1847] 19 p3466 N67-33913
Program controlled aircraft model contour measuring machine - automatic three-dimensional model
[RAE-TR-66229] 19 p3460 N67-33987
Digital simulation of numerically controlled production systems
[NASA-RP-14] 23 p4280 N67-39238
Signal to obtain closed loop transfer function of numerically controlled machine tool control system
[Y-1586] 24 p4459 N67-40085

NUMERICAL INTEGRATION
SA RUNGE-KUTTA INTEGRATION
Numerical integration of equations for dynamic capture of moon by earth
[NASA-CR-79456] 01 p0153 N67-10785
Relaxation of non-dissociated nitrogen in hypersonic wind tunnel measured by use of one-dimensional flow equations, transformations, and numerical integration 02 p0252 N67-11964
Difference methods for asymptotic estimates of errors at numerical integration of systems of ordinary differential equations
[NASA-CR-80650] 04 p0567 N67-13537
Relative and absolute stability regions determined for numerical solutions of ordinary differential equations
[NASA-TN-D-3780] 04 p0569 N67-14165
Differential motion equations of probe numerically integrated in rectangular coordinate system for probe ephemeris 05 p0671 N67-14425
Numerical integration methods applied to interior ballistics calculation systems for light gas guns and conventional guns 06 p0839 N67-15365

Finite difference experiments with simple conservation law
[AFCRL-66-537] 06 p0675 N67-16374
Point kernel integration for describing transfer of gamma energy sources distributed uniformly throughout right circular cylinder of infinite length
[ORNL-TM-1260] 07 p1129 N67-17404
Computer program using numerical methods that calculates minimum time for space vehicle to meet its mission with optimum trajectory, and can maximize option if burning time is fixed
[NASA-TM-X-53552] 07 p1192 N67-17633
Quantum mechanical calculations to evaluate barrier penetration and resonance effects on phase shifts
[NASA-CR-89590] 07 p1157 N67-17855
Numerical integration of periodic orbits in elliptic restricted three-body problem 08 p1360 N67-18311
New class of finite difference operators 08 p1909 N67-18759
Numerical method of integrating Navier-Stokes equation for unsteady compressible flow, and application to separated flows 08 p1271 N67-19288
Transformation of boundary layer equations for numerical integration of laminar and turbulent free shear layers 08 p1272 N67-19289
Technique for numerical integration of linear and nonlinear Fredholm integral equations
[RM-4782-PR] 09 p1434 N67-19552
Numerical solution of differential equations using Runge-Kutta methods of orders up to ten - combinatorial analysis
[MRC-TSR-698] 09 p1468 N67-19746
Computer program for integration of systems of ordinary differential equations
[NASA-CR-82963] 09 p1470 N67-19966
Numerical integration of control equations, and problem of small time constants
[NASA-TN-D-3907] 11 p1906 N67-21960
New Lie series method for numerical integration of ordinary differential equations, and restricted three-body problem application
[NASA-TN-D-3857] 11 p1909 N67-23285
Debye integrals for heat capacity, energy, free energy, and entropy calculated using fast accurate numerical integration routine
[UCRL-17225] 12 p2044 N67-24577
Numerical integration, matrix solutions, and other calculations for wave diffractions, transition wave processes, oscillatory functions, and electromagnetic wave excitations 13 p2365 N67-25216
Initial value method for computing Fredholm resolvents
[RM-5358-PR] 13 p2347 N67-25453
Operational unification of finite difference methods for numerical integration of ordinary differential equations
[NASA-TR-R-262] 13 p2349 N67-25653
Birkhoff normalization process digital computer program for analysing finite time stability of equilibrium points of time independent Hamiltonian systems
[AFOSR-67-0123] 14 p2613 N67-27178
Error growth and stability analysed for numerical integration of differential equations in chemical kinetics
[NASA-CR-66371] 14 p2479 N67-27231
Computer techniques for numerical integration of definite integrals
[SC-RR-66-127] 14 p2563 N67-27581
Numerical integration of oscillating functions with nonlinear argument 14 p2566 N67-27735
Computer study of estimated error propagation in numerical integration of ordinary differential equations
[GE/EE/67A-13] 17 p3001 N67-30480
Numerical methods and integration for solution of restricted three-body problem 17 p3001 N67-30607
Numerical integration of nonlinear differential equations by use of rational approximation
[NASA-CR-85778] 17 p3094 N67-31175
Numerical integrations to determine high level heating effects on large scale circulation of lower atmosphere 20 p3675 N67-34981
Numerical integration of Poisson equation in circular domain
[MATT-588] 20 p3710 N67-34977
Numerical integration methods for computing flow of gas in chemical nonequilibrium behind normal shock wave
[NASA-TN-D-4109] 20 p3671 N67-35013
Comprehensive mathematical analysis of numerical integration techniques for real time digital flight simulation
[AMRL-TR-67-4] 21 p3877 N67-35630
Numerical integration of equations of flow in initial region of turbulent wall jet
[SF/TN/7] 21 p3830 N67-35670
Derivation and application of computer oriented technique for synthesizing numerical integration methods optimal solely on basis of stability
[AMRL-TR-67-3] 21 p3880 N67-36428
Numerical integration of stiff ordinary differential equations
[COO-1469-0061] 21 p3881 N67-36539
Numerical integration of Poisson equation for computer simulated plasma 22 p4119 N67-37743
Computer programs for determining atmospheric density from analysis of satellite observations using numerical integration procedures
[AFCRL-67-0463] 23 p4250 N67-38379
Numerical integration of periodic and nonperiodic solutions of planar restricted three-body problem
[D1-82-0635] 24 p4327 N67-38536
Numerical integration schemes for ballistic rocket trajectory simulation programs
[ECOM-5134] 24 p4478 N67-38832
Numerical integration of kinetic equations for chemical systems having both slow and fast reactions
[P-3547] 24 p4395 N67-39041
Satellite observation and orbital element data input to satellite analysis monitor and numerical integration programs for computing atmospheric densities 24 p4428 N67-39816
Grid telescoping by numerical integration for weather forecasting covering entire Northern Hemisphere 24 p4487 N67-39818
Predictor-corrector algorithm applicable to numerical integration of satellite orbits in multirevolution steps
[NASA-TM-X-55906] 24 p4530 N67-39995
Comparison of numerical methods for integration of finite-rate chemical kinetic equations
[TM-161] 24 p4401 N67-40461
NUTATIONAL OSCILLATION
Effects of precession and nutation in equator and equinox of earth
[NASA-TM-X-55600] 02 p0255 N67-11375
Precession and nutation for lunar and earth orbits 05 p0759 N67-14417
Comparative study of nutation dampers for satellites
[NASA-TT-F-10373] 12 p2232 N67-25034
Nutation sensor
[NASA-CR-83923] 13 p2320 N67-25695
Precession and nutation of deformable bodies
[NASA-CR-84052] 13 p2309 N67-26283
Nutational stability of multibody spin stabilized satellites
[RAE-TR-67009] 15 p2795 N67-28363
Flyweight despin mechanism performance with coning body
[SC-TM-67-216] 20 p3689 N67-35120
Derivation of explicit equations governing deformations of self-gravitating viscous bodies in external force field for application to physical librations of moon
[NASA-CR-89065] 23 p4355 N67-38364
NUTRITION
SA DIET
SA FOOD
SA SPACE FLIGHT FEEDING
Problems of gastroenterology in aerospace medicine and physiological bases of astronaut nutrition 16 p2836 N67-29208
Nutritional evaluation of liquid diets for man in space
[NASA-CR-89017] 22 p3971 N67-37493
NUTRITIONAL REQUIREMENT
SA CALORIC REQUIREMENT
Clinical nutritional study of minimum protein and caloric requirements for man
[NASA-CR-79394] 02 p0215 N67-11227
Conference on nutritional requirements for survival in Arctic and at high altitudes
[AD-637697] 03 p0339 N67-13441
Nutritional effects on human performance in cold environment 03 p0339 N67-13442
Protein metabolism in hard muscular work in relation to nutritional requirement 03 p0339 N67-13444
Nutritional aspects of polar physiology 03 p0339 N67-13445
Nutrition and fluid balance in high altitude mountaineering 03 p0340 N67-13452
Nutritional requirements and breeding behavior of two subspecies of Peromyscus
[NASA-CR-80893] 05 p0641 N67-14550
Preparation, taste, and nutritional balance of NASA freeze-dehydrated diet 07 p1013 N67-17614
Science fiction works and propositions on space environment, life support, weightlessness, and lunar exploration
[FTD-MT-64-343] 10 p1761 N67-21431
Nutritional evaluation of precooked dehydrated and bite-size compressed food diet as sole nutriment for six weeks
[NASA-CR-84099] 13 p2350 N67-25978
Biochemical and physiological evaluation of human nutritional requirements under simulated aerospace conditions
[NASA-CR-85252] 16 p2837 N67-29060
Dietary and environment chamber tests conducted to determine nutritional requirements and breeding behavior of three Peromyscus subspecies
[NASA-CR-85777] 18 p3262 N67-31725
Adult energy, nitrogen, and water requirements at high altitudes
[REPT.-208] 22 p3974 N67-38065
Mineral nutrient requirements of Chlorella sorokiniana studied in continuous pure culture
[SAM-TR-67-46] 23 p4186 N67-38290
Nutrition problems during manned space flights 23 p4193 N67-39099
NUTS AND BOLTS
Panel attachment mechanism for replaceable heat shield system of manned lifting entry vehicle
[NASA-CR-640] 02 p0316 N67-11950
NYLON
SA DACRON
SA POLYAMIDE
Oxygen aging exposure of finished and dyed nylon cloths
[NAEC-AML-2445] 01 p0090 N67-10355
Characterization and reproducibility of nylon phenolic resin syntactic foam for use in ablative heat shields of Scout vehicle nosecaps
[NASA-CR-73041] 02 p0278 N67-11986
Fatigue testing of viscose rayon, acetate, nylon, and Terylene yarns 05 p0723 N67-14523
Optical reflectance measurements of pyrolytic graphite and phenolic nylon chars and potential application to heat shield requirements 06 p0836 N67-15712
Conductive heat transfer in porous carbonaceous chars of degraded phenolic nylon sample
[NASA-CR-81295] 06 p0982 N67-16556
Composition, density, and environmental effects on ablative performance of phenol resin and nylon mixture
[NASA-TN-D-3908] 11 p1904 N67-22294
Comparative study of and draw-frame blends of cotton and nylon
[TR-67-23-CM] 12 p2122 N67-23638
Plastic flow rates in nylon interpreted in terms of dislocation motion
[AD-650576] 16 p2914 N67-29062
Thermophysical properties of nondegradated and thermally degradated low density phenolic-nylon ablating material
[NASA-CR-899] 18 p3282 N67-31788
Permeabilities of elastomer, low density epoxy and phenolic-nylon char
[NASA-CR-88435] 18 p3282 N67-32490
Tear resistance of nylon fabrics coated with formulations containing neoprene latex
[AD-653792] 20 p3664 N67-34294
Laminates of butadiene acrylonitrile copolymers, nylon fabric, and elastomers with and without barrier films
[AD-654799] 21 p3874 N67-35663
NYSTAGMUS
SA EYE MOVEMENT
Performance of human subjects in vertical writing tasks after being rotated - evaluation of post-rotary vestibular nystagmus 02 p0184 N67-11447
Role of cholinoreactive and adrenoreactive systems in regulating vestibular reaction to nystagmus 02 p0190 N67-11970
Angular and linear acceleration effects influence upon cupula with resulting changes in human nystagmus - central converging otolithic influence upon cupula 05 p0636 N67-13128
Nystagmus response to linear and angular accelerations 05 p0636 N67-13130

Lack of response to thermal stimulation of semicircular canals during parabolic flight weightlessness for study of caloric nystagmus mechanism in man 05 p0857 N67-15140
Visual-arousal interaction and specificity of nystagmic habituation in human males under angular acceleration [AMRL-883] 10 p1566 N67-21856
Adaptation to vestibular disorientation - influence of interrupting nystagmic eye movements with opposing stimuli [AM-66-87] 11 p1788 N67-23097
Effect of orientation to gravitational vertical on nystagmus following rotation about horizontal axis [FPRC/1247] 20 p3571 N67-34251
Adaptation to vestibular disorientation - visual fixation affecting nystagmus and sensations of turning [AM-67-13] 23 p4192 N67-39027
Relationships between vestibular nystagmus and visual acuity [NAMI-1008] 24 p4383 N67-39676
Nystagmus responses of men and cats to equivalent vestibular stimuli of angular accelerations [NASA-CR-89669] 24 p4383 N67-39777

O

O STAR
Red shifts in spectra of O and B type stars [AD-642144] 06 p0967 N67-16149
Star survey in region of association I Lacerta [NASA-TM-X-55718] 19 p3538 N67-33980
OB stars, classical cepheids, galactic clusters, galaxy field motion, and model of galactic expansion for determining environs of sun [AFCRL-64-940] 20 p3725 N67-34573
OAO
X-ray collectors and detectors evaluated for use as spectrography experiment in Orbiting Astronomical Observatory /OAO/ [NASA-CR-80044] 03 p0463 N67-12964
Experimental packages of orbiting laboratory, and of sounding rockets for stellar and galactic astronomical observations 08 p1364 N67-18733
Perturbation theory and new cell concept for substitution measurements of buckling heavy water assembly [AE-256] 09 p1481 N67-20291
Design of command and data handling system for orbiting astronomical observatory, and scientific experiments for OAO spacecraft [ESRO-SP-15] 09 p1517 N67-20294
Attitude control system design of astronomical satellite for stellar ultraviolet observation [ESRO-TM-38] 09 p1517 N67-20297
Satellite and space probe firings, space technology applications, Apollo project flights and university programs summary report [NASA-TM-X-59454] 10 p1760 N67-21021
Onboard digital computer and strap-down inertial reference unit for attitude control of advanced OAO [NASA-TM-X-55895] 21 p3804 N67-35864
OBLATENESS
First-order effect of earth oblateness upon flight time and trajectory of ballistic missile [RAE-TN-WE-36] 11 p1977 N67-22719
Elementary derivation of principal effects of earth oblateness on satellite orbits [TR/RP-76] 19 p3532 N67-32790
OBLIQUE COORDINATE
Parameters of oblique-magnetized bodies of arbitrary shape determined by approximations based on gravity integrals [ACIC-TC-1196] 22 p4099 N67-37217
Tensor analysis derivation of equations for plane problem of elasticity theory in oblique angle coordinates and for conversion of stress and deformation components 23 p4361 N67-39191
Fortran computer program developed for plotting projections on three-dimensional surfaces [TR-1001/2230-46/-9] 24 p4413 N67-39685
OBLIQUE SHOCK WAVE
Optimal supersonic flow with oblique shock waves and heat addition [FTD-HT-67-36] 15 p2690 N67-28196
OBSERVATION
S CELESTIAL OBSERVATION
S RADAR OBSERVATION
S RADIO ECHO OBSERVATION
S RADIO OBSERVATION
S SATELLITE OBSERVATION
S SOLAR RADIATION OBSERVATION
S VISUAL OBSERVATION
OBSERVATORY
SA ASTRONOMICAL OBSERVATORY
SA GEOPHYSICAL OBSERVATORY
SA LUNAR OBSERVATORY
SA SOLAR OBSERVATORY
Observations from Byurakanskaya Astrophysical Observatory [JPRS-38477] 01 p0155 N67-11134
Astronomical and climatic evaluation of U.S.S.R. observatory site for erection of 2-m telescope 06 p0872 N67-15473
Baker-Nunn camera tracking observation data on several satellite orbits - catalog [NASA-CR-82599] 08 p1369 N67-19357
Baker-Nunn camera field-reduced photographs used in computing satellite orbit data - tables [NASA-CR-82596] 08 p1369 N67-19358
Millimeter-wave radio astronomy and observatory equipment 16 p2969 N67-29579
Japanese observatory data on magnetic elements, magnetic field disturbances, and geomagnetic activities [REPT.-43] 21 p3839 N67-35946
Aeronautical data on Sun, Moon, and planets 22 p4041 N67-37848
OBSIDIAN GLASS
Sound velocity measurements on specimens of polycrystalline forsterite, single crystal spinel, and obsidian [AD-646762] 12 p2096 N67-24821
OCCULTATION
SA LUNAR OCCULTATION
SA STELLAR OCCULTATION
Martian atmosphere and ionosphere electron density and refractivity profiles determined by two frequency beat occultation technique used by Mariner IV space probe 03 p0460 N67-12865
Frequency, phase, and amplitude changes of Mariner IV radio signal through atmosphere and ionosphere of Mars observed before and after planetary occultation 03 p0462 N67-12754
Ground facility instrumentation for Mariner Venus project occultation measurements 06 p0840 N67-15925
OCEAN
SA ARCTIC OCEAN
SA ATLANTIC OCEAN
SA INDIAN OCEAN
SA PACIFIC OCEAN
General function of wave height distribution over heavy liquid surface [TRANS-249] 01 p0060 N67-10366
Electromagnetic method for measuring direction and velocity of ocean currents from turning ship [JPRS-38383] 01 p0067 N67-10396
Ocean wave generation by wind observed with airborne wave profiling radar 04 p0536 N67-13485
Polarized emissivity of smooth oceanic surface in microwave region, with and without ice sheets [DAC-59055] 04 p0539 N67-13561
Geomagnetic field in world oceans - Conference 04 p0545 N67-14236
Scale depth determination of ocean thermocline 06 p0872 N67-15744
Soviet literature on computer reliability, seismic waves, semiconductors, ocean sediments, mobile lunar station, scientific conferences, and other technical activities 06 p0965 N67-16075
Flow phenomena caused by collapse of mixed region in density-stratified medium of model ocean [TR-231-11] 06 p0968 N67-16227
Determing depth of zero surface during geostrophic movement in nonhomogeneous ocean [JPRS-39457] 07 p1075 N67-18116
Gravimetric surveying at sea to process method for observations [ACIC-TC-1117] 09 p1441 N67-19816
Effects of deep ocean environment on corrosion of alloys [R-504] 09 p1464 N67-20173
Precipitation measurement over ocean by weather radar 11 p1912 N67-22006
Low inertia apparatus for measuring ocean surface temperature from moving ship 11 p1879 N67-22366
Tides and currents over continental-shelf due to winds blowing at angle to coastline [SN-134-13] 11 p1915 N67-22610
Polarization of infrared light emitted by sea calculated in geometrical optics approximation [RM-360] 13 p2370 N67-26354
Time-series length necessary for long term estimation of sea surface temperature [NEL-1429] 14 p2522 N67-26913
Archimedes bathyscape for deep sea exploration [JPRS-40791] 14 p2635 N67-27288
Geomagnetic and other geophysical effects during coastal effect caused by aurora [REPT.-14] 14 p2527 N67-27542
U.S.S.R. study results on atmospheric composition during International Geophysical Year /IGY/-meteorological flight over Antarctica, and circulation anomalies over both hemispheres [REPT.-11] 15 p2738 N67-27836
Atmospheric processes and wind fields over oceanic areas of Southern Hemisphere 15 p2739 N67-27857
Turbulent heat transfer between atmosphere and ocean 15 p2740 N67-28135
Formation of ocean waves from wind cyclones, and dynamic propagation of wind waves over ocean surface [JPRS-41349] 19 p3449 N67-33831
Historical evidence of ocean level change in relation to polar albedo 20 p3634 N67-34849
Mathematical model, using thermoconductivity and heat budget equations, to predict sea ice thickness and temperature 20 p3634 N67-34850
Polar ocean energy budget analysis of possible radiation changes 20 p3674 N67-34855
Influence on arctic climate of low latitude anomalies in atmospheric and oceanic circulation 20 p3675 N67-34862
Geological origin of Crimea and Black Sea [ACIC-TC-1215] 22 p4034 N67-36861
Tidal periods and temperature fluctuations in deep water internal waves [REPT.-20648] 22 p4035 N67-36923
Floating devices for dynamic measurements on air and sea interaction [AD-655471] 22 p4037 N67-37207
Passive microwave radiometry studies for rough sea [DAC-60786] 23 p4244 N67-38799
OCEANOGRAPHY
SA HYDROGRAPHY
Plotted charts of locations where echo soundings of Atlantic Ocean bottom were made along cruising route of Chain [WHOI-66-2] 01 p0066 N67-10319
Clamp-on sensors for long range telemetering oceanographic buoys [C104-3] 01 p0072 N67-10363
Research in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space [JPRS-38460] 01 p0066 N67-10383
Research in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space [JPRS-38230] 01 p0066 N67-10384
Pressure recorder for oceanographic use [NOLTR-66-136] 01 p0072 N67-10401
Bibliography on storm surges as related to oceanography [SN-134-12] 01 p0069 N67-10961
Environmental air-sea data collected by automated data acquisition system [REF-66-9T] 02 p0283 N67-11927
Automatic sea bottom gravimeter using inertial guidance accelerometer [AD-639196] 02 p0280 N67-11929
Current and future requirements for remotely sensed oceanographic data 04 p0534 N67-13463
Remote sensing of vapors for air pollution, geologic, and oceanographic applications 04 p0538 N67-13523
Precise airborne radiation thermometry for sea surface observations 04 p0538 N67-13526
Geophysical research in oceanography, meteorology, and glaciology [NASA-TT-F-283] 04 p0543 N67-14221
Systematic research of world ocean through oceanographic surveys and construction of stations 04 p0544 N67-14234
Chemistry and analysis of trace metals in sea water [TID-23295] 07 p1072 N67-17482

Automatic instrumented deep sea diving assembly
[NOLTR-66-165] 10 p1627 N67-31740
Apparatus to measure ocean currents using small turbine as sensor
[WRE-ISD-73] 11 p1886 N67-33096
Equalant III fishery and biology oriented oceanographic survey of tropical Atlantic
[G-7] 11 p1872 N67-33410
Soviet research in geophysics, astronomy, meteorology, and oceanography
[JPRS-39400] 11 p1873 N67-33434
Abstracted data on astronomy, meteorology, oceanography, and terrestrial geophysics
[JPRS-39571] 11 p1873 N67-33435
Masers, radiation detectors, ferroelectric and antiferroelectric compounds, polymers, space biology and medicine, radiobiology and oceanography 11 p1894 N67-33449
Airborne laser techniques used to measure sea state parameters and velocity and direction of wind adjacent to ocean surface
[EOS-7067-FINAL] 13 p2333 N67-36255
Abstracts of scientific articles in fields of astronomy, meteorology, oceanography, terrestrial geophysics, upper atmospherics, and space research
[JPRS-40496] 13 p2316 N67-36356
Structural design requirements of deep-diving vessel for oceanographic research
[JPRS-40527] 14 p2535 N67-37206
Acoustic signal transmission, fluctuations, scattering, and energy absorption in ocean
[JPRS-40314] 14 p2562 N67-37354
Abstracts and news summaries in geophysics, astronomy, meteorology, and upper atmosphere
[JPRS-40106] 14 p2526 N67-37388
Abstracts and news summaries of Sino-Soviet Bloc activities in astronomy, oceanography, meteorology, upper atmospherics, and terrestrial geophysics
[JPRS-40291] 14 p2526 N67-37389
Abstracts and news summaries of Soviet-Sino Bloc activities in astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmospherics
[JPRS-40663] 14 p2526 N67-37396
Meteorological factors and synoptic process effects on waveforms in North Atlantic 14 p2528 N67-37710
Vertical water motions in ocean
[REPT.-17] 15 p2695 N67-37866
Magnetic observations of oceans
[REPT.-7] 15 p2695 N67-37868
Aerial photography and reconnaissance of Mississippi River outflow into and mixing with Gulf of Mexico
[AD-649697] 16 p2885 N67-29446
Aerial photography and remote sensors used in oceanographic survey of Mississippi Delta
[AD-650288] 16 p2886 N67-29483
Continental shelf and scientific and industrial research
[JPRS-40894] 16 p2887 N67-29561
Physical features of continental shelf, and relation to fishing industry 16 p2887 N67-29562
Climatic zonality and water circulation on narrow continental shelf, and relation to fishing industry 16 p2887 N67-29563
Soviet research in astronomy, meteorology, oceanography, geophysics, upper atmosphere, and space
[JPRS-41443] 16 p2889 N67-30038
Reviews and abstracts of Soviet-bloc research in meteorology, oceanography, upper atmosphere and space, terrestrial geophysics, and related subjects
[JPRS-41057] 16 p2890 N67-30076
Reflected sound wave methods for determining irregularities on ocean floor
[JPRS-40890] 17 p3051 N67-30343
Determination of ocean bottom irregularities by sound wave scattering method 17 p3051 N67-30344
Measurements of sound reflection coefficient from ocean bottom 17 p3051 N67-30345
Reflected sound wave method for determining distances between irregularities on ocean floor 17 p3051 N67-30346
Instrument errors in measurement of radiant energy for correlation with primary productivity in ocean
[SIO-REF.-67-11] 17 p3054 N67-30447
Interaction between surface and internal waves in shallow water
[NEL-1432] 17 p3049 N67-31310
Acoustic scattering coefficients and size distribution of underwater resonant scatterers, and sound scattering in surface layers of the ocean
[JPRS-40765] 17 p3057 N67-31461
Synoptic analysis of near surface and subsurface temperatures in Atlantic Ocean during passage of Hurricane Betsy - bathythermograph radio data
[AD-653270] 18 p3291 N67-33516
Human performance and underwater equipment evaluation in Sealab II 45-day saturation dive
[ONR-ACR-1345] 19 p3374 N67-33115
Stereo ocean profiles of height versus distance for rough sea conditions and energy spectrum for high frequencies 19 p3404 N67-33366
Variability of water masses in Indian Ocean
[G-11] 20 p3627 N67-34060
Soviet research in geophysics, space sciences, astronomy, and related areas
[JPRS-41659] 20 p3630 N67-34361
Soviet research in space sciences, geophysics, astronomy, and related areas
[JPRS-42348] 20 p3631 N67-34362
Abstracts and bibliographies from Soviet-Bloc on astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmospherics
[JPRS-42041] 20 p3631 N67-34410
Ichthyology, biochemistry, and microbiology of deep zones of Kurile-Kamchatka depression
[JPRS-41170] 20 p3575 N67-34527
Catalog of computer programs in oceanography
[C5, REV. 1] 20 p3633 N67-34693
Soviet-Bloc research in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space science 20 p3634 N67-34814
Oceanographic nuclear instrumentation, seawater desalinization, radiation preservation of seafood, and Plowshare Project 21 p3836 N67-35531
Oceanography using remote sensors
[NASA-CR-88102] 21 p3837 N67-35711
Adapting automatic data processing and information retrieval methods to oceanographic environmental studies
[IR-67-32] 21 p3803 N67-35743
Soviet open literature survey on astronomy, meteorology, oceanography, terrestrial geophysics and related space science topics
[JPRS-42481] 21 p3845 N67-36529
Pressure gauge array used to measure energy dissipation of ocean waves off Rhode Island for directional wave spectrum calculations
[REPT.-1155] 22 p4034 N67-36832
Oceanographic effects on plastic engineering materials
[NAEC-AML-2628] 22 p4075 N67-36974
Ocean station telemetering buoy for acquisition of oceanographic and meteorological data in experiments at sea
[GDC-66-003] 22 p3997 N67-37053
Normally-incident reflectivity of sea floor and its correlation with physical and geological properties of sediment
[REPT.-67-16] 23 p4087 N67-37317
Monthly hydrographic phenomena in transition region between ocean coastal and slope water
[AD-655639] 22 p4039 N67-37581
Radiometric high resolution infrared measurements of sea-surface temperatures and ocean current by Nimbus II
[X-622-67-435] 22 p4040 N67-37679
Measurement and interpretation of motional electric fields in ocean currents
[AD-655891] 23 p4341 N67-38128
Application of non-stationary time series analysis to oceanography
[HEL-16-3] 23 p4341 N67-38178
Compilation of Soviet articles on astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmosphere and space research
[JPRS-42674] 23 p4343 N67-38415
North Atlantic velocity profile atlas for latitudes 40 to 60 degrees N
[NADC-AE-6647, VOL. I] 23 p4346 N67-38988
North Atlantic velocity profile atlas for latitudes 20 to 40 degrees N
[NADC-AE-6647, VOL. II] 23 p4346 N67-38989
Abstracts on Soviet-Bloc activities in astronomy, meteorology, oceanography, upper atmospherics, and terrestrial geophysics - with accompanying bibliographies
[JPRS-43236] 23 p4348 N67-39147
Research in astronomy, meteorology, oceanography, geophysics, upper atmosphere, and space science
[JPRS-43231] 24 p4443 N67-40005
Minerals and foods in oceans and oceanographic research
[JPRS-43207] 24 p4553 N67-40636
OCTANE
Two-stage combustion of explosive mixtures - kinetic zones of spontaneous ignition of iso-octane in mixtures with air at high pressures
[TIL/OT-6331] 15 p2907 N67-38861
Dielectric constants and refractive indices for n-octane solutions of high molecular weight organophosphorus compounds used in solvent extraction systems
[ORNL-TM-1695] 22 p3991 N67-37891
OGEE WING
Low speed wind tunnel measurements of lift, drag, and pitching moment on ogee wing and symmetrical slender wing body models
[ARC-CP-848] 07 p0989 N67-17721
Flight test of ogee wing at low speeds - flight characteristics and landing approach speed evaluation
[AGARD-538] 16 p2813 N67-29544
OGIVE
SA ELLIPSOID
Time-acceleration traces for cylindrical ogival nose projectiles penetrating soil medium
[SC-DC-66-2424] 23 p4356 N67-38359
OGO
Low energy electrons in earth magnetosphere observed by OGO III
[NASA-CR-78367] 02 p0200 N67-11697
Response characteristics of ionization chamber and spectrometer experiments aboard Orbiting Geophysical Observatory /OGO/
[CR-87] 04 p0615 N67-13710
Computer program for evaluation of OGO collected photon data
[AFCRL-66-602] 05 p0880 N67-14974
Abstracts and experiment descriptions of OGO I, II, III, E, and F - Bibliography
[NASA-CR-81210] 06 p0964 N67-15846
Vibration response of OGO spacecraft full-scale structural model to simulated launch acoustic environment
[NASA-TM-X-55649] 06 p0978 N67-16543
Root-mean-square differences between measured magnetic field values obtained by rubidium vapor magnetometer aboard OGO-2 satellite and values derived from spherical harmonic expansions
[NASA-TM-X-55665] 08 p1370 N67-18567
Digital computer program to estimate Polar Orbit Geophysical Observatory and Eccentric-orbit Geophysical Observatory attitude control gas budgets
[NASA-CR-82669] 08 p1373 N67-19013
Analysis of simulated space tests on OGO experiments
[NASA-TM-X-55748] 11 p1963 N67-23318
Mariner II attitude control system, OGO spacecraft, and OGO spacecraft 12 p2143 N67-23817
Data reduction methods for OGO airglow photometer measurements
[NASA-TM-X-55794] 14 p2589 N67-27578
Laboratory tests on interference sensitivity of polar OGO airglow photometer
[NASA-TM-X-55791] 14 p2589 N67-27579
Processing of total field magnetometer data from OGO-2 satellite
[NASA-TM-X-55822] 16 p2890 N67-30147
Observations of whistler mode signal propagation by OGO satellites from very low frequency ground station transmitters
[NASA-CR-84869] 17 p3055 N67-30631
OGO III spectrometric determination time history and differential intensity of solar X-rays
[NASA-TM-X-55846] 18 p3221 N67-31542
Design, launching, and polar orbit of OGO-D, and its instrumentation and observational data
[NASA NEWS RELEASE-67-167] 18 p3240 N67-31707
Speeds, directions of arrival, and mass of dust particles measured from OGO-1 satellite to determine orbits of dust particles 18 p3333 N67-32970

Computer program for listing OGO attitude orbit tapes
[NASA-TM-X-55879] 20 p3606 N67-34274
OGO outer zone observational data on electron intensities of earth geomagnetic field
[NASA-CR-89652] 24 p4535 N67-40126
Development work on improved live telemetry data display system for OGO operations control
[NASA-CR-89740] 24 p4411 N67-40541

OGO-A
Telemetry data processing plan for OGO-A mission - pulse code modulation digital and analog data techniques - ground data acquisition system
[NASA-TM-X-55634] 05 p0675 N67-14912
Magnetic measurements made with OGO-A fluxgate magnetometer
[NASA-TM-X-55740] 11 p1885 N67-22078
High-altitude or small-earth limitations for advanced horizon sensor of Orbiting Geophysical Observatory /OGO-A/
[NASA-CR-83567] 11 p1878 N67-22257
Model analyses and computer simulations used in data compression study for improved pulse code modulation telemetry links
[NASA-CR-86993] 19 p3402 N67-33013
Magnetic field measurements in outer magnetosphere and boundary regions by IMP-A and OGO-A 20 p3720 N67-34145
Digital data processing system for very low frequency radio noise and propagation experiment aboard OGO-I
[NASA-CR-88618] 22 p3997 N67-37021

OGO-B
Display and processing program for data from gegenschein photometry experiment from OGO-B spacecraft
[NASA-TM-X-55907] 21 p3935 N67-35595

OGO-C
OGO-C observations of low-energy protons and electrons in earth magnetosphere
[NASA-CR-86113] 02 p0302 N67-12262
Users manual for OGO C and D experiment 19 data interpolation program
[NASA-TM-X-55800] 16 p2861 N67-29580

OGO-E
OGO-E cosmic radiation detectors
[NASA-TM-X-55692] 08 p1358 N67-18751
Magnetic Hall probe developed for use in spectrometer system aboard OGO-E satellite
[UCRL-14650-T] 17 p3062 N67-30930
Integrated set of three detectors for galactic and solar ray studies of OGO-E and OGO-G
[NASA-TM-X-55989] 24 p4526 N67-40579

OHMIC LOSS
Input conductance and ohmic loss of infinitely long cylindrical antenna
[NASA-CR-74226] 13 p2263 N67-26274

OIL
SA FUEL OIL
SA LUBRICATING OIL
SA MINERAL OIL
SA PETROLEUM
Smoke generator using vaporized oil for flow visualization in wind tunnel
[ARL/A-233] 01 p0071 N67-10080
Economic effects of radiometric methods in prospecting and exploiting oil and gas deposits 10 p1632 N67-21287
Application of radioactive tritium isotope to water movement in oil deposit reservoirs 10 p1775 N67-21297
Gamma ray and neutron-gamma ray logging, and radioactive isotope methods used in oil fields 10 p1625 N67-21309
Induced neutron activation method to check flooding of oil deposits 10 p1625 N67-21311
Anomalous neutron parameters of chlorine nuclei in controlling flooding of oil fields 10 p1625 N67-21312
Survey data on use of radiometric methods and radioactive isotopes in industrial-geophysical studies of oil and gas wells 10 p1626 N67-21319
Contamination and filtration in oil hydraulic systems - Bibliography
[BIB-19] 11 p1889 N67-22461
Oils for gas turbine installations
[FTD-TT-65-1643] 12 p2124 N67-23878
Thin layer chromatography for identification of aircraft engine oil components
[NRL-6465] 13 p2049 N67-24998
Rheological study of glass fibers in Newtonian oil
[NASA-CR-85257] 16 p2861 N67-30073
Stability tests of colloidal gold-198 tracer used for labelling oil
[SGAE-IB/IA-16/1967] 17 p3074 N67-31295
Differential equations governing diffusion of oil into solvent
[REPT.-156] 17 p3095 N67-31335
Sample pattern in four-dimensional space for determining oil infiltration in soil - mathematical models of axially symmetrical potential flows
[NR-155A] 17 p3049 N67-31452
Wide line nuclear magnetic resonance method for determining oil content in single kernel samples of corn and sunflower seeds
[NLIS-R-500] 21 p3765 N67-35755
Shear stability of polymer-thickened hydraulic fluids under several gas atmospheres and at pressures greater than atmospheric
[RIA-67-1954] 24 p4471 N67-39497

OIL ADDITIVE
Absorption process during use-up of oil additives in operation of internal combustion engine
[T-1866-66] 03 p0491 N67-12460

OLEFIN
Synthesis of fluorine containing olefins and diolefins
[REPT.-67-48-CM] 12 p2038 N67-23631
Photolysis of metal ion complexes of olefins, heavy metal acetates, carboxylic acids and synthesis of ceric acetate
[AFOSR-67-0396] 14 p2477 N67-27000
Radiation chemistry technology - radiolysis of ammonia, oxygen, and olefin systems, and development of vacuum gas handling systems high pressure facility, and instrumentation
[JLI-2901-75] 15 p2661 N67-28562
Synthesis of cholanic acid, cholene, 23-amino norcholane, and derivatives
[CNAEM-45] 20 p3589 N67-34132
Rule for estimating chemical displacement of protons in olefinic systems from additive increments of double bond
[JPRS-41595] 20 p3592 N67-34419
Synthesis of fluorine olefins and diolefins
[TR-68-5-CM] 22 p3962 N67-36806

OLFACTORY PERCEPTION
Olfactory disturbances in man following exposure to radiation
[NASA-TT-F-10353] 01 p0014 N67-10227
Olfactory sense simulation by functional biological modeling
[JPRS-38994] 07 p1024 N67-18190
Use of olfactory sense for detecting malfunctions in equipment systems
[AMRL-TR-66-122] 09 p1401 N67-19792
Olfactory perception and bionics of odor control and measurement
[JPRS-40900] 14 p2463 N67-27355

OLIVINE
SA FORSTERITE
Solid-liquid phase transformations of serpentine and olivine at varying temperatures and pressures
[NASA-CR-80435] 02 p0390 N67-13114
Gabbro, serpentine, and artificial olivine analyses and petrographic properties of cast and formed geometric shapes
[NASA-CR-81339] 06 p0849 N67-16619
Electron diffraction patterns of olivine and enstatite as control study for Venus Fly Trap rocket experiments 18 p3333 N67-32068

OMNIDIRECTIONAL ANTENNA
Storage unit, omnidirectional antenna, and thrust vector control tests for ATS, and propellant combustion in ballistic system 16 p2961 N67-29151
Deployable antenna, fine pointing and slewing, and oriented platform at synchronous altitude for Applications Technology Satellite program
[NASA-TM-X-55833] 17 p3168 N67-31355
Canted turnstile as omnidirectional spacecraft antenna system
[NASA-TM-X-55934] 22 p3996 N67-37172

OMNIDIRECTIONAL RADIO RANGE
Very high frequency Omni Range /VOR/ system radial stability and propagation error analysis
[EER-11-1] 07 p1040 N67-17952
Improved Doppler very high frequency omnidirectional range monitoring system
[RD-66-49] 08 p1244 N67-18209

ON-LINE PROGRAMMING
Utilization of on-line interactive display systems in information retrieval
[SP-2575] 05 p0621 N67-15020
Performance of programmers working under conditions of on-line and off-line access to computer
[SP-2581] 06 p0815 N67-16358
Users manual for Pat Editor System Tentative /PEST/ monitor program for Phoenix computer
[MTR-219] 06 p0848 N67-16407
Multiprocessor organization, integrated circuit techniques, self-repairing systems for spaceborne computer designs - conference
[NASA-TM-X-53932] 07 p1044 N67-17101
On-line computer use for extended continuous period in time sharing system 07 p1045 N67-17110
On-line simulation in on-line process synthesizer, an iterative system for use in time sharing environment 07 p1045 N67-17111
Reflection laws of systems of elliptic equations, on-line programming to numerically solve nonlinear integral equations, and reduction of electrostriction problem
[NASA-CR-82472] 08 p1301 N67-19035
On-line calculations with CDC-3600 computer using automatic priority interrupt by ASI-2100 computer 09 p1420 N67-19476
Magic Paper on-line system for manipulation of symbolic mathematics
[R-165-1] 10 p1586 N67-20597
Interfacing, and programs for time sharing operation of on-line computer-based nuclear data acquisition system
[CONF-660913-2] 10 p1707 N67-20920
Control arrangement for input or output operation digital plotter incorporated into Mercury computer system
[RAE-TR-66285] 10 p1589 N67-21762
Axial power monitoring of production reactor with on-line computer
[DPSPU-66-30-2] 10 p1589 N67-21824
Software system for on-line analyses of linear network circuits 11 p1846 N67-22623
Data structure, control language, and command structure of Editor I on-line program - Manual
[MTR-222] 12 p2060 N67-24660
On-line digital computers and applications to automatic control systems 14 p2498 N67-26845
Instrumentation of reactor irradiation experiments using on-line computer
[RISO-M-501] 15 p2706 N67-27901
Problem solving with man-computer system using on-line programming
[AD-649382] 15 p2672 N67-28092
Computer design for asynchronously reproducible multiprocessing
[MAC-TR-34/THESIS/] 16 p2865 N67-29566
Digital computer systems, computer components, human information processing, and on-line data storage and retrieval systems 17 p3031 N67-30711
Five automated library circulation control systems employing manual, punch card accounting machine circulation, small and large scale control, and on-line control systems
[NASA-TM-X-60061] 18 p3237 N67-32029
Engineering and programming of Cobweb - IBM 7044 on-line bubble chamber film measuring machines
[UCRL-17136] 19 p3412 N67-33699
Display and time sharing systems for on-line communication
[ECOM-65829-1] 19 p3413 N67-33964
Computer with on-line remote devices for use in time sharing system 19 p3413 N67-33985
Reference manual for use of computer with on-line remote devices /CORD/ time-sharing system from teletype terminal 19 p3413 N67-33986
Processing data from computerless laboratories by transporting punched cards or magnetic tapes to computer centers or on-line programming
[CONF-660722-1] 20 p3700 N67-34927
On-line time sharing computer system designed for use by engineers to solve complex numerical problems
[RM-5322-PR] 21 p3878 N67-35750
Remote control console and memory protection system for on-line real time PDP-7 data taking system
[UCRL-17230] 21 p3805 N67-36059
Development and incorporation of Hummingbird I scanner into IBM 360/30 computer 21 p3806 N67-36247
CERN spark chamber film experiments using Hough-Powell Device /HPD-1/ 21 p3807 N67-36248
On-line bubble chamber measuring

system 21 p3807 N67-36251
Time sharing operations of Purdue University SMP measuring system for bubble chamber film analyses 21 p3807 N67-36252
Glasgow measuring machines for spark chamber film analyses 21 p3807 N67-36253
Heidelberg SMP measuring system for analyzing bubble chamber photographic film 21 p3807 N67-36254
On-line hardware and software requirements of flying spot digitizer-IBM 360/44-IBM 7094 system 21 p3809 N67-36268
On-line programming system for algebraic manipulation
[MAC-TR-35] 23 p4219 N67-38195
ONBOARD NAVIGATION
Midcourse navigation using statistical filter theory, manual theodolite, and symbolic computer control applied to manned spacecraft
[NASA-TN-D-3875] 07 p1120 N67-17800
Linearized error analysis of onboard primary navigation systems for Apollo lunar module
[NASA-TN-D-4027] 20 p3677 N67-34897
Inertial guidance laws for placing satellite into eight hour polar orbit or twenty four hour equatorial orbit
[CDTA-50-4444, APPEND. III] 21 p3685 N67-35029
ONE-DIMENSIONAL FLOW
Nonlinear equations for discontinuities in one-dimensional magnetogasdynamics
[AFOSR-66-1862] 01 p0135 N67-10927
Relaxation of non-dissociated nitrogen in hypersonic wind tunnel measured by use of one-dimensional flow equations, transformations, and numerical integration 02 p0252 N67-11964
Variational method for unsteady one-dimensional plasma flow of type V perpendicular to B
[AFOSR-66-2454] 05 p0745 N67-15012
Unsteady one-dimensional flow approximation for shock wave control analysis 07 p1063 N67-17025
One-dimensional unsteady flow in hydrodynamic shock tube, and in light gas gun 07 p1063 N67-17026
One-dimensional inviscid flow equations for calculating transient hydrodynamic shock wave propagation caused by explosion 07 p1063 N67-17027
Centered one-dimensional unsteady expansion of vibrationally relaxing nitrogen-oxygen mixture
[NASA-TN-D-3805] 07 p1067 N67-17796
Centered one-dimensional unsteady expansion calculated for reacting gas mixture subject to vibrational and chemical nonequilibrium
[NASA-TN-D-3851] 07 p1067 N67-17797
Longitudinal one-dimensional turbulence spectra behind towed grid in aqueous high polymer solutions
[NOTS-TP-4225] 16 p1607 N67-20687
Current layer instability in nonhomogeneously magnetized plasma
[FTD-TT-66-19] 10 p1740 N67-21730
One-dimensional, frictionless, compressible flow of ideal gas flow with heat addition and area change in transonic regime
[DLR-FB-67-02] 11 p1860 N67-22966
Structure of one-dimensional unsteady magnetic compression waves moving into ionized plasma embedded in magnetic field
[NASA-TN-D-3947] 12 p2179 N67-23855
Mathematical advances in theory of one-dimensional flow 12 p2087 N67-24274
Numerical solution and model of one-dimensional unsteady interaction of plasma with magnetic field in traveling wave accelerator
[SR-41] 13 p2386 N67-25977
Corrections to parametric representations of nonsteady one-dimensional flows
[BRL-1352] 14 p2516 N67-26916
Analytical method for calculating one-dimensional flow in hypersonic nozzles using simplified air model
[NOLTR-66-104] 15 p2691 N67-28244
Characteristic method for numerical solution of one-dimensional flow problems in gas dynamics
[NASA-TT-F-298] 16 p2877 N67-29319
Expanded one-dimensional diffusion equation code for fast reactor resonance and shielding problem
[JAERI-1118] 17 p3105 N67-30216
One-dimensional unsteady flow for radiating gases
[PIBAL-990] 20 p3624 N67-34673
Difference methods for solving inviscid and viscous one-dimensional flow equations of compressible gas
[PIBAL-969] 21 p3831 N67-35714
One-dimensional magnetohydrodynamic flow in annulus
[NASA-CR-86198] 21 p3909 N67-35863
Potential lower bound analysis for one-dimensional gas pressure as function of temperature and chemical reaction
[UCD-CNL-76] 21 p3834 N67-36650
One-dimensional inviscid nozzle flows with coupled vibrational and dissociational nonequilibrium
[NASA-CR-66474] 22 p4025 N67-37250
One-dimensional elastic-plastic flow calculations for aluminum
[LA-3678] 22 p4074 N67-37949
Statistical mechanics of one-dimensional plasma 23 p4322 N67-38755
Statistical mechanics of one-dimensional plasma exposed to external magnetic fields 23 p4322 N67-38756
Equilibrium statistical mechanics of neutral one-dimensional plasma having positively and negatively charged sheets 23 p4323 N67-38757
Approximation method for calculating energy conversion in magnetohydrodynamic generator using entropy concept, and critical analysis of methods to define magnetic Reynolds number
[FTD-MT-65-293] 23 p4325 N67-39285
Critical analysis of methods for determining magnetic Reynolds number, and limitations of one-dimensional approximations during flow of conductive gas 23 p4325 N67-39287
OPACITY
Effect of fuel opacity on temperature distribution in gaseous nuclear rocket engine
[NASA-CR-695] 06 p0954 N67-16013
Pseudo-Brewster angle technique for determining optical constants of opaque materials
[NOLC-699] 12 p2193 N67-24774
Ballistic piston compressor used to study opacity of hot highly compressed hydrogen
[NASA-CR-73116] 14 p2597 N67-27363
OPERATION
S EXTRAVEHICULAR OPERATION
S FISHBOWL OPERATION
OPERATIONAL CALCULUS
Operational calculus for asymptotic properties of bivariate Laplace transform
[FTD-HT-66-548] 13 p2347 N67-25414
Operational calculus of Mikusinski for solving more general differential equations than by Laplace transform method
[SU-SEL-67-016] 17 p3088 N67-30202
OPERATIONAL HAZARD
Operating safety limits for high flux isotope reactor
[ORNL-TM-1532, REV.] 06 p1310 N67-18529
OPERATIONAL PROBLEM
Abnormal reactor operational problems and safety hazards 04 p0575 N67-13963
Generalized Hartree-Fock calculation for zirconium 90 using effective interaction
[CONF-660906-8] 04 p0586 N67-13964
Monte Carlo computer simulation models used to maximize economic order quantity safety levels at wholesale depot echelon 07 p1211 N67-16977
Equipment, methods, and problems in operation and maintenance of high voltage transmission lines 11 p1843 N67-22302
Operational characteristics, problems, and failures of ac electromagnetic pumps used in SNAP-8
[NASA-CR-72214] 11 p1890 N67-22868
Maintenance and operational analysis of ionospheric sounders used for selecting high frequency communications paths
[AFCS-4-ORR-66] 14 p2521 N67-26816
Operational problems and failures of Wigner-type rigs for materials testing reactors 21 p3892 N67-36551
Potential noise problems and operational restrictions for future VTOL aircraft
[AMRL-TR-66-245] 24 p4374 N67-39688
OPERATIONS RESEARCH
Algorithms for computing cumulative distribution of completion times of PERT networks
[AROD-4721-4] 01 p0095 N67-10520
Some inequalities for single server queues
[ORC-66-19] 01 p0096 N67-11183
Operations, characteristics, and performance of Telstar satellite tracking facilities in Italy, France, and England
[NASA-SP-32, VOL. 4] 03 p0363 N67-12301
Program and facility planning, and cost estimation for Manned Orbital Telescope /MOT/
[NASA-CR-66256] 05 p0766 N67-14902
Computation of expected discounted return in Markov chain
[AD-641193] 08 p0982 N67-15819
Information retrieval concepts and applications for social science operations and research - conference
[AD-643980] 08 p1286 N67-18454
Operations analysis group discussion of information retrieval systems related to social science research 08 p1287 N67-18456
Operations research on information retrieval systems for social science - conference workshop group discussion 08 p1287 N67-18458
Information retrieval concept based on operations research, unconventional warfare, psychological operations, and insurgency - theory 08 p1287 N67-18459
Use of cost effectiveness techniques in space program planning
[NASA-TM-X-53453] 09 p1511 N67-19905
Algorithm to construct kappa shortest routes and kappa shortest chains in graph
[ORC-66-32] 10 p1664 N67-20567
Efficient suboptimal algorithms for integer linear programming with interior
[TR-2] 12 p2129 N67-23664
Closed networks of queues
[ORC-67-1] 12 p2130 N67-24004
Hamiltonian equations for describing variation in dynamic variables in place of Pontryagin equations - control and operations theory 12 p2069 N67-24202
Development plan for fuel cell modules consisting of 35 two-cell sections and incorporating static moisture control subsystems as integral part of module
[NASA-CR-83276] 13 p2349 N67-25865
Cost effectiveness analysis for design of satellite ground station status monitor
[NASA-TM-X-53723] 14 p2507 N67-27566
Accelerator structures, power sources, accelerator control and instrumentation, accelerator physics, and project planning in medium-energy physics program
[LA-3674-MS] 14 p2514 N67-27599
Maintenance policies in multichannel systems and Markovian multiservice systems
[TR-34] 16 p2920 N67-29411
Air Force operations research in cold weather regions
[P-2549] 16 p2986 N67-29424
Evaluation of systems approach in management science and planning
[NASA-CR-85563] 17 p3183 N67-30614
Astronautics, space navigation, spacecraft propulsion, communication, and electronics, and operations research - abstracts of lecture series 17 p3183 N67-31404
Organization, handling, and data retrieval for spatial data systems in urban and transportation planning
[NASA-CR-85627] 18 p3358 N67-31640
Algorithm for simplifying operations in problem of optimum planning of sequence of operations performed by one or two machines 18 p3285 N67-31966
Algorithm for determining minimal cost symmetric assignment
[ORC-67-12] 18 p3288 N67-32637
Capabilities of evolutionary operations research programs
[TR-106] 19 p3430 N67-33037
Systems and subsystems requirements, astronaut mobility and capability, and experimental - systems, technology, and operational requirements for lunar scientific programs
[NASA-CR-87400] 20 p3723 N67-34066
Overview on scientific support requirements for extended lunar exploration missions including experiments, data management, equipment, astronaut training, and lunar systems planning
[NASA-CR-87399] 20 p3723 N67-34067
Minimum average cost ordering policies for two product inventory systems with joint setup costs
[NASA-CR-87490] 20 p3750 N67-34460
Cybernetics research including automatic and optimal control, information processing, operations research, reliability, random process, and queueing systems
[JPRS-41796] 20 p3616 N67-35281

Implicit enumeration using imbedded linear program to improve computational efficiency
[AD-655444] 22 p4080 N67-36764
Finite-state space deterministic dynamic programming model for management planning
[AROD-968-46-M] 22 p4085 N67-37857
Algorithms and programming for production engineering - operations research
[ORC-67-17] 23 p4271 N67-39061
Boolean matrix algebra technique permitting high speed computation in network analysis and simulation
[ECOM-2856] 24 p4423 N67-39619
Algorithms for arc capacity influence on maximal flows between nodes in undirected networks
[ORC-67-23] 24 p4479 N67-39791

OPERATIVE TEMPERATURE
Maximum temperature reached by reactor core in step excursions with different Doppler reaction feedbacks calculated and compared with point kinetics equation results 07 p1124 N67-17060

OPERATOR
SA DIFFERENTIAL OPERATOR
SA HAMILTONIAN
SA INTEGRAL OPERATOR
SA LAPLACE OPERATOR
SA RAYLEIGH-RITZ METHOD
SA STURM-LIOUVILLE OPERATOR
Matrix elements in class 1 representation operators of SL/n/,C group
[IC/66/89] 01 p0117 N67-10840
Steady state, transport operator, and comparison with T-matrix
[USNRDL-TR-1057] 01 p0118 N67-11178
Mixture resolving signal processing optimization with optimum linear detection operators and mixture resolving estimators
[NASA-CR-80684] 04 p0568 N67-13576
Continuous self-adaptive system for controlling parallel linear filters, and derivation of auxiliary operator equations 05 p0687 N67-14362
Harmonic oscillator phase operators
[AFCRL-66-634] 06 p0939 N67-16364
Computer programming research involving stellar clusters, internuclear cascades, and nonlinear operators
[COO-614-45] 07 p1213 N67-17281
Nonlinear P-compact operators in Banach space 07 p1112 N67-17367
Variational theory of nonlinear operators and equations
[MRC-686] 10 p1665 N67-20644
Momentum operators in quantum mechanics
[NASA-CR-83347] 10 p1669 N67-21837
Diagonalization of Lee model interaction Hamiltonian by means of Green operator
[BMWF-FBK-66-23] 12 p2160 N67-23500
Linear homogeneous transformations of canonical field operator pair
[NP-16466] 12 p2173 N67-24690
Equal time commutators of renormalized current operators in perturbation theory
[DESY-66/24] 12 p2156 N67-24691
Application of spectral theory of operators in relation to wave diffraction and oscillation 13 p2364 N67-25203
Distribution characteristics and asymptotic behavior of expansion coefficients of quantum field operators
[DESY-66/36] 13 p2378 N67-25989
Sensory motor responses of human operators 14 p2469 N67-26695
Relationship among sigma T, matrix T, and matrix 1/T for linear operators in normed finite dimensional vector spaces
[MRC-TSR-737] 17 p3089 N67-30251
Spectral properties of operator associated with pair of non-negative matrices
[MRC-TSR-765] 17 p3090 N67-30432
Description of all self-adjoint extensions of field operators
[NP-16674] 17 p3093 N67-30648
Extended dynamical system to describe operators in study of stability
[NASA-CR-85829] 17 p3096 N67-31497
Operator for time delay induced by scattering 19 p3503 N67-32941
Selection of perturbation coupling operator and calculation of parameters in combined control systems - invariance conditions 19 p3422 N67-33542
Perturbation coupling operator influence on combined control system 19 p3422 N67-33543
Schroedinger equation for Hamiltonian operator for quantum fields with nonlinear nonlocal scattering
[NP-16735] 21 p3906 N67-36513
Creation, annihilation, angular momentum, and mechanical spin used in algebraic model of elementary particles based on infinite component fields - baryon state
[TUEP-67-15] 22 p4112 N67-38044
Continuity of nonlinear integral operator
[TG-230-T525] 23 p4273 N67-38323
Eigenvalues for Casimir operators of arbitrary order for group O/n/
[JINR-P2-3334] 23 p4300 N67-38371
Mass operator used to obtain mass formulas for baryons and mesons
[JINR-P2-3407] 23 p4309 N67-38798
Difference inequality for operators in Hilbert space 24 p4477 N67-39474
Spectral analysis of collectively compact and strongly convergent operator sequences on Banach space
[MRC-TSR-741] 24 p4478 N67-39524
General properties of collectively compact sets of linear operators
[MRC-TSR-740] 24 p4480 N67-39705
Synthesis and identification of mathematical models which characterize discrete control behavior of human operators
[NASA-CR-89634] 24 p4390 N67-39898

OPERATOR PERFORMANCE
SA ASTRONAUT PERFORMANCE
SA PILOT PERFORMANCE
Adaptive simulation - design applications, cross-adaptive operator loading tasks, and self-adjusting vehicle simulators
[AD-637658] 01 p0020 N67-10149
Operator performance and design applications of adaptive simulators 01 p0020 N67-10150
Cross-adaptive operator loading tasks 01 p0021 N67-10151
Self-adjusting vehicle simulators - tracking 01 p0021 N67-10152
Effect of operator activity on duration of cardiac cycle under prolonged transverse acceleration 02 p0181 N67-11427
Algorithms on operator activity in automatic control and management system 02 p0217 N67-11473
Correlation between adaptability of human operator to external environmental changes and dynamics of physiological functions 02 p0220 N67-11581
Directed physical training for increasing work reliability of operators 02 p0230 N67-11613
Operator performance in tracking study 02 p0231 N67-11664
Asynchronous pulse-amplitude pulse width model of human operator performance
[NASA-CR-79760] 02 p0233 N67-12060
Operator performance in environment simulated data transmission systems
[ASD-TR-66-12] 05 p0661 N67-14996
Summary of papers presented at NASA-university program conference on dynamic and other models, control devices, operator performance, and information theory related to manual control 06 p0806 N67-15651
Derivation of analytical model to predict operator transition response 06 p0809 N67-15856
Hand control designs and manual operator performance evaluated under random vertical vibration 06 p0811 N67-15870
Closed-loop compensatory tracking for measuring operator delay time in control action
[NASA-CR-674] 06 p0814 N67-16012
Mathematical model for human operator performance in decision-making functions
[NASA-CR-80069] 06 p1232 N67-18416
Closed-loop control systems including human operator for manned spacecraft
[NASA-CR-82370] 08 p1260 N67-19041
Reactor operator training simulators 09 p1476 N67-19445
Effects of daily goal setting on code receiving performance and attitudes of radioman
[AD-642784] 09 p1484 N67-19790
Maximum principle, and differential operator performance in game theory for N players 11 p1907 N67-23403
Physiological factors affecting operator performance of tracking tasks, and mathematical representations of operator
[RAE-TN-WE-38] 11 p1799 N67-23718
Predicted orbital path display as aid to human operator performing orbital rendezvous
[AMRL-TR-67-7] 11 p1977 N67-23188
Mounting angle of VJ remote indicator effect on operator performance
[TR-166-1-41] 12 p2031 N67-23922
Manipulator restraint effects on human operator performance
[STI-TR-134-2] 12 p2031 N67-23923
Human operators performance in high order, multiloop task, typified by helicopter control
[NASA-CR-83740] 12 p2037 N67-25070
Engineering psychology textbook dealing with human operator performance, sensory perception, and information theory
[FTD-HT-66-147] 14 p2467 N67-26681
Human operator performance, engineering psychology, and automatic control systems 14 p2467 N67-26682
Human operator performance in man-machine systems 14 p2468 N67-26689
Functioning of human visual system studied with hypothetical model of operator-observer activity 14 p2468 N67-26690
Reliability and effectiveness of human operator performance in semiautomatic complex control systems 14 p2469 N67-26697
Operator performance from psychological point of view 14 p2469 N67-26698
Stability, or freedom from error, of human operator performance in control system 14 p2470 N67-26699
Human operator describing function measurement in single axis closed loop control
[RAE-TR-65290] 15 p2652 N67-28091
Methodology and human engineering evaluation of control panel design
[AMRL-TR-66-28] 15 p2653 N67-28511
Man-computer target detection systems and sonar operator performance characteristics
[U417-66-037] 18 p3239 N67-32313
Conference papers on human performance quantification in systems effectiveness
[AD-650791] 19 p3381 N67-33380
Methodology, tools, and laboratory facilities to meet Navy requirements of effective man machine systems 19 p3382 N67-33381
Human factors engineering, training, and motivation in Army research and development program 19 p3382 N67-33384
Air Force position on human performance and increased effectiveness of man machine systems 19 p3382 N67-33385
United States Navy research in human factors and approaches to increased system effectiveness 19 p3382 N67-33386
Digital computer simulation, and model to predict operator performance of man machine system 19 p3382 N67-33387
Operator performance and crew reliability in relation to systems effectiveness 19 p3382 N67-33388
Operator performance in antisubmarine warfare platforms 19 p3382 N67-33389
Human initiated malfunctions in system effectiveness, and need for definition and adequate data acquisition 19 p3383 N67-33311
Human perception in anticipatory physical threat stress 19 p3383 N67-33312
Human reliability method of operator performance prediction 19 p3383 N67-33313
Improved efficiency of telephone operator time in customer information work 19 p3383 N67-33314
Human performance optimization through establishment of human factor laboratory, information exchange and other techniques 19 p3383 N67-33315
Human performance and behavior in hyperbaric environments 20 p3562 N67-34388
Survey of human operator response mechanisms, and development of visual-auditory display device to increase operator response speed, frequency, and flexibility
[NASA-CR-974] 21 p3772 N67-35672
Operative predictive behavior on two-dimensional compensatory tracking
[REPT.-67-32] 23 p4196 N67-38189
Scanning performance of human operator exposed to space flight factors 23 p4195 N67-38111
Hierarchial model on adaptive behavior of human operators in manual control systems
[NASA-CR-89592] 24 p4434 N67-40099

OPHTHALMOLOGY
Theoretical sandwich shell model of cornea for use in tonometry
[P-3584] 15 p2650 N67-28090

Equipment and procedures for ophthalmoscopy in indirect light
[JPRS-41401] 19 p3378 N67-33735
OPOSSUM
Experiments conducted on opossum embryos in laboratory biomodule
[SID-66-1647] 12 p2028 N67-34856
OPTICAL ABSORPTION
Radiation-induced optical spectra and electron spin resonance equipment to detect imperfections in borate, phosphate, and borophosphate glasses 01 p0113 N67-10148
Optical studies of radiation damage and excitation de-excitation processes
[GA-7140] 06 p0946 N67-15962
Polarization and absorption effects on Fraunhofer diffraction patterns of corner reflector 06 p0917 N67-16030
Crystal growth and optical absorption of forsterite
[HP-16] 06 p0948 N67-16143
Magnon sidebands in cesium manganese fluoride
[TR-7] 06 p0949 N67-16354
Spectral dependence of optical absorption and photoconductivity due to hydrogenic donor impurities in indium antimonide 07 p1176 N67-17374
Optical transmission data for thin aluminum films
[CLM-R-64] 08 p1328 N67-19214
Space environment effects on emissivity and optical absorption of thermal control surfaces 12 p2237 N67-24644
Environmental effect sensor data and albedo measurements for several thermal control coatings on Pegasus satellite - thermophysics 12 p2237 N67-24646
Electron spin resonance and optical absorption in compacted vitreous silica
[ORO-3303-2] 16 p3851 N67-29631
Populations of excited levels in optically thick gas layer 17 p3143 N67-31022
Optical absorption spectra of trivalent ytterbium ion in cadmium fluoride crystals
[TR-2] 20 p3714 N67-34961
Electron spin resonance and optical absorption spectra of transition metal ions, color center defects in laser glass, and molecular structure of tetrahedron
[TR-599-1] 21 p3913 N67-35344
Shape dependence of conduction band tail on donor concentration in gallium arsenide
[RR-TR-67-9] 21 p3914 N67-35569
Glass damage by high intensity laser light pulses - effects due to optical absorption by impurities and neodymium and opto-acoustic coupling
[AD-654737] 21 p3865 N67-35611
Optical absorption edge in lead salts and variation with temperature and pressure
[HP-13] 22 p4126 N67-37060
Pressure effect on optical absorption, radiative recombination, and resistivity of gallium antimonide
[HP-19] 22 p4128 N67-37500
OPTICAL AMPLIFIER
Optical pulse amplifiers with active saturable absorption switches 03 p0408 N67-13064
OPTICAL BEAM SCANNING
Non-mechanical light beam scanning using optical signal processing techniques 03 p0431 N67-13075
Focused ultrasonic beams
[TR-66-40] 05 p0736 N67-14365
Research in fields of aerodynamics, orbit flight mechanics, atmospheric physics, electromagnetic theory, aerothermodynamics, control systems, instrumentation, selenography, and structures
[NASA-TM-X-53568] 09 p1546 N67-20261
Cross-beam technique applied to quiet nightglow radiation fluctuations and emission or absorption changes due to atmospheric ozone 09 p1442 N67-20265
Feasibility and potential of atmospheric crossed-beam experiments 09 p1443 N67-20266
Advanced development model of continuous facsimile scanner employing fiber optics
[ECOM-00164-9] 13 p2223 N67-26344
Coupling infinite regular, and regular and irregular finite antenna arrays, and effects of mutual coupling on radiation patterns of multiple beam optical antennas
[TR-424] 14 p2487 N67-26817
Breadboard model of high speed low jitter optical beam scanner using gas laser light source for radar simulation
[AMRL-TR-66-176] 16 p2903 N67-29482
OPTICAL CORRECTION PROCEDURE
SA LENS DESIGN
Optical cross correlation method for remote sensing applications 12 p2101 N67-24276
Digital computer program using geometrical optical techniques for automatic design of optical systems
[NASA-CR-89232] 23 p4221 N67-38874
OPTICAL COUPLING
Integrated circuit isolation switch using photon coupling
[NASA-CR-81065] 07 p1053 N67-17971
Axial transverse laminography and mutual coupling nondestructive techniques for inspection of multilayer printed circuit boards 12 p2063 N67-23068
Integrated circuit photon coupled isolation switch
[NASA-CR-84498] 14 p2507 N67-27649
OPTICAL DENSITY
Feasibility of achieving optical densities in magnetic data storage 02 p0239 N67-12106
Soviet techniques and instruments for measuring temperature, optical density, salt content, electric conductivity, depth, and current velocity of sea water
[JPRS-39881] 11 p1878 N67-22356
Digital technique for computing position of photometric wedge when measuring optical density of sea water 11 p1879 N67-22361
OPTICAL EMISSION
Giant optical radiation pulses from ruby lasers by control of static cavity geometry
[TR-4] 01 p0060 N67-10050
Spectroscopic analysis of optical precursor radiation in electromagnetic shock tubes
[TR-4] 10 p1691 N67-20438
Effect of optical radiations and water vapor on trapping spectrum of cadmium sulfide
[NASA-TN-D-3974] 18 p3351 N67-32122
Airborne all-electronic ultra-fast scanning spectrometer for studying transient optical emission phenomena
[SR-1] 20 p3637 N67-34082
Micro spark analysis of gaseous inclusions in titanium alloy 22 p4069 N67-37165
OPTICAL EMISSION SPECTROSCOPY
High power laser research - laser material evaluation, stimulated output and Q-switching, self-focusing in liquids, and flash lamp spectroscopy
[NRL-6444] 02 p0407 N67-13045
Time resolved spectroscopy of flashlamp pulses 02 p0429 N67-13052
Optical spectroscopy of vibrational electronic transitions in ionic crystals, coordination geometry, and electronic structures in ionic melts 13 p2267 N67-25851
Lattice vibrations and optical and infrared spectroscopy investigation 14 p2503 N67-27038
Optical emission and X-ray spectroscopy for rapid analysis of stainless and maraging steels
[RIA-67-1593] 24 p4464 N67-39525
Analysis of boron 10 and boron 11 in boron and boron compounds by optical emission spectroscopy
[NUMEC-3292-5] 24 p4461 N67-40401
OPTICAL EQUIPMENT
Magneto-optical device for quadrupole magnet alignment in linear accelerator
[NP-16169] 01 p0036 N67-10057
Direct application of gauging principles to inspection of watch-size parts staged on optical projectors
[SC-R-66-914] 01 p0078 N67-10813
Feasibility of adapting optical astronomy package to Apollo Application Program missions on lunar surface
[NASA-TM-X-53496] 01 p0154 N67-10864
Approximate method for determining duration of coverage of sunlit earth by anchored IMP optical aspect system
[NASA-TM-X-55575] 02 p0288 N67-11560
Small oidophor for projection of black and white television pictures
[TIL/T-5677] 02 p0261 N67-11980
Photoviscuous technique for fluid flow studies - theory and experiments
[NASA-CR-79519] 02 p0262 N67-12210
Photoviscuous technique for fluid flow studies - equipment development
[NASA-CR-79520] 02 p0263 N67-12211
Automating earth-moving machine control by using optical ray 02 p0438 N67-13435
Image intensifier for analyzing coherent radar Doppler spectrum 03 p0968 N67-13978
Orthonormalization of aberrations with least squares defect reduction for designing optical lenses
[AD-640995] 06 p0918 N67-16314
Active optical system for spaceborne, orbiting telescopes
[NASA-CR-66297] 08 p1327 N67-18968
Vibration effect, and optical activity in infrared region
[REPT.-3731] 10 p1696 N67-21747
Optical equipment and 90-GHz millimeter wave components for space communications and tracking 12 p2060 N67-23683
Modifications to improve utility of optical metallographic apparatus 13 p2101 N67-24254
Optical equipment, mechanical structure, stabilization and guidance, focusing device, telemetry, and remote control system of balloon borne solar observatory 12 p2212 N67-24469
Optical and radio equipment for detecting pulses from cosmic ray showers
[UCD-CR13] 13 p2397 N67-25441
Attempts to compound titanium chalcogenide infrared transmitting glasses
[TI-66-67-16] 14 p2581 N67-27019
Semiconductor optical shutter
[S-67-1691] 15 p2709 N67-28683
Reliability testing of optical components used in laser communication systems
[NASA-CR-65624] 16 p2966 N67-29439
Design feasibility of stereoscopic fiber optic periscope for aircraft application
[AD-651060] 16 p2896 N67-29661
Shadow box optical landing system
[NRL-6521] 17 p3101 N67-30724
Theoretical analyses, laboratory and field tests to determine which equipment yields most precise measurements of solar irradiance
[AFCRL-67-0154] 17 p3061 N67-30677
Applicability of spatial filtering to astronomical photography - auxiliary device for destroying coherence of laser light 18 p3236 N67-31590
Optical technology development plan, experiments, spacecraft and subsystems, and resources analysis of optical technology Apollo extension system
[NASA-CR-66606] 18 p3305 N67-32119
Systems theory and test methods used in analysis of photo-optical systems
[REPT.-853] 19 p3451 N67-32560
Coherent optical correlator for analyzing random vibration data 19 p3544 N67-33121
Design, fabrication, and testing of optical waveguides and components for laser applications
[NASA-CR-660] 19 p3551 N67-33188
Optical design of multi-spectral tracking telescope for Apollo applications program
[NASA-CR-87313] 19 p3461 N67-33569
Environmental simulation facilities, biplanar optical systems for nonplanar free flight tests, hypersonic boom and air radiation measurements, and X-15 and wedge wake studies 20 p3639 N67-34767
Optical correlator using electro-optical Doppler replicas for processing radar signals
[RADC-TR-67-194] 21 p3795 N67-35395
Building modifications to optical research facility for satellite tracking with lasers
[NASA-TM-X-55868] 21 p3825 N67-35563
Optical coherence and transcorrelation functions for nongaussian noise
[USCEE-196] 21 p3895 N67-36097
Program to generate sets of optical parameters for use in geometrical reconstructions
[ORO-2904-168] 21 p3897 N67-36482
Simulated proton space environment effects on ultraviolet transmittance of optical materials
[NASA-TM-X-55911] 21 p3897 N67-36569
Optical system for radiative heat transfer for thermal protection of reentry vehicle
[NASA-CR-73123] 22 p4159 N67-36736
Development model for two-dimensional incoherent optical correlator for signal processing
[USL-838] 23 p4099 N67-37337
Optical steering device for changing direction of laser beam
[NASA-CR-88089] 22 p4069 N67-37368
Balloon borne selenodetic telescope feasibility study and design
[FR-13] 24 p4451 N67-39994
Theory and application of optical bench for measuring lens contrast transfer diffraction
[REPT.-67-0-4] 24 p4497 N67-40451

OPTICAL FILTER
SA INFRARED FILTER
Analytical method using series expansion to determine effect of nonlinearities on output of coherent optical correlator
[NASA-CR-81335] 06 p0919 N67-16630
Parametron frequency divider and multiple interference light filters for ruby lasers
[FTD-HT-66-276] 10 p1649 N67-20449
Multiple interference light filters for narrowing ruby laser emission spectrum 10 p1649 N67-20451
Narrow-band birefringent filters for chromosphere observations 12 p2303 N67-34336
Optical interference bandpass filters for ultraviolet spectral region
[NASA-CR-83866] 13 p2368 N67-25758
Spectral absorbance curves for determining transmission characteristics of autoanalyser colorimeter filters using modified spectrophotometer
[SAM-TR-66-101] 14 p2531 N67-28751
Statistical correlation techniques and parallel plate filter arrangement for determination of particle deposition in turbulent slot flow
[AD-634671] 15 p3690 N67-27952
Color discrimination effects of blue cutoff filters used in simulated photochromic flash-blindness protective goggles
[NADC-MR-6704] 19 p3380 N67-32916
Astronomical photometric data, lunar crater and Leonid meteor shower observations, polarization of stellar light by interstellar gas, and solid organic filter development
[NASA-CR-68749] 22 p4140 N67-37082
Seismological studies including work on mode filters, earth core models, surface wave velocity, wave excitation, and seismograph array data processing techniques
[AD-657087] 23 p4248 N67-39156
Construction of optical mode filters for application with seismic data 23 p4248 N67-39158
OPTICAL GENERATOR
Development of optical quantum generator from highly ionized low temperature to convert heat energy into electric and coherent light radiation energies for use in laser
[JPRS-39659] 07 p1097 N67-18113
OPTICAL HETERODYNE
Optical heterodyne system used to measure electron density of plasma
[NASA-CR-79511] 02 p0268 N67-11738
Optical superheterodyne receiver
[NASA-CR-81659] 07 p1041 N67-17982
Producing waves with Doppler frequency shift for use in optical heterodyne
[FTD-HT-66-674] 13 p2054 N67-24769
Narrowband optical heterodyne detection
[NASA-CR-84149] 14 p2547 N67-26515
Optical heterodyne measurements for mapping spatial velocity distribution in turbulent flow
[NASA-CR-89614] 24 p4434 N67-40512
OPTICAL ILLUSION
Problems in depth perception related to aviation medicine - equidistance judgments in vicinity of binocular illusion
[AM-66-24] 06 p0814 N67-16084
Relationship of visual illusions and aircraft accidents
[SAM-TR-67-28] 20 p3584 N67-34634
OPTICAL IMAGE
SA IMAGE CONTRAST
SA RETINAL IMAGE
Optical image detection through turbulent atmosphere
[RADC-TR-66-485] 01 p0115 N67-10490
Reference map display systems for using image interpreters
[AD-639126] 01 p0075 N67-11003
Electron image information storage using photocathode to convert optical information into electrons 03 p0379 N67-13066
Image storage tube 03 p0374 N67-13067
Different atmospheric perturbations causing optical image instabilities in astronomical star observations, and climatic evaluation of some observatory sites in U.S.S.R.
[NASA-TT-F-427] 06 p0971 N67-15461
Correlation between image pulsations of binary stars separated at small angle 06 p0961 N67-15463
Frequency analysis to determine image pulsations of artificial light wave traveling through atmospheric ground layer 06 p0971 N67-15467
Image pulsation classification of atmospheric optical disturbances in small telescope refraction 06 p0971 N67-15468
Photoelectric recording of star image pulsations 06 p0962 N67-15478
Automatic telescope driving errors and fluctuation of star images 06 p0977 N67-15480
Astronomical microphotometer systems for image pulsation measurements on star trails 06 p0975 N67-15481
Three-dimensional holography
[NEL-1403] 06 p0919 N67-16644
Applications, performance, and maintenance of rapid process photographic film equipment display systems 07 p1078 N67-16962
Factors contributing to degradation of holographic images 09 p1484 N67-19467
Atmospheric refraction effects on telescope guidance, photoelectric and television devices for reducing air turbulence, turbulence variability, and wide angle telescope design
[FTD-HT-66-184] 11 p1975 N67-22504
Angle of turbulence and solar activity effects on stellar image quality 11 p1975 N67-22507
Optical processing system to perform matrix transformations of large dimensional vectors at wide processing bandwidths
[AFCRL-66-793] 11 p1833 N67-22869
Distribution, correlation, and recognition of images and patterns in control systems 12 p2068 N67-23947
Mathematical and graphical analysis of parameters of Cassegrainian optical system used to concentrate solar energy 15 p2644 N67-28164
Numerical restoration of incoherent optical objects obscured by diffraction and background noise
[AFCRL-67-0070] 15 p2753 N67-28333
Stroboscopic secondary emission electron microscope for observing successive quasi-instantaneous stages of dynamic process,
[FTD-HT-66-757] 19 p3454 N67-33288
Motor mechanisms and theoretical model studied for perception and identification of visual images
[FTD-TT-65-1743] 21 p3770 N67-35420
Shape measurement of small optical targets
[AFCRL-67-0289] 21 p3895 N67-35706
Optical imagers for small earth resources satellite - photo-optical, electro-optical, and hybrid camera systems
[NASA-CR-88212] 21 p3850 N67-36054
Relationship of solar radioemission flux from local sources and optically observed structure of active regions of sun
[NASA-CR-88278] 21 p3929 N67-36517
Electronic computer visual image processor
[AFOSR-67-1665] 22 p4005 N67-37015
Class of imaging system producing visible two-dimensional image of object scene emitting or reflecting radiation in infrared spectral region
[REPT.-6466-113-T] 22 p4008 N67-37056
Interpretation of line-scan pictures produced by flying-spot scanner system - image degradation by addition of noise and by varying line frequency
[IZF-1967-16] 24 p4452 N67-40007
OPTICAL INSTRUMENT
SA INFRARED DETECTOR
SA INTERFEROMETER
SA MICROSCOPE
SA PERISCOPE
SA PHOTOELECTRIC APPARATUS
SA REFLECTOMETER
SA STROBOSCOPE
SA TELESCOPE
European space technology studies program - spacecraft propulsion, optical and scientific instruments, guidance stability, data processing, and related topics
[NASA-TT-F-8445] 01 p0151 N67-10183
Photospheric and chromospheric observations, and optical instrumentation - Belgium
[AR-36] 02 p0300 N67-11756
Feasibility of combining wavelength dispersing and optical-mechanical line scanning techniques
[NASA-CR-79916] 02 p0259 N67-11848
Optical electronic device to orient rocket-borne lunar spectrographs toward moon
[AFCRL-66-102] 02 p0260 N67-11928
Optical technology experiments of Optical Technology Apollo Extension System
[NASA-CR-79503] 02 p0261 N67-12054
Systems integration - Optical Technology Apollo Extension System
[NASA-CR-79499] 02 p0261 N67-12055
Systems integration for Optical Technology Apollo Extension System
[NASA-CR-79497] 02 p0261 N67-12056
Technology development plan, and optical instrument for Apollo project
[NASA-CR-79524] 02 p0261 N67-12057
Summary optical technology requirements and testing - Apollo project
[NASA-CR-79521] 02 p0261 N67-12058
Instrumentation - radio electronics, electrical measuring devices, automation and telemechanics, computing instruments, gyroscopes and navigation aids, and optical, thermal, and bionic devices
[JPRS-38750] 03 p0395 N67-12781
Effect of deviation in parameters of variable enlargement optical systems on displacement of image plane 03 p0429 N67-12784
Device for automatic and remote control of various machines for excavating at a given slope with aid of light beam 03 p0376 N67-12786
Linearity of optical transformations under coherent illumination 03 p0399 N67-13071
Atmospheric extinction measurement and light scattering function - polar nephelometer and power supply
[R-3-66-3] 05 p0706 N67-15025
Design and analysis of solid and hollow cube corner reflectors which, when placed on lunar surface, will be used in connection with earth laser system for selenodetic studies
[AFCRL-66-563] 05 p0739 N67-15043
Optical instrument for photographic observations of refractive index fluctuations in atmospheric daytime ground layer 06 p0971 N67-15465
Intensity microphotometer design in which input signal is converted by piecewise-linear diode approximators 07 p1076 N67-16819
Optical instruments for ultraviolet measurements in planetary atmospheres 07 p1192 N67-17793
Aerial reconnaissance facilities and instruments, and resolving power, haze and rain effects, scanning devices, and optical and photographic media
[TIL/T-5690] 09 p1451 N67-20219
Birefringent devices, lossless double-pass network synthesis, and electro-optical amplitude modulators
[NASA-CR-83980] 10 p1691 N67-20631
Optical birefringent devices - synthesis of lossless networks, double-pass technique, optical amplitude modulator, and naturally birefringent and electro-optic networks 10 p1692 N67-20632
Raster types, and reflecting and translucent rasters for projecting in illuminated rooms
[JPRS-39693] 10 p1631 N67-21169
Handheld space sextant and preflight battery charger and test equipment - operating manuals
[NASA-CR-73072] 11 p1877 N67-22865
Optical and electronics systems for Apollo spacecraft carbon dioxide sensor
[NASA-CR-85614] 14 p2537 N67-27231
Differential liquid Cerenkov counter with continuously variable velocity response
[BNL-50081/T-447/] 14 p2540 N67-27788
Spectral transmission of two optical systems for application to calibrations of star tracking systems
[RAE-TR-67010] 15 p2707 N67-27869
Mathematical models for aircraft carrier landing process involving interaction of ship motions, optical landing system, pilot aircraft combination, air wake, and signal officer
[STI-TR-127-2] 16 p2818 N67-29068
Simulator study of pictorial navigation display in instrument departure of supersonic transport
[NASA-TN-D-4029] 16 p2927 N67-30037
Construction and performance fiber optics converter for transforming low voltage levels to codes 18 p3253 N67-32180
Optical beam deflectors with piezoelectrically driven mirrors for use in optical acquisition and tracking systems
[NASA-CR-88115] 21 p3907 N67-36158

Design and performance of microspectrophotometer
[NASA-CR-88491] 22 p4043 N67-36742
Balloon-borne optical beacon for geodetic survey systems 23 p4256 N67-39231
OPTICAL MASER
Senarmont polariscope applied to analysis of optical maser light 07 p1056 N67-17278
Simplified theory of optical maser in external static magnetic field using tensor operator expansion of density matrix needed in calculating macroscopic polarization [SR-3] 14 p2548 N67-26752
Raman scattering using continuous wave optical masers
[AD-650044] 17 p3130 N67-30726
Parametric analysis of microwave and laser for communications and tracking systems
[NASA-CR-74969] 18 p3229 N67-32154
Microwave research - optical maser improvement, and generation of domain in cadmium sulfide by injected acoustic noise [ML-1491] 18 p3252 N67-32189
Laser and maser research abstracts and indexes related to ranging and communication systems, astronomy and optics, and metal working
[NASA-SP-7069(03)] 23 p4659 N67-37699
OPTICAL MASER MODULATOR
SA LIGHT MODULATOR
Electro-optical processor for phased array antennas 03 p0366 N67-13060
Electro-optic modulation, crystal growth and properties, and design equations and performance for 10.6-micron laser modulator of gallium arsenide
[NASA-CR-89267] 23 p4262 N67-38866
OPTICAL MEASUREMENT
SA ELECTRONIC PHOTOGRAPHY
Tabulated data on optical observations of earth orbiting satellites 01 p0036 N67-10138
Tabulated data on optical observations of earth orbiting satellites 01 p0036 N67-10140
Interference ring method used to check thickness of transparent thin films on surfaces with relatively large curvature 03 p0429 N67-13788
Planning of optical experiment to measure neutron-proton scattering above pion production threshold
[JINR-E-2765] 03 p0445 N67-13304
Measuring and calibration apparatus for optical and electrical adjustment of infrared image converter tubes
[REPT.-66-9-2] 04 p0552 N67-13636
Loading and optical systems of microtensile test machine modified for improved thin film and whisker testing
[NASA-TM-X-1336] 04 p0557 N67-14112
Optical measurements on solid phase distribution in gas-solid turbulent flow
[NYO-2930-6] 05 p0694 N67-14700
Scattering anisotropy effect on optical parameters of Martian atmosphere and surface - photometry 07 p1189 N67-16830
Optical characteristics of vapor deposited coating systems for thermal control of spacecraft structural surface
[NASA-CR-73039] 07 p1090 N67-17162
Design and breadboarding of portable tube flare inspection instrument
[NASA-CR-83442] 08 p1283 N67-19137
Hologram measurements of optically inhomogeneous field by pulsed laser
[NASA-CR-83463] 08 p1338 N67-19271
Characteristics of optical auroral emissions generated in upper atmosphere at high latitudes
[R-329] 09 p1443 N67-20284
Determination of satellite location by optical measurement methods
[ESRO-TM-42] 09 p1419 N67-20292
Optical and mass spectrometric measurements of neutral element composition in upper atmosphere 10 p1758 N67-20386
Spectroscopy of ozone, measurement of its atmospheric concentration by optical means, role in atmospheric dynamics, and use as tracer for atmospheric winds - bibliography included
[NASA-CR-80022] 15 p2702 N67-28366
Laser parameter measurements handbook - measurements of gain parameters and wavelength at optical frequencies
[RADC-TR-66-704, VOL. II] 16 p2904 N67-29593
Supersonic combustion of hydrogen in air test program using optical and photographic measuring techniques
[NASA-CR-66393] 20 p3748 N67-34996
Polarization of luminescence and properties of molecular structures
[TT-67-62317] 21 p3915 N67-35675
High field magnet development, magneto-optics, optical effects, and cyclotron resonance related to materials science - summaries of research activities 21 p3925 N67-36576
OPTICAL METHOD
Polarization-optical method of investigating stresses and deformation
[FTD-TT-65-1923] 01 p0162 N67-11144
Coherent optical systems for processing data from synthetic-antenna radar systems 03 p0366 N67-13062
GEOS optical memory and control unit for controlling operation of optical beacon - digital delayed command system with high accuracy real time clock
[NASA-CR-80476] 03 p0371 N67-13105
Optical method for measuring flow velocity in arc heated wind tunnel
[ARC-R+M-3439] 06 p1215 N67-18257
Nonspherical optical model analysis of neutron scattering properties of tungsten isotopes
[NAA-SR-11973] 08 p1343 N67-18879
Optical model analyses of inelastic scattering
[ORNL-P-2570] 10 p1728 N67-21663
Optical model analysis of high energy elastic scattering of particles at large angles
[JINR-P2-3018] 10 p1729 N67-21669
Optical correction method in interpreting photographs for geodetic surveying
[FTD-TT-65-2016] 10 p1628 N67-21843
Optical method to determine microstructure of fogs and large-drop clouds 11 p1876 N67-22021
Parallel light beam method to record particles in snow stream carried by wind 11 p1854 N67-22095
Multipass photoelectric photometry system for sea water transparency measurements 11 p1879 N67-22360
Optical, and electron or ion impact methods of coherent atomic excitation 12 p2178 N67-23784
Conference papers pertaining to electron probe microanalysis, electron microscopy, X-ray diffraction, and optical metallographic methods
[RFP-658] 12 p2118 N67-24241
Color metallography technique for optically identifying carbon, iron, aluminum, and silicon particles in uranium metal 12 p2106 N67-24244
Solid state devices, optical techniques and devices, materials research, and physics of solids
[ESD-TR-66-566] 13 p2388 N67-25121
Optical method to determine nature and distribution of stresses in glass and polymer film near polymer-glass interface 13 p2344 N67-26392
Feasibility of optical holography for detection and measurement of vibrational characteristics of solid state transducers
[REPT.-7590-F] 14 p2538 N67-27162
Optical interferometric methods applied to plasmas
[NP-16554] 14 p2568 N67-27496
Optical method for determining orientation of rotation axis of spin stabilized satellite
[RAE-LIB-TRANS-1212] 15 p2705 N67-28714
Electrochemical and optical investigations of anodic oxygen film on platinum electrode 16 p2855 N67-29064
Solid state physics, methods, devices, and materials 17 p3148 N67-30715
Optical methods for studying ultrasonic propagation in transparent media
[ORNL-P-2725] 17 p3122 N67-31318
Optical-acoustic method for measuring atmospheric humidity 21 p3883 N67-35232
Evaluation of neutron cross sections on basis of optical and statistical models
[BARC-279] 23 p4312 N67-39089
Instrumentation system to determine atmospheric turbulence effects on collimated laser beam under near-earth conditions
[BRL-MR-1840] 24 p4461 N67-39452
OPTICAL MODULATION
Low power wide bandwidth laser modulators 02 p0498 N67-12069
Modulation of coherent optical signals by Franz-Keldysh effect devices 03 p0430 N67-13072
Design of wideband high efficiency optical modulation system tested over 100-MHz band
[NASA-CR-82929] 09 p1426 N67-19923
Maximum response of magnetometer with optical modulation
[JPRS-42895] 23 p4254 N67-39084
OPTICAL PATH
Interferometric photographic techniques for recording optical path length variations in pumped laser rods
[ECOM-3751] 04 p0558 N67-14331
Geometric efficiency of electroformed paraboloidal nickel solar energy concentrator calculated from optical ray trace data
[NASA-TN-D-4073] 18 p3199 N67-32383
Microwave propagation reliability over selected terrain in optical paths
[NASA-CR-71830] 23 p4218 N67-37832
OPTICAL POLARIZATION
Optical polarization study of stress distribution in billet with axis offset to mill axis 06 p0889 N67-18896
Brightness and polarization of reflected light from lava samples and comparison with lunar surface data 06 p0886 N67-18197
Polarization in elastic scattering of deuterons on atomic nuclei, and nuclear reactions with polarized deuterons 06 p0837 N67-18371
Optically active coatings in solution of plane elasto-plastic problems
[FTD-TT-65-1991] 08 p0900 N67-18422
Tabulated maximum polarization values of lunar geologic units mapped on basis of observations from earth 18 p3230 N67-31949
Acoustical properties of tellurium crystals, and factors affecting accuracy of observations of acoustical activity
[TR-12] 19 p3822 N67-32778
OPTICAL PROPERTY
Dynamic optical properties of polymeric solids
[AROD-4651-13] 01 p0142 N67-11161
Optical properties of liquid crystal cholesterol
[JPRS-39573] 02 p0389 N67-11238
Fundamental processes in optical behavior of solids and associated with photovoltaic energy conversion
[NASA-CR-80126] 02 p0295 N67-12166
Magnetic and optical properties measurements of strong focusing magnet
[LNF-66/15] 03 p0431 N67-13330
Emissivity coatings for low temperature space radiators
[NASA-CR-72959] 05 p0737 N67-14806
Thermal optical distortion in neodymium doped glass that is induced by pump radiation
[MDE-1198] 06 p0889 N67-15853
Optical properties of single crystals of beta phase silicon carbide
[OR-3394] 06 p0942 N67-15994
Controlled evaporation of gallium arsenide, and substrate temperature effect on optical and electrical properties of thin film gallium arsenide 06 p0888 N67-16085
Electric field effects on critical opalescence, time dependent phenomena related to relaxation times of concentration fluctions for binary mixture
[TR-1] 08 p0830 N67-16139
Optical potential parameters of deuteron nuclear interaction model 08 p0837 N67-16363
Optical parameters for deuterons 08 p0837 N67-16370
Calculations from observations of light refraction by blast bubble
[BRL-MR-178] 04 p0619 N67-16383
Optical properties of Martian surface indicate redness results from high atmospheric absorption 07 p1188 N67-16812
Photoelectric and optical properties of platinum, gold, and palladium foils and evaporated aluminum and silver films in extreme ultraviolet under good vacuum conditions
[ORNL-TM-1393] 07 p1178 N67-17661
Optical and photometric properties of lunar surface and implications for human visual performance
[NASA-CR-81756] 07 p1022 N67-18005
Optical constants of magnesium oxide in far ultraviolet
[NASA-CR-81782] 07 p1180 N67-18135
Optical constants of lithium fluoride in far ultraviolet
[NASA-CR-81779] 07 p1180 N67-18139
Optical properties on neodymium-doped glasses, and spectrofluorophosphorimeter construction
[AD-643169] 08 p1251 N67-18888

Analytical technique for predicting physical, thermal, and optical properties of composite material constituents used in radiant and/or radiant/convective heating environment
[NASA-CR-82485] 08 p1286 N67-19155
Electric and optical properties of metals and semiconducting materials
[NEL-1397] 09 p1501 N67-19777
Temperature and pressure dependence of infrared and optical spectra of solids
[IITRI-A6138] 10 p1742 N67-20462
Lattice vibrational properties of hexagonal cadmium selenide 10 p1743 N67-20463
U centers in cesium bromide 10 p1744 N67-20469
Research in chemical and solid state physics, electronic, magnetic, and optical properties of materials, and metallurgy
[AD-643996] 10 p1745 N67-20564
Low temperature studies and investigation of electrical, physical, optical, and transport properties of semiconductors
[PRF-3324] 10 p1746 N67-20604
Optical properties of solids investigated by infrared and Raman spectroscopy 11 p1966 N67-22446
Optical, electrical, and magnetic properties of zinc sulfide manganese chloride powders - electroluminescent materials for space vehicle surfaces
[NASA-CR-66326] 11 p1967 N67-22872
Optical properties of thick layers of homogeneous scattering medium 11 p1979 N67-23436
Optical properties of static axisymmetric crossed fields, and ion beam trajectories 12 p2152 N67-23506
Defects, optical properties, and conduction mechanisms in crystals 12 p2189 N67-23845
Oscillation and resonance condition of many element laser - mode selection properties
[SR-4] 12 p2112 N67-24376
Experimental comparison of energy and radiation angle for lasers with plane and confocal mirrors
[FTD-HT-66-523] 12 p2112 N67-24468
Optical and physical properties of projection viewing screens
[NAVTRADEVCEN-IH-53] 12 p2183 N67-24739
Pseudo-Brewster angle technique for determining optical constants of opaque materials
[NOLC-899] 12 p2193 N67-24774
Resolution of some O-alkyl hydrogen methylphosphonothioates with dextrorotatory and levoratory alpha phenylethylamine
[REPT.-1966-23] 13 p2273 N67-26302
Defect structure, mechanical behavior, electrical and optical properties, magnetic, thermodynamic, and thin film properties of solid materials and crystals
[NASA-CR-84070] 13 p2395 N67-26375
Spectrographic methods and observations of stimulated and spontaneous Rayleigh scattering, Raman effects, and Brillouin effects in gases, solids, and liquids
[AD-647364] 14 p2547 N67-26703
Optical properties of metal, semiconductor, and dielectric thin films - plasma oscillations in silver film
[SAR-14] 14 p2603 N67-27009
Optical and mechanical properties of monochromator with high precision directional control of spectrum 15 p2708 N67-27848
Photoelectrical and optical properties of gallium phosphide
[NASA-CR-84660] 15 p2779 N67-28014
Optical properties of epitaxial PbS films in energy range 2 to 6 eV
[HP-17] 15 p2727 N67-28616
Interrelationship of thermal, optical, and electric properties of silver
[AMRA-TR-67-02] 15 p2755 N67-28715
Solid state physics research in semiconductor devices, laser properties, crystal growth, magnetism, and electronic band structure
[REPT.-1967-11] 16 p2957 N67-29041
Methods for measuring scattering and absorption coefficients of paper and wood pulp
[FPL-0162] 16 p2937 N67-29169
Laser parameter measurements handbook - laser beam sampling techniques and measurements of laser radiation energy and power
[RADC-TR-66-704, VOL. I] 16 p2904 N67-29695
Effective mass of free carriers in semiconductors as determined from infrared reflectivity measurements
[NOLTR-67-16] 16 p2959 N67-29601
Phase relations, optical properties, and geological distribution of feldspars
[TT-65-60091] 18 p3231 N67-31645
Normalized extinction cross section, asymmetry factor, and single-scattering albedo for spherical homogeneous ice particles in infrared region 18 p3334 N67-32060
Electron and solid state physics - reflected light, Raman effects, solid and liquid optical properties, spectroscopy, Brillouin effects, and carbon dioxide laser 18 p3317 N67-32217
Reflection and polarization properties of silicon carbide and aluminum oxide powders
[R67SD29] 19 p3438 N67-32705
Optical and electrical properties of semiconducting and insulating diamonds
[AFCRL-67-0523] 19 p3521 N67-32752
Calculation of total radiation emerging from planetary atmospheres optically thicker than those of earth
[RM-5343-PR] 19 p3532 N67-32986
Excitation theory compared to polarizability theory for determining optical properties of dimers made up of two identical molecules having only one excited level when separate
[CEA-R-2878] 19 p3368 N67-33031
Design, fabrication, and optical properties of X-ray telescope for 10 angstrom region
[NASA-CR-87440] 20 p3638 N67-34304
Construction and optical system details of scale model of 14-ft bubble chamber
[BNL-11313] 20 p3618 N67-34340
Optical properties of sodium in vacuum ultraviolet
[ORNL-TM-1776] 20 p3715 N67-34986
Stimulated Raman scattering and mode selective techniques for giant pulse lasers, and studies of optical harmonic generation and bleachable dye lasers
[P67-81] 21 p3815 N67-35619
Optical glass
[FTD-HT-66-721/1+4] 21 p3874 N67-35697
Optical and magnetic properties of rare earth compounds 21 p3918 N67-36305
Chemical and electron optical studies of gels, oxide microspheres, and sols prepared from europium, neodymium, and praseodymium hydroxides 21 p3786 N67-36323
Optical and electrical properties of ytterbium thin films 21 p3922 N67-36373
Research project compilation on optical effects of atmospheric turbulence
[NASA-CR-88307] 21 p3897 N67-36560
Electric, magnetic, and optical properties of materials and applications to devices - research summaries 21 p3924 N67-36573
Analysis of optical inhomogeneity of quartz crystals by X-ray diffraction topography
[NASA-TT-F-11197] 23 p4123 N67-36697
Electric and optical properties of ablative light sources
[ECOM-3942] 22 p4099 N67-37270
Evaluation of Hartmann test with consideration to its application to all-reflecting Schmidt telescope
[TR-AE-66-12] 22 p4099 N67-37305
Dichroism and birefringence of polymers containing polyene segments
[ONR-TR-91] 23 p4269 N67-38112
Reference standards for luminance, radiance, and temperature
[P-339] 23 p4294 N67-38456
Mechanical and optical properties of epoxy resins employed in photoelastic techniques
[EUR-3904.F] 24 p4474 N67-40297
Metallurgical, electrical, and optical properties of gallium phosphide
[NASA-CR-89603] 24 p4518 N67-40312
Optical phenomena of electrode processes in high current spark discharge
[AFCRL-67-0446] 24 p4498 N67-40371

OPTICAL PUMPING
Semiconductor devices, optical techniques, and physics of solids
[ESD-TR-66-307] 01 p0142 N67-11055
Evaluation of characteristics of monopulse quantum generator connected to interferometer in relation to population inversion, pumping power, and mirror reflectivity
[FTD-TT-65-1001] 05 p0739 N67-15060
Alignment of chromium in ruby by optical pumping 07 p1176 N67-17279
Control of helium and neon metastable atoms by optical pumping and application to gas laser
[REPT.-36] 09 p1456 N67-19728
Nuclear spin polarization induced in low density gaseous helium 3 by optical pumping
[ORO-1316-17] 10 p1717 N67-21468
Soviet research summaries on parametric oscillation and amplification at optical frequencies
[ATD-66-131] 11 p1893 N67-22570
Quartz ablating wall annular flash lamp for optical pumping of neodymium and ruby laser crystals
[AFAL-TR-67-32] 16 p2904 N67-29697
Optical pumping technique for studying magnetic properties of rubidium vapor magnetometer
[NADC-AE-6714] 17 p3143 N67-30722
Dilute ruby absorption spectra, ruby laser efficiency, and kinetics of optical pumping
[AFCRL-67-0194] 19 p3467 N67-32970
Magnetometers for rocket and satellite experiments using optical pumping techniques - self-oscillating helium magnetometer
[REPT.-1966/3] 19 p3469 N67-32980
Physical properties of carbon dioxide laser radar transmitter - Gain and saturation in dc excited amplifiers
[S-970] 20 p3653 N67-34421
Pulsed arc discharges used for optical pumping of high energy solid state lasers
[RR-67-9C1-ARCSO-R1] 21 p3866 N67-35785

OPTICAL PYROMETER
Infrared pyrometer for measuring remelt furnace pour temperatures 00 p1447 N67-19643

OPTICAL RADAR
SA LIDAR
Measurement and theory, including signal to noise and transfer function calculations, of atmospheric water vapor using ruby laser optical radar 04 p0557 N67-12488
Research reports on physics of laser radiation, optical radar systems, corner reflector on lunar surface, photon correlations and counting statistics, and cold cathodes for gas lasers
[NASA-CR-81248] 06 p0889 N67-16014
Optical radar system using corner reflector on lunar surface 06 p0889 N67-16015
Optical radar detection of backscatter from upper atmosphere 06 p0890 N67-16016
Laser radars used as optical atmospheric probes 07 p1097 N67-17788
Semiconductor devices, optical techniques, materials research, and physics of solids
[REPT.-1966-3] 10 p1745 N67-20543
Optical radar investigations of atmosphere, and Mie scattering intensity functions for backscatter 11 p1863 N67-21982
Optical radar measurements of stratospheric aerosol layer during 1964 and 1965
[NASA-CR-83953] 13 p2314 N67-25994
Optical radar and airglow observations of noctilucent clouds 14 p2522 N67-27080
Doppler optical radar and heterodyne measurement of oscillating systems
[AD-651823] 17 p3075 N67-30319
Simulated ruby laser radar data for analysis of atmospheric water vapor profiles
[ECOM-02207-F] 24 p4446 N67-40230

OPTICAL RANGEFINDER
Optical pulse ranging of small size targets by means of noncoherent Nanolite spark source
[AFCRL-66-653] 06 p0842 N67-16189
Programmed multi-pulse optical radar range finder analysis
[EG+G-B-3434] 10 p1649 N67-20661
Solid state, liquid phase, semiconductor, and junction lasers for rangefinding in atmosphere and in space 16 p2902 N67-29964

OPTICAL REFLECTIVITY
Angle-of-incidence dependence of calcium fluoride reflectivity
[AFCRL-66-297] 02 p0296 N67-12280
Comparison of Mars reflection characteristics in optical and radio bands
[NASA-CR-80145] 03 p0463 N67-12365
Optical reflectance measurements of pyrolytic graphite and phenolic nylon chars and potential application to heat shield requirements 06 p0896 N67-15712
Indicatometry used to verify hypothesis of limonite surface cover on Mars 07 p1076 N67-16810
Light scattering theory applied to particle arrays to explain scattering in highly

reflecting paint coatings
[NASA-CR-61166] 06 p1327 N67-19075
Monte Carlo methods, Mie theory, and random walk and screen models for predicting reflective properties of paint films
[NASA-CR-61167] 06 p1328 N67-19076
Maxwell electromagnetic equations for determining basic relationships of polarized light reflection from metallic absorbing surfaces
[UCRL-11813] 12 p2155 N67-34554
Abstracts on optical ranging - light interaction with atmosphere, atmospheric distribution of water, particles and aerosols, and surface and ground cover reflectivity and absorption
[ATD-66-130] 14 p2539 N67-37768
Light scattering in highly reflecting pigmented coatings - silver bromide and particle suspensions and paint films
[NASA-CR-844] 17 p3068 N67-30686
Optical and electrical parameters of zinc oxide degradation during exposure to spectral radiation
[NASA-CR-85234] 17 p3082 N67-31329
Optical and calorimetric tests of nickel mirrors for use as power source for thermionic generators
[NASA-CR-85750] 17 p3122 N67-31438
Optical reflection technique based on transparent diffraction gratings for obtaining deflection contours of deformed nearly flat plates 20 p3589 N67-34902
Reflection of polarized light from film covered surfaces
[UCRL-17128] 23 p4293 N67-38298

OPTICAL RESONATOR
Time behavior of light emitted from many-element laser - microwave models of laser resonators
[ASR-1] 01 p0080 N67-10283
Diffraction effects on electromagnetic field in optic resonator embedded in infinite uniaxially anisotropic media
[PIBMRI-1333-66] 01 p0080 N67-10585
Optical resonator consisting of two rotating prisms able to remove reflection losses and obtain discrete magnitudes of dispersion
[FTD-HT-66-109] 10 p1694 N67-21363
Electronic interaction studies with optical resonators for microwave generation and amplification
[ECOM-01873-6] 16 p2868 N67-29513
Dihedral optical resonators and prism beam waveguides
[PIBMRI-1299-66] 17 p3119 N67-30484
Mode patterns, phase shifts, and power losses in unstable regions of flat roof open resonator
[AFCRL-67-0357] 21 p3865 N67-35582

OPTICAL SATELLITE TRACKING PROGRAM
Optical and infrared technology developments for guidance, tracking, and communication in aerospace missions 17 p3024 N67-30560
Stellar triangulation theory, geodetic satellite observations and preprocessing procedures
[NASA-CR-89061] 23 p4342 N67-38296

OPTICAL SENSOR
Mosaic electro-optical techniques 03 p0399 N67-13074
Sterilization of guidance and control systems and components 05 p0734 N67-14788
Efficient signal processing techniques for celestial scanning optical systems - models of energy received by sensors from star and stellar background radiation - photodectors
[NASA-CR-672] 06 p0908 N67-16667
Test facility and equipment for evaluation of optical sensors employed in celestial navigation and guidance systems
[NASA-CR-80007] 06 p1363 N67-18498
Optical methods for remote sensing of local thermodynamic properties and turbulence in model flows or atmosphere 09 p1544 N67-20264
Determination of gas flow parameters from propane attitude control jets, and effects on satellite optical sensors and telescopes
[RAE-TR-66290] 11 p1918 N67-23485
Spacecraft control studies on antenna pointing, capsule sterilization, propulsive lander, optical sensing for soft landing spacecraft, and gyro data reduction computer programs 12 p2017 N67-23647
Remote sensing of environment by radar and infrared imagery and optical sensors - bibliography
[REPT.-4884-12-P] 16 p2895 N67-29134
Ambiguity in frost point temperatures measured by optical dew sensor
[AFCRL-67-0147] 17 p3060 N67-30615
Soviet open literature on optical, radiation, electrical and electronic, and mechanical sensors and devices - bibliography
[ATD-67-1] 17 p3069 N67-31231
Theory, fabrication, and operation of Ne ring laser rotation sensor system
[NASA-CR-88193] 21 p3845 N67-35629
Optical liquid level sensor for use in liquid hydrogen
[NASA-CR-88885] 22 p4050 N67-37868

OPTICAL SIGNAL
SA VISUAL SIGNAL
Coherent optical signal processors 03 p0430 N67-13073
Noncoherent infrared emitter diode for optimization of transmitting and receiving components of transmission system 03 p0431 N67-13083
Atmospheric turbulence effects on intensity of laser beam transmitted at optical frequencies
[NASA-CR-83652] 10 p1649 N67-20404
Accurate two-dimensional optical spatial auto and cross-correlation functions and application to target recognition and tracking
[USL-744] 12 p2054 N67-24798
Mixer device, based on image convertar and photomultiplier techniques, for processing optical signals
[AERE-M-1813] 15 p2751 N67-27783
Estimation and detection of optical signals distorted by diffraction, background noise, and detection noise
[SR-9] 16 p2938 N67-29617
Self-steepening of light pulses due to propagation in medium with intensity-dependent index of refraction
[NASA-CR-87476] 20 p3688 N67-34750
Theoretical studies of atmospheric condition effects on optical propagation
[NASA-CR-86386] 22 p4097 N67-36823
Color specifications for transportation signal lights
[NBS-MONO-75] 22 p4014 N67-37489

OPTICAL SPECTRUM
Solution of integral equations on digital computer in determining particle spectrum of polydispersion systems 03 p0369 N67-13415
Optical and infrared spectroscopic studies of single crystal fluoride perovskites and potassium compounds to determine transmission spectra and ferroelectricity 05 p0750 N67-14625
Metallurgical, optical, and electrical properties of gallium arsenide and gallium phosphide, and imperfections and donor impurities in GaP
[NASA-CR-81790] 07 p1180 N67-18130
Electron spin resonance, Mossbauer, electronic, and optical rotatory spectra applications to problems in biology 09 p1397 N67-19522
Text on optical data processing - optical spectrum analysis, optical correlation, photographic film characteristics, and holography
[NASA-TM-X-55767] 14 p2590 N67-36833
Estimation of relative concentration of trivalent ytterbium ions in multiple site symmetries of calcium tungstate using paramagnetic resonance method
[HDL-TR-1345] 17 p3146 N67-30287
Chemical activity and comet phenomena - photochemical models of astrophysical reactions, electron bombardment of low pressure gases, and singlet carbide studies
[NASA-CR-86551] 18 p3234 N67-32289
Optical spectra of molecular emissions during electron bombardment of methane 18 p3225 N67-32294
Optical spectra of molecular emissions during electron bombardment of acetylene 18 p3225 N67-32295
Summary on optical spectroscopic studies of semiconductor materials
[AFCRL-67-0283] 18 p3318 N67-32548
Optical absorption spectra of uranium oxide and its solid solutions
[WAPD-316] 23 p4208 N67-38964

OPTICAL THICKNESS
Optical thickness of Mars atmosphere determined by photometric observations 07 p1187 N67-16807
Approximate method for determining absorption coefficients of potential application to optically thin materials where primary scattering predominates
[NASA-TM-X-55913] 22 p4098 N67-36889

OPTICAL TRACKING
SA MINITRACK OPTICAL TRACKING SYSTEM /MOTS/
Visual observation data on orbiting artificial earth satellites for January through December, 1963, from Rumanian observatory 02 p0232 N67-11295
Large aperture telescope for use as coherent optical deep space communications receiver
[NASA-CR-81677] 07 p1088 N67-17946
Coordinates for instruments at Earlyburn optical tracking station
[REPT. 59] 06 p1366 N67-18370
Optical observation data on artificial satellites from various ground stations 12 p2281 N67-26029
Microwave, millimeter, and optical communication systems for spacecraft at Mars distances
[NASA-TN-D-3984] 14 p2549 N67-37287
Baker-Nunn photography of Intelsat 2-F2 apogee-motor firing
[NASA-CR-84799] 15 p2796 N67-28766
Probability of recording and tracking satellite images optically
[NASA-CR-84870] 17 p3063 N67-30684
Automatic acquisition and tracking of pupil-iris boundary and of corneal reflection of light source in oculometer using electro-optic method for eye direction measurement
[NASA-CR-905] 17 p3071 N67-31481
Parametric analysis of microwave and laser systems for space communication and tracking
[NASA-CR-82101] 18 p3220 N67-32166
Tabulated data on optical observations of satellites during March 1967 21 p3880 N67-36037
Intercomparison of collocated laser optical and radio ranging system tracks on GEOS-A spacecraft
[NASA-TM-X-55950] 23 p4215 N67-39092
Geodetic satellite observation systems comparisons
[NASA-TM-X-55945] 23 p4216 N67-39161

OPTICS
SA ABERRATION
SA ATMOSPHERIC REFRACTION
SA CASSEGRAIN OPTICS
SA CRYSTAL OPTICS
SA DIFFRACTION PATH
SA DIFFRACTION PATTERN
SA ELECTRO-OPTICS
SA ELECTRON OPTICS
SA FIBER OPTICS
SA FOCUS
SA GEOMETRICAL OPTICS
SA INTERFEROMETRY
SA PHYSICAL OPTICS
Primary beam optics - analysis of nonuniform density in transverse phase space
[CERN-66-25] 03 p0428 N67-12832
Accuracy requirements for optical units of stereoscopic camera in bubble chamber
[JINR-P-2728] 03 p0460 N67-13201
Class of radiation problems involving phased line distribution of electric and magnetic currents in presence of anisotropic half space 07 p1141 N67-16835
Bibliography on optical information and data processing
[NASA-CR-81662] 07 p1047 N67-17906
Transmit beam offset and coarse acquisition subsystems for laser/optics technique breadboard and acquisition and track simulation
[NASA-CR-81701] 07 p1097 N67-18023
Grazing incident double reflection X-ray telescope
[NASA-CR-717] 07 p1069 N67-18160
Large diameter wide angle telescope 11 p1982 N67-23508
Studies in electronics, optics, thermodynamics, and nuclear physics, and related instrumentation
[FTD-MT-64-178] 12 p2152 N67-23301
Optics of photographic and aerophotogrammetric instruments
[FTD-HT-66-394] 13 p2109 N67-23074
Physical optics of compound eye of Tobacco Hookworm Moth 14 p2502 N67-27691
Edge diffraction from truncated parabolic and hyperbolic reflectors
[NASA-CR-84787] 15 p2764 N67-28375

Bubble chamber optics - illumination system modification and alignment of camera port windows
[CONF-661043-1] 15 p2667 N67-28406
Theory of partial coherence, mainly with respect to classical second-order theory
[TR-11] 15 p2755 N67-28945
Phase space transformation by means of quadrupole multiplets in optical systems
[CERN-67-6] 16 p2939 N67-30661
Optical analyses of atmosphere
[AFCRL-67-0191] 17 p3053 N67-30499
Curvilinear regression analysis of remote Arctic environment optical data
[NEL-1434] 17 p3121 N67-31309
Communication techniques for space environment applications
[NASA-CR-85895] 17 p3018 N67-31426
Fabrication of optical memory with ferrimagnetic storage elements 18 p3243 N67-31579
Parametric analysis methodology for determining optimum deep space communication and tracking systems, and reference data on mission analysis, optics, prime power, and ground receiver sites
[NASA-CR-87062] 18 p3230 N67-32167
Wave optic aspects of defocussed and Foucault modes of Lorentz microscopy
[TN-1967-21] 19 p3497 N67-32713
Microwave scattering analysis with Hamiltonian optics
[TM-64321] 19 p3497 N67-32722
Self-focusing optical beam research in Poland and Russia
[ATD-67-28] 22 p4098 N67-37200
Graphical displays and data on optical technology Apollo extension program
[NASA-CR-88704] 22 p4149 N67-37575
Theory and design of glancing incidence X-ray telescope
[NASA-TM-X-55952] 23 p4296 N67-39127

OPTIMAL CONTROL
Equations for optimal control in ordinary dynamic systems
[FTD-TT-65-2014] 01 p0056 N67-10485
Optimal linear inventory control and first order exponential smoothing
[P-3364-1] 01 p0169 N67-10583
Technique of quasi-optimum control
[NASA-CR-79714] 01 p0095 N67-10670
Analog computer used for solving boundary value problem of fourth-order optimal control problem
[GGC/EE/66-7] 01 p0097 N67-11053
Solution to problem of finding optimum control of object with given transfer function 03 p0375 N67-13409
Soviet technical cybernetics publication with articles on automatic and optimal controls, systems engineering, information processing, and computer programming
[JPRS-38664] 03 p0375 N67-12501
Functional analysis applied to theory of optimal control and variation problems 03 p0375 N67-12502
Solutions for optimal control problems by variation method in space of states 03 p0376 N67-12506
Optimal control algorithm applied to multinomenclature reserves of multiple supply periods system 03 p0376 N67-12508
Optimal scheduling for parallel-series machine combinations, and algorithms for optimal parts processing 03 p0376 N67-12509
Optimal programs constructed for diagnosing conditions of complex technical systems using dynamic programming and algorithms 03 p0376 N67-12513
Optimal detection of Markov signals against background of Markov noise with discrete time 03 p0385 N67-12518
Optimal nonlinear control system selected according to maximum probability criterion 03 p0377 N67-12524
Optimal control of structural vibrations in large flexible aerospace vehicles during flight maneuvers
[AFOSR-66-0766] 03 p0467 N67-12654
Pursuit problem and differential game theory, angular and spectral distribution of atmospheric infrared radiation, and research on heat resistant polymers 04 p0124 N67-13386
Pursuit problem and theory of differential games 04 p0567 N67-13387
Optimal equipment maintenance theory for stochastic and deterministic problems
[R-437-PR] 04 p0055 N67-13512
Linear optimal control techniques used as synthesis tool to conceptually design control systems for large highly flexible launch vehicle
[NASA-CR-80772] 04 p0523 N67-13573
Disturbance envelope and experiment requirements for Apollo missions used to determine optimum control-moment gyro-jet system 04 p0616 N67-14244
Technical cybernetics problems of optimal control, queueing, random processes, speech and pattern recognition, and information processing
[JPRS-39381] 05 p0685 N67-14341
Differential equations for optimal control synthesis of isoperimetric problem 05 p0686 N67-14345
Algorithm for optimal control of switching on redundant subsystems 05 p0686 N67-14350
Formulas for calculating optimal control law parameters and weight coefficients of quadratic equation to solve analytical design problem of optimal regulator in closed form 05 p0686 N67-14360
Optimal control of systems with distributed parameters, and optimization of random search for extremum value of variables 05 p0687 N67-14363
Inverse problem of optimal control - linear systems
[SEL-66-038] 05 p0688 N67-15265
Model based on optimal control theory for characterizing human operator in preview control task to provide reference frame for studying performance value and learning in manual control 06 p0812 N67-15872
Nonlinear and optimal control of planet pointing space vehicles, satellite trajectories, and satellite attitude control
[NASA-CR-80924] 06 p0972 N67-16081
Attitude control for earth satellite in elliptic orbit, linearization in attitude control, and computation of optimal controls by method based on second variations 06 p0973 N67-16082
Suboptimal feedback control of systems with random parameters
[R-323] 07 p1054 N67-16930
Nonlinear system stability, optimal control, reactor dynamics, space-time effects, and pulsed neutron research covered in symposium on neutron dynamics and control
[CONF-650413] 07 p1122 N67-17041
Synthesis of optimal nuclear reactor control system 07 p1122 N67-17048
Linear optimal feedback control theory for synthesis of optimum nuclear rocket engine start-up 07 p1123 N67-17050
Control of nuclear rocket absorption cross section 07 p1123 N67-17051
Computing method for linear time optimal control system based on invariant imbedding
[FTD-TT-65-1921] 07 p1055 N67-17219
Applications of optimal control theory in aerospace engineering, plasmas in geophysics, fluidics, solid propellant ignition, and jet impingement - Conference
[AFOSR-66-1943] 07 p1212 N67-17293
Applications of dynamic programming and design of optimum logic structures for guidance and control systems - aerospace engineering 07 p1055 N67-17294
Basic similarities in calculus of variations and optimum control theory for rocket flight between two points 07 p1112 N67-17330
Optimal evaluation of integral function, and optimal control of stationary systems
[JPRS-39475] 07 p1056 N67-17338
Optimal control processes by n-dimensional linear differential parabolic equations 07 p1056 N67-17340
Approximate solutions for quadratic control problem with energy constraint - nonlinear programming
[SRL-66-0008] 07 p1114 N67-17903
Optimal control in bounded phase-coordinate processes, antenna pointing direction, and problems with incomplete state-variable information
[NASA-CR-81612] 07 p1601 N67-17974
Solution of optimal control problems on iterative hybrid computer 07 p1057 N67-18062
Optimal control in linear feedback attitude control systems for spinning space station
[NASA-TN-D-3854] 07 p1121 N67-18152
Discrete optimal control problems solved by nonlinear programming
[TR-66-104] 08 p1259 N67-18294
Motion equations for optimal control technique of highly elastic launch vehicle
[NASA-CR-83451] 08 p1373 N67-19128
Discrete linear time series models and dynamic models for forecasting and optimal control
[TR-76] 09 p1473 N67-19872
Control problems with linear dynamics, quadratic criterion, and linear terminal constraints 09 p1427 N67-19926
Optimal and adaptive control theory with application to large launch vehicles
[NASA-CR-715] 11 p1906 N67-22213
Optimal control with Chebyshev minimax performance index 11 p1842 N67-22214
Optimal control problems solved by application of differential game theory 11 p1842 N67-22215
Optimal control with quadratic performance index and fixed terminal time 11 p1906 N67-22219
Fixed-time regulator problem with time invariant feedback control and unspecified-time regulator problem with bounded control 11 p1906 N67-22220
Cybernetics conference on information theory, stochastic process, Pert project, probability theory, optimal control, pattern recognition, and related concepts
[JPRS-39890] 11 p1843 N67-22481
Approximation method in determining optimal distribution of reliability and individual elements of system 11 p1907 N67-23469
Optimal control of distributed parameter systems using multilevel techniques
[REPT.-66-55B] 11 p1848 N67-23111
Approximating optimal regulator control laws for two distributed parameter systems
[REPT.-66-64] 11 p1848 N67-23112
Necessary conditions for optimal linear trajectories with discontinuous state variables and intermediate point constraints
[NASA-TM-X-1353] 11 p1979 N67-23335
Optimal control theory applied to systems described by partial differential equations
[REPT.-66-31] 12 p2067 N67-23540
Mathematical models, algorithms, and solutions of optimal control problems for distributed parameter systems - boundary value problems, and partial differential equation systems
[REPT.-66-32] 12 p2069 N67-23979
Theoretical and algorithmic solutions to optimal control problems for linear distributed parameter system - two-point boundary value problem 12 p2069 N67-23979
Mathematical techniques for control of distributed parameter systems - optimal and stochastic control, and stability of partial differential equations 12 p2069 N67-23980
Optimal dynamic priorities determined in single queueing systems to minimize average losses 12 p2070 N67-24396
Approximation method for construction of optimal control system 12 p2071 N67-24319
Maximum principle established as necessary condition for optimal control of nonlinear system of partial differential equations with distributed parameters 12 p2071 N67-24324
Optimal control of process of obtaining monocrystal from melt - quality control 12 p2071 N67-24326
Optimum stabilization of rotational motion of solid with fixed point using gyroscopes 13 p2389 N67-26186
Optimal control in presence of measurement uncertainties and application to spacecraft midcourse trajectory correction 14 p2611 N67-26838
Use of analog computers in optimum automatic control systems 14 p2500 N67-26865
Performance of control systems with random parameters - optimal stochastic control
[AFFDL-TR-66-83] 14 p2509 N67-27558
Optimal control of distributed parameter systems using multilevel techniques
[NASA-CR-84511] 14 p2510 N67-27971
Sub-optimal control structures for systems of arbitrary order
[AD-634683] 15 p2682 N67-27981
Optimal control processes in systems with distributed parameters, and problems of invariance theory
[NASA-TM-X-59019] 15 p2737 N67-28178
Second variation method for computation of optimal control problem with terminal constraint
[NASA-CR-84847] 15 p2737 N67-28881
Iterative digital computer determination of optimal fuel control in linear time-invariant plant
[NASA-CR-84835] 15 p2686 N67-28889

Iterative quadratic approximation procedure for numerical solution of optimal control problems using integral equations 15 p2737 N67-28864
Control system considerations for advanced turbojet engines 16 p2831 N67-29192
Differential equation technique of representing dynamic systems for optimal control problems, and fundamental role of optimum linear filter 16 p2863 N67-29902
Methods for regulating problems in numerical solution of theory of optimal automatic control systems [JPRS-41079] 16 p2922 N67-30017
Mathematical demonstration of optimal control and application to thrust programming using maximum principle 17 p3158 N67-30383
Pontryagin maximum principle and optimal control [MDC-TR-66-118] 17 p3040 N67-30483
Optimal control problems for systems described by delay differential equations [NASA-CR-85793] 17 p3094 N67-31288
Lagrange problems with variable endpoint as optimal control problems [NASA-CR-837] 17 p3095 N67-31332
Optimal control in relation to antenna pointing direction and in bounded phase-coordinate processes, and stochastic control studies with incomplete state-variable information [NASA-CR-85701] 17 p3169 N67-31446
Dynamic programming and Pontryagin maximum principle [NASA-CR-838] 17 p3096 N67-31480
Application of linear programming to minimum fuel optimal control [NASA-CR-86654] 18 p3323 N67-31511
Cybernetics and control of large systems - optimum planning, industrial process quality control, and network construction [JPRS-41494] 18 p3285 N67-31865
Optimal control of systems of independent objects 18 p3286 N67-31870
Reliability theory for complex technical systems-evaluation tests methods, failure analyses, and statistical control probabilities [JPRS-41634] 18 p3274 N67-32193
Probability statistics for optimal control of increasing random process 18 p3287 N67-32196
Optimal tolerance selection for checkout of radioelectronic systems 18 p3230 N67-32204
Numerical solution of optimal control and programming problems 18 p3252 N67-32218
Optimal control applications for electrothermal multijet systems for attitude control and station keeping of 24-hour synchronous satellite [NASA-TM-X-55869] 19 p3370 N67-33421
Automatic control theory research and application to nuclear rocket dynamics and control [NASA-CR-87475] 20 p3614 N67-34462
Optimal control theories applied to economic growth [TR-2] 20 p3671 N67-34975
Variational calculus, gradient methods, maximum principle, and dynamic programing methods of optimal control theory of space vehicles [NASA-CR-825] 20 p3735 N67-35169
Cybernetics research including automatic and optimal control, information processing, operations research, reliability, random process, and queueing systems [JPRS-41786] 20 p3616 N67-35281
Linear programming methods of sequential optimization in control problems 20 p3616 N67-35282
Optimal absolute dynamic priorities in queueing systems 20 p3671 N67-35292
Calculations for optimal systems with nonlinear combination of useful signal and noise 20 p3605 N67-35290
Soviet technical cybernetics articles on optimal control and distribution, system optimization, and programming problems [JPRS-42278] 21 p3821 N67-35601
Optimal control method for industrial production processes based on linear set regression equations and statistical decision theory 21 p3821 N67-35602
Theorem proving simplification of optimal control problems by reduction to conical form 21 p3821 N67-35610
Multidimensional optimal control systems with nonlinear combination of useful signal and noise 21 p3799 N67-35623
Multi-dimensional stochastic dynamical system for optimal control [PIBMRI-1364-67] 22 p4015 N67-36781
Cutting hyperplane algorithm for L-shaped linear programs associated with optimal control problems with state constraints and stochastic linear programs [QRC-66-17] 22 p4015 N67-36979
Dynamic programming model for optimal combination of transportation modes over multiperiod planning horizon [RM-5250-PR] 22 p4063 N67-37242
Analog methods for determining optimum control of linear system [TP-580/1967/] 22 p4016 N67-37284
Minimum sensitivity optimal control for nonlinear systems [NASA-CR-86663] 22 p4018 N67-37663
Extremal problems in queueing theory and optimal control in computer simulation 23 p4272 N67-38068
Deduction of Pontryagins principle [ELDO-TM-103] 23 p4274 N67-38457
Variable tangential acceleration in orbital transfer [ELDO-TM-102] 23 p4344 N67-38442
Optimal control in bounded phase-coordinate processes and for antenna pointing direction subject to random disturbances [NASA-CR-89341] 23 p4230 N67-38618
Equivalence of perturbation method, Newtons method, and adjoint-perturbation method for solving boundary value problems from variational calculus treatment of optimal control problems [NASA-CR-89229] 23 p4349 N67-39037
Optimum control problems on kinetics of particles with piecewise-continuous changes of mass 23 p4297 N67-39171
Simplified switching functions for time optimal control systems [R-365] 24 p4423 N67-39560
Extension of Pontryagin maximum principle and application of matrix minimum principle in solving simple optimal linear regulator problem [NASA-CR-89630] 24 p4478 N67-39574
Sensitivity considerations in linear optimal control of flexible launch vehicle [NASA-CR-89568] 24 p4423 N67-39672
Optimal attitude control systems for antenna direction, stochastic problems, and bounded phase-coordinate processes [NASA-CR-89565] 24 p4424 N67-40279

OPTIMIZATION

SA FLIGHT OPTIMIZATION
SA TRAJECTORY CONTROL
SA TRAJECTORY OPTIMIZATION

Optimization of man-machine functions in automatic railroad transportation systems [JPRS-36290] 01 p0022 N67-10299
Optimal control of high speed ground transport system for continuous city traffic [ESL-P-251] 01 p0114 N67-10440
Orthogonal projection and discrete optimal linear smoothing [TR-66-102] 01 p0056 N67-10491
Optimization of reradiated field from linear Van Atta reflector consisting of four equispaced parallel half-wave dipoles [R-52] 01 p0058 N67-10506
Optimization of stochastic finite state systems [TR-499] 01 p0096 N67-10965
Mathematical technique for optimizing reduction of transient heat transfer data [FFA-106] 02 p0326 N67-11998
Iterative optimization techniques for circuit design 04 p0522 N67-13549
Mixture resolving signal processing optimization with optimum linear detection operators and mixture resolving estimators [NASA-CR-80884] 04 p0508 N67-13576
Probability of failure constraint concept for optimization of general structural system under simultaneous and alternative load systems - truss example [NASA-TN-D-3777] 04 p0618 N67-13720
Determining optimum atmospheric reentry trajectories using Pontryagin maximum principle [NASA-CR-80842] 04 p0613 N67-14201
Optimum propellant mass for second stage of ELDO B 1 launch vehicle and trajectory calculations for four orbital altitudes [BOLKOW-RF-34] 04 p0616 N67-14292
Complex system optimization, and redundant protective elements for reducing external environment effects 05 p0686 N67-14343
Mathematical model and algorithm for finding optimal distribution of limited resources 05 p0736 N67-14346
Variation method for solving optimization problems of object recognition against nonhomogeneous backgrounds 05 p0669 N67-14351
Game theory approach to optimal filtration problem 05 p0686 N67-14356
Variation method and maximum principle for calculating optimal conditions of heating metal 05 p0710 N67-14364
Adaptive logic optimization for information processing [AFOSR-66-1648] 05 p0729 N67-14956
Possible helicopter performance improvements 05 p0634 N67-15197
Inverse problem of optimal control - linear systems [SEL-66-038] 06 p0686 N67-15265
Solution methods for template layout and cutting stock optimum two dimensional allocation problems - geometric manipulation, algorithms, and linear programming techniques [AFOSR-66-2078] 06 p0687 N67-16211
Optimum pumping power requirements for organic cooled reactors 06 p0912 N67-16236
State increment dynamic programming for stochastic and adaptive optimization problems [GGC/EE/66-12] 06 p0949 N67-16496
Structural optimization of conical shells with nonuniformly spaced rings 07 p1196 N67-16891
Summary data on optimality condition for M-ary signal sets 07 p1084 N67-16894
Type evaluation of integral function at optimal speed 07 p1086 N67-17239
Blocked unconstrained minimization algorithm for optimization in convex programming [RAC-TP-227] 07 p1114 N67-17911
Sequential unconstrained minimization algorithm without parameters for optimization in convex programming [RAC-TP-228] 07 p1114 N67-17912
Combinatorial and sequential analyses for optimization of saturated designs [TR-80] 07 p1114 N67-17918
Adaptive control systems - combined optimization and adaptive control, analysis-synthesis and passive adaptive systems, learning systems, and measurement adaptive systems [NASA-CR-80003, VOL. I] 07 p1056 N67-18013
Optimization of working parameters for electromagnetic isotope separator [NP-TR-1432] 08 p1227 N67-18645
Optimization of nonlinear systems with inequality constraints [NASA-CR-82652] 08 p1302 N67-19111
Optimization and synthesis of antenna arrays [AFCRL-66-525] 08 p1251 N67-19147
Computing optimum parameters for supersonic ramjet engine with heat exchanger [FTD-TT-65-591] 09 p1286 N67-19682
Parametric method for solving nonconcave optimization problems applied to linear fractional programming [MRC-TSR-655] 09 p1468 N67-19732
Optimum magnet selection for magnetohydrodynamic generators [AFAPL-CONF-67-3] 09 p1296 N67-20169
Optimum distribution of trajectory correcting impulses in single parameter correction during spacecraft planetary approach 10 p1756 N67-20682
Energetic optimal transfers from hyperbolic orbit without restrictions on time for transfer 10 p1758 N67-20683
Optimum transfers between coplanar elliptical orbits in central Newtonian field 10 p1758 N67-20684
Optimization of scan pattern of search radar [TG-844] 10 p1583 N67-20688
SNAP-10A system optimization and reactor technology developments [NAA-SR-11935] 10 p1676 N67-20851
Effect of plotting parameter k on light scattering results [PIBAL-913] 10 p1686 N67-21729
Mathematical formulation, optimization, and Algol computer programs for class assignments and transportation schedules [REPT.-3723] 10 p1662 N67-21768
Special optimization algorithms for distribution of resources in operations on

PERT charts 11 p1907 N67-22405
Random search and gradient method in optimization problems 11 p1907 N67-22406
Quality control in problems of analytical design of optimal regulators 11 p1844 N67-22423
Optimum design of symmetrical parallel-T RC networks [AFCRL-66-733] 11 p1845 N67-22527
Optimization algorithms and search methods for optimum computer designs 11 p1829 N67-22632
Chebyshev norm and least squares curve fitting methods of determining optimum circuit parameters of quadratron with added compensating series and parallel resistors [HDL-TM-66-15] 11 p1847 N67-23723
Matrix structural analysis and application to large order system optimization 11 p1967 N67-22805
Optimal filtering for correlated noise [RM-5107-PR] 11 p1835 N67-23144
System optimization for large information collection system [NASA-CR-83546] 11 p1825 N67-23273
Michell theory of optimum structural design [AGARD-543] 12 p2230 N67-23533
Theory, control, and optimization of information systems 12 p2068 N67-23849
Numerical analysis for thermionic diode optimization [LA-DC-8178] 12 p2064 N67-23885
Transformation of logical systems of algorithms and optimum methods of photographing faint objects [FTD-TT-65-2042] 12 p2100 N67-23906
Optimum methods of photographing faint objects 12 p2100 N67-23908
Closed networks of queues [ORC-67-1] 12 p2130 N67-24004
Optimization criteria for standing wave transverse magnetic deflection cavities 12 p2079 N67-24110
Mathematical analysis of classifiers, denumerants, and primary and secondary parameters of automatically optimized linear Diophantine discrete objects 12 p2070 N67-24305
Algorithm for optimization of reliability of redundant system with weight, cost, or size restriction 12 p2070 N67-24309
Dynamic programming relationship to Liapunov functions for optimization problem for digital pulse regulator 12 p2071 N67-24218
Solution of problems involving control of linear multiloop system with step restrictions on control effects 12 p2071 N67-24221
Theoretical study of optimum linear arrays of nonuniform isotropic antennas [AFCRL-66-732] 13 p2278 N67-25335
Optimization criteria and coupling modes of digital computer system elements 13 p2286 N67-25712
Graph theory in connection with optimality tests of algorithms for solving mathematical problems in computer systems 13 p2348 N67-25724
Computer operation analysis, and problem of finding optimal algorithm 13 p2367 N67-25727
Air cushion vehicle and analog simulation of zero gravity satellite to determine optimum fuel consumption [NASA-CR-83902] 13 p2409 N67-25944
System configuration synthesis [NASA-CR-83971] 13 p2300 N67-26162
Linear parameter optimization with quadratic cost in application to ballistic missile guidance coefficient 14 p2370 N67-26529
Performance increasing for self-optimizing analog computers [FTD-HT-66-573] 14 p2497 N67-26663
Automatic synthesis of optimum systems of automatic control, including variational methods 14 p2506 N67-26660
Optimization of two stage and multistage high speed aging of aluminum alloys containing 5 percent zinc and 1 or 2 percent magnesium 14 p2556 N67-27039
Computer analysis for determining optimum horn dimensions, illumination tapers, and gain efficiencies of parabolic aerial [REPT.-66912] 14 p2490 N67-27255
Dynamic programming for optimization of flight mechanics problems [NASA-TT-F-483] 14 p2444 N67-27280
Optimization theory for adaptive control systems involving information transmission and reception 14 p2492 N67-27403
Optimization of central region electric field for multi-particle isochronous cyclotron [USNRDL-TR-67-5] 14 p2513 N67-27480
Space communications studies of optimal signal reception, threshold extension, signal detection against noise, channel simulation, and synchronization techniques [NASA-CR-84452] 14 p2494 N67-27535
Performance optimization of polyurethane adhesive [NASA-CR-84518] 14 p2561 N67-27680
Group corrections and optimization of stellar tracking data reduction 14 p2616 N67-27700
Optimization of turbofan engines for short range aircraft with high by-pass ratios [DGRR/WGLR PAPER-66-965] 15 p2784 N67-27921
Optimal properties of extended spline functions for unicity of generalized interpolation problem [MRC-TSR-716] 15 p2733 N67-28181
Dual-loop gradient optimization method to solve design synthesis problems on large multiple liquid propellant launch vehicles [NASA-CR-66345] 15 p2795 N67-28379
Optimization of magnetohydrodynamic generator parameters in magnetohydrodynamic reactor system - coolant temperature, gas pressure, power density, and electric conductivity [AERE-R-5030] 15 p2776 N67-28858
Second order sufficient conditions for weak and strict constrained minima [AD-650285] 15 p2738 N67-28975
Asymptotic directions of s-dimensional optimum gradient method [CS-61] 16 p2918 N67-29107
Optimization of shield against mixed radiation [ORNL-TR-1499] 16 p2941 N67-29280
Successive and polynomial optimization techniques for rendezvous control and boundary problem solutions 16 p2919 N67-29365
Problem of nonlinear programming with linear fractional function and application to optimization of enterprises work fund 16 p2920 N67-29529
Search reduction tests for combinatorial production sequencing algorithm [REPT.-90] 16 p2921 N67-29611
Optimum structures for miniature nickel-cadmium sealed cells and batteries [REPT.-1] 16 p2822 N67-29618
Uniform theory for optimum array processing [REPT.-4160866] 16 p2862 N67-29679
Signal optimization for additive noise channels with feedback 16 p2863 N67-29905
Engineering applications of game theory to optimization of design solutions 16 p2923 N67-30049
Optimum interferometer design, methods of recording interferograms, an aircraft interferometer chopper system 17 p3056 N67-30270
Design of supersonic aircraft with optimal handling qualities 17 p2994 N67-30453
Theory on optimum performance of modern plasma jet ejectors [NRL-6493] 17 p3141 N67-30489
Optimization techniques for orbital transfer, and spacecraft trajectories 17 p3156 N67-30595
Test technique for evaluating and optimizing performance of step recovery diode in single stage frequency multiplier 18 p3249 N67-32000
Theory of optimal coding and decoding of information 18 p3231 N67-32223
Linear programming problem for group of permutations and its application to construction of optimal nonredundant codes 18 p3237 N67-32232
Compression algorithm and computer program for planning and controlling large management projects [NASA-CR-65444] 18 p3360 N67-32568
Time-optimal attitude control for reorienting spinning vehicles [SRL-67-0004] 19 p3538 N67-32709
Optimization of receivers for demodulating FM signal corrupted by Gaussian noise, and solution to maximum likelihood equation [NASA-CR-97056] 19 p3396 N67-32715
High power gas laser research - optimization of power and efficiency of carbon dioxide molecular system in flowing gas and sealed lasers [S-940] 19 p3468 N67-32981
Optimization method with symmetry considerations for single parametric adjustment of control loop [RAE-LIB-TRANS-1216] 19 p3421 N67-33330
Design review procedures for space system contractors to optimize design and functional performance in terms of total system requirements [NASA-SP-6502] 19 p3557 N67-33460
Applications and optimization of lithium-drifted germanium detector system as spectrometer for gamma and other radiation detection [UCRL-50156] 19 p3454 N67-33417
Requirements of optimum diffusers for power plant inlets [NASA-TT-F-11160] 19 p3529 N67-33461
Perturbation method for simultaneous adjustment by gradient method of multiple parameters in adaptive control systems [CT-11] 19 p3424 N67-33600
Optimal instruction model in framework of multistage decision theory - dynamic programming for solution of learning optimization problems [NASA-CR-87406] 20 p3561 N67-34122
Mathematical model equations used in optimization of hydraulic thrust vector control systems of Saturn launch vehicles - computer program formulated from model equations [NASA-CR-85506] 20 p3569 N67-34231
Mathematical programming model for natural gas transmission system optimization [ORC-67-19] 20 p3750 N67-34518
Computation of arcs for optimal flight paths with state variable inequality constraints [NASA-CR-87510] 20 p3736 N67-34715
Optimization of transfer between Keplerian orbits - time free case [ONERA-TP-482/1967/] 20 p3730 N67-35177
Optimization, synthesis, and sensitivity of discrete time systems with control signals of variable amplitude and pulse width [USCEE-205] 21 p3820 N67-35408
Nearly optimal policies for small discount rates found for Markov renewal programs by linear programming [P-3624] 21 p3877 N67-35562
Soviet technical cybernetics articles on optimal control and distribution, system optimization, and programming problems [JPRS-42273] 21 p3821 N67-35601
Comparative analysis of computer method and dynamic programming numerical solution to problem of calculating optimal distribution of limited resources 21 p3878 N67-35604
Sequential optimization method for synthesizing linear discrete control system 21 p3821 N67-35606
Existence theorem for solving optimization problems with fixed time 21 p3821 N67-35606
Selecting optimal maintenance criteria for industrial automatic control system 21 p3821 N67-35613
Optimal decision rule and optimized distribution function construction in relation to pattern recognition problems 21 p3796 N67-35617
Optimal error probability in sequential decoding 21 p3796 N67-35626
Optimized coefficient values of computational device for indirect action static information system, and minimum error dispersions in measurements 21 p3822 N67-35629
Considerations in selecting optimum forecast method for various length and time scales of cloudiness [TN-17] 21 p3883 N67-36179
Optimization of signal to noise ratio in presence of noise and pile-up fluctuations [CISE-107] 21 p3902 N67-36599
Algorithms for solving optimum matching and covering problems in weighted graphs [REPT.-06920-11-T] 21 p3881 N67-36600
Open-cycle fuel cell development - space radiator optimization, techniques, mathematical models and reliability [NASA-CR-86387] 22 p3962 N67-36788
Optimum critical impulse for snap-through in nonlinear dynamic systems with one degree of freedom [AFOSR-67-1511] 22 p4151 N67-36878
Optimum allocation of transportation terminals in urban areas [R66-60] 22 p4168 N67-36919

Optimum quantization of random sequences
[TR-529] 22 p4081 N67-36952
Optimal strategies for controlling one-dimensional Poisson production process under costly surveillance
[M124] 22 p4062 N67-37056
Structural optimization of flat, corrugated core and web core sandwich panels under in-plane shear loads and combined uniaxial compression and in-plane shear loads
[NAEC-ASL-1110] 22 p4153 N67-37060
Design of statistically determinate trusses for minimum weight and deflection
[NASA-CR-88552] 22 p4155 N67-37425
Analog technique for optimizing dynamic systems
[BNWL-392] 22 p4007 N67-37498
Optimal schemes for finding Markov decision processes
[DSR-79493] 22 p4085 N67-37724
Optimization of input electric leads for cryostat
[CEA-R-3167] 22 p4168 N67-38040
Optimum maintenance of systems with randomly decreasing performance levels assessible only by costly imperfect inspection
[RM-5390-PR] 23 p4257 N67-38117
Explicit formulas for data smoothing and trend estimation focusing on measures of random error effects, their interdependency, and consequences of systematic errors
[P-334] 23 p4274 N67-38454
Preview control system model with one or two fast-time scale loops
[NASA-CR-89264] 23 p4198 N67-38049
Nonstationary thermal conduction and optimum parameters of sandwich plates 23 p4360 N67-38177
Connecting dynamic models of production processes into parallel, serial, and complex schemes
[JPRS-42894] 23 p4231 N67-39200
Survey of optimum dual purpose desalting plants as function of product ratio using alternate steam supplies
[ORNL-TM-1659] 23 p4234 N67-39230
Mathematical characterizations of relative optima to nonlinear programming problems
[RAC-TP-260] 24 p4475 N67-39397
Optimum linear interpolation of sampled random processes for minimum mean-square error
[REPT.-7] 24 p4404 N67-39613
Zero to one integer linear programming code for solving general class of discrete optimization problems
[RM-5406-PR] 24 p4479 N67-39666
Preliminary power system configuration tradeoffs to select optimized systems with respect to reliability and weight - manual
[NASA-CR-89596] 24 p4979 N67-40006
Duality in discrete programming
[TR-67-5] 24 p4483 N67-40323
Optimization on Chebyshev points in regression analysis
[AD-650964] 24 p4483 N67-40464

OPTIMUM THRUST PROGRAMMING
Optimum spacecraft acceleration with low thrust from circular to hyperbolic orbit
[FTD-MT-65-588] 10 p1769 N67-26614
Guidance laws for propellant efficiency with optimum thrust program and error analysis for Voyager mission orbit insertion
[NASA-TM-X-53601] 14 p2613 N67-27229
Conference presentations on applied mathematics in optimum thrust programming, extremization problems, and orbital calculations
[DLR-MITT.-65-18] 17 p3157 N67-30361
Gauss integral formula used in extremization of linear integrals for optimum thrust programming 17 p3158 N67-30384
Preparation and solution of optimization problems using Pontryagin maximum principle by means of analog computer 17 p3999 N67-30385
Correlations between optimization by means of dynamic programming and variational calculus demonstrated using simple problems 17 p3999 N67-30386
Explicit solution for Lagrange multipliers in optimal thrust programming and steering problem
[NASA-TN-D-4119] 21 p3930 N67-35668

OPTOMETER
Double Purkinje two dimensional tracking of eye position for optometer design
[NASA-CR-73068] 14 p2530 N67-36588

ORBIT
SA CIRCULAR ORBIT
SA EARTH ORBIT
SA ELLIPTICAL ORBIT
SA EQUATORIAL ORBIT
SA HELIOCENTRIC ORBIT
SA HYPERBOLIC ORBIT
SA LARMOR ORBIT
SA LUNAR ORBIT
SA MOLECULAR ORBIT
SA PARKING ORBIT
SA PERIODIC ORBIT
SA PLANETARY ORBIT
SA POLAR ORBIT
SA SATELLITE ORBIT
SA SPACECRAFT ORBIT
SA SPIN-ORBIT INTERACTION
SA STATIONARY ORBIT
SA TRANSFER ORBIT
SA TROJAN ORBIT
SA TWO-BODY ORBIT
Trajectory, orbit, and inclination of Tunguak meteorite 06 p0961 N67-15453
Problem of time open maneuvering of orbital vehicle in Newtonian gravitational field while conserving characteristic velocity of maneuver
[NASA-CR-83544] 11 p1978 N67-33271
Data sheets on launched and projected active communications satellites, including dimensions, orbits, weights, facilities, and costs
[NASA-TT-F-10041] 12 p2218 N67-25002
Feasibility, parametric design, and comparative analysis of unguided solid fuel rocket vehicle with solar orbit, earth probe, and reentry mission capabilities
[NASA-CR-755] 16 p2972 N67-29025
Meteor orbit classification 18 p3329 N67-32041
Photographic interpretation of orbital element distribution of bright meteors 18 p3330 N67-32042
Data processing plan for eccentric orbiting geophysical observatory
[NASA-TM-X-55890] 21 p3935 N67-35689

ORBIT CALCULATION
SA AIRBORNE RANGE AND ORBIT DETERMINATION /AROD/
Trojan orbit computations of nonperiodic trajectories 04 p0613 N67-13868
Hamilton-Jacobi equation and oblate spheroidal coordinates for satellite orbit calculation 05 p0759 N67-14416
Planetary approach orbit determination target errors using Mariner IV Doppler tracking data 05 p0670 N67-14422
Timing data and real time orbit determination computer program 05 p0670 N67-14424
Influence of Doppler tracking system oscillator instability on orbit accuracy 05 p0671 N67-14429
Orbit determination of two spacecraft using earth based multiple link Doppler tracking data 05 p0671 N67-14431
Systems manual program description R 104 Master Orbit Tape Routine for computing inertial, geocentric, geodetic position, velocity, real field, and geomagnetic data for satellites
[NASA-TM-X-55633] 05 p0681 N67-15154
On-board tracking system of two-way coherent Doppler between entry capsule and orbiting bus for determining orbit of entry capsule and estimating atmospheric parameters 06 p0964 N67-15904
Launching and orbit determinations of Pioneer VII space probe 06 p0964 N67-15907
Validation of orbit determination calculations by using observed time that satellite enters shadow of earth 07 p1189 N67-16985
Tables for calculating plane galactic orbits of stars
[NASA-TM-X-59944] 07 p1193 N67-17976
Booster and upper stage system capabilities of placing payloads into Mars orbit
[NASA-TM-X-1334] 08 p1361 N67-18389
Effect of nodal regression of orbit on gravity gradient precession of gyroscopic satellite in testing general theory of relativity
[NASA-CR-82592] 08 p1389 N67-19245
Orbital prediction and differential correction using Vintis spheroidal theory for artificial satellites
[NASA-TN-D-3803] 09 p1511 N67-19822
Odd zonal harmonics in Earth gravitational potential
[RAE-TR-66317] 09 p1443 N67-20230
Comparison of lunar orbiter trajectory calculation programs
[NASA-CR-66244] 12 p2209 N67-23919
Numerical and analytical methods for orbit computation in celestial mechanics during and beyond collision by introduction of regularized coordinates
[NASA-CR-84258] 13 p2401 N67-25692
Earths gravitational constant used as additional state variable in model for obtaining orbit determination schemes
[NASA-CR-84483] 14 p2616 N67-27641
Set of uniform variational orbit parameters for space trajectory analysis
[NASA-CR-84484] 14 p2616 N67-27642
Quasilinear set of formulas developed for finite transformations
[NASA-CR-84231] 15 p2736 N67-28759
Minimum variance method for estimating state vector with acceptable accuracy constraints in orbit calculation
[NASA-CR-84795] 15 p2736 N67-28763
Optimal linear estimation of comet orbit for spacecraft intercept mission
[NASA-CR-84848] 15 p2782 N67-28822
Orbit calculations from minitrack observations
[RAE-TR-66360] 15 p2783 N67-28823
Methods of regularization for computing orbits in celestial mechanics
[NASA-CR-769] 16 p2968 N67-29287
Maximum possible error in position in least squares elliptical orbit
[NASA-TM-X-55826] 16 p2972 N67-29145
Orbit calculation by solving nonlinear integral equations
[MRC-TSR-668] 17 p3156 N67-30185
Tracking, communications, and orbit determination for lunar space vehicles 17 p3025 N67-30899
Orbit calculation using Encke perturbation method and Fortran IV programming
[NASA-CR-85705] 17 p3062 N67-30919
Operating requirements, and printed output of computer program for listing of ORB3A tapes
[NASA-TM-X-55878] 20 p3696 N67-34179
Conference on orbit and trajectory estimation
[NASA-TM-X-60226] 20 p3726 N67-34627
Planetary masses for ephemiris development, and orbit correction theories 20 p3727 N67-34763
Geodetic parameters, astrophysical observations, and satellite orbit positioning
[SAO SPECIAL REPT.-200, VOL. 1] 21 p3839 N67-35982
Orbit determination from improved numerical estimates of satellite motion
[SAO SPECIAL REPT.-161, REV.] 21 p3981 N67-35986
First order analysis to determine optimal heliocentric orbit for Sunblazer space probe
[CSR-TR-66-10] 21 p3981 N67-35979
Satellite orbits determined by technique of tesseral harmonics 21 p3944 N67-36488
Satellite-borne altimeters, and interfaces between altitude measurements and orbit determination practices
[NASA-CR-89710] 22 p4141 N67-37330
Calculation method for beam orbits in alternating gradient synchrotron
[BNL-11469] 23 p4107 N67-37721
Accuracy and speed comparison of Vinti and Brouwer orbit prediction methods
[NASA-TM-X-55941] 23 p4343 N67-38240
Numerical verification of stable, periodic, coplanar orbit existence about Sun perturbed Earth-Moon triangular point
[NASA-TM-X-55981] 24 p4527 N67-39080
Digital computer program to estimate observation system bias from satellite observations of orbit determinations
[ER-14627, VOL. 2] 24 p4536 N67-39088
Mission planning, orbit determination, thrust vector control, and configuration management program for Voyager project - summary
[NASA-CR-89733] 24 p4538 N67-39782

ORBIT DECAY
Drag force effect on satellite orbit decay 05 p0758 N67-14405
Comparison of atmospheric densities obtained from orbit decay and instruments
[RAE-TR-66370] 15 p2766 N67-28825
Moonwatch program observations of satellite orbits - decay prediction table
[NASA-CR-85862] 17 p3189 N67-31480
Latitude gradient hypothesis explaining semiannual effect in satellite orbit decay

data
[LMSC-6-77-67-40] 23 p4345 N67-38875
ORBIT EQUATION
General solutions to trajectory and orbit equations
[NASA-CR-750] 11 p1908 N67-22778
ORBIT PERTURBATION
SA SATELLITE PERTURBATION
Orbit perturbations of artificial satellites by attraction of external bodies
[D1-82-0558] 02 p0302 N67-11311
Ion thrust motors applied to attitude and position control of orbital satellite 04 p0606 N67-13896
Periodic position and velocity perturbations of artificial satellite developed to first order
[MTR-208] 05 p0763 N67-15044
Short-period perturbation computation of artificial satellite orbits caused by atmospheric drag
[NASA-CR-81341] 06 p0970 N67-16617
Classification of lunar satellite orbits perturbed by earth and by nonsphericity of lunar gravitational field
[NASA-TM-X-55670] 06 p1362 N67-18639
Accuracy results for perturbed Lunar Orbiter trajectories and unperturbed Kepler orbits
[NASA-CR-82159] 06 p1365 N67-18776
Pendulum equation for governing resonance effects on satellite due to longitudinal dependence of gravitational field of rotating primary
[RAE-TR-66279] 10 p1760 N67-21056
Orbit perturbations of small eccentricity satellites
[NASA-TM-X-55730] 10 p1762 N67-21458
Satellite orbit perturbations from tesseral harmonics of gravitational potential expansion
[NASA-CR-83564] 11 p1866 N67-22299
Orbit perturbation in terrestrial field and those due to third body - Lagrange equations and disturbing functions
[ELDO-TM-F-33] 13 p2405 N67-26462
Orbits of lunar satellites - perturbations and lunar gravitational potential
[RAE-TR-66396] 15 p2793 N67-28923
Hamiltonian technique and canonical equations applied to orbital perturbation problems
[ELDO-TM-F-42] 19 p3482 N67-33452
Atlas for Solar and Lunar Orbit Perturbation Effects computer program
[NASA-TM-X-55865] 19 p3549 N67-33750
Orbital regression of synchronous satellites due to combined gravitational effects of sun, moon, and oblate earth
[NASA-CR-88355] 21 p3923 N67-36636
ORBITAL ASSEMBLY
Mathematical model for orbital system value effectiveness 17 p3159 N67-30751
ORBITAL CALCULATION
Approximation methods for determination and prediction of artificial earth satellite orbits
[DLR-MITT.-66-06] 02 p0305 N67-11987
Inclination angle and right ascension of nodal crossing of near earth satellite orbital plane from radar observation data
[RISO-1-66] 06 p0642 N67-16206
Dynamic model of Prop computer program for earth satellite orbital parameter refinement
[RAE-TR-66255] 09 p1514 N67-20323
Numerical continuation of manifolds of periodic orbits for conservative dynamical system with two degrees of freedom
[D1-82-0574] 12 p2207 N67-23613
Manned orbiting stopover round trips to Venus studied for departure dates between 1975 and 1986
[NASA-TM-X-53311] 14 p2613 N67-27239
Photograph evaluation for determining orbits of meteor bodies
[NASA-TT-F-10069] 15 p2790 N67-28284
Numerical lunar theory for satellite moving in orbital planes with higher inclinations than orbit plane of sun
[NASA-TN-D-4002] 15 p2792 N67-28822
Navigation and guidance requirement analyses during midcourse and orbital phases of 1975 round-trip Mars mission
[NASA-CR-61139] 16 p2927 N67-29920
Conference presentations on applied mathematics in optimum thrust programming, extremization problems, and orbital calculations
[DLR-MITT.-65-18] 17 p3157 N67-30381
Pontryagin maximum principle used to calculate optimum ascent trajectory and circular earth orbit for two-stage spacecraft in vacuum 17 p3158 N67-30382
Natural spin orbitals and occupation numbers for six-electron carbon atom for approximate and exact wave functions 17 p3135 N67-31103
Concentrations and orbital calculations of meteors and meteoritic and extraterrestrial dust particles - conference
[NASA-SP-135] 18 p3329 N67-32038
Orbital trajectory analysis for Ranger VII lunar probe, and systems and thermal testing of Mariner spacecraft - deep space network, and Surveyor project
[NASA-CR-88087] 21 p3894 N67-35546
Expressions derived for earth satellite ground track for general elliptical, circular, and circular synchronous orbits
[ESD-TR-67-351] 21 p3930 N67-35547
Exchange integrals expressed as two-center Coulomb and overlap integrals by using Slater orbitals
[BARC-285] 23 p4309 N67-38843
Numerical integration of periodic and nonperiodic solutions of planar restricted three-body problem
[D1-82-0625] 24 p4327 N67-39536
Computation method for determining topocentric data using orbital information in NASA Space Bulletin 24 p4411 N67-40628
ORBITAL ELEMENT
Tabulated orbital mean elements derived from satellite observations
[NASA-CR-80092] 02 p0306 N67-12150
Orbital analysis technique for sharply varying geophysical phenomena
[NASA-TM-X-55673] 06 p1364 N67-18746
Orbital data derived from photoreduced Baker-Nunn observations
[NASA-CR-82799] 09 p1506 N67-19401
Two matrix forms of estimating spacecraft motion parameters 10 p1756 N67-20385
Orbital elements of Cosmos V satellite observed near beginning and end of life
[RAE-TR-66256] 10 p1761 N67-21057
Flights of Venus 2 and 3, including spacecraft configuration, telemetry, trajectory, and orbital elements
[RAE-LIB-PRESS-TRANS-97] 14 p2617 N67-26481
Orbital elements of Cosmos 120, 121, and 122 flights
[RAE-LIB-PRESS-TRANS-106] 14 p2617 N67-26482
Orbital elements from Doppler observations of Geos-A - table
[TG-863] 14 p2610 N67-26497
Orbital parameters of Injun 3 rocket determined from 174 optical and radar observations
[RAE-TR-66395] 15 p2788 N67-27795
Determination of solar position on basis of mean solar elements
[CESRO-SN-10] 19 p3536 N67-33525
Determining asphericity parameters of earth atmosphere from changes in orbital elements of artificial satellites
[TG-230-T519] 21 p3926 N67-35612
Satellite observation and orbital element data input to satellite analysis monitor and numerical integration programs for computing atmospheric densities 24 p4438 N67-39816
ORBITAL LAUNCH
Kinematics of spacecraft launching - mass ratio, orbit injection, and launch constraints 12 p2214 N67-24455
Space meteorology, and details on Cosmos satellite
[NASA-TT-F-10055] 12 p2140 N67-25006
Syncom III engineering data, launch and orbital maneuvers, and television transmission
[NASA-TR-R-252] 12 p2218 N67-25044
Recommended configuration and mission profile on Voyager orbital experiment capsule based on systems analyses and tradeoff studies
[NASA-CR-73127] 23 p4147 N67-37173
Launch and flight data, data acquisition, and prelaunch operations summaries for Lunar Orbiter A launching with Atlas Agena 17
[NASA-TM-X-57865] 23 p4353 N67-39239
ORBITAL MECHANICS
Mathematical model and method of orbit adjust and station keeping gravity-oriented satellites
[NASA-TN-D-3653] 01 p0133 N67-10787
Index to Smithsonian Astrophysical Observatory special reports on satellite observations, orbital information, preliminary data analyses, and studies related to astrophysics 05 p0758 N67-14376
Orbital results from gravity-gradient stabilized satellites
[TG-826] 11 p1981 N67-22613
Doubly symmetric orbits about collinear Lagrangian points
[D1-82-0573] 11 p1978 N67-23197
Theory of orbital mechanics of artificial earth satellites
[NASA-TT-F-391] 16 p2972 N67-30136
Dynamics of interplanetary dust particles orbiting around earth 18 p3334 N67-32077
ORBITAL MOTION
Zero order potential and Hamilton-Jacobi equation as basis for spheroidal method of satellite motion theory 03 p0465 N67-13197
Orbit, viewing geometry, coverage, and resolution pertinent to satellite observation of earth 04 p0537 N67-13888
Mathematics of satellite orbital motion and three-body problem - conference
[NASA-CR-80674] 05 p0758 N67-14439
Newtonian theory, Keplerian law, and two-body problem applied to orbital motion 05 p0759 N67-14411
Partial differential equations and matrix method for obtaining equations of motion in orbit 05 p0727 N67-14412
Poincares method for three-body problem applied to lunar orbital motion 05 p0759 N67-14414
Orbital motion in restricted three-body problem 05 p0759 N67-14415
Necessary condition for orbital motion stability
[TG-230-T486] 05 p0764 N67-15082
Nonlinear differential equation describing extensional motion of freely spinning and gravitationally stabilized spring-mass system in orbit plane
[TR-1001/2307/-4] 09 p1513 N67-20184
Equations describing rotation of orbital plane
[NASA-CR-83933] 13 p2402 N67-25865
Possible long-period fluctuations, due to solar gravitational field, in radius of pericenter of orbiter of Mars 16 p2968 N67-29877
Computer program written in Fortran IV for computing orbital variation in incident and reflected solar and planetary emission radiant heat flux on plane surface elements
[NASA-CR-65563] 16 p2966 N67-30165
Orbital motion of lunar module/Apollo telescope mount tethered to S-IVB orbital workshop
[NASA-TM-X-53643] 22 p4141 N67-37481
Gravitational and dissipative forces taken into account for integral motion and past orbital history of moon
[D1-82-0633] 24 p4527 N67-39925
ORBITAL RENDEZVOUS
SA EARTH ORBITAL RENDEZVOUS /EOR/
SA LUNAR ORBITAL RENDEZVOUS /LOR/
SA SPACECRAFT ORBITAL RENDEZVOUS
Predicted orbital path display as aid to human operator performing orbital rendezvous
[AMRL-TR-67-7] 11 p1977 N67-22169
Optimal multiple impulse orbital rendezvous 14 p2610 N67-26527
Successive and polynomial optimization techniques for rendezvous control and boundary problem solutions 16 p2919 N67-29985
Spacecraft guidance and control systems during rendezvous and docking
[NASA-CR-827] 16 p2975 N67-30139
Impulse orbital transfer and orbital rendezvous, bibliography
[HSM-N42-67] 22 p4141 N67-37320
ORBITAL SHOT
Flyby and orbiter missions to Saturn, Uranus, Neptune, and Pluto using nuclear electric low thrust stage and Saturn-Centaur launch vehicles
[NASA-CR-80846] 04 p0614 N67-14388
ORBITAL SIMULATOR
Computer programs for Gemini shared operating system and orbital simulation
[NASA-TM-X-60550] 24 p4416 N67-40279
ORBITAL SPACE STATION
SA MANNED ORBITAL SPACE STATION /MOSS/
Operational and cost characteristics of low

orbit space operations from manned space stations
[P-3570] 23 p4139 N67-36831
Competitive system approach to design of earth orbital transport systems for passenger and cargo traffic
[NASA-TM-X-53636] 22 p4147 N67-36989
Orbital space stations for lunar exploration
[FTD-HT-66-132] 23 p4352 N67-39026
ORBITAL TRANSFER
SA IMPULSE ORBITAL TRANSFER
Optimum propellant mass for second stage of ELDO B 1 launch vehicle and trajectory calculations for four orbital altitudes
[BOLKOW-RF-34] 04 p0616 N67-14292
Transfers between hyperbolic asymptotes for orbital maneuvers optimization
[TP-391] 04 p0614 N67-14296
Energetic optimal transfers from hyperbolic orbit without restrictions on time for transfer 10 p1758 N67-20383
Optimum transfers between coplanar elliptical orbits in central Newtonian field 10 p1756 N67-20384
Computer method to determine optimum two-impulse orbital transfers between inclined elliptical orbits
[NASA-CR-83541] 11 p1978 N67-22368
Optimal coplanar orbit transfer in Newtonian gravitational field minimizing characteristic velocity of maneuver
[NASA-CR-83830] 13 p2401 N67-25741
Analytical dynamic programming techniques for optimization of orbit transfer processes, which are considered as continuous or discrete decision processes 16 p2967 N67-29363
Optimization techniques for orbital transfer, and spacecraft trajectories 17 p3158 N67-30595
Optimal transfer between hyperbolic asymptotes when planet has finite radius
[TP-391/1966/] 17 p3160 N67-30607
Optimization of transfer between Keplerian orbits - time free case
[ONERA-TP-482/1967/] 20 p3730 N67-35177
Vector analysis used to study two-impulse transfers between elliptical orbits
[NASA-CR-86480] 22 p4142 N67-37666
Introduction to problem of low thrust orbital transfer
[ELDO-TM-101] 23 p4343 N67-39438
Variable tangential acceleration in orbital transfer
[ELDO-TM-102] 23 p4344 N67-39442
ORBITAL WORKER
Capsular adhesive system for use in development of stabilization device for astronaut attachment to extravehicular work site
[AFAPL-TR-66-59] 13 p2343 N67-25629
Orbital motion of lunar module/Apollo telescope mount tethered to S-IVB orbital workshop
[NASA-TM-X-53643] 22 p4141 N67-37464
ORBITING ASTRONOMICAL OBSERVATORY /OAO/
S OAO
S OSO
ORBITING GEOPHYSICAL OBSERVATORY /OGO/
S OGO
ORBITING SATELLITE
Observations to determine Injun III orbital parameters for upper atmosphere rotation studies
[RAE-TR-66196] 01 p0156 N67-10079
Visual-photographic position observations and tracking data of artificial earth satellites
[FTD-TT-65-848] 02 p0232 N67-11293
Visual and photographic position observations of artificial earth satellites 02 p0232 N67-11294
Visual observation data on orbiting artificial earth satellites for January through December, 1963, from Rumanian observatory 02 p0232 N67-11295
Visual observation data on artificial earth satellites during 1962 from U.S.S.R. observatory 02 p0232 N67-11296
Cinetheodolite observations received by Malta tracking station for U.S. and Russian satellites in orbit during June 1966 - tables 02 p0235 N67-11914
Cinetheodolite observations received by Malta tracking station for U.S. and Russian satellites in orbit during June and July 1966 - tables 02 p0235 N67-11915
Applications of air and spaceborne sensor imagery for studying natural resources 04 p0535 N67-13474
Multispectral sensing tests for obtaining glaciological data from earth-orbiting satellite 04 p0535 N67-13477
Remote sensing of natural and cultural resources from earth orbiting spacecraft 04 p0625 N67-13565
Charged particle interactions of rockets and satellites with ionosphere 04 p0613 N67-13845
Tabulated data for orbiting satellites launched from 1957 to 1965
[CF-2-1965] 04 p0615 N67-14188
Solar radiation pressure effect on motion of artificial orbiting satellite using approximation method 05 p0756 N67-14466
Orbital characteristics of satellite systems in coplanar circular orbit
[RM-5155-PR] 05 p0759 N67-14752
Satellite technology - orbiting satellite, spacecraft stability, space vehicle control, radio wave propagation, signal reception, cosmic ray studies, and related topics
[FTD-HT-66-244] 05 p0762 N67-14861
Determination of artificial earth satellite orbit from measured data taken over long time interval 05 p0762 N67-14863
Propagation mechanism of radio waves radiated by artificial earth satellite 05 p0674 N67-14866
Intensity of field of short radio waves emitted by artificial satellite of earth 05 p0674 N67-14867
Geomagnetically trapped radiation, solar cosmic rays, and galactic cosmic rays encountered by low altitude, polar orbiting satellite
[AFCRL-66-540] 05 p0757 N67-14998
Ephemeris calculation of earth satellite angular velocity
[FTD-TT-65-961] 05 p0764 N67-15075
Attitude stability of orbiting satellite 08 p1370 N67-18425
Computer program used to generate Doppler shift of electromagnetic signal from orbiting satellite as function of time
[TG-849] 09 p1415 N67-19614
Meteoritic dust studied by rockets and orbiting satellites
[NASA-CR-83565] 11 p1974 N67-22300
Conference on European Large Orbiting Instrumentation for Solar Experiments /ELOISE/ project
[ESRO-SP-7] 12 p2215 N67-24461
European Large Orbiting Instrumentation for Solar Experiments /ELOISE/ project 12 p2215 N67-24462
Optical observation of solar eruptions with aid of large satellite 12 p2211 N67-24463
Feasibility of photospheric observations with aid of ELOISE project 12 p2207 N67-24466
Attitude control system for proposed ESRO large astronomical satellite 12 p2215 N67-24468
Telemetry problems of ELOISE project solar observations 12 p2212 N67-24470
Proposal for large European solar satellite 12 p2216 N67-24472
Orbiting satellites for military reconnaissance related to space control laws 13 p2425 N67-25280
Vibration mode shape and frequencies of orbiting radio telescope
[NASA-CR-83978] 13 p2419 N67-26183
TASS communique regarding loss of cosmonaut on flight of Soyuz-1 spacecraft
[NASA-CR-84695] 13 p2410 N67-26411
Energetic electrons in Van Allen radiation belts surveyed by Hitch-Hiker I orbiting satellite 18 p3324 N67-31788
Energetic electron intensities obtained from scintillation spectrometer aboard Hitch-Hiker I 18 p3324 N67-31789
Library characteristics and harmonic effects of resonant orbiting satellites - geodesy
[NASA-TN-D-4061] 18 p3326 N67-32372
Computer code for calculating omnidirectional vehicle encountered trapped particle fluxes
[NASA-TM-X-55675] 20 p3721 N67-34158
Mission, design criteria, and stand of development of ESRO sponsored Highly Eccentric Orbiting Satellite /HEOS-A/
[REPT.-68-124] 20 p3734 N67-34983
Tabulated data on optical observations of satellites during March 1967 21 p3800 N67-36827
Orbital tracking program for analysis of data from C-band and S-band radar
[NASA-TM-X-55928] 22 p4000 N67-37574
Radiation damage to orbiting solar cells and transistors - degradation of radiation
[TG-886] 23 p4180 N67-39181
ORBITING SOLAR OBSERVATORY /OSO/
S OSO
ORDNANCE
SA WEAPON
Responsibilities of management in fields of ordnance and propellant safety 06 p0695 N67-15982
Ordnance system safety engineering - safety devices, safety criteria, missile wiring circuits, destruct systems, and hazards to electroexplosive devices 06 p0796 N67-15988
Precision 10-Hz clock for pulsing counting circuit in electronic timer for artillery fuses
[HDL-TM-66-17] 11 p1962 N67-22568
Heat treatment and testing to improve mechanical properties of strippers from feeder mechanism of H-61 cannon, F-104G aircraft
[M-66-1971] 13 p2362 N67-25738
Rocket-powered turbine wrench to unthread fuses in unexploded ordnance
[M67-9-1] 14 p2606 N67-27715
Integrated antenna-transmitter developed to telemeter data from inflight artillery fuze and shell
[HDL-TR-1343] 18 p3235 N67-32568
Equipment, instrumentation, and capability of Air Force Materials Laboratory terminal ballistic research facility for small arms
[AFML-TR-67-188] 23 p4231 N67-38157
ORE
S IRON ORE
S MINERAL
ORGAN
Thermal conductivity and heat capacity of biological fluids and tissues - freezing and thawing of stored organs
[GLR-46] 01 p0022 N67-10292
Whole organ freezing and thawing heat transfer and thermal properties
[GLR-58] 11 p1792 N67-22740
Synthesis of tissue proteins in rats during hypodynamia 16 p2827 N67-29215
Thermal conductivity techniques and measurements for determining whole organ freezing and thawing, heat transfer, and thermal properties
[GLR-54] 18 p3213 N67-32383
ORGANIC BORON COMPOUND
Synthesis of carborane-siloxane elastomers
[RMD-5065-Q6] 01 p0025 N67-11186
Synthesis of carborane siloxane elastomers
[RMD-5065-Q7] 06 p0631 N67-16941
Vapor phase isomerization of ortho-carborane
[TR-23] 08 p1233 N67-18282
Approximate boron quadrupole coupling constant in dimethoxy borane relaxation
[TR-1] 08 p1232 N67-18285
Nickel and cobalt complexes derived from carborane reactions
[TR-25] 13 p2043 N67-24411
Synthesis of boron-permethyl closo-carborane
[TR-11] 12 p2049 N67-24583
Synthesis of phosphorus containing polyesters and polyamides of aliphatic series and aromatic polymers from boron fluoride bis-diazonium diphenyl
[FTD-HT-66-116] 18 p3222 N67-31816
Thermophysical properties and synthesis of aromatic polymers from boron fluoride bis-diazonium diphenyl 18 p3222 N67-31818
Synthesizing thermally stable elastomeric carborane-siloxane polymers
[RMD-5065-F] 19 p3475 N67-32727
ORGANIC CHEMISTRY
Biochemistry, organic and inorganic chemistry, molecular and nuclear physics, and metallurgy
[AR-52] 01 p0029 N67-10433
High molecular compounds - double bond polymers containing pyridine rings, polymer film electric conductivity, and polymerization of quinoline, 4-chloropyridine, and aromatic compounds
[FTD-TT-65-797] 02 p0234 N67-11273
Kinetic scheme for autocatalytic polymerization using reversibility of chain growth reaction 02 p0234 N67-11276
Annotated bibliography of laboratory research in fluid dynamics, physical and organic chemistry, and system optimization, programming, and control
[AD-641906] 07 p1661 N67-17280
Research progress reported for studies in nuclear, isotope, radiation, organic, and

physical chemistry, electrochemical kinetics, and aqueous and nonaqueous systems [ORNL-3994] 08 p1242 N67-19941
Soviet research on ion exchange processes in organic chemistry [JPRS-39538] 11 p1603 N67-22153
Nucleophilic displacement reactions of steroid compounds - organic chemistry 11 p1812 N67-22997
Air Force supported studies of quantum organic chemistry, chemistry of organosulfur intermediates, phosphorus photochemistry, and reactivity of phosphorus compounds with ketones 14 p2479 N67-27165
Various tracer and isotope effect studies in organic chemistry [ORO-3234-4] 14 p2482 N67-27460
Syntheses of 3-pyridyl indole and indole derivatives by pyridine substitution 21 p3783 N67-35948
Imine reaction as intermediate step in syntheses of alanine peptides 21 p3783 N67-35952
Investigation results and test equipment and apparatus development for organic Rankine cycle technology program [SAN-651-25] 22 p3992 N67-37926
Amorphous propylene polymerized with titanium tetrachloride and aluminum triethyl to determine association [DISS-3893] 24 p4395 N67-39692

ORGANIC COMPOUND
SA AROMATIC COMPOUND
Energy-losing bleaching mechanism of organic phototropic crystals used for ruby laser switches [ATD-66-119] 01 p0060 N67-10437
Organic substances in nature and their thermal stability in geological environments 03 p0341 N67-12722
Reduction of carbon dioxide in aqueous solutions by ionizing radiation, and origin of organic compounds in absence of life 03 p0341 N67-12725
Similarity of organic compounds in carbonaceous chondrites and marine sedimentation considered as indication of former life in meteorites 03 p0342 N67-12733
Escape of hydrogen and equilibria of carbon and nitrogen compounds in relation to synthesis of organic compounds in primitive earth atmosphere 03 p0342 N67-12735
Models and available energy sources for synthesis of organic compounds 03 p0357 N67-12738
Glycidic esters and/or organic disulfides and related substances as sources of antiradiation drugs [AD-630199] 04 p0491 N67-13734
Pyrolysis and gas phase oxidation of organic compounds 04 p0504 N67-13832
Thermodynamic properties of amino acids plus furan and urea, and inorganic and organic compounds [NASA-CR-80828] 04 p0507 N67-14215
Industrial preparation of organo phosphorus compounds based on fluoroalkoxy substituted phosphonitrile structure [D-MAT-129] 04 p0508 N67-14309
Reversed phase partition chromatography using aliphatic hydrocarbons and aqueous acetone applied to separation of iododerivatives 06 p0824 N67-16268
Synthesis and characterization of organic spiro polymers obtained by acid-catalyzed condensation of pentaerythritol with diketone [NOLTR-66-120] 06 p0829 N67-16491
Sleeve tube combustion used to determine nitrogen in organic compounds [FTD-TT-65-683] 07 p1029 N67-17563
Isolation and identification of organic components of meteorites, and ancient sediments [NASA-CR-82859] 08 p1240 N67-19120
Reaction rates and kinetics of organic compounds determined in nuclear chemistry studies 08 p1243 N67-19245
Electrochemical behavior of several organic and inorganic cathodes when discharged in nonaqueous electrolytes for application to high energy batteries [ECOM-02304-1] 09 p1396 N67-20015
Nuclear magnetic resonance spectra applications in theoretical organic chemistry research [FTD-HT-66-423] 09 p1411 N67-20191
Automatic self-integrating thermal conductivity method for simultaneous determination of carbon, hydrogen, and nitrogen in organic compounds [TIL/T-5689] 09 p1413 N67-20355
General principles in radiation chemistry of organic compounds [BNL-10592] 10 p1574 N67-20975
Oxygen and organic compound effects on quenching of toluene scintillators [EGG-1183-2111] 10 p1579 N67-21590
Thermal stability of sulfocationite KU-2 resin in tertiary amylenes 11 p1803 N67-22157
Organic compound equivalent weight determination by ion exchange method 11 p1804 N67-22158
Reactions of organic compounds and fluorine used for synthesis of highly fluorinated compounds [AD-647471] 12 p2046 N67-24760
Chemical analysis of organosulfur compounds in kerosene-gasoline fractions of petroleum [FTD-MT-65-282] 12 p2046 N67-24781
Quantitative aspects on thermal stability of organic compounds [AFOSR-67-0523] 12 p2048 N67-24863
Gas chromatography-mass spectrometry system for analysis of organic compounds on moon and planetary surfaces [NASA-CR-83968] 13 p2271 N67-26062
Identification of organic trace contaminant generated by contaminant control system of closed ecological system 14 p2470 N67-26719
Chemical high vacuum system for desorption and manipulation of volatile organic contaminants in closed cabin atmospheres [AMRL-TR-65-61] 14 p2472 N67-27004
Synthesis of organic compounds labeled with stable isotopes [EUR-3293.F] 14 p2478 N67-27121
Thermodynamic equilibrium in prebiological atmospheres, and inorganic origin of organic compounds [NASA-SP-3040] 14 p2480 N67-27295
Extraction of alkaline earth metals by organic solvents [UUV-1573] 16 p2844 N67-29321
Review of methods for studying adsorption of organic compounds on solid metal electrodes [NRL-6481] 16 p2851 N67-29773
Effects of organic additives on intensities of metallic element spectral lines [T67-8-1] 17 p3012 N67-30262
Electrochemistry of high energy compounds in organic electrolytes [NASA-CR-85642] 17 p3018 N67-31159
Analysis of organic mixtures substitutes for terphenyls by chromatography, spectroscopy, microdistillation, carbon to hydrogen ratio, and molecular weight [EUR-3292.I] 17 p3019 N67-31363
Synthesis of thirty-five anils and O-hydroyanils of aromatic and heterocyclic aldehydes [FTD-HT-67-190] 19 p3389 N67-33057
Electron spin resonance studies of radicals in irradiated crystals of organic compounds [COO-1385-30] 19 p3390 N67-33203
High reliability electrical contacts lubricated with solid organic compounds [ECOM-03727-F] 19 p3418 N67-33687
Synthesis of cholanic acid, cholene, 23-amino norcholane, and derivatives [CNAEM-45] 20 p3589 N67-34132
Reduction and oxidation mechanisms of acridines and acridanes studies at normal and low temperatures 20 p3592 N67-34378
Pyromellitic and cumylic acid derivatives [NASA-TT-F-11200] 20 p3595 N67-34730
Spectrophotometric and interference microscopic measurements on single crystal absorption spectra in organic compounds 21 p3783 N67-35953
Gas and liquid chromatographic systems for separating and identifying organic compounds - pyrolysis, mass spectrometry, and infrared analytical devices [NASA-CR-88356] 21 p3795 N67-36639
Phosphorus determination methods on centimilligram scale for organic compounds [RAE-TR-67115] 22 p3982 N67-36854
Organic binders containing soluble inorganic perchlorate oxidizers for increasing illumination of castable visual flares [RDTR-92] 23 p4090 N67-38058
Organic reagents for use in inorganic analysis [COO-676-1] 23 p4206 N67-38836
Early detection of organic chemical toxic effects in exposed animals [AD-657252] 23 p4196 N67-39138
Computer methodology for calculating the unimolecular reactions of excited polyatomic molecule ions [ARL-67-0114] 24 p4396 N67-39727

ORGANIC COOLANT
Zirconium alloy properties in organic coolants [AECL-2619] 04 p0574 N67-13617
Canadian methods for analysis of terphenyl reactor coolant mixtures [AECL-2643] 07 p1032 N67-18107
Thermal decomposition of high boiling residue from in-pile radiopyrolysis of OM-2 compared with that of pure m-terphenyl [EUR-3158.E] 08 p1240 N67-19184
Forced convection heat transfer, impurities, and fouling in organic coolants of heavy water moderated reactor [AECL-2642] 11 p1925 N67-23062
Use of high boiling organic fluids as coolants and moderators in nuclear reactors [ONI-TRANS-2247] 12 p2148 N67-24015
Radiolytic and pyrolytic decomposition of organic coolants [EUR-3172.E] 15 p2655 N67-27875
Liquid cooling of gas turbine blades with forced convection using organic coolant 16 p2984 N67-29198
Behavior of Zircaloy-2 and Zr-2.5 percent Nb clad uranium dioxide fuel in organic coolant [AECL-2661] 23 p4287 N67-38844

ORGANIC COOLED REACTOR
Design of loop system for deuterium moderated, organic cooled fuel element channel [RISO-123] 01 p0107 N67-10635
Optimum pumping power requirements for organic cooled reactors 06 p0912 N67-16228
Hydrogenation regeneration unit for decomposed gas-oil coolant of electric power reactor [IAE-1066] 07 p1130 N67-17430
Fortran II coded IBM 704 computer program for optimization of organic cooled heavy water moderated power reactor [DP-1007] 07 p1134 N67-17987
Sintered aluminum product and zirconium alloy for organic cooled reactors [AECL-2640] 08 p1322 N67-19246
Composition and physical properties of organic coolant mixtures formed from terphenyl feed mixture, Santowax OM, and hydrogenated terphenyl feed mixture HB-40 [AECL-2644] 08 p1323 N67-19261
Thorium fuel elements evaluated for heavy water organic cooled reactor [BAW-393-7] 11 p1921 N67-23238
Fuel fabrication costs and performance of reactor systems for heavy water moderated and organic cooled reactors 13 p2356 N67-25372
Chemistry of X-7 loop coolant for organic cooled power reactor [AECL-2527] 22 p3963 N67-36869
Screening tests of hydrogen barrier coating for zirconium alloys used in heavy water organic cooled reactor [AI-CE-27] 24 p4491 N67-39729
Modified melting, casting, and grinding techniques to improve surface finish of uranium carbide fuel slugs for heavy water organic cooled reactor [AI-CE-48] 24 p4491 N67-39839
Hot press diffusion bonding of sintered aluminum powder to stainless steel to form pressure tube transition joint for heavy water organic cooled reactor [A1-CE-46] 24 p4492 N67-39899

ORGANIC FLUORINE COMPOUND
Potentiometric determination of fluorids with lanthanum nitrate and its application to micro-determination of fluorine in organic compounds [RAE-TR-66340] 12 p2042 N67-24023
Thermodynamic properties of ethyleneimine, organic fluorine compounds, and aliphatic diamines [AD-653986] 19 p3392 N67-33389
Synthesis of fluorinated nitromethanes containing hydrogen [FTD-HT-66-625] 24 p4401 N67-40473

ORGANIC LASER
Synthesis of model compounds and intramolecular energy transfer for organic laser materials, and sensitive rare earth fluorescence in organic solvents [NASA-CR-81790] 07 p1033 N67-18133

ORGANIC LIQUID
Heat transfer to organic liquids 02 p0320 N67-11205
Washing tetrabromoethane liquid from mineral particles
[BM-RI-6729] 02 p0227 N67-11838
Apparatus for measuring thermoconductivity of liquid organic coolants used in nuclear reactors
[AEET-245] 03 p0472 N67-13634
Photoconductivity laws in liquid organic semiconductors
[FTD-TT-65-933] 05 p0665 N67-14751
Torsional creep and creep recovery behavior of organic liquids
[NASA-CR-71115] 07 p1030 N67-17772
Contributions of dispersion, induction, and orientation energies to cohesion in polar organic liquids
[AD-634625] 15 p2655 N67-37976
Electromagnetic field effects in cholesteric liquid crystals
[AD-634637] 15 p2752 N67-37978
Adsorbed water effects on organic liquid spreading on soda-lime glass
[NRL-6496] 15 p2664 N67-38971
Preparation, nuclear magnetic resonance structural studies, and physical property determinations of aprotic electrolytes in organic solvents
[NASA-CR-72377] 20 p3594 N67-34595
Absorption spectra of stable blue sulfur solutions in organic solvents 21 p3784 N67-35975
Corrosion stability of titanium in organic acids 22 p4065 N67-37141
Radiation induced ultrasonic cavitation effects in organic liquids
[AERE-R-5486] 22 p4032 N67-37728
ORGANIC LITHIUM COMPOUND
Electrochemical techniques used to determine reduction mechanism of nitrobenzene in lithium nitrate and lithium perchlorate ammoniate solvents
[NOLC-697] 13 p2386 N67-25336
ORGANIC MATERIAL
Photoconductivity processes in low mobility organic materials
[SC-DC-66-1823] 04 p0600 N67-13992
Soviet research on electric properties of organic semiconductors and photoconductors
[ATD-66-94] 06 p0618 N67-15776
Bright chemiluminescent reactions for illumination and marking devices
[MRB3000F] 06 p0629 N67-16493
Electrodeposition of organic coatings on complex military structures
[CCL-209] 06 p0661 N67-16496
Reflectance spectra of organic coatings in 0.3 to 40 micron region
[CCL-212] 07 p1105 N67-16823
Identification of radiation induced electrical effects in polymeric type organic insulator used in gamma field flux measuring device
[EGG-1183-2096] 07 p1176 N67-17493
Fluorescence of pyrolyzed pure and natural organic materials 08 p1225 N67-18234
Energy transfer mechanisms in dielectrics, and X-ray radiation effects on electric behavior of organic materials
[ECOM-00129-F] 09 p1351 N67-19221
Gas chromatographic analysis of pyrolysis products of organic materials
[RIA-66-3171] 09 p1410 N67-19796
Colloid particle production from organic macromolecules for electric thrustor propellant 10 p1560 N67-20517
Handbook on organic semiconductors 12 p2190 N67-23994
Mars probe for determining organic materials of planetary surface 13 p2211 N67-24441
Optical effects of laser light beam on organic glass 13 p2334 N67-26299
Strength properties of organic glass sheets under explosive loading 14 p2546 N67-27738
Charge transfer phenomena in organic materials and possible use in electronic devices, circuit components, and nuclear detectors
[RT/EL/66/10] 15 p2684 N67-28419
Evaluation of fibrous materials in cryogenic structural polyurethane adhesive used for bonding Saturn S-IVB tank assembly attachments
[NASA-CR-85121] 16 p2915 N67-29686
Biochemistry, organic and inorganic material structural properties, molecular physics and biology, public health, metallurgy, and nuclear magnetic resonance spectroscopy
[AR-54] 21 p3961 N67-35820
High energy density organic electrolyte batteries
[AD-654613] 21 p3761 N67-35653
Voltammetric studies of electroreduction of nitroaromatic compounds in nonaqueous organic solvents
[ECOM-02464-1] 22 p3983 N67-36918
Impact sensitivity of launch vehicle organic materials with liquid oxygen - tribochemical and carbon radical reactions, and characterization of fluorosilicone grease samples
[NASA-CR-89629] 24 p4394 N67-39690
Surface potential measurements to determine effects of adsorbed organic monolayers on metal substrates
[RIA-67-1754] 24 p4396 N67-39715
ORGANIC PHOSPHORUS COMPOUND
Enzyme and inhibitor concentration effects on hydrolysis rate of enzyme to acetylcholine - organophosphorus inhibition of cholinesterase activity
[JPRS-36381] 01 p0030 N67-11126
Stereochemistry of organic phosphorus compounds
[JPRS-36334] 02 p0226 N67-11836
Novel reaction and characterization of triferrocenylphosphine and diferrocenylphosphinous chloride compounds
[A65-13] 03 p0357 N67-12557
Resolution of some O-alkyl hydrogen methylphosphonothioates with dextrorotatory and levoratory alpha phenylethylamine
[REPT.-1966-23] 13 p2373 N67-26302
Anticholinesterase properties of organic phosphorus compounds
[JPRS-40872] 14 p2462 N67-27202
Synthesis of phosphorus containing polyesters and polyamides of aliphatic series and aromatic polymers from boron fluoride bis-diazonium diphenyl
[FTD-HT-66-118] 18 p3222 N67-31816
Synthesis of phosphorus containing polyesters and polyamides of aliphatic series 18 p3222 N67-31817
Dielectric constants and refractive indices for n-octane solutions of high molecular weight organophosphorus compounds used in solvent extraction systems
[ORNL-TM-1893] 22 p3991 N67-37891
ORGANIC SEMICONDUCTOR
Charge carrier mobility in organic semiconductors, described using molecular orbital theory
[NASA-TM-X-53136] 23 p4332 N67-38795
ORGANIC SILICON COMPOUND
Stable organosilicon polymer from chrysotile reaction with hydrochloric acid and chlorotrimethylsilane
[TR-5] 15 p2720 N67-28128
Temperature effects on strength of phenol formaldehyde, phenol phosphorus, melamine formaldehyde, and organosilicon resins
[NASA-TT-F-10934] 15 p2731 N67-28290
ORGANISM
SA ANIMAL STUDY
SA MICROORGANISM
Information theory and its relation to living organisms and entropy 01 p0012 N67-10158
Acclimatization of organisms to rarefied atmospheres 02 p0190 N67-11494
Dynamics of oxygen in organisms - change in oxygen tension related to changes in external environment 02 p0195 N67-11543
Reduced vital activity for increased biological protection of living organism during space flight 03 p0266 N67-11654
Magnetic field intensity effects on biological organisms 02 p0269 N67-11665
Crater size distribution on Mars surface observed by Mariner IV photographs 03 p0461 N67-12745
Regulatory significance of feedback in plant and animal communities 05 p0639 N67-14276
Biological cell, protoplasm structure, and vital characteristics of living organisms 06 p0798 N67-15431
Molecular aspects of biological development in relation to unicellular organisms and concepts for unicellular model 07 p1007 N67-16795
Statistical analysis techniques compatible with individual organism methodology
[USAMRL-716] 12 p2029 N67-24590
General and comparative biology of terrestrial organisms under experimental stress conditions
[NASA-CR-84032] 12 p2269 N67-26285
Devices and systems for controlling motor reaction in living organisms 19 p3377 N67-32625
Structural elements for building living organism, and chemical interaction between atoms of hydrogen, oxygen, carbon, nitrogen, sulfur, and phosphorus 20 p3509 N67-33927
Staining and morphological, cultural, and physiological characteristics of organisms isolated from Hilgard soils - charts
[NASA-CR-86114] 21 p3769 N67-36613
Physiological effects of low salt concentrations on marine
[NASA-TT-F-11238] 22 p3971 N67-37476
ORGANOMETALLIC COMPOUND
SA CHELATE COMPOUND
Improvement of equation used to correlate known heats of formation of solid inorganic and simple metallic organic compounds
[UCRL-16665] 02 p0238 N67-11981
Reaction of tin with 1-bromobutane in radiation field and radiation induced reaction relative to production of organotin compounds
[BMI-1759] 03 p0356 N67-12663
Extraction of copper, iron, uranium oxide, and nickel ions, and separation of uranyl ions from praseodymium ions by Schiff base metal chelates 06 p0627 N67-16221
Continuous flow system constructed to study moderately fast reactions of polynuclear hydroxo complexes and organometallic compounds
[AFOSR-66-2739] 06 p0628 N67-16447
Organosilicon monomers prepared by reaction of organolithium and Grignard reagents with tetrahaloalkanes and organohaloalkanes
[ARL-66-0139] 06 p0628 N67-16450
Coordination chemistry of chelate compounds with organometallic ion substitution for central metal ion
[AROD-5366-6] 06 p0629 N67-16462
Trialkyl and triaryl aluminum compounds used in reactions with bidentate ligands in preparation of aluminum complexes
[TR-1] 09 p1499 N67-19724
Preparation, analysis, and properties of mercaptides of mercury, titanium, nickel, cobalt, copper, and zinc
[AD-642139] 10 p1569 N67-20501
Preparation and analysis of mercaptides of mercury, cobalt, nickel, copper, zinc, and titanium - thermal stability and tendency to act as coordination polymers 10 p1569 N67-20502
Crystal structure of mercury methyl mercaptide 10 p1569 N67-20503
X-ray structural analysis of mercury methyl mercaptide 10 p1569 N67-20504
X-ray structural study of mercury ethylmercaptide 10 p1569 N67-20505
Preparation, analysis, and chemical reactions in relation to titanium tetramercaptides and dialkylaminotitanium mercaptides
[TR-4] 10 p1570 N67-20506
Preparation and some properties of mercaptides of cobalt, nickel, copper, and zinc
[TR-5] 10 p1570 N67-20507
Sodium and trimethylaluminum payloads for test rocket flight - camera equipment for night and twilight photography
[GCA-TR-66-8-A] 11 p1661 N67-22286
Rare earth element chelates and adducts with organic bases considered as active laser materials 12 p2190 N67-22983
Synthesis of chromium III phthalocyanine phosphinates
[TR-53] 12 p2043 N67-24051
Synthesis of organometallic compounds by exchange of mercury group
[FTD-HT-66-476] 12 p2046 N67-24738
Free radical additions of haloalkanes to olefins and diallyl, and preparation of unsaturated fluoro-organic lithium and magnesium compounds
[SAR-7] 15 p2689 N67-28230
Spacecraft cabin atmospheres, tropospheric radio propagation, glass fiber laser, thermal stability of polymers, and biologically active organotin and organolead compounds and polymers 18 p3288 N67-31673
Preparation of biocides, physiologically active materials, and polymers as allotmplant or radiation-protective materials, and correlation of chemical structure with biological activity 18 p3221 N67-31677
Polymers of germanium and tin

derivatives of o, m, and p-carborane
[TR-37] 19 p3390 N67-33153
Transmetallic reactions on metallic quaternary ammonium salts and pentaphenyl compounds 20 p3505 N67-34880
ORGANOMETALLIC POLYMER
Annotated and indexed bibliography of ferrocene polymers
[PLASTEC-15] 09 p1409 N67-19730
Aluminum-nitrogen and aluminum-phosphorus polymers
[AFML-TR-67-49] 22 p3998 N67-37342
ORGEL REACTOR PROJECT
Boron traces in uranium monocarbide, sintered aluminum powders, and terphenyls used in Orgel reactors
[EUR-3073.I] 02 p0238 N67-11908
Dosimetry of radiations for radiolysis of terphenyl in liquid organic loops Orgel reactor
[CONF-651154-4] 17 p3112 N67-31073
ORGUEIL METEORITE
Composition of carbonaceous chondrites examined by phase contrast, fluorescence microscopy, X-ray diffraction, biological staining, and electron microprobe analysis 03 p0341 N67-12733
Similarity of organic compounds in carbonaceous chondrites and marine sedimentation considered as indication of former life in meteorites 03 p0342 N67-12733
ORIENTATION
S INSTRUMENT ORIENTATION
S SATELLITE ORIENTATION
S SPACE ORIENTATION
S SPATIAL ORIENTATION
ORIFICE
SA DUCT
Size and direction of fluid jet flow from two-dimensional asymmetric orifices 06 p0794 N67-16869
Orifice effect on heat transfer and pressure measurements in low density wind tunnel
[NASA-TN-D-3829] 08 p1216 N67-18406
Stress concentration near square hole with rounded corners in cylindrical shell
[NAVSHIPS-TRANS-1037] 17 p3173 N67-30727
Stress concentration in spherical shell near square hole
[NAVSHIPS-TRANS-1036] 17 p3172 N67-30728
Attenuation of shock in tubes by orifice plates
[ORNL-TM-1750] 17 p3121 N67-31044
Orifice selection in semi-closed circuit mixed gas underwater breathing apparatus
[RR-1-67] 19 p3384 N67-33823
Stresses around elliptic hole in cylindrical shell
[NAL-TN-3] 20 p3735 N67-34017
Burnout heat flux in boiling water
[EURAEC-1524] 20 p3744 N67-34161
Prediction model for rate of fluid loss from closed tank containing orifices
[T-11/67] 24 p4434 N67-40354
ORIGIN
SA PLANETARY ORIGIN
Review of hypotheses on origin of moon
[UCSD-34P43-5] 01 p0153 N67-10731
Spacecraft data used to explain origin and evolution of solar system
[NASA-CR-79734] 01 p0154 N67-10830
Spectrographic, electron diffraction, and specific gravity analyses to determine origin of metallic matte
[NAEC-AML-2488] 06 p0828 N67-16357
Qualitative arguments against theory of singular origin of universe
[NASA-TM-X-57251] 07 p1194 N67-18193
Astrogeologic studies - crater investigations
[NASA-CR-82745] 09 p1437 N67-19389
History and origin of Flynn Creek crater 09 p1438 N67-19390
Origin, texture, and distribution of rock units forming Manicouagan lake structure 09 p1438 N67-19392
Diagnostic petrographic criteria for establishing progressive stages of hypervelocity meteorite impact 09 p1439 N67-19398
Origin and properties of ball lightning
[P-3564] 17 p3056 N67-31193
Geologic history of Mare Humorum region of moon 18 p3327 N67-31937
Stratigraphy, structure, and geologic history of Hevelius region of moon 18 p3327 N67-31938
Related characteristics of fault systems of two terrestrial grabens and lunar rilles Rima Ariadaeus and Rimae Hypatia I and II, and possible tectonic origins 18 p3327 N67-31942
Structural characteristics of floor of crater J. Herschel and possible volcanic origin 18 p3327 N67-31946
Origin of thin, elevated nocturnal fog layer
[T-R-563] 18 p3292 N67-33697
Uniform and metagalactic cosmic ray models - halo, disk, and nonstationary galactic models
[NASA-CR-87183] 19 p3531 N67-33832
Origin of solar system - role of plasma physics and magnetohydrodynamics on future of cosmogony
[REPT.-67-07] 19 p3538 N67-33894
Theory of explosive origin of galaxies 21 p3933 N67-36837
Geological origin of Crimea and Black Sea
[ACIC-TC-1215] 22 p4034 N67-36881
ORION AIRCRAFT
S P-3 AIRCRAFT
ORION CONSTELLATION
Characteristics of T-Tauri variable stars associated with Orion nebula 04 p0610 N67-13418
OROGRAPHY
SA MOUNTAIN
SA TOPOLOGY
Three-dimensional growth characteristics of orographic thunderstorm system studied by aerial photography
[SMRP-RP-61] 01 p0102 N67-11049
Satellite observations of local circulations - orographic effects and jet stream structure 12 p2138 N67-24295
Orographic effects on atmospheric precipitation
[ECOM-03712-3] 13 p2351 N67-25631
Pulse-to-pulse radar backscatter measurements of precipitation above and below bright band, orographic effects on rain, and radar view of lee-wave or rotor radar echo
[ECOM-03712-4] 16 p2882 N67-29068
Dynamic model used in study of mesoscale wave phenomena in lee of Rocky Mountains 23 p4280 N67-38839
ORPHEUS PROGRAM
Space flight safety concept based on use of manned or unmanned spacecraft prepositioned in periodic space flight trajectories on routine mission assignments 14 p2613 N67-27177
ORTHICON
S IMAGE ORTHICON TUBE
ORTHO HYDROGEN
Green function treatment of molecular field model of orientational order in face centered cubic crystalline ortho hydrogen
[DOUGLAS PAPER-4246] 12 p2192 N67-24574
Theory of rotational excitations in solid ortho hydrogen
[RIFP-62] 23 p4202 N67-38318
ORTHO-PARA CONVERSION
Vapor phase isomerization of ortho-carborane
[TR-33] 08 p1233 N67-18292
ORTHOGONAL FUNCTION
Algorithm using single degree of freedom orthogonal components of K factors at 2 levels
[ECOM-2741] 01 p0097 N67-11066
Anechoic water tank for high frequencies, normal mode sound field in shallow water, and orthogonal wave functions of stratified medium
[JPRS-39107] 08 p1225 N67-18493
Sound field and orthogonal wave functions of shallow water measured by continuous eigenvalues 08 p1226 N67-18495
Quantitative description of climatic element fields by orthogonal functions 11 p1915 N67-22805
Orthogonalization of internal force and strain systems 11 p1988 N67-23811
Orthogonalization algorithm for producing pseudo inverse of matrix, and realization of algorithm with Fortran program
[NASA TM-X-55787] 12 p2059 N67-23971
Generalization of orthogonal polynomial concept to obtain refined Szego theorem and analogs 12 p2131 N67-24234
Static boundary value problem for multiply connected shallow shell considered arbitrary orthogonal coordinate system 12 p2225 N67-24517
Biorthogonal angular polynomial expansions of directional flux in linear Boltzmann transport equation
[LA-3617] 12 p2169 N67-24549
Probabilistic calculation of single phase logic circuits by orthogonalization of Boolean functions 13 p2297 N67-25717
Transient underwater signal analysis by means of approximation using orthonormal functions
[USL-780] 15 p2668 N67-28514
Medium range weather forecasting for mountainous regions based on expansion of natural orthogonal functions 17 p3097 N67-30411
Janvier method in pulsed neutron experiments
[CEA-R-3070] 19 p3488 N67-33119
Natural orthogonal functions applied to atmospheric dynamics and temperature profile studies 20 p3634 N67-34837
Orthogonal method for investigating nonlinear automatic control systems under random effects 20 p3617 N67-35300
Theorem proving for orthogonal systems of functions relative to convergence in mean of series
[NASA-TT-F-11341] 23 p4273 N67-38279
Hilberts method of solving linear integral equations using system of orthogonal functions
[NASA-TT-F-11343] 23 p4273 N67-38341
Extension of Hilbert method of linear functional equations to orthogonal systems of functions
[NASA-TT-F-11342] 23 p4276 N67-38331
Finite field method for construction of orthogonalized squares
[SP-2597] 24 p4481 N67-39987
ORTHOGONAL MULTIPLEXING THEORY
Proper rotations of three-dimensional orthogonal frame
[NASA-TN-D-3806] 08 p1298 N67-18357
ORTHOSTATIC TOLERANCE
Functional disturbance of rabbit cardiovascular system subjected to penetrating radiation in orthostatic position
[FTD-TT-65-53] 02 p0178 N67-11290
Complex method for determining compensatory-adaptive capabilities of cardiovascular system under orthostatic effects 02 p0182 N67-11422
Warm temperature influence on adaptability of human subjects to orthostatic test 02 p0186 N67-11458
Influence of restricted muscular activity and prolonged maintenance of horizontal position on human physiology 04 p0497 N67-13434
ORTHOTROPIC CYLINDER
Thermal stresses due to temperature field in infinite orthotropic cylindrical vault 09 p1537 N67-20123
Internal displacements in solid propellant grains - analysis of thick hollow cylinder with reinforcing layers
[AD-646017] 11 p1969 N67-23551
Computer program to determine elastic stability of composite orthotropic cylinders under radial and axial loading
[SC-TM-67-519] 23 p4361 N67-39178
ORTHOTROPIC MATERIAL
Stress distribution in orthotropic wood half-plane and wedge subjected to concentrated load
[FPL-54] 02 p0216 N67-12627
Gravitational stresses in circular cylindrical orthotropic viscoelastic solid propellant grain 05 p0754 N67-14489
Creep analysis of orthotropic glass plastic 13 p2344 N67-25438
ORTHOTROPIC PLATE
Oscillations of orthotropic plate placed in high temperature field
[FTD-TT-65-1931] 01 p0162 N67-11143
Equilibrium stability of orthotropic rectangular plates
[NASA-CR-82356] 08 p1379 N67-19024
Approximation methods for determining stability of structurally orthotropic cylindrical panels subjected to shearing stresses and internal pressures 09 p1524 N67-20045
Method of initial parameters used in differential equations for bending and internal stress forces occurring in rectangular orthotropic plates lying on elastic foundation 09 p1529 N67-20079
Finite displacements of very shallow orthotropic shells and plates at small deformations 09 p1534 N67-20115
Dual finite element computer system for stretching and bending orthotropic plates
[NASA-CR-86866] 23 p4157 N67-37983

ORTHOTROPIC SHELL
Elastic stability of orthotropic and cylindrical shells
[NASA-TT-F-9826] 01 p0158 N67-10199
Unsymmetric nonlinear first order analysis of layered orthotropic shells of revolution
[ADR-02-11-66.2] 01 p0159 N67-10444
Theory and experimental results on buckling of unstiffened orthotropic and stiffened conical shells
[AFOSR-66-0327] 03 p0469 N67-12540
Nonstationary forced vibration of orthotropic circular cylindrical shell 07 p1206 N67-18183
Lagrange multiplier method applied to elastic stability problems of rectangular plates and orthotropic cylindrical shells 09 p1524 N67-20046
Approximate solutions of stress concentration about holes in isotropic and orthotropic shells 09 p1527 N67-20065
Membrane stresses and equilibrium of orthotropic cylindrical shells with large deformations 09 p1537 N67-20134
Analysis of structurally orthotropic shells by compliance method
[NASA-CR-84507] 14 p2828 N67-27665
Compliance method for analysis of stiffened orthotropic elastic shells
[NASA-CR-85818] 17 p3175 N67-31472
ORTHOTROPISM
Cylindrical shell vibrations analyzed for effects of orthotropicity, boundary conditions, and eccentricity
[ASRL-TR-134-2] 13 p2415 N67-25533
OSCILLATING CYLINDER
Vibrations of noncircular cylindrical shells 03 p0471 N67-13065
Exact solution of Navier-Stokes equations for nonstationary viscous fluid flow between two parallel vibrating cylinders 03 p0384 N67-13086
Analysis of vortex flow behind stationary and oscillating circular cylinders for application to prediction of ground wind loads on launch vehicles
[NASA-CR-82504] 06 p1373 N67-19094
Second order theory of cylinders oscillating vertically in free surface
[NA-66-7] 10 p1608 N67-20693
Unsteady convective heat transfer with oscillating cylinder transversely or parallel to air flow 11 p1906 N67-23044
Generalized forces on infinite cylindrical shell oscillating harmonically in uniform airflow
[RAE-TR-65295] 11 p1986 N67-22788
Mathematical equations of bending oscillations of cavity partially filled with fluid
[FTD-HT-66-471] 12 p2230 N67-24770
Vibrations and stability of circular cylindrical shell with internal supersonic gas flow 14 p2639 N67-27721
OSCILLATING FLOW
Boundary layer oscillations over resonant surface
[ASRL-TR-116-2] 01 p0063 N67-11195
Thermally induced flow oscillations in near critical and supercritical thermodynamic region
[NASA-CR-80609] 04 p0622 N67-13534
Laminar to turbulent flow transition concepts studied in relation to oscillatory flows found in circulatory system 05 p0644 N67-14578
Stability of oscillations in air and water two component two-phase flow
[NASA-CR-72121] 07 p1067 N67-17835
Stability of Freon-11 and water flow oscillations in forced convection boiling
[NASA-CR-72122] 07 p1068 N67-17839
Oscillating laminar separated flow ahead of forward facing step oscillating transversely to hypersonic free stream 08 p1218 N67-19299
Electrical analog for studying slotted-wall wind tunnel interference in steady and oscillating flow
[ARC-R+M-3452] 09 p1892 N67-20302
Density effect model, nonlinear equations, and mechanism for oscillatory behavior of heated channels
[CEA-R-3049, PT. I] 10 p1769 N67-20750
Frequency response measured in experiments with pump-fed single tube heat exchanger boiler using Freon and water
[NASA-TM-X-52306] 14 p2832 N67-27237
Oscillations in two-phase flows, using air-water mixtures
[NASA-CR-59564] 23 p4240 N67-39310
OSCILLATING WING
Measurements of leading edge vortex positions on delta wing oscillating in heave using smoke for flow visualization
[ARC-R+M-3410] 07 p0990 N67-17877
Unsteady forces acting on two-dimensional oscillating airfoils calculated by Newtonian snowplow theory
[RM-4415-ARPA] 07 p0990 N67-17907
Numerical method of Mercury autocode computer programs to find lifting surface theory calculations on wings oscillating harmonically in supersonic flow
[ARC-CP-851] 07 p0991 N67-18118
Generalized forces on oscillating wings in supersonic flow calculated by lifting surface theory
[ARC-R+M-3453] 10 p1551 N67-21191
Estimating wind tunnel wall interference effects on slowly oscillating slender wings in subsonic flow
[ARC-CP-707] 11 p1859 N67-22797
Wake produced by oscillating wing in two-dimensional noncavitating flow studied in water tunnel using small air bubbles as flow tracers
[TM-607.2441-10] 16 p2811 N67-28988
Comparative numerical applications of reverse flow theorem to oscillating wings and control surfaces
[ARC-R+M-3428] 22 p3956 N67-37181
OSCILLATION
SA ELECTRON OSCILLATION
SA FORCED OSCILLATION
SA FREE OSCILLATION
SA HARMONIC OSCILLATION
SA LATERAL OSCILLATION
SA MOLECULAR OSCILLATION
SA NUTATIONAL OSCILLATION
SA PERIODIC OSCILLATION
SA PLASMA OSCILLATION
SA PRESSURE OSCILLATION
SA SELF-OSCILLATION
SA STABLE OSCILLATION
SA TIDAL OSCILLATION
SA TRANSIENT OSCILLATION
SA TRANSVERSE OSCILLATION
SA VIBRATION
Expression for transition temperature of pure Type II superconductor
[TR-3] 01 p0138 N67-10373
Effect of localized normal surface oscillations on laminar flow over flat plate
[ARL-66-0010, PT. VI] 01 p0061 N67-11032
Small natural oscillations of hollow elastic triple-layer shells of revolution
[FTD-TT-65-1874] 01 p0162 N67-11088
Dynamic stability and nonlinear oscillations of parachutes
[NASA-TT-F-10291] 04 p0480 N67-13796
Electric and magnetic field intensity vectors in solving boundary value problem of electromagnetic oscillations 04 p0581 N67-13864
Nonlinear acoustic oscillations of cylindrical shell
[FTD-TT-65-1948] 04 p0621 N67-14239
Phase-locking scheme for frequency-stabilized gas laser oscillators
[NASA-CR-80958] 05 p0715 N67-14893
Mathematical model for resonant oscillation in conservative Hamiltonian system
[AROD-4105-23] 05 p0739 N67-14980
Automatic frequency control system for absolute frequency stabilization
[IER-5] 05 p0715 N67-15312
Coordinate transformation method for deriving Inglis formula for inertial parameter of collective oscillations without concept of time dependent, self consistent potential well 06 p0934 N67-15653
Sinusoidal oscillation of track shaft with control elements of limited motion 07 p1060 N67-17282
Stability analysis of multiple control systems
[RAE-LIB-TRANS-1187] 09 p1429 N67-20356
Theory and equations for natural oscillations and stability of continuous triple-layer plates with light filler
[FTD-HT-66-285] 10 p1764 N67-20619
Nonstationary oscillatory processes in nonlinear systems with slowly varying parameters
[FTD-MT-65-117] 11 p1844 N67-22446
Oscillations and stability of plasma located in external high frequency electric field 12 p2183 N67-34178
Resonance curves for excitation of stationary oscillations, and two photon laser study
[NASA-TT-F-10621] 12 p2113 N67-25008
Computation of oscillation regions in magnetic film parametrons 13 p2392 N67-25706
Oscillation regions in magnetic film parametrons consisting of Permalloy film, winding, and capacitor 13 p2394 N67-25710
State of art in calculating oscillations of helicopter rotor blades
[DLR-MITT.-66-16] 14 p2446 N67-27126
Propagation of oscillations in two-phase system of liquid and its vapor
[NASA-TT-F-10943] 14 p2518 N67-27282
Longitudinal instability and synchrotron oscillation theories
[BNL-11041] 14 p2591 N67-27484
Numerical integration of oscillating functions with nonlinear argument 14 p2566 N67-27735
Steady state theory for analyzing separated flows on slender wings in unsteady motion, and computations for heaving and pitching oscillations of slender delta wing
[ARC-R+M-3448] 16 p2814 N67-28988
Propagation of oscillations of type of wave film of quantized thickness 18 p3304 N67-31649
In-pile properties of reactor fuels by oscillating technique 18 p3301 N67-32420
Out of pile loop examination of hydrodynamic oscillations occurring in boiling water reactors
[CEA-R-3004] 19 p3489 N67-33256
Quantum electronics and millimeter waves in relation to resonant mixing 19 p3466 N67-33618
Microwave oscillations produced in crystal semiconductor by application of strong electric field
[CEA-BIB-77] 19 p3526 N67-33691
Periods of error oscillation in aircraft inertial navigation systems
[RAE-TR-67053] 20 p3676 N67-34499
Intentional combustion oscillations in propulsion systems
[HIC-92] 21 p3909 N67-35798
Calculation of sawtooth voltage oscillations of triangular shape for pulse width modulation pulse shaping circuit
[NASA-TT-F-11230] 22 p4015 N67-36706
Short period oscillations in earth electromagnetic field
[TG-230-T594] 23 p4344 N67-38434
OSCILLATION FREQUENCY
SA PLASMA FREQUENCY
Liquid hydrogen oscillation periods in large rocket booster tank measured through range of accelerations
[NASA-TM-X-53542] 05 p0706 N67-14910
Frequency analysis to determine image pulsations of artificial light wave traveling through atmospheric ground layer 06 p0971 N67-15467
Approximate method for determination of natural oscillation frequencies of cylindrical, conic, and toroidal shells
[NASA-TT-F-10377] 07 p1202 N67-17289
Electromagnetic flow meter for analyzing dynamic flow oscillations in turbopump systems
[NASA-TM-X-53570] 07 p1066 N67-17823
Analytical calculation of charged particle motion in accelerators, equilibrium orbits, and betatron oscillation frequencies
[MURA-719] 08 p1243 N67-18677
Nonlinear theory of low frequency oscillations excited by ion bunch in plasma 09 p1496 N67-20241
Coupled electromagnetic oscillations in cavity resonators
[FTD-TT-65-1419] 10 p1592 N67-20734
Threshold equations derived from linearization of equations concerning oscillatory behavior of heated channels in terms of density and enthalpy of fluid involved
[CEA-R-3049, PT. II] 10 p1770 N67-20849
Intermolecular reaction and displacements of oscillation frequencies of molecules in combined diffusion spectra
[FTD-HT-66-171] 10 p1681 N67-21710
Self locking of modes in lasers, phase locking of laser oscillations by injected signal, and effects of intensity dependent anomalous dispersion on mode shapes of oscillators
[S-908] 14 p2548 N67-28798
Oscillations of liquid metal droplet in homogeneous constant magnetic field

[NASA-TT-F-10918] 15 p2691 N67-32240
Interaction of coherent betatron oscillations with external systems
[CONF-660939-7] 16 p2946 N67-29716
Doppler optical radar and heterodyne measurement of oscillating systems
[AD-651822] 17 p3075 N67-30310
Construction of diode logic elements based on amplitude modulation of superhigh frequency oscillation in flat printed lines for high speed digital computers 18 p3253 N67-32236
Simultaneous occurrence and properties of class pearl-type /Pc-1/ micropulsation bursts at magneto-conjugate points of Kerguelen, France and Sorga, U.S.S.R.
[NASA-CR-87184] 19 p3449 N67-33757
Oscillation frequency leading to turbulence during electron beam interaction with magnetoplasma
[IPP-2/61] 20 p3706 N67-34166
Methods and equipment for measuring oscillatory derivatives on sting-mounted wind tunnel models
[RAE-TR-66197] 23 p4176 N67-39221

OSCILLATOR
SA BACKWARD WAVE OSCILLATOR
SA ELECTRON TUBE
SA HARMONIC OSCILLATOR
SA MECHANICAL OSCILLATOR
SA MOLECULAR OSCILLATOR
SA PARAMETRIC OSCILLATOR
SA SUBHARMONIC OSCILLATOR
SA SYNCHRONIZED OSCILLATOR
Continuous wave operation of spark transmitters
[AD-639068] 01 p0040 N67-10091
Oscillator analysis of lithium fluoride and magnesium oxide reflectivity
[AFCRL-66-327] 03 p0452 N67-12456
System for measuring phase and frequency fluctuations of high precision oscillators
[NASA-CR-80364] 03 p0596 N67-12992
Optical pulse amplifiers with active saturable absorption switches 03 p0468 N67-13064
Development of 20-watt integrated oscillator amplifiers
[NASA-CR-80540] 03 p0374 N67-13201
Oscillator strengths for extreme ultraviolet resonance lines of ions in neon isoelectronic sequence
[NASA-TM-X-55585] 03 p0443 N67-13227
Influence of Doppler tracking system oscillator instability on orbit accuracy 05 p0671 N67-14429
Modification of Mod V programmed oscillator 05 p0672 N67-14437
Oscillator strength of lead ion in potassium chloride single crystals
[TR-9] 05 p0751 N67-14759
Voltage controlled oscillator noise measurement and optimum tracking filters 06 p0839 N67-15919
Central frequency synthesizer performance and voltage controlled oscillator static phase error 06 p0839 N67-15920
Absorption cross section measurements of several elements in nuclear reactor using pile oscillator method 06 p0912 N67-16281
Effects of thermal and shot noise on performance of oscillator
[ECOM-2773] 07 p1050 N67-17233
Spin oscillator containing system of nuclear spins located in magnetic field
[FTD-TT-65-1899] 07 p1083 N67-17745
Conditions producing dense plasma in metallic chamber and its high frequency heating 08 p1494 N67-20225
Rate equations describing transient behavior of microwave maser oscillators
[TR-504] 11 p1894 N67-23044
Fabrication and testing of neodymium-doped glass laser oscillator-amplifier device
[AD-645364] 12 p2111 N67-23935
Millimeter and centimeter operational devices based on avalanche transit diode oscillators 13 p2064 N67-23962
High duty factor conversion of Berkeley Hilac 13 p2081 N67-24131
Long term frequency stability of crystal oscillators
[ECOM-2787] 13 p2064 N67-24496
Photovoltaic effect in diodes, infrared emission from diode lasers, phosphorus ion implantation in Ge, epitaxial Gunn effect oscillators, and bulk GaAs negative conductance amplifiers 13 p2388 N67-25122
Performance of vibrational gaseous hydrogen Stokes oscillator 14 p2543 N67-26706
Application of ultrastable oscillators to one-way ranging systems - Measurement technique for determining phase fluctuation spectrum of highly stable oscillators
[NASA-CR-84444] 14 p2494 N67-27427
Microwave oscillators and amplifiers based on Gunn effect
[NASA-CR-84502] 14 p2605 N67-27662
Oscillator strengths for resonance lines of sulfur and silicon ions
[NASA-TM-X-55602] 15 p2662 N67-28799
Production engineering of high voltage oscillator
[AD-649012] 16 p2869 N67-29546
Analytical and numerical investigations of appearance of stochasticity in conservative system of weakly coupled nonlinear oscillators
[NP-16523] 16 p2921 N67-29757
Correlator for extracting rod oscillator signals from noise 17 p3105 N67-30210
Oscillator, transmitter, and receiver development for space communication systems 17 p3022 N67-30374
C-band and X-band dual function oscillator design
[ECOM-02340-3] 18 p3249 N67-32134
Tube-circuit compatibility, grid structure, and circuit design of C and X band oscillators which function sequentially as transmitter and as gated local oscillator
[QR-3] 18 p3251 N67-32533
Electrical properties of prototype resonator electrical components
[UCRL-17252] 19 p3420 N67-33096
Three-hundred milliwatt X-band triode oscillator
[QR-5] 19 p3419 N67-33976
Frequency modulation method for measuring small rotating angle
[NAL-TR-127] 20 p3612 N67-34417
Mathematical models based on experimental data for study of neuron oscillators
[AD-653805] 20 p3573 N67-34497
Vibrational relaxation of diatomic gas of anharmonic oscillators
[CAL-AF-2023-A-3] 21 p3829 N67-35347
Nagoya University Plasma Physics Institute research on ion cyclotron and related topics 21 p3912 N67-36533
Nonlinear thermomechanical oscillator studies
[NASA-TM-X-60382] 22 p4099 N67-37373
Low frequency phase shift measurement techniques 22 p4019 N67-38047
Modal parameter control in crystal resonators
[ECOM-2847] 24 p4417 N67-39564
Coding of time signals - oscillators used on satellites and ground for signal production
[ESRO-TM-46] 24 p4408 N67-40081
C-band and X-band oscillators functioning sequentially as transmitter and gated local oscillator
[RCS-OSD-1366] 24 p4421 N67-40399

OSCILLATORY COMBUSTION
S COMBUSTION INSTABILITY

OSCILLOGRAPH
Automation of processing of oscillograms obtained in testing ships 03 p0395 N67-12775
Multichannel, instrumentation type, tape recorder used together with multichannel light beam oscillograph as data acquisition and reproduction system for Alice machine
[UCRL-70018] 07 p1082 N67-17682
Graphic signature recorder - direct writing oscillograph
[ECOM-00293-F] 10 p1629 N67-20461
Eight-channel oscillograph recording system for recording blast phenomena
[BRL-MR-1765] 12 p2090 N67-23830
Electron beam oscillograph for measuring pulse and release work values in electronic time measuring devices with magnetoelectric drive 15 p2711 N67-28125
Discharge oscillograms from helium filled streamer chamber discharge 17 p3065 N67-30967
Spectral density and correlation functions determined by processing oscillograph records 20 p3642 N67-34925
Photographic and oscillographic data for triggered natural lightning discharges
[DS-67-3] 23 p4247 N67-39064

OSCILLOSCOPE
Development and performance of wideband oscilloscope with diode feeding sampling circuit, and of portable cesium beam frequency standard 01 p0072 N67-10432
Oscilloscope for measuring signal to noise ratio
[NASA-CR-83405] 22 p4043 N67-36720
Visual automobile simulation tests of driver control for sudden changes in previewed path - television and oscilloscope remote controlled simulation
[NASA-CR-89272] 23 p4198 N67-38941

OSEEN APPROXIMATION
Heat transfer appropriate to low Reynolds number hot-wire anemometry calculated by Oseen approximation
[ARL/A-252] 02 p0236 N67-11800

OSMIUM
Osmium dispenser cathodes, microfractography of thin films, and grease lubricated spiral bearing for straight through shaft 04 p0625 N67-13721
Osmium dispenser cathodes 04 p0520 N67-13722
Levels of osmium 188 populated by rhenium 188 and iridium 188
[UCRL-16906] 10 p1698 N67-20728
Gamma vibrational bands in 182 osmium and 184 osmium
[UCRL-16906] 10 p1709 N67-20892
Sliding friction of ruthenium, rhodium, osmium, and iridium crystals
[NASA-TN-D-4152] 20 p3656 N67-34180
Energy level structure of osmium 188 determined by thermal neutron capture by osmium 189
[BNL-11428] 21 p3906 N67-36825

OSMOSIS
Artificial segmentation of amphibian and fish cells by isotonic solutions
[NASA-TT-F-10798] 13 p2257 N67-23986
Thermoelectric vapor pressure osmometer for solute characterization in prepolymer evaluations
[NOTS-TP-4347] 14 p2532 N67-26916
Chemi-osmotic hypothesis as phosphorylation mechanism in chloroplasts 18 p3206 N67-31701

OSO
Spacecraft manual for OSO - telemetry system, command system, power supply and distribution, antenna system, experiment complement, temperature monitoring, and launch program
[NASA-TM-X-55616] 02 p0313 N67-11988
Analog computer program for predicting orbiting spacecraft external surface temperatures
[NASA-TN-D-3712] 08 p1254 N67-18721
Orbiting Solar Observatories OSO-E and OSO-D for studying Sun influence on Earth atmosphere
[NASA NEWS RELEASE-67-32] 08 p1372 N67-18758
Mariner II attitude control system, OSO spacecraft, and OGO spacecraft 12 p2143 N67-23817
Simulated space environment life testing of step-servo assembly for radiation experiments on OSO D satellite
[NASA-TM-X-53754] 12 p2101 N67-23966
Configurations, performance capabilities, command and data handling systems, stabilization and control systems, and scientific missions of OSO and AOSO 12 p2215 N67-24457
Comparison of storage and nonstorage type television camera tubes for use as image detectors in orbiting solar observatories 12 p2216 N67-24471
Experiment missions for OSO satellite rendezvous, capture, material retrieval, refurbishment, and extravehicular operation work
[NASA-CR-83772] 13 p2407 N67-23488
Experiment missions for OSO satellite rendezvous, capture, material retrieval, refurbishment, and extravehicular operation work
[NASA-CR-83773] 13 p2407 N67-23489
Experiment missions for OSO satellite rendezvous, capture, material recovery, refurbishment, and extravehicular operation work
[NASA-CR-83782] 13 p2407 N67-23990
Torsional vibration and shock transients of Atlas Agena-D applied to advanced OSO 18 p3240 N67-31695
NASA news release giving details on occasion of launching of Orbital Solar Observatory /OSO-D/ with Delta launch vehicle
[NASA NEWS RELEASE-67-263] 23 p4353 N67-39238

OSO-I
Solar neutron detection by OSO-I satellite carrying boron fluoride detector [NASA-TM-X-55713] 09 p1866 N67-19662
OSO-II
OSO-II data on solar activity and electromagnetic radiation [NASA-TM-X-55590] 02 p0311 N67-11368
OTOLITH
Otolithic theory of motion sickness 03 p0195 N67-11549
Inversion illusion in parabolic flight related to functioning of otolith apparatus 05 p0654 N67-15123
Relationship between unit activity of otolith organ of frog and information transfer 05 p0655 N67-15132
Otolith and nonotolith information influence in perception of visual horizontal by rotating human subjects with normal and defective labyrinthine functions 05 p0656 N67-15134
Angular and linear acceleration effects influence upon cupula with resulting changes in human nystagmus - central converging otolithic influence upon cupula 05 p0656 N67-15135
Reliability and validity of counterrolling as functional test of otolith organs investigated by comparing measurements of healthy persons with those of subjects with labyrinthine defects [NASA-CR-81264] 06 p0803 N67-16092
Functional state of otolithic part of vestibular analyzer of guinea pigs after chest and back exposure to acceleration 16 p2828 N67-29244
Temperature control of orbital otolith experiment on Apollo flight [NASA-CR-815] 16 p2841 N67-29695
OUTER RADIATION BELT
SA INNER RADIATION BELT
SA VAN ALLEN BELT
Characteristics of radiation belt and ionospheric absorption of cosmic radio noise in auroral zone during geomagnetic storms [NASA-CR-80176] 02 p0301 N67-12296
Cosmos satellite registration of relativistic electron diffusion wave in outer radiation belt [NASA-CR-80167] 02 p0302 N67-12342
Electron and proton intensities in outer radiation belt [NASA-CR-80163] 03 p0457 N67-12919
Intensity variations of protons and electrons of outer radiation belt [NASA-CR-80164] 03 p0457 N67-12927
Outer radiation belt of low energy charged particles [NASA-CR-81276] 06 p0957 N67-16505
Magnetosphere exploration by Elektron satellites in outer radiation belt [T-455-R] 09 p1509 N67-19535
Elektron II satellite magnetosphere measurements from outer radiation belt region 09 p1509 N67-19536
Magnetic measurements in outer terrestrial magnetosphere from Elektron II and Elektron IV satellites 09 p1509 N67-19537
Interrelation between irregular events in lower ionosphere of auroral zone and disturbances in outer radiation belt [NASA-CR-84121] 13 p2400 N67-28446
Space and time variations in outer belt electron spectra 18 p3324 N67-31791
Spectral, spatial and temporal variations of outer zone electrons from Injun III observations [NASA-CR-88542] 22 p4125 N67-38712
OUTPUT
SA FREQUENCY STABILITY
SA LASER OUTPUT
Dynamic method of measuring output power characteristics of radioisotope thermoelectric generator [NASA-TM-X-55663] 02 p0285 N67-11377
Output capacity evaluation of computer systems based on structures of system and algorithms 05 p0677 N67-14354
Technique for generating output regular expression of sequential machine with specified input regular expression [TR-66-105] 05 p0690 N67-14998
Temperatures and critical output calculations for nuclear reactor fuel element during cooling system breakdown [JUL-333-RE] 10 p1684 N67-21009
Flowgraph construction, input-output formulation, and subroutines for Network Analysis for Systems Applications Program /NASAP/ 11 p1847 N67-22633
Mathematical simulation model to relate input and output of telemetry system on Saturn vehicle [NASA-CR-84831] 15 p2871 N67-28835
Punched card output system for Mercury computer [RAE-TR-66377] 20 p3606 N67-34052
Input output and control system of problem solving facility - teleregister and teletype consoles and console demands [REPT.-67-20] 20 p3606 N67-34222
Computer printouts of numerous scientific experiments conducted in mission support for extended lunar exploration [NASA-CR-87405] 20 p3725 N67-34594
Output characteristics of thermionic converter arrays under partial failure condition [UCRL-70223] 21 p3759 N67-35452
OV-10 AIRCRAFT
Subsonic wind tunnel graphic test data on aerodynamic characteristics of .125 scale model of OV-10A aircraft [CAL-AA-2313-W-1, VOL. III] 14 p2512 N67-26830
Flight tests of coin-type STOL aircraft [NASA-TN-D-4141] 20 p3547 N67-35029
OVARY
Positional relation of spermium point of entry to median plane and to primitive groove after local vital staining tests with axoloti ovum [NASA-TT-F-11256] 24 p4385 N67-40010
OVER-WATER FLIGHT
Aerial photography and reconnaissance of Mississippi River outflow into and mixing with Gulf of Mexico [AD-649897] 16 p2885 N67-29446
OVERVOLTAGE
Internal overvoltages on high voltage transmission lines and protection devices 11 p1835 N67-22196
Electric properties of spark gap lightning arrestors used on high voltage transmission lines to limit internal and external overvoltages 11 p1835 N67-22197
Discharge characteristics of magnetic valve arrestors used in high voltage networks for protection against lightning and overvoltage 11 p1836 N67-22198
OV2 /ORBITING VEHICLE-2/
Flight subliming solid respin rocket system development for OV2-1 satellite and nozzle optimization performance studies [NASA-CR-712] 08 p1355 N67-18964
OXALATE
Exponential relation between development speed and redox potential of ferozalate developers for emulsions of different sensitivities and exposures - illumination [IFA-PN-17] 03 p0361 N67-12297
Effects of sintering atmospheres and temperatures on composition of pellets of plutonium dioxide powder prepared from oxalate and peroxide methods [LA-3493] 04 p0500 N67-13626
Thermal decomposition kinetics of silver oxalate under conditions of photographic darkness [NASA-TT-F-10415] 04 p0502 N67-13728
Optimization of operating characteristics of peroxyoxalate chemiluminescent materials for lighting equipment [REPT.-66-1433-25-Q13] 10 p1570 N67-20535
Coprecipitation of plutonium with lanthanum oxalate from mixed solutions of nitric and oxalic acids 21 p3776 N67-35495
Coprecipitation of plutonium with lanthanum oxalate from mixed solutions of nitric acid and ammonium oxalate 21 p3776 N67-35496
OXALIC ACID
Preparation and testing of improved peroxyoxalate systems, oxalic acid derivatives, and fluorescers for chemiluminescence optimization [REPT.-66-1433-25-Q14] 13 p2271 N67-25979
OXANE
Polymerization of troxane, tetroxane, and N-vinyl carbazole in chlorine and sulfur dioxide electron acceptors 11 p1806 N67-22342
Synthesis and polymerization of trioxane derivatives obtained by cotrimerization of formaldehyde and acetaldehyde 11 p1807 N67-22346
OXIDASE
Catalytic function evolution of glutamate oxidase system [NASA-TT-F-10679] 06 p1227 N67-18931
Radiation effect on oxidasic activity of human serum in presence of paraphenylene diamine [LFEN.57/ALPHA/] 08 p1230 N67-19207
OXIDATION
SA COMBUSTION
SA ELECTROCHEMICAL OXIDATION
Oxidation and chlorination of uranium oxide and plutonium oxide [ORNL-3977] 01 p0031 N67-10732
Phenomena occurring during employment of oxidation catalysts and adsorbents in air purification [MEL-264/66] 01 p0035 N67-11019
Oxidation kinetics of pure titanium in air at high temperatures 02 p0271 N67-11775
Oxidation kinetics and formation of gas saturated layers in titanium alloys in air at high temperatures 02 p0272 N67-11776
Effect of gas saturated layers on strength and plastic properties of titanium alloys 02 p0272 N67-11777
Effects of ionizing radiation on oxidation states of biological systems [SRI-65-1755] 02 p0214 N67-12192
Reaction geometry in oxidation and reduction of alkaline silver electrode [NASA-CR-80528] 03 p0360 N67-12213
Oxidation risks during uranium dioxide sintering and characterization of excess oxygen [CEA-R-3009] 03 p0361 N67-12362
Radiation-induced oxidation of methyl alcohol [UJV-1457] 03 p0363 N67-12338
Pore size variation effect on rate of radiolytic corrosion of graphite by carbon dioxide [TRG-1006/C/] 04 p0574 N67-13360
Thermodynamic processes and products in low temperature oxidations of hydrogen and carbon compounds, hydrocarbons, antiknock fuel additives, and pyrolyses of organic compounds [AGARDOGRAPH-86] 04 p0503 N67-13821
Theoretical foundations of thermodynamic oxidation reactions at low temperatures 04 p0503 N67-13822
Low temperature explosion limits of hydrogen oxidation at various pressure levels 04 p0503 N67-13823
Explosion limits for carbon monoxide oxidation in presence of water vapor and hydrogen compounds 04 p0504 N67-13824
Low temperature oxidation and explosion limits of gaseous carbon disulfide 04 p0504 N67-13825
Low temperature oxidation and explosion limits of hydrogen sulfide 04 p0504 N67-13826
Low temperature oxidation of methane and molecular combustion by-products 04 p0504 N67-13827
Oxidation processes and kinetics involving oxides of nitrogen and ozone 04 p0504 N67-13828
Literature review on hydrocarbon oxidations 04 p0504 N67-13829
Pyrolysis and gas phase oxidation of organic compounds 04 p0504 N67-13822
High temperature oxidation of metals [TID-23268] 04 p0600 N67-14020
Molecular structure effects of arylstearic acids as combination oxidation and rust inhibitors [FA-A66-11] 05 p0667 N67-15005
Silicon oxidation mechanisms 06 p0819 N67-16094
Anodic oxidation of aluminum and film hardness and color characteristics [ERDL-T-1633-66] 06 p0894 N67-16125
Hydroxly radicyl initiated chain oxidation of iron ion in air saturated acid solutions containing alcohols studied after pulse electron irradiation 06 p0823 N67-16264
Chain processes in gamma irradiated solutions containing ethyl alcohol 06 p0824 N67-16273
Contamination exposures of columbium, zirconium, and tantalum alloys under conditions of low pressures and high temperatures [NASA-CR-54934] 06 p0896 N67-16673
Least squares method for determining isothermal rate constants for oxidation of metals [NAA-SR-MEMO-11966] 07 p1046 N67-17494
Oxidation of metal electrodes as velocity of moving arc [RAE-LIB-TRANS-1181] 07 p1168 N67-17685
Crystallographic studies of aluminum and copper oxidation products [QR-2] 08 p1290 N67-18888

High temperature oxidation of silicides of rare earth metals
[NASA-TT-F-10663] 08 p1236 N67-16927
Oxidation characteristics of refractory metals for use as hot getters in sodium coolant purifying systems 09 p1458 N67-19587
Initial steps in oxidation of nickel surface studied using low energy back-reflection electron diffraction
[NASA-CR-83951] 09 p1462 N67-19948
Alloy strengthening by fine oxide particle dispersion and splat cooling process for alloy development
[NASA-CR-83972] 09 p1462 N67-19961
Surface oxidation and phase change in heat resistant nickel alloys in loaded state 10 p1650 N67-20477
Anodic oxidation of lead-acid cell compounds in dilute sulfuric acid
[NRL-6450] 10 p1556 N67-20678
Oxidation, thermal cycling, and irradiation effects on silicon carbide coated graphite
[BNWL-343] 10 p1660 N67-20723
Oxidation rate of praseodymium foil in pure oxygen
[AWRE-O-72/66] 10 p1578 N67-21512
Kinetics of thulium oxidation by oxygen and water vapor
[IS-T-121] 10 p1579 N67-21544
Heat transfer, oxidation, and vaporization rates for metal particles during hypersonic reentry
[R66SD82] 10 p1650 N67-21880
Inhibiton of thermal reaction between hydrogen and oxygen
[AFOSR-67-0678] 12 p2048 N67-24936
Sulfur oxidation in desert soils due to bacterial activity
[NASA-CR-83817] 13 p2256 N67-25673
Factors controlling catalytic activity of platinum black toward anodic oxidation of saturated hydrocarbons
[AD-648727] 14 p2476 N67-26974
Gas chromatographic method for analysis of intermediate oxidation products of n-heptane
[RAE-LIB-TRANS-1208] 15 p2654 N67-27797
Controlled oxidation of aluminum and iodation of copper
[EURAEC-1619] 15 p2723 N67-28214
Relation between modifications observed in zirconia during electrotransport tests and during zirconium oxidation
[NP-TR-1407] 15 p2781 N67-28452
Release rates and median mass diameter for ignited and oxidized bulk metallic plutonium pieces
[BNWL-357] 15 p2805 N67-28599
Oxidation protection of tantalum and niobium by silicide coatings
[NASA-CR-84874] 15 p2884 N67-28937
Vacuum microbalance and electron diffraction methods of studying fast oxidation reactions of refractory metals
[AROD-4067-3-MC] 15 p2729 N67-28977
Radiochemical oxidation of cyclohexane and related hydrocarbons
[UJV-1705] 16 p2844 N67-29330
Oxidation rate of niobium and niobium-zirconium alloys under low pressures and high temperatures
[NASA-CR-72264] 16 p2914 N67-30151
Oxidation and reactivity of refractory metals with water vapor
[FDTR-TM-67-1] 17 p3078 N67-30268
Surface electric properties of oxidized clean single crystal and polycrystalline chromium films
[TM-592] 17 p3236 N67-30525
Tabulated oxidation potentials for various transition elements
[NASA-CR-85811] 17 p3019 N67-31287
Early chemical events in photosynthesis - kinetics of oxidation of cytochromes of types c or f in cells, chloroplasts, and chromatophores 18 p3204 N67-31755
Light-induced oxidation-reduction reactions of cytochromes in living thalli, cells, and isolated plastids of red algae 18 p3204 N67-31756
Oxidation of unsaturated lipids by isolated sugar beet chloroplasts 18 p3209 N67-31783
Oxidation of suspended carbon spheres at normal pressure
[F567-2/U/] 18 p3236 N67-32541
Zirconium oxidation at moderate temperatures, and electronic control of oxidation
[ANL-7252] 19 p3393 N67-33414
Catalytic effect of copper, chromium, manganese, iron, nickel, arsenic, cerium, and sulfate ions on oxidation of plutonium III by chlorine in hydrochloric acid solution
[AEET-275] 19 p3394 N67-33515
Products of radiation initiated sulphoxidation of dodecane - biodegradable detergent
[AERE-R-5434] 20 p3567 N67-34043
In-reactor oxidation of zirconium alloys in pH-10 lithium hydroxide and pH-10 ammonium hydroxide
[BNWL-SA-822] 20 p3678 N67-34075
Chemical reactions of uranium, uranium dioxide, and uranium carbide with air and water vapor in temperature range from 600 to 1200 deg C
[BMWF-FBK-67-13] 20 p3566 N67-34126
Literature survey and electrolyses testing for anodic oxidation of silver covered copper wire in contact with glycol/water solution
[NASA-CR-65681] 20 p3598 N67-35222
Surface treatment of zirconium alloys by oxidizing fused salts
[EUR-3476.F] 20 p3662 N67-35272
Kinetics of tantalum cluster ion oxidation by cobalt /III/ complexes in acidic solution
[IS-T-165] 21 p3775 N67-35437
Surface area effects on oxidation kinetics of pyrolytic graphite
[AMRA-TR-67-30] 21 p3873 N67-35601
High temperature oxidation of chlorophenylmethyl silicone fluids for aircraft hydraulic systems
[RAE-TR-66011] 21 p3793 N67-36607
Oxidation and pyrolysis of ethylene in shock waves
[AD-656040] 22 p3984 N67-37004
Feasibility of wet oxidation for spacecraft waste treatment and water recovery
[NASA-CR-66450] 22 p3978 N67-37030
Oxidative thermal stability of fiber reinforced borane based resin composites
[TR-38] 22 p4075 N67-37059
Oxidation kinetics of heated titanium alloys prior to plastic deformation 22 p4065 N67-37138
Surface roughness and surface oxidation affecting radiant properties of platinum and stainless steel
[REPT.-6-77-67-27] 22 p4073 N67-37706
Oxidation-reduction reactions and electron transfer between metal ions in solution
[COO-1001-14] 22 p3993 N67-37961
Scale resistance of titanium-aluminum alloys during oxidation at high temperatures
[NASA-TT-F-11303] 22 p4074 N67-38055
Phenylene diamines used as artificial electron donors, and quinones used as electron acceptors in photosynthesis reactions
[AFCRL-67-0442] 23 p4200 N67-38236
Aging mechanisms in thin film resistors - use of vacuum deposited chromium films to study various gas-metal interaction stages during oxidation 23 p4329 N67-38469
Experimental investigation to evaluate high temperature performance and self-generating protective oxide coating of three JT graphite composites
[NASA-TN-D-4231] 24 p4472 N67-39621
Oxidation protection of niobium and tantalum by their silicides
[NASA-CR-89635] 24 p4467 N67-40040
Catalytic effect of impurities on oxidation rate for selected artificial graphites
[NASA-TN-D-4213] 24 p4398 N67-40106
Hypersonic diffusion controlled oxidation of tungsten
[R67SD38] 24 p4468 N67-40171
Gas chromatographic analysis of stable intermediate products from slow oxidation of n-heptane in low temperature regions
[RAE-LIB-TRANS-1235] 24 p4480 N67-40348
Oxidation of zirconium-aluminum alloys
[AECL-2776] 24 p4470 N67-40546
Rate controlling processes during oxidation of zirconium alloys
[AECL-2777] 24 p4470 N67-40599

OXIDATION RESISTANCE
Oxidation resistance of zirconium boride and zirconium boride-molybdenum disilicide alloys
[ATD-66-73] 01 p0088 N67-11124
Oxidation of titanium and its alloys, and strengthening Ti alloys for use at high temperatures by using Al-Ni protective coating 02 p0276 N67-11866
Oxidation resistance tests of protective coatings for tantalum alloy
[NASA-CR-54578] 05 p0718 N67-14924
Oxidation resistant coatings tested in argon with oxygen and water vapor traces and evaluated for inert-atmosphere applications
[NASA-CR-81191] 06 p0891 N67-15689
Oxidation of nickel-aluminum and nickel-niobium alloy systems
[FTD-HT-66-129] 09 p1464 N67-20181
Development and evaluation of oxidation resistant fuel elements for gas cooled reactors 11 p1920 N67-23695
Oxidation resistance of hydraulic brake fluids - synthesis and characterization of methoxy butanol
[CCL-217] 12 p2042 N67-24690
Oxygen movement direction of corrosion of niobium system, fast neutron activation analysis, and molecular distillation rig 13 p2335 N67-25254
Orientation and hydride content on directional precipitation of hydride, texture development, oxidation-corrosion mechanisms and anisotropy, and basal pole figures in zirconium alloys 13 p2336 N67-25304
Oxydation rates and high temperature diffusion in noble metal alloy claddings for radioisotope capsules
[STL-517-0049, VOL. III] 13 p2356 N67-25517
Support facilities and transportation equipment for missile and space systems - Annotated bibliography
[BM-RI-6929] 13 p2341 N67-26359
Thermal properties, electrical and oxidation resistance, tensile strength, hardness, and workability of niobium and tantalum alloys
[BM-RI-6964] 17 p3061 N67-31178
Dispersion strengthened, nickel molybdenum, nonoxidation resistant alloy
[NASA-CR-85779] 17 p3061 N67-31329
Mechanical and thermal properties and oxidation resistance of high temperature niobium base alloys
[BM-RI-6988] 17 p3063 N67-31375
Water quenching of uranium extrusions for oxidation reduction 19 p3461 N67-32704
Corrosion kinetics and thermodynamic in presence of complexing agent - Electrochemical properties of aluminum electrode in presence of fluoride solutions
[CEA-R-3031] 19 p3390 N67-32190
High temperature reaction kinetics of tungsten and tungsten-cobalt alloy with oxygen and microstructures of metal oxides for oxidation resistant coating applications
[BM-RI-6998] 20 p3588 N67-34139
Methods for rapidly determining aircraft paint coating resistance to oxidation and photochemical degradation
[AD-654743] 21 p3874 N67-35798
Effect of thermal oxide dislocation enhancement on silicon and a proposed mode of propagation 23 p4329 N67-38469

OXIDE
SA ALKALINE EARTH OXIDE
SA ALUMINUM OXIDE
SA BERYLLIUM OXIDE
SA BORON OXIDE
SA CALCIUM OXIDE
SA CESIUM OXIDE
SA CHLORINE OXIDE
SA CHROMIUM OXIDE
SA COPPER OXIDE
SA DEUTERIUM OXIDE
SA DIOXIDE
SA ETHYLENE OXIDE
SA HAFNIUM OXIDE
SA IRON OXIDE
SA LANTHANUM OXIDE
SA LITHIUM OXIDE
SA MAGNESIUM OXIDE
SA MANGANESE OXIDE
SA MERCURIC OXIDE
SA METAL OXIDE
SA MONOXIDE
SA NICKEL OXIDE
SA NITROGEN OXIDE
SA PEROXIDE
SA PLUTONIUM OXIDE
SA PROPYLENE OXIDE
SA SELENIUM OXIDE
SA SESQUIOXIDE
SA SILICON OXIDE
SA SILVER OXIDE
SA SODIUM PEROXIDE
SA SULFUR OXIDE
SA TANTALUM OXIDE
SA THORIUM OXIDE
SA TITANIUM OXIDE
SA TUNGSTEN OXIDE
SA URANIUM OXIDE
SA VANADIUM OXIDE

SA YTTRIUM OXIDE
SA ZINC OXIDE
SA ZIRCONIUM OXIDE
Effect of phosphorus diffusion in thermal oxides on high temperature stability of metal oxide semiconductor structures 01 p0137 N67-10123
Properties of thin gold films on oxide substrates
[MT-66-1] 01 p0139 N67-10600
Reactions of oxides and carbides with metals
[UCRL-TRANS-10044] 04 p0565 N67-13988
Synthesis of new solid state materials by ultrahigh pressure techniques
[AFCRL-66-737] 07 p1106 N67-17660
Wear rates of metals, ceramics, carbides, and oxides in 80 deg and 160 deg F high purity water
[AECL-2602] 11 p1896 N67-23476
Behavior of gaseous fission products in oxide fuel elements
[WAPD-TM-570] 11 p1938 N67-23229
Dissociation pressures, related thermodynamic functions, and phase equilibria of americium oxides
[BNWL-CC-828] 12 p2037 N67-23544
Diffusion of nuclear reaction recoil products in metals and oxides
[JINR-P13-3019] 12 p2163 N67-23764
Fibering of oxides in refractory metal matrices
[NASA-TN-D-3923] 12 p2122 N67-25040
Fragmented nature of oxides in fabricated aluminum-base dispersion fuels
[ORNL-TM-1692] 13 p2337 N67-25613
Electrical behavior of refractory metal oxides
[SRL-586-A] 14 p2603 N67-26965
Small oxide particles dragged by migrating grain boundaries in copper single crystals
[TR-518] 15 p2723 N67-28109
Bonding of oxides of high temperature alloys
[NRL-6516] 16 p2907 N67-29457
Preparation of uranium carbide fuel rods from uranium hexafluoride and uranium oxide pellets
[EUR-3467.D] 17 p3107 N67-30445
Sintering, and physical properties of hot rolled oxide glass compositions
[BM-RI-6967] 17 p3067 N67-31299
Kinetics of crystallization of molten binary and ternary oxide systems
[NASA-CR-86606] 18 p3283 N67-31992
Combined effects of radiation and oxide catalysts on low temperature dehydrogenation of cyclohexane
[NASA-TT-F-11109] 19 p3397 N67-33866
Thermal conductivity data on nuclear oxide fuels
[WAPD-TM-586, REV.] 21 p3947 N67-35791
Equilibria, point defect nature, and kinetics in rare earth systems with divalent or trivalent oxides 21 p3787 N67-36327
Crystallization kinetics of molten binary and ternary oxide systems
[NASA-CR-88884] 22 p4079 N67-37659
Surface related failures of oxide-silicon interface 23 p4329 N67-38471
Positive and negative ion motion in thermal oxide on silicon by radiochemical and MOS analysis 23 p4363 N67-38472
Electron and ionic conductivity in solid oxide electrolytes
[CDQ-1440-S] 24 p4519 N67-40404

OXIDE FILM
Heat resistance and oxide film of nichrome alloy
[FTD-TT-65-1919] 01 p0086 N67-11141
Oxide film effect on dislocation-surface interactions in aluminum
[AD-640280] 05 p0752 N67-15031
Ellipsometric studies on mechanism and kinetics of thin oxide films on silicon in air
[NASA-CR-81334] 06 p0831 N67-19631
Ionic migration and transport processes of thermal growth in semiconductor oxide films 07 p1174 N67-16856
Surface oxide film growth mechanism and vacancy life time in thin crystal
[D1-82-0561] 07 p1175 N67-17038
Oxide cathode durability in mercury electron bombardment ion thrustor
[NASA-TN-D-3818] 07 p1106 N67-17502
Forming uniform thick oxide layers of Zircaloy 2 for friction and wear applications in high temperature water
[AECL-2542] 10 p1638 N67-20928
Production engineering measure for increasing reliability of aluminum electrolytic capacitors, and dielectric oxide film formation tests
[QB-1] 10 p1594 N67-21346
Vacuum evaporation of oxide films on polished metal surfaces and other metallography studies 13 p2235 N67-25375
Recrystallization and electropolishing methods for preparing zirconium dioxide foils suitable for electron microscopy transmission
[EURAEC-1600] 13 p2339 N67-25902
Vacancy formation from diffusion of metal atoms through surface oxide film and medium effect on dislocation structure
[NASA-TT-F-11000] 15 p2781 N67-28236
Oxide film formation kinetics on aluminum and its alloys
[FTD-MT-65-395] 15 p2727 N67-28640
Electrochemical corrosion of iron in aqueous solutions - anionic effects and oxide film breakdown
[ARL/MET-60] 16 p2913 N67-30105
Rectification by oxide films on zirconium alloys
[AECL-2690] 17 p3079 N67-30936
Electrical methods for determining growth and breakdown of oxide films on zirconium alloys
[AECL-2668] 17 p3080 N67-30945
Mechanism and kinetics of silicon oxidation in air-instrumentation for ellipsometry and use in determining refractive index and thickness of thin oxide films on silicon
[NASA-CR-85801] 17 p3086 N67-31050
Orienting effect of silver crystals on growth of surface oxide and peroxide films
[NASA-TT-F-11072] 17 p3150 N67-31098
Structure and growth of localized oxide films and whiskers on iron
[REPT.-67-9B6-SURFC-R1] 20 p3654 N67-34054
Electrochemical measurement of corrosion and film growth rates of crystal-bar zirconium in oxygenated potassium sulfate solution
[ORNL-TM-1834] 20 p3591 N67-34238
Electrochemical measurements and anodic film growth on iodide bar titanium
[ORNL-TM-1882] 21 p3776 N67-35443
Electrical conduction and dielectric breakdown in rare earth oxide thin films 21 p3922 N67-36374
Defect structure of gamma ray irradiated borate glasses
[NSJ-TR-85] 23 p4366 N67-38927
Rate controlling processes during oxidation of zirconium alloys
[AECL-2777] 24 p4470 N67-40599

OXIDIZER
SA HIGH ENERGY OXIDIZER
SA LIQUID OXIDIZER
SA PROPELLANT OXIDIZER
Detonation in liquid fuel spray with gaseous oxidizer
[NASA-CR-80008] 02 p0226 N67-12158
Advanced oxidizer chemistry dealing with oxygen fluorides
[IITRI-C227-16] 05 p0065 N67-14748
Hazards monitoring sensors selection and locations for Apollo fuel transfer and tanking system - hypergolic and cryogenic fuel and oxidizer systems
[NASA-CR-80054] 05 p0754 N67-14915
Combustion of mixtures containing potassium perchlorate oxidizer and metal fuels in vacuum
[ATD-66-76] 06 p1300 N67-18215
Carbon rug rings used to eliminate metal-metal rub of inducer on housings in rocket engine oxidizer pump
[NASA-CR-83547] 11 p1970 N67-23274
Chemical composition, production, and properties of oxidizer salts for composite solid propellants 12 p2197 N67-24385
Isotope fuel and catalyst selection for optimum isotope heated catalytic oxidizer system /ICHOS/ for control of trace contaminants
[NASA-CR-66346] 16 p2965 N67-30162
Chemiluminescent performance of STELLER and derivatives mixed with ceric ammonium sulfate oxidizer in night signaling and marking applications
[TRW-05286-6004-R000] 19 p3388 N67-32789
Oxidizing acids for disintegration of fuel elements in gas cooled high temperature reactor
[SGAE-CH-45/1967] 20 p3686 N67-35245
Molecular structure and reaction kinetics of oxygen fluorides
[IITRI-C227-18] 21 p3781 N67-35671

OXYGEN
SA AIRCRAFT BREATHING APPARATUS
SA HIGH PRESSURE OXYGEN
SA LIQUID OXYGEN /LOX/
SA OZONE
Spleen oxygen tension and radiation protection in mice
[AD-632372] 01 p0015 N67-10417
Ignited clothing fire risk to man in oxygen rich environment
[FPRC/MEMO-223] 01 p0015 N67-10471
Oxygen influence on mechanical properties of niobium-zirconium alloys
[IS-T-92] 01 p0084 N67-10630
Solubility and diffusion of oxygen in refractory metals measured by electrical resistivity
[NASA-CR-54649] 01 p0085 N67-10768
Elastic scattering of 1 BeV protons from helium and oxygen
[BNL-10438] 01 p0129 N67-10843
Surface properties of atomically clean metals and semiconductors - oxygen adsorption effects on cadmium sulfide surface
[REPT.-9] 01 p0142 N67-11022
Absolute measurements of total cross sections for scattering of low energy electrons by atomic and molecular oxygen
[AD-639196] 01 p0131 N67-11185
Atomic oxygen production by thermal decomposition of dry ozone
[BRL-R-1323] 02 p0234 N67-11397
Increased oxygen pressure effect on erythropoiesis in white mice and rats 02 p0209 N67-11672
Influence of oxygen on electrical properties of cadmium sulfide single crystals in ultrahigh vacuum
[AROD-4461-13] 02 p0236 N67-11676
Calculation of oxygen dissolution kinetics in titanium 02 p0272 N67-11776
Carbon 13 alpha-neutron oxygen 16 and vanadium 51 proton-neutron chromium 51 reactions 02 p0434 N67-12556
Microwave absorption spectrum of molecular oxygen
[NASA-CR-80152] 02 p0269 N67-12917
Determination of oxygen content of refractory oxides by sulfur monochloride method
[EUR-3077.f] 04 p0501 N67-13738
Helium 8 production and decay in negative pion capture by carbon and oxygen nuclei using photographic emulsion
[JINR-E-2774] 04 p0391 N67-14088
Effect of low density inert gas flush on oxygen-niobium reaction
[NASA-CR-80980] 05 p0697 N67-14895
Two-particle spin-orbit nucleon-nucleon interaction of oxygen 16 and nitrogen 16 nuclei
[NASA-CR-81659] 05 p0742 N67-15023
Viscosity and thermal conductivity coefficients for dilute nitrogen and oxygen
[NASA-CR-81128] 05 p0697 N67-15214
Model Hamiltonian for neutron scattering resonance in shell model of molecular oxygen
[NASA-CR-81154] 06 p0919 N67-15896
Alpha-particle stripping cross section from nuclei of beryllium 9, carbon 12, and oxygen 16 06 p0921 N67-15971
Radiative capture, inelastic scattering, and polarization in reactions of nucleons with nuclei described by optical model 06 p0923 N67-15981
Gamma ray yields resulting from Coulomb excitation of nuclei having atomic weights in range of 23 to 60 and using heavy ion oxygen 16 bombardment 06 p0926 N67-15816
Gas flow permeability of nuclear grade graphite to argon, helium, hydrogen, oxygen, and nitrogen
[AERE-R-3994] 06 p0818 N67-15788
Kinetic energy distribution of negative ions formed by dissociative attachment and measurement of electron affinity of oxygen
[TR-34] 06 p0943 N67-16420
Voltage measurements of oxygen/peroxide couple on bright platinum for evaluating possible use as fuel cell at deep sea ambient conditions
[MEL-TM-447/66] 06 p0829 N67-16471
Photoionization of oxygen as possible mechanism for precursor phenomenons ahead of argon shocks 07 p1161 N67-16949
Characteristics of metabolism and conditioned reflex activity of mice during

prolonged stay in helium-oxygen atmosphere
[NASA-TT-F-10617] 07 p1011 N67-17516
Theoretical photodetachment cross section for negative atomic oxygen ion
[NASA-CR-69646] 07 p1156 N67-17774
Centered one-dimensional unsteady expansion of vibrationally relaxing nitrogen-oxygen mixture
[NASA-TN-D-3865] 07 p1067 N67-17796
Molecular vibrational relaxation effect on structure of unsteady rarefaction waves in oxygen and oxygen/argon mixtures
[ARC-CP-720] 08 p1264 N67-18265
Interactions between hydrogen and oxygen atoms and surfaces
[GA-7467] 08 p1329 N67-18297
Common temperature of oxygen, helium, and hydrogen ions in ionosphere
08 p1276 N67-18427
Differential scattering of neutrons from oxygen and intermediate states
[ORNL-P-2434] 08 p1322 N67-18582
Neutron activation determination of oxygen in steel on industrial scale with similar possibilities for determining nitrogen and hydrogen in steel
[EUR-3161.F, VOL. I] 08 p1240 N67-19186
Apparatus, conditions, and results of tests designed to determine industrial application possibilities of neutron activation analysis for determining oxygen content in steel
[EUR-3161.F, VOL. II] 08 p1241 N67-19189
Fabric and solid burning rates in hyperbaric atmospheres containing oxygen, nitrogen, and/or helium
[NRL-6470, PT. 1] 08 p1285 N67-19227
Corrosion mechanisms in niobium oxygen potassium system 09 p1458 N67-19586
Physical and analytical chemistry of carbon, nitrogen, and oxygen in alkali metals 09 p1458 N67-19589
Adequacy of gaseous oxygen ion model for predicting response of D region recombination to ionizing radiation
[LMSC-3-12-66-6] 09 p1440 N67-19613
Excited states of molecular oxygen studied by molecular beam magnetic resonance techniques
[CAL-RM-2156-P-1] 09 p1492 N67-19801
Catalysts of improved activity and thermal stability for low temperature ignition of oxygen-hydrogen mixture
[NASA-CR-72118] 09 p1410 N67-19876
Thermophysical properties of argon, oxygen, and nitrogen at cryogenic temperatures
[NASA-CR-82961] 09 p1504 N67-19907
Charge transfer of nitrogen and oxygen molecular ions with sodium atoms
[NASA-CR-82858] 09 p1490 N67-20250
Turbulent burning rates of methane-oxygen mixtures measured by burner with flat turbulent flame 10 p1768 N67-20447
Hartree-Fock ground state properties of helium 4, oxygen 16, and calcium 40 calculated using realistic nucleon-nucleon potentials
[PUC-937-223] 10 p1712 N67-20992
Comparative annealing behaviors of low temperature neutron-irradiated tris-acetylacetone cobalt /III/ in presence of oxygen and absence of nitrogen
[AEET-256] 10 p1655 N67-21503
Oxidation rate of praseodymium foil in pure oxygen
[AWRE-O-72/66] 10 p1578 N67-21512
Kinetics of thulium oxidation by oxygen and water vapor
[IS-T-121] 10 p1579 N67-21544
Adsorption of oxygen on polycrystalline tungsten ribbon at temperatures from 300 to 850 deg K
[WERL-3823-23] 10 p1753 N67-21621
Comparison of measuring apparatus for oxygen concentration determination in liquid sodium
[LA-DC-7743] 10 p1580 N67-21657
Specific heat ratios and isentropic exponents for constant volume combustion of stoichiometric mixtures of hydrogen-oxygen diluted with helium or hydrogen
[UTIAS-TN-103] 10 p1773 N67-21734
Modification of effective particle-hole interaction by core polarization
[AD-645342] 10 p1731 N67-21731
Effect of impurity oxygen on liquid metal corrosion of molybdenum
[IS-1356] 10 p1638 N67-21834
Design of absorption towers for dissolving oxygen and hydrogen in aqueous potassium hydroxide 11 p1785 N67-22168
Monocarbide mononitride monoxide region of quaternary system investigated in production of high temperature nuclear reactor fuels 11 p1888 N67-22291
Microscopic distribution of oxygen and carbon in metals by helium-3 activation
[LA-3515] 11 p1895 N67-22301
Effects of dissolved oxygen on mechanical properties of zirconium-2.5 weight percent niobium alloy
[AECL-3623] 11 p1898 N67-22994
Cathodic behavior of oxygen-peroxide system on platinum
[MEL-TM-8/67] 11 p1814 N67-23138
Interaction of niobium pentachloride with oxygen at temperatures above chloride melting point
[LA-TR-66-70] 11 p1815 N67-23209
Chemisorption of oxygen on molybdenum and niobium surfaces in ultrahigh vacuum
[SRIA-425.9] 12 p2039 N67-23685
Synthesis of 102 isotopes with mass numbers 256 and 255 in reactions induced by oxygen ions
[JINR-P7-3059] 12 p2040 N67-23721
Kinetics of hydrogen-oxygen and hydrocarbon-oxygen reactions
[AFOSR-67-0381] 12 p2041 N67-23931
Effects of pH on electrosorption of oxygen on fuel cell electrodes
[MEL-406/66] 12 p2018 N67-24485
Energy level of oxygen-19 nucleus calculated with nucleon interaction model and group theory techniques
[NP-16415] 12 p2172 N67-24698
Zenith distance effects on atmospheric absorption due to water vapor and oxygen at 17 GHz frequency 12 p2311 N67-25152
Oxygen deficit incurred during hypoxia and its relation to excess lactate level
[SAM-TR-66-107] 13 p2154 N67-25405
Reactions of oxygen ions in helium-oxygen and helium-oxygen-nitrogen mixtures
[AFCRL-67-0092] 13 p2371 N67-25452
Compatibility of artificial gas mixtures under high and low pressures, and dependence on carbon dioxide and oxygen partial pressure of inert gases
[DGRR/WGLR PAPER-66-690] 13 p2363 N67-25636
Photoelectron energy distribution from molecular oxygen measured by partial photoionization cross sections 13 p2375 N67-25693
Photo-absorption cross sections of molecular oxygen between 1050 to 2350 angstroms 13 p2375 N67-25694
Improved oxygen electrode for use in alkaline hydrogen peroxide fuel cells
[NASA-CR-84012] 13 p2373 N67-26263
Physics from stratosphere to lower thermosphere - reaction between ozone and oxygen
[A-97-1965] 13 p2317 N67-26449
Electric conductivity produced in air and oxygen by intense high energy electron beam
[UCRL-50137] 14 p2586 N67-26822
Thermodynamics of calcium-oxygen vapor phase over wide temperature range
[RM-5248-PR] 14 p2632 N67-26899
Anodic electrolysis of oxide coated gettering alloys in sodium for increasing oxygen removal rate
[UNC-5143] 14 p2477 N67-27020
Material ignition temperature in high pressure oxygen
[S+T-MEMO-13/50] 15 p2902 N67-27788
Peculiarities of spatial inhomogeneities of atomic oxygen emission at 5577 angstroms in nightglow 15 p2895 N67-27882
Rare gas fusion-gas chromatographic method for precise rapid determination of oxygen content in curium oxide and other compounds
[DP-MS-66-41] 15 p2880 N67-28497
Radiation chemistry technology - radiolysis of ammonia, oxygen, and olefin systems, and development of vacuum gas handling systems high pressure facility, and instrumentation
[JLI-2901-75] 15 p2861 N67-28582
Mach-Zehnder interferometer density measurements and piezoelectric transducer pressure measurements made to study dissociated oxygen nonequilibrium corner expansion flows
[UTIAS-134] 15 p2892 N67-28617
Gas chromatographic estimation of carbon monoxide produced during oxygen absorption by alkaline pyrogallol
[REPT.-14] 15 p2851 N67-28[illegible]
Extension of work on optical model description of nucleon-nucleus interactions by measuring polarization and differential and reaction cross sections of proton-oxygen system
[P-77] 16 p2940 N67-29[illegible]
Effect of oxygen, nitrogen, and carbon on lattice parameter uranium monocarbide
[ORNL-TR-1433] 16 p2961 N67-29[illegible]
Electrochemical and optical investigations of anodic oxygen film on platinum electrode 16 p2853 N67-29[illegible]
Emission spectra of nitrogen, oxygen, and atmospheric mixture of nitrogen and oxygen excited by proton impact 17 p3013 N67-30[illegible]
Phase relations in uranium monocarbide region of ternary system uranium carbon oxygen at 1700 deg C
[BI-6966] 17 p3015 N67-30[illegible]
Influence of oxygen on structure of silicon single crystals during short and prolonged heat treatment
[NASA-TT-F-11083] 17 p3149 N67-30[illegible]
Oxygen reaction with alkaline earth oxides in vacuum and thermoelectric emission
[NASA-TT-F-11129] 17 p3018 N67-31[illegible]
Preferential recombination of ions in X-ray irradiated oxygen and liquid hydrocarbons
[BMWF-FBK-66-45] 17 p3018 N67-31[illegible]
Blast furnace operation with natural gas injection and oxygen-enriched blast in production of iron
[BM-RI-6977] 17 p3074 N67-31[illegible]
Feasibility study of oxygen/hydrogen powdered metal ignition
[NASA-CR-68773] 18 p3319 N67-31[illegible]
Equilibrium specific heats and specific heat ratios, isentropic exponents and equilibrium speeds of sound for constant-volume combustion of stoichiometric mixtures of hydrogen-oxygen
[UTIAS-TN-102] 19 p3549 N67-32[illegible]
Semiempirical calculation of dissociative attachment in hot oxygen 19 p3502 N67-32[illegible]
Flight and wind tunnel experiments of nitric oxide and oxygen chemiluminescence
[MC-65-197-R2] 19 p3392 N67-32[illegible]
Fire prevention in oxygen-enriched space cabin atmospheres
[AFAPL-CONF-67-19] 19 p3385 N67-32[illegible]
Oxygen determination in metal fluorides and refractory nitrides and carbo-nitrides by inert gas fusion technique
[AERE-R-4850] 20 p3591 N67-34[illegible]
Rapid response flame detection system for combating fires in oxygen rich environments
[FPRC/MEMO-238] 20 p3640 N67-34[illegible]
Gas chromatographic determination of fluorine and oxygen in mixtures
[RFP-880] 20 p3583 N67-34[illegible]
Oxygen chemisorption and penetration of nickel surface by measuring surface potential changes
[REPT.-66-C-327] 20 p3598 N67-35[illegible]
Determining carbon, nitrogen, and oxygen impurities in silicon by activation analysis
[AFCRL-67-0227] 21 p3781 N67-35[illegible]
Electron-ion recombination in atmospheric gases and electron attachment and detachment in atomic and molecular oxygen mixtures
[RR-66-4E3-GASES-R4] 21 p3838 N67-35[illegible]
Ionization processes in atmospheric methane-oxygen flames and chemi-ionization processes induced by flash photolysis
[ARL-67-0155] 22 p3964 N67-36[illegible]
Oxygen content effect on mechanical properties of titanium aluminum alloy 22 p4064 N67-37[illegible]
Feasibility of integrated carbon dioxide and water electrolysis system for oxygen recovery
[AMRL-TDR-66-186] 22 p3979 N67-37[illegible]
Preparation of oxygen-17 and oxygen-18 enriched water from enriched nitric oxide gas
[LA-3698] 22 p3988 N67-37[illegible]
Low temperature adsorption of oxygen on sintered plutonium dioxide surface
[RFP-915] 22 p3989 N67-37[illegible]
Singularity of thermodynamic quantities at liquid-vapor critical point of argon, nitrogen, and oxygen
[LA-TR-66-79] 22 p4167 N67-37[illegible]
Vacuum distillation method for determination of oxygen in sodium, and determination of hydrogen in sodium by means of diffusion indicator
[ORNL-TR-1612] 22 p3994 N67-38[illegible]

Nuclear magnetic resonance relaxation of oxygen 17 in aqueous solutions of ferric ion
[UCRL-17561] 23 p4206 N67-38863
Secondary rechargeable zinc-oxygen battery for spacecraft
[NASA-CR-89311] 23 p4183 N67-39070
Oxygen self-diffusion profile in solid uranium dioxide samples
[CEA-R-3179] 23 p4271 N67-39250
Auroral molecular oxygen dissociation and infrared hyroxyl emission
[NASA-TM-X-55975] 24 p4435 N67-39394
Elastic scattering of protons by oxygen-16 and comparison with optical model
[P-50] 24 p4498 N67-39407
Coadsorption of cesium and fluorine on tungsten, and analysis of mechanisms leading to decay of field emission current from low work function zirconium/oxygen coated tungsten emitter
[NASA-CR-89661] 24 p4514 N67-39579
Gas chromatography for quantitative oxygen content determination in refractory oxides
[DP-1115] 24 p4397 N67-39855
Improved oxygen electrode for alkaline hydrox fuel cells
[NASA-CR-89748] 24 p4400 N67-40300
Monochromator measurements of oxygen absorption coefficients at various wavelengths
[NASA-TN-D-4225] 24 p4532 N67-40429
OXYGEN AFTERGLOW
Free electron behavior, dependence on temperature, and ionospheric radiowave propagation control studied in oxygen plasmas
[AFCRL-67-0181] 17 p3141 N67-30437
OXYGEN APPARATUS
Pressurized cabins and oxygen equipment for high altitude flights 03 p0352 N67-12497
OXYGEN ATOM
Fractionation factors and partition functions for stable isotopes of nitrogen and oxygen
[NYO-3462-2] 04 p0507 N67-14039
Spectral absorption coefficients of carbon, nitrogen, and oxygen atoms tabulated for use in radiant energy transfer calculations
[NASA-CR-73049] 06 p0935 N67-15686
Temporal solutions of photochemical equations describing distribution of ozone and atomic oxygen in oxygen atmosphere and application to auroral events
[NASA-TM-X-55651] 06 p0876 N67-16552
Particle decay widths and energy shifts due to continuum transitions calculated for oxygen-16
[NASA-CR-81347] 06 p0941 N67-16612
Chemical reactivity of hydrogen, nitrogen, and oxygen atoms at temperatures below 100 deg K
[NASA-CR-82983] 09 p1414 N67-20377
Simulation of chemiluminescent reaction of nitric oxide with atomic oxygen in supersonic low density wind tunnel
[AEDC-TR-66-254] 10 p1628 N67-21857
Singlet-D atomic oxygen reaction with alkanes, Coulomb integral of continuum functions, and rigid motions in conformal space-time 12 p2038 N67-23459
Particle continuity equations for hydrogen and oxygen positive ions solved for determining ion composition and temperature in topside ionosphere
[NASA-TM-X-55789] 12 p2092 N67-23964
Propyl alcohol formation in gamma radiated carbon dioxide-propane mixtures for oxygen atom reactions with hydrocarbon
[AERE-R-5336] 15 p2854 N67-27781
Two-configuration approximation for atomic species of O, F, Ne, Na, and Mg - dipole strengths and transition probability
[T-R-534] 17 p3123 N67-30201
Infrared chemiluminescence and vibraluminescence from low pressure gas phase nitric oxide-oxygen atom reaction system 17 p3012 N67-30271
Structural elements for building living organism, and chemical interaction between atoms of hydrogen, oxygen, carbon, nitrogen, sulfur, and phosphorus 20 p3580 N67-35267
Stirred reactor-mass spectrometric technique to determine rate constants and activation energies of carbon monoxide reactions with hydroxyl radicals and oxygen atoms
[NASA-TN-D-4162] 21 p3781 N67-35735
Surface structures and work function changes in oxygen adsorption on tungsten/100/
[NYO-3830-1] 22 p4127 N67-37234
OXYGEN BREATHING
Blood system reaction of dogs of various ages to partial oxygen pressure, and development of protective erythrocyte reactions to effects of hypoxia 02 p0189 N67-11488
Bioelectric activity changes in myocardium after breathing oxygen under pressure, based on vectorometic analysis of EKG 02 p0203 N67-11614
Long term effects of space cabin simulated oxygen breathing on rat physiology and reproduction
[SAM-TR-66-90] 07 p1013 N67-17875
Altitude influence on anaerobic and aerobic capacities of working men
[NASA-CR-83536] 11 p1794 N67-23352
Prior oxygen breathing effect on time of useful consciousness during hypoxia in rabbits
[RAE-LIB-TRANS-1225] 20 p3572 N67-34343
Oxygen breathing and compressed air treatment evaluated for prevention of decompression sickness of tunnel workers
[DVL-663] 22 p3968 N67-36782
Rat lung changes resulting from prolonged exposure to 100 percent oxygen at 550 mm mercury
[NADC-MR-6710] 24 p4382 N67-39880
Development and evaluation of respiration rate transducers for aircraft environments
[NASA-TN-D-4217] 24 p4389 N67-39753
OXYGEN COMPOUND
SA DIOXANE
SA OXIDE
Catalysts prepared and tested for improving oxygen electrode in alkaline hydrox fuel cells
[NASA-CR-80345] 03 p0335 N67-12983
Thermodynamic properties for compounds of the elements carbon, hydrogen, nitrogen, oxygen, phosphorus, and sulfur
[NASA-CR-83875] 13 p2270 N67-25864
Fluorocarbonyl hypofluorite synthesis and properties
[TR-61] 17 p3011 N67-30348
Tensiometric studies of cerium-terbium-oxygen system 21 p3786 N67-36236
Magnetic structure of iron-terbium-oxygen compound 21 p3920 N67-36237
OXYGEN CONSUMPTION
Mathematical modeling of oxygen consumption by human body during physical work 02 p0186 N67-11462
Blood changes in mice exposed to nitrogen-oxygen and helium-oxygen atmospheres 02 p0190 N67-11493
Prolonged effects of hyperoxic environments on level of acetylcholinesterase in brain of mouse 02 p0192 N67-11513
Decrease in speed of conditioned reflexes and motor reaction accompanied by increase in oxygen consumption by mice exposed to helium enriched oxygen environment for prolonged period of time 02 p0192 N67-11517
Mathematical and graphical expressions describing mans requirements for food, water, and oxygen in any terrestrial environment 03 p0239 N67-12443
Oxygen consumption and body temperature of Eskimos during sleep
[AAL-TR-66-10] 05 p0659 N67-15271
Hypoxia, and high altitude oxygen consumption requirements for flying personnel
[AM-66-28] 07 p1023 N67-17923
Design, fabrication, and feasibility testing of prototype airborne respiration analyzer for measuring respiration products and oxygen consumption
[NASA-CR-741] 09 p1449 N67-19897
Decreased activity of oxidizing enzymes in tomato after gamma irradiation
[NASA-TT-F-462] 10 p1864 N67-21452
Oxygen effect on radiation-induced graft copolymerization of styrene on cotton 11 p1903 N67-22221
Effects of inert nitrogen, helium, and argon on oxygen consumption of yeast cells and rat liver
[SAM-TR-66-109] 12 p2028 N67-24810
Oxygen balance of human and white rat bodies during extended acceleration
[NASA-TT-F-10682] 16 p2234 N67-29002
Oxygen consumption of brain in rats with partially destroyed auditory system and vestibular apparatus during repeated vibration exposure 16 p2239 N67-29048
Simulated altitude experiments with male students to determine oxygen uptake and human tolerance to strenuous work and low atmospheric pressure
[DLR-FB-67-39] 20 p3580 N67-34827
Respiratory gas meter for measuring ventilation volume, oxygen consumption, and carbon dioxide production in low pressure environments
[SAM-TR-67-37] 20 p3571 N67-34195
OXYGEN DEFICIENCY
SA ANOXIA
SA HYPOXIA
Glucose absorption in small rat intestine during hypercapnic and hypoxic conditions 02 p0189 N67-11416
Thermoregulation of animal central nervous system during hypoxemia and hyperoxia 02 p0190 N67-11419
Influence of gel culture medium on reactions of organism under conditions of hypoxia and excess of carbon dioxide 02 p0194 N67-11448
Adaptive reactions of human and animal blood systems during prolonged oxygen deficiency 02 p0197 N67-11466
Acclimatization of organisms to rarefied atmospheres 02 p0199 N67-11494
Effectiveness of histamine and antihistamine compounds in preventing hypoxia in rats and mice subjected to barometric chamber and closed vessel environmental stress 02 p0199 N67-11504
Functioning changes in central nervous system, pituitary gland, and adrenal cortex of rats due to oxygen deficiency 02 p0203 N67-11611
Hypothalamus role in animal adaptation to conditions of oxygen deficiency 03 p0210 N67-11676
Oxygen deficiency effects on human body at various ages
[FTD-MT-65-222] 12 p2027 N67-24748
Dependence of altitude tolerance of rats on phosphorylation processes 23 p4194 N67-39105
OXYGEN DETECTOR
Engineering model of ultraviolet oxygen detector for photoelectric measurements of partial oxygen pressure
[AM-2360-201] 01 p0025 N67-10089
Neutron activation methods applied to determining oxygen content in steel, and cost comparison for use of nuclear and conventional equipments by industry
[EUR-2161.F, VOL. III] 08 p1239 N67-19067
OXYGEN FLUORIDE
Advanced oxidizer chemistry dealing with oxygen fluorides
[IITRI-C227-16] 05 p0665 N67-14748
Reaction between oxygen difluoride and diborane 08 p1253 N67-18325
Structure and decomposition kinetics studied of dioxygenyl metal fluorides, nitrogen oxides, and oxygen fluorides
[IITRI-C227-17] 13 p2271 N67-25976
Molecular structure and reaction kinetics of oxygen fluorides
[IITRI-C227-18] 21 p3781 N67-35671
Critical review of published information of physical and thermodynamic properties of liquid oxygen difluoride and liquid diborane
[NASA-CR-88519] 23 p4131 N67-37529
OXYGEN MASK
Physiological protective efficiency on prototype disposable passenger oxygen mask
[AM-66-7] 07 p1022 N67-17929
Sierra, hanging, quick-don, crew, pressure breathing oxygen mask
[AM-66-30] 07 p1023 N67-17931
Protective efficiency of oxygen masks used in civil aviation
[FAA-AM-67-3] 24 p4388 N67-39724
Performance characteristics of phase diluting constant-flow rebreathing oxygen mask
[AM-67-9] 24 p4389 N67-39864
OXYGEN METABOLISM
Storage of oxygen by tissues under increased partial oxygen pressure - electroencephalographic activity of rabbit brain 02 p0184 N67-11443
Oxygen saturation in blood of humans performing various tasks in high altitude environment 02 p0188 N67-11481
Acute hypoxia and distribution of oxygen in blood of cats in various gaseous mixtures with reduced oxygen contents 02 p0190 N67-11496
External respiration in men who are acclimated to high altitude conditions, and gaseous metabolism in simulated extreme

levels of atmospheric rarefaction 02 p0190 N67-11497
Helium replacement of nitrogen in chamber without regenerative oxygen supply increases lifespan of rabbits in simulated atmosphere 02 p0191 N67-11503
Oxygen partial pressure dynamics in brain during normal breathing conditions, after undergoing anoxia, and during disturbances of blood circulation in brain 02 p0193 N67-11525
Mexamine effect on gaseous metabolism of animals under conditions of changed gaseous environment 02 p0194 N67-11532
Influence of vibrational stimuli on functional interrelationships between brain and central nervous system and oxygen metabolism in sensory-motor and visual areas 02 p0200 N67-11585
Disturbances of tissue respiration under conditions of increased gravitation 02 p0200 N67-11587
Role of bioelectric activity of muscles, oxygen consumption, and body temperature in heat production and energy exchange 02 p0201 N67-11592
Oxygen supply to cell mitochondria under variable atmospheric pressure 12 p2025 N67-24427
Oxygen metabolism of brain, its bioelectric capacity, and conditioned reflexes of rats following vibration exposure 16 p2829 N67-29249
Respiratory changes and oxygen metabolism in rats exposed to vibration 16 p2829 N67-29250
Reaction kinetic models for enzyme oxygen metabolism [DISS-3696] 18 p3224 N67-32101
Changes in oxygen metabolism of muscular and brain tissues of animals exposed to prolonged accelerations [NASA-TT-F-11135] 18 p3212 N67-32317
Oxygen metabolism of animals exposed to prolonged accelerations 23 p4190 N67-39010
Species characteristics of thermogenesis in rodents during rewarming process after hypothermia [DRB-T-471-R] 24 p4381 N67-39514

OXYGEN PRODUCTION

Extraterrestrial biophysical and biological studies in West Germany - scientific satellite experiment, space simulation effects on animals, plants, and microorganism, and future projects 12 p2024 N67-24424
Air regeneration in closed ecological systems during space flight 12 p2032 N67-24436
Oxygen evolution in algae illuminated by modulated light 18 p3208 N67-31777
Reducing side of oxygen-evolving photoact 18 p3208 N67-31779
Electrochemical reduction of carbon dioxide - oxygen generation system having only liquid waste products for application in submarine atmospheric regeneration unit [AD-654146] 19 p3384 N67-33539
Review of methods used for electrolytic production of oxygen in nuclear powered submarines 19 p3385 N67-33768
Oxygen reclamation system with electrolysis cell for reduction of carbon dioxide on manned spacecraft [NASA-CR-65463] 21 p3772 N67-35768

OXYGEN RECOMBINATION

Oxygen recombination and control of electrodes for spacecraft nickel-cadmium cells [NASA-CR-80480] 03 p0335 N67-13133
X-ray diffraction and oxygen coordination about beryllium in yttrium and other berylliates 13 p2366 N67-25354
Halogen atoms and singlet molecular oxygen in atom recombination studies [AFOSR-67-1290] 20 p3594 N67-34572
Atomic-molecular oxygen ratio and recombination rates at upper atmospheric pressures [NASA-CR-89563] 24 p4437 N67-39635

OXYGEN REGULATOR

Development of pressurized antigravity suit with oxygen regulator for flying personnel high altitude protection [FPRC/1233] 01 p0023 N67-10479
Oxygen regulation in organism under influence of barometric pressure and long-acting accelerations 02 p0207 N67-11643

OXYGEN SENSOR

Performance characteristics of electrochemical cell for oxygen content measurement and removal in sodium test systems 09 p1407 N67-19583

OXYGEN SPECTRUM

Oxygen and nitrogen lines in solar spectrum [AFCRL-67-0095] 19 p3531 N67-32716
Forbidden oxygen lines in solar spectrum [SR-2] 19 p3531 N67-32718
Nightglow spectral line shape of oxygen lambda 6300 and lambda 5577 radiation measured with Fabry-Perot interferometer [NASA-CR-89317] 23 p4246 N67-39053

OXYGEN SYSTEM

Physiological, psychological, and microbiological aspects of 34 days confinement, including 30 days each in fully pressurized suits and in simulated altitude of 27,000 ft in pure oxygen [NASA-CR-708] 07 p1021 N67-17601
Aims and methods of program to determine effects of pure oxygen atmosphere on aviators confined for 34-days, with periods at high altitude and at sea level 07 p1011 N67-17602
Inverse relationship between retinal blood vessel caliber and oxygen level, creatinine level variations, and buildup in microorganisms during confinement of aviators in pure oxygen 07 p1011 N67-17603
Blood cell counts, hematocrits, and hemoglobin concentrations of subjects exposed to pure oxygen environment 07 p1011 N67-17606
Biochemical responses of humans exposed to pure oxygen environment at simulated altitude of 27,000 feet 07 p1012 N67-17607
Effects of diet and pure oxygen environment on types and frequency of microorganisms in humans 07 p1013 N67-17613
Hydrogen-oxygen electrolytic regenerative fuel cells as secondary batteries [NASA-CR-83798] 13 p2348 N67-25486
Air conditioning, oxygen regeneration, and food and water recovery life support systems for manned space flight vehicles 13 p2386 N67-26475
Phase behavior, crystal structure, and vaporization of titanium varadium oxygen system [COO-1140-152] 15 p2655 N67-27911
Structure of cerium oxygen nitrogen system [COO-716-026] 15 p2655 N67-27916
Oxygen supply system for manned space enclosures using catalytic decomposition of hydrogen peroxide [AMRL-TR-66-169] 18 p3217 N67-32347

OXYGEN TENSION

Bioelectric reactions and oxygen tension in brain areas during hypoxia 02 p0188 N67-11474
Dynamics of oxygen in organisms - change in oxygen tension related to changes in external environment 02 p0195 N67-11543
Renal lymph oxygen tension in dogs during graded renal ischemia [NASA-CR-79736] 03 p0347 N67-13015
Hematologic effects of increased oxygen tensions on humans and laboratory animals 14 p2454 N67-26729
Psychopharmacological evaluation of effects of prolonged exposure to oxygen atmospheres on performance of subhuman primates 14 p2454 N67-26730
Response of animals to toxic materials under conditions of reduced pressure and varying partial pressures of oxygen 14 p2454 N67-26731
Kidney parenchymal oxygen tension in dogs determined by renal lymph cannulation [NASA-CR-89647] 24 p4382 N67-39647

OXYGEN TOXICITY

Toxic effect of high oxygen pressures on animals [FTD-TT-65-1983] 01 p0020 N67-11154
Electron microscopic and morphometric study of rat lungs exposed to oxygen - pulmonary pathology of oxygen toxicity [ASR-1] 07 p1009 N67-17196
Rabbit intoxication by high pressure oxygen [NASA-TT-F-10758] 12 p2026 N67-24450
Effect of oxygen on dog plasma sulfhydryl groups in vitro [SAM-TR-67-5] 14 p2450 N67-26495
Mortality response of rats to environments of increased partial pressure of oxygen or decreased total pressure 14 p2452 N67-26720
Effect of species, age, strain, and individual susceptibility on type and severity of pulmonary lesions induced in animals after exposure to oxygen at near ambient pressures 14 p2452 N67-26722
Hematologic and serum chemistry clinical parameters for animals exposed to oxygen environments for long periods 14 p2452 N67-26723
Pathology of animals exposed to pure oxygen atmosphere at reduced pressure for prolonged periods 14 p2453 N67-26724
Pathology of animals exposed for 235 days to 5 psia 100 percent oxygen atmosphere 14 p2453 N67-26725
Electron microscopic and morphometric studies of rat lungs after exposure to oxygen at atmospheric pressure and 258 torr 14 p2453 N67-26726
Electron microscopic studies of livers of rats, dogs, and monkeys after prolonged exposure to oxygen atmospheres 14 p2453 N67-26728
Electron microscopic studies of kidneys of rats, monkeys, and dogs after prolonged exposure to hyperoxic environments 14 p2453 N67-26727
Biochemical aspects of oxygen toxicity in rats at cellular and mitochondrial level 14 p2454 N67-26728
Analysis of convulsive seizures in oxygen poisoning of animal organism [FTD-TT-65-940] 14 p2460 N67-26826
Electron microscopic and morphometric study of rat lungs exposed to 97 percent oxygen at 258 torr in controlled environment chamber [AMRL-TR-66-103] 15 p2650 N67-28050
Pathology of oxygen toxicity in monkeys [AMRL-TR-66-234] 20 p3571 N67-34369
Oxygen toxicity at cellular level in manned spacecraft [NASA-CR-88545] 22 p3972 N67-37922
Behavioral changes in rats at ground level following gestation and growth in one hundred percent oxygen at reduced pressures [SAM-TR-67-50] 23 p4186 N67-38288

OXYGEN TREATMENT

Oxygen aging exposure of finished and dyed nylon cloths [NAEC-AML-2445] 01 p0090 N67-10858
Lithium-moist air battery research with emphasis on mechanism of operation of oxygen electrode on smooth bright platinum in nonaqueous electrolytes [SAR-2] 19 p3370 N67-33506
Photodesorption of oxygen from nickel oxide at room temperature using 635, 76[illegible] and 1070 millimicron light [NASA-TN-D-4169] 21 p3791 N67-36437
Mechanics of fuming of iron-carbon melt during top-blowing with oxygen [BM-RI-7047] 24 p4457 N67-39596

OXYGEN 18

Energy level of oxygen 18 with soft core potential 03 p0436 N67-13577
Excited states of oxygen 18 at 3.63 and 3.92 MeV levels resemble vibration states in heavy nuclei and display string enhancement of E2 transitions 06 p0922 N67-18859
Oxygen 16 triton-alpha nitrogen 15 and oxygen 16 triton-proton oxygen 15 differential cross sections [JINR-P-2796] 07 p1151 N67-17758

OXYHEMOGLOBIN

Effects of nitrogen dioxide-nitrogen tetroxide on oxyhemoglobin molecule dissociation in dogs after exposure [SAM-TR-67-33] 22 p3969 N67-36878

OZONE

Role of chains in photochemical decomposition of ozone in liquid phase [NASA-TT-F-10388] 01 p0027 N67-10855
Chain stoichiometry and chain carriers during reaction of unscavenged hydrogen atoms with ozone 02 p0229 N67-12358
Vertical distribution of ozone and atmospheric circulation 03 p0419 N67-13967
Oxidation processes and kinetics involving oxides of nitrogen and ozone 04 p0504 N67-15837
Stratospheric ozonesonde that utilizes chemiluminescent principle to measure ozone concentration after deployment from Arcas rocket vehicle [ECOM-5064] 05 p0708 N67-16979
Physical meteorology studies of satellite observations, cloud physics, and atmospheric ozone 06 p0936 N67-19021
Temporal solutions of photochemical equations describing distribution of ozone and atomic oxygen in oxygen atmosphere

and application to auroral events
[NASA-TM-X-55651] 06 p0076 N67-16552
Cross-beam technique applied to quiet nightglow radiation fluctuations and emission or absorption changes due to atmospheric ozone 09 p1442 N67-20265
Seasonal variations of atmospheric ozone 10 p1619 N67-20491
Approximation method of obtaining ozone parameters from satellite measurements of backscattered ultraviolet radiation 12 p2003 N67-24307
Ozone and nitrous oxide formation by gamma irradiation of nitrogen oxygen gas mixture in flowing system at elevated pressure
[BNL-50017] 13 p2267 N67-25422
Closed air circulation effect calculated for equilibrium distribution of ozone in earth atmosphere
[NASA-CR-84102] 13 p2316 N67-26404
Physics from stratosphere to lower thermosphere - reaction between ozone and oxygen
[A-37-1965] 13 p2317 N67-26469
Effect of mixed gas atmosphere on toxicity of nitrogen dioxide and ozone to exposed animals 14 p2455 N67-26735
Spectroscopy of ozone, measurement of its atmospheric concentration by optical means, role in atmospheric dynamics, and use as tracer for atmospheric winds - bibliography included
[NASA-CR-80022] 15 p2702 N67-28306
Laser radar returns from lower troposphere compared with vertical ozone distributions
[PMR-TM-67-2] 16 p2903 N67-29542
ESRO sounding rocket payload experiment for creation of artifical cloud of barium ions and for measurement of vertical ozone distribution in atmosphere between 30 and 80 km
[ESRO-SN-66] 17 p3167 N67-31170
Experimental data on total absorptance of ozone bands in infrared
[AFCRL-67-0237] 19 p3389 N67-33118
Ozone measurement in stratosphere and lower mesosphere by rocket sonde
[NASA-TM-X-55732] 19 p3447 N67-33732
Artificial earth satellite observations of planetary distribution of ozone
[NASA-CR-87162] 19 p3449 N67-33367
Atmospheric ozone measurements at Barrow, Alaska
[AD-653745] 20 p3631 N67-34418
Mesoscale structure of atmosphere in regions of clear air turbulence determined by aircraft observations of wind, temperature, and ozone in upper troposphere and lower stratosphere
[AFCRL-67-0115] 21 p3836 N67-35480
Ozone obtained from humid air by electric discharge between electrodes
[FTD-HT-66-623] 21 p3782 N67-35741
Diurnal variation of ozone in upper atmosphere
[ECOM-5124] 21 p3838 N67-35834
Theory, design, and operating principles of rocket-launched chemiluminescent drop sonde for measuring atmospheric ozone concentrations
[NASA-CR-87984] 21 p3850 N67-36042
Recovery of cerium and lanthanum by ozonation of lanthanide solutions 21 p3790 N67-36184
Three-level numerical model of stratosphere for yielding predictions based on thermodynamic and ozone equations - diabatic heating and photochemistry
[AFCRL-67-0344] 23 p4381 N67-39145
Auroral molecular oxygen dissociation and infrared hyroxyl emission
[NASA-TM-X-55975] 24 p4435 N67-39394
Mesospheric ozone measurements during solar eclipse by chemiluminescence
[ECOM-5131] 24 p4436 N67-39519
Mathematical model of haze effect on Umkehr ozone distribution curves based on Mie scattering function
[AFCRL-67-0367] 24 p4485 N67-39599
Ozone effect on stability of Dc-704 fluid in diffusion pump vacuum system
[NASA-CR-89770] 24 p4474 N67-40550
OZONE FLUORIDE
Ozone difluoride evaluated as liquid propellant additive
[NASA-CR-54833] 23 p4335 N67-38655

P

P-3 AIRCRAFT
Field infrared analysis of terrain for P3A aircraft program
[NASA-CR-85556] 17 p3054 N67-30735
P-I-N DIODE
Reverse-recovery lifetime as function of temperature used to determine recombination levels in silicon diode fast neutron dosimeter studies
[NDL-TR-83-III] 04 p0600 N67-13913
Neutron irradiations of silicon diodes to determine energy dependence and degradation of electrical parameters
[NDL-TR-83-IV] 13 p2389 N67-25336
Volt-ampere characteristics of p-i-n germanium photovoltaic cell
[ECOM-01978-1] 15 p2846 N67-28914
Irradiation of p-i-n silicon junction for developing radiation damage dosimeter
[CEA-R-3061] 19 p3523 N67-33313
Coaxial circulator combined with p-i-n active switching in broadband medium power radar duplexer
[NEL-1454] 21 p3814 N67-35486
Phenomena affecting voltage and collection efficiency of p-i-n germanium thermophotovoltaic converter diodes
[ECOM-01978-2] 22 p3962 N67-36909
Conversion efficiency evaluated of p-i-n thermo-photovoltaic diode
[TR-EE67-13] 24 p4418 N67-39747
P-N JUNCTION
Transient component in breakdown voltage of silicon p-n junction rectifiers 01 p0042 N67-10111
Mechanisms of channel current formation in reverse biased silicon p-n junctions 01 p0049 N67-10117
Ambient effect on breakdown of silicon p-n junctions 01 p0049 N67-10118
Generation-recombination noise and its influence on energy resolution of diffused silicon p-n junction radiation detectors 03 p0452 N67-12612
Gallium arsenide p-n junction noncoherent photon emitting diodes combined with silicon photodetector in single miniature package 03 p0373 N67-13062
Photodiffusion and p-n junction roles in high photovoltaic effect in semiconductor films
[NASA-TT-F-10479] 04 p0600 N67-13796
Junction effects in compound semiconductors
[AFCRL-66-617] 05 p0752 N67-15074
Defects in p-n junction of silicon p-i-n detectors investigated by electrophotography and electrochemical deposition of copper
[NASA-TT-F-10443] 06 p0852 N67-15843
Solid state device concepts pertaining to diodes, p-n junctions, and properties of selenium, cadmium selenide, cadmium sulfide, sodium, zinc, silicon, and telluride
[SR-6] 06 p0947 N67-16039
Photoconductivity in zinc selenide telluride p-n junctions 06 p0947 N67-16032
Hole injection caused p-n junction in cadmium sulfide pure crystals
[TR-15] 06 p0949 N67-16378
High speed power amplifier using electron beam switched p-n junction
[AD-646006] 11 p1838 N67-22722
Noise sources in varactor p-n junction diode and use in parametric amplifier circuit to reduce total output noise power
[RCS-OSD-1366] 11 p1834 N67-23106
Infrared emission possibility from depletion region of p-n junction placed in magnetic field
[NOLTR-66-163] 12 p2156 N67-24849
Interface states of germanium-silicon alloyed heterojunction
[TR-EE66-24] 12 p2388 N67-25116
Semiconductor compounds and mechanisms for achieving visible luminescence by means of p-n junctions or current-driven diode structures
[SR-7] 14 p2902 N67-28900
Hot-carrier mixer diode theory, relative to p-n junction and point contact diodes
[QPR-3] 16 p2867 N67-29069
Stimulated recombination radiation from p-n junctions in indium arsenide 16 p2901 N67-30650
Piezojunction effect in miniature solid state pressure transducer
[NASA-CR-66428] 18 p3271 N67-32330
Microprobes for medical research, photodetectors, crystal growth, semiconductor fabrication and characteristics, and p-n junction amplifier and MOS transistor construction 18 p3251 N67-32504
Two-circuit frequency multiplier using nonlinear capacitance of diode in series and parallel as harmonic generator 18 p3251 N67-32823
Two-circuit frequency multipliers using nonlinear capacitance and low loss filtering networks of p-n junction of semiconductor diodes 18 p3251 N67-32823
Charge transport and light transmission in zinc-selenium-tellurium p-n junctions 19 p3525 N67-33420
Voltage blocking capability of silicon thyristors and breakdown phenomena in p-n junctions 22 p4014 N67-37697
Failure mechanisms in passivated p-n junctions under temperature and bias stress 23 p4224 N67-38473
P-N-P JUNCTION
Production engineering measure to establish capability of manufacturing p-n-p silicon switching transistor
[TI-03-66-92] 02 p0245 N67-12198
Life test results for p-n-p alloyed germanium transistors under stress
[DISC-2966] 17 p3037 N67-30755
P-N-P-N JUNCTION
SA N-P-N JUNCTION
Characteristics of p-n-p-n diodes and silicon control rectifiers for electronic switches
[FTD-HT-66-369] 15 p2678 N67-28386
P-TYPE SEMICONDUCTOR
Transient radiation damage in semiconductor materials
[ECOM-01988-F] 11 p1968 N67-23152
Influence of cobalt 60 gamma irradiation on bulk and surface recombination rates in n-type and p-type semiconductors
[NASA-CR-84446] 14 p2904 N67-27425
Thermoelectric power and thermoconductivity of iron disulfide and aluminum antimonide monocrystals of and n type over large temperature range 21 p3845 N67-35475
Magnetoresistance and Hall effect in p-type germanium semiconductor
[TR-4] 24 p4513 N67-39461
PACIFIC OCEAN
Tiros satellite photographs used in numerical weather prediction for Pacific Ocean area
[REPT.-07434-1-T] 03 p0430 N67-12115
Mean wind profiles for Hawaii and Central Pacific islands
[HIG-66-13] 09 p1473 N67-19691
Long term distributions of visually estimated wave heights and periods for sea zones on North Atlantic and North Pacific Oceans using Weibull distribution function
[REPT.-65-12-S] 11 p1871 N67-23004
Geological-geophysical study of earth crust in Pacific Ocean region
[ACIC-TC-1158] 12 p2096 N67-24889
Characteristics of low latitude flow patterns over Southeast Asia and Western Pacific October - December
[EMM-66-86] 14 p2567 N67-27611
Stratigraphy and absolute age determined on cores of deep-sea sediments in western Pacific
[REPT.-14] 14 p2538 N67-27631
Geomagnetic anomaly of ionosphere in East Asiatic zone of Pacific Ocean
[NASA-CR-84876] 15 p2706 N67-28589
Synoptic model relating surface winds, flying conditions, and rainfall at Kadena AB, Okinawa, to positions and intensities of tropical cyclones
[AD-650258] 16 p2894 N67-29690
Vertical and oblique incidence ionospheric sounder observations of spread-F in Pacific Ocean 16 p2956 N67-29923
Argon isotope ratios of Pacific Ocean red clay sediment and Greenland dust, and possible extraterrestrial origin 18 p3235 N67-32085
Predictive horizontal temperature gradient model of upper 750 feet of ocean
[NEL-1445] 22 p4035 N67-36785
PACINIAN CORPUSCLE
Acoustic and mechanical stimuli effects on Pacinian skin sensory receptor corpuscle
[AFOSR-67-1522] 22 p3972 N67-37530
PACKAGING
SA CONTAINER

5A ELECTRONIC PACKAGING
5A VERMICULITE
Standard method for testing packaging of radioactive materials for radiation leakage
[NP-16172] 04 p0556 N67-13996
Packaging materials of anti-friction bearings evaluated for environmental protection
[NAEC-AML-2447] 06 p0888 N67-16456
Packaging of fuel elements and radioactive wastes in plastic bags by remote welding and in metal containers by argon arc welding, electromagnetic closing, and cold pressure welding
[JUL-249-RW] 11 p1926 N67-23066
Cushioning system for electrical contact brush assembly
[NAEC-AML-2562] 12 p2063 N67-23828
Design, fabrication, packaging, and test methods used in Echo II satellite
[NASA-TM-X-55764] 12 p2214 N67-23915
Review of fast analog/hybrid computer systems, integrated operational amplifiers, electronic mode-control switches, digital attenuators, and packaging techniques
[NASA-CR-83917] 13 p2291 N67-26071
Resistance of flexible packaging materials to microorganism penetration, for protection of food against contamination
[TR-67-62-GP] 17 p3084 N67-30307
Hybrid assembly processes for packaging of thin film and semiconductor microelectronic devices 19 p3416 N67-33363
Packaging and preservation of space vehicle hardware
[NASA-CR-87419] 20 p3650 N67-35007
Analysis of integrated circuit package integrity using helium leak detection techniques
[RADC-TR-67-52] 21 p3816 N67-35696
Inflatable cushioning modules as packaging material for vibration and shock protection
[NAEC-AML-2573] 21 p3860 N67-36025
Design criteria handbook for microelectronic system packaging
[RADC-TR-67-128, VOL. IIIA] 22 p4010 N67-36875
Simulated redesign of existing electronic system to illustrate handbook of design criteria for microelectronic system packages
[RADC-TR-67-125, VOL. IV] 22 p4012 N67-37118
Handbook of design criteria for microelectronic system packages
[RADC-TR-67-125, VOL. I] 23 p4227 N67-39162
Handbook of design criteria for microelectronic system packages - Volume I packaging system methodology 23 p4228 N67-39163
Handbook of design criteria for microelectronic system packages - Volume II packaging system design and evaluation procedure 23 p4228 N67-39164
PACKING
Packing defects in nickel powders, and displacement lines in electrolytic and carbonyl nickel
[JPRS-41504] 17 p3080 N67-31123
Foamed-in-place, solid urethane system as cushioning material for ship-to-shore transfer
[NAEC-AML-2598] 19 p3476 N67-32915
PACKING DENSITY
Dense packing of hard spheres with five-fold symmetry and observations in metal crystal lattice
[TR-5] 03 p0438 N67-12534
Generation of numerical models, using digital computer, of various arrangements of hard spheres packed in cylindrical vessel
[BNL-997/T-424/] 04 p0561 N67-13634
Optical reading and writing on magnetic metal films, phototropic media, and thermoplastic materials for use in high information packing density tape recording systems
[AERE-R-5003] 15 p2714 N67-28859
Complementary heating of densely packaged microcircuits
[NEL-1433] 15 p2682 N67-28943
Three-dimensional analysis of microscopic and macroscopic stress conditions in closely packed granular material
[REPT.-103-A] 24 p4547 N67-40487
PADE APPROXIMATION
Apache subroutine for generating Pade circuits for fixed and variable time delays
[EUR-3559.E] 23 p4219 N67-38364
PAGEOS
Determination of Pageos satellite magnitude and brightness fluctuations
[NASA-TM-X-55595] 02 p0503 N67-11372
Passive geodetic satellite /PAGEOS/ canister assemblies
[NASA-CR-700] 06 p0970 N67-15669
Complied experimenter information for use with Pageos satellite
[NASA-TM-X-1244] 10 p1627 N67-21450
Electro-optical observation of magnitude and brightness fluctuations of Pageos satellite during passage
[NASA-TM-X-55756] 12 p2214 N67-23977
Ground-based photometry of Passive Geodetic Earth Orbiting Satellite /PAGEOS/
[NASA-CR-791] 14 p2490 N67-27291
Baker-Nunn photography of Pageos-A inflation and apogee burn of Agena D rocket
[SAO SPECIAL REPT.-343] 22 p4146 N67-36694
PAGEOS design and reliability program 23 p4353 N67-39273
PAIN
Subjective estimation of effort, reserve and ischemic pain
[REPT.-730] 22 p3968 N67-36819
PAIN SENSITIVITY
Estimated strength of human spine to withstand spacecraft landing impact 02 p0204 N67-11620
PAINT
SA FILLER
SA FINISH
Paints and other protective antifouling compositions for preventing ship hull corrosion
[TDCK-46170] 02 p0277 N67-11998
Painting and protective coating of nonferrous metals
[TIL/T-5687] 03 p0411 N67-12859
Solar heat reflecting paint effects on crew compartment temperatures of armored personnel carriers
[TN-4-66] 05 p0725 N67-14474
Effectiveness of electrolysis and solvents in removing vinyl paint from platinum anodes
[PR-1] 05 p0713 N67-15078
Reactivation of chromated conversion coatings to improve paint adhesion on aluminum aircraft surfaces
[NAEC-AML-2503] 06 p0898 N67-16073
Light scattering theory applied to particle arrays to explain scattering in highly reflecting paint coatings
[NASA-CR-61166] 06 p1327 N67-19075
Monte Carlo methods, Mie theory, and random walk and screen models for predicting reflective properties of paint films
[NASA-CR-61167] 06 p1328 N67-19076
Solar simulation - paint testing, planning for high altitude tests of spectral irradiance, pressure arc and vortex stabilized radiation systems, and thermal control coating tests 11 p1853 N67-22142
Thermal properties of polymers used as protective films and paints
[RAE-TN-CPM-51] 11 p1904 N67-22717
Cleaning methods and primer paint systems for steel sheet treatment evaluated for mechanical and corrosive properties
[V-67-21] 13 p2328 N67-26040
Gas-liquid chromatographic identification of aerosol propellants in paint products
[CCL-226] 16 p2842 N67-29078
Polyamide diphenolic acid wash paint primers
[CCL-228] 17 p3015 N67-30652
Vacuum chambers for particle irradiation of thermal control coatings, and testing of paint samples of alkali silicates and methyl silicones 18 p3284 N67-32601
Controlled temperature room for storing samples of paints used for satellites 18 p3276 N67-32604
Low temperature cure coating systems for external surfaces of naval aircraft
[AD-651996] 19 p3476 N67-32937
Development of interior paints for nuclear submarines 19 p3477 N67-33767
Epoxy resin paint compatibility with heavy water moderated reactor
[AEET-274] 20 p3663 N67-34101
Zinc paints and galvanizing for corrosion prevention 20 p3657 N67-34538
Methods for rapidly determining aircraft paint coating resistance to oxidation and photochemical degradation
[AD-654743] 21 p3874 N67-35795
Color code specifications for repainting shop machinery and equipment
[NASA-TM-X-60222] 21 p3864 N67-36668
PAIR PRODUCTION
Coherent bremsstrahlung and pair production in diamond crystals
[DESY-66/15] 01 p0139 N67-10681
High mass electron-positron pairs and very low mass pairs observed during experiment of pion-nucleon interactions
[AERE-R-5287] 03 p0442 N67-13154
Radiative corrections to bremsstrahlung and pair production at high energies
[DESY-66/16] 04 p0591 N67-14080
Quantum system with three or four identical spinless particles of specified mass interacting through pair forces 06 p0920 N67-15565
Multivariate paired comparisons
[FSU-M121] 07 p1113 N67-17700
Baryon decays with Dalitz pair formation
[JINR-P-2823] 10 p1700 N67-20772
Electromagnetic form factors of proton - Photoproduction of electron-positron and muon pairs as high momentum tests of quantum electrodynamics, and muon g-2 value
[SLAC-PUB-225] 10 p1707 N67-20906
Baryon antibaryon pair production in quark model
[TH/178] 11 p1938 N67-22932
Ion pairs produced by total ablation of iron particles in air and argon measured as function of particle velocity
[NASA-CR-775] 12 p2170 N67-24622
Calculated lambda hyperon-photon mass spectra from lambda hyperon reflection resonance
[JINR-P1-3048] 13 p2376 N67-25915
Average number of electron volts required to produce one ion pair for carbon and oxygen recoil nuclei in carbon dioxide
[AERE-R-5130] 15 p2771 N67-28847
Pair production by electrons with energy of 2.4 GeV
[JINR-P1-3143] 16 p2946 N67-29691
Gamma scintillation spectrometer design based on electron-positron pair formation 17 p3070 N67-31231
Random variable transformations and compatibility of pairs of distribution functions analyzed 19 p3480 N67-33065
Validity of quantum electrodynamics for wide angle electron pair production
[NP-16779] 21 p3900 N67-35823
Correlated proton pair emission during negative pion interaction with xenon nuclei
[INR-787/VI/PH] 22 p4112 N67-37909
Total screening, bremsstrahlung, and pair production in atomic electron field 23 p4298 N67-38297
Angular distribution of electron pairs produced by polarized photons at Frascati electron synchrotron
[LNF-67/49] 23 p4309 N67-38815
PAKISTAN
Electrification of rural homes in Pakistan with solar cells and storage batteries
[PAECL/SOL-3] 11 p1787 N67-23038
PALLADIUM
Photoelectric and optical properties of platinum, gold, and palladium foils and evaporated aluminum and silver films in extreme ultraviolet under good vacuum conditions
[ORNL-TM-1392] 07 p1178 N67-17361
Delayed proton emitter produced by reaction palladium 102 with carbon 13
[JINR-E6-3142] 17 p3134 N67-30234
Tertiary phosphine complexes of platinum and palladium
[AFOSR-67-1424] 21 p3782 N67-35765
Electrodeposition of thick coatings of platinum and palladium of refractory metals from aqueous electrolyte
[BM-RI-7016] 22 p3961 N67-36704
PALLADIUM ALLOY
Point defects in quenched gold-palladium alloys
[AD-639056] 01 p0066 N67-10939
Electron microscope observations of quenched and aged gold and gold palladium alloys
[AD-646455] 12 p2122 N67-24967
Diffuse X-ray scattering measurements from nickel-palladium single crystals to determine relation between physical and thermal properties and local atomic arrangements
[NASA-CR-83928] 13 p2338 N67-25880
Application of spinodal theory to palladium-iridium alloy
[UCRL-17470] 23 p4265 N67-38961

PAM
S PULSE AMPLITUDE MODULATION /PAM/
PANCREAS
Influence of transverse radial accelerations on pancreatic secretion of animals 02 p0185 N67-11450
PANEL
SA CONTROL PANEL
SA CURVED PANEL
SA PLATE
SA RECTANGULAR PANEL
SA WING PANEL
Wood panel laminated materials subjected to rapid and gradual changes in relative humidity
[FPL-0116] 02 p0265 N67-11833
Impact injury to human head from light-aircraft instrument panels
[FAA-AM-12] 02 p0221 N67-11834
Panel attachment mechanism for replaceable heat shield system of manned lifting entry vehicle
[NASA-CR-646] 02 p0316 N67-11950
Use of excitation panels to simulate flight loads in helicopter rotor blades during whirl tests
[NAEC-ASL-1100] 06 p0786 N67-16154
Bonding of Inconel and titanium alloy structural panels by roll-welding process
[AMRA-CR-66-02/3] 06 p0887 N67-16183
Supporting data for structural design of folding modular panel solar cell array
[NASA-CR-59386] 07 p1001 N67-17963
Structural design studies and project plan for folding modular panel solar cell array
[NASA-CR-81613] 07 p1001 N67-17968
Shell theory and variation method for calculating large panel buildings as three-dimensional systems 09 p1525 N67-20052
Design and testing of integrally stiffened rectangular shear panel
[AR-66-6] 10 p1763 N67-20562
Structural stability of rod, cylindrical panel, and closed cylindrical shell under impact loading 13 p2420 N67-26394
Titanium-deoxidized steel used for support material in high strength skin-to-rib bonding of composite rolled structural metal panels
[AMRA-CR-66-02/3] 14 p2542 N67-28759
Approximate measurement of vertical deformations in wood panel surfaces using photography of shadows cast
[FPL-0139] 15 p2713 N67-28615
Librational motion of satellite with large panels 21 p3934 N67-36666
Structural optimization of flat, corrugated core and web core sandwich panels under in-plane shear loads and combined uniaxial compression and in-plane shear loads
[NAEC-ASL-1110] 22 p4153 N67-37080
PANEL FLUTTER
Selective bibliography and survey of research in progress in NATO countries on panel flutter 05 p0773 N67-15160
Panel flutter, electric deformation, and stability of shells
[NASA-TT-F-284] 06 p0974 N67-15428
Pressure distribution on oscillating panels in low supersonic flow with turbulent boundary layer
[NASA-CR-691] 06 p0869 N67-16669
Flutter analysis of flat rectangular panels based on three-dimensional supersonic unsteady potential flow
[NASA-TR-R-256] 06 p0785 N67-16675
Panel flutter problem on Blue Streak and Black Knight vehicles
[ARC-CP-848] 07 p0969 N67-17722
Vibration mode characteristics of panel flutter in supersonic gas stream flow 09 p1552 N67-20101
Approximate solution using single-frequency vibrations to determine nonstationary flutter of shallow cylindrical panels in supersonic gas stream 09 p1533 N67-20109
Supersonic panel flutter of cylindrical shells, liquid-solid interaction in dynamics of large elastic container, and nonlinear continuum mechanics problems in bioengineering
[AFOSR-66-2724] 09 p1539 N67-20360
Aeroelastic instability of flat rectangular panel
[NASA-TT-F-10645] 12 p2232 N67-25030
Cylindrical shell panel flutter, and effects of static and dynamic loading
[E678D1] 13 p2411 N67-25099
Nonstationary aerodynamic flow in application to panel flutter 13 p2341 N67-25594
Panel flutter analysis for low aspect ratio flat panels
[NASA-CR-83826] 13 p2343 N67-25664
Nonlinear aspects of hypersonic panel flutter
[NASA-CR-83908] 13 p2478 N67-25960
Two-dimensional panel flutter and panel divergence in subsonic flow - wind tunnel testing of two and three-dimensional panels
[NASA-TM-X-59667] 13 p2344 N67-26360
Nonlinear aspects of hypersonic panel flutter
[NASA-CR-84515] 14 p2628 N67-27672
Panel flutter problem with general boundary conditions - determination of stability boundaries and critical frequencies 15 p2797 N67-27803
Panel flutter of circular cylindrical shell in supersonic gas flow 16 p2982 N67-30060
Unsteady aerodynamics studied in Saturn launch vehicle development program 17 p2991 N67-30580
Transonic flutter of simple thin truncated-cone panels
[NASA-TM-X-599] 18 p3351 N67-32137
Supersonic wind tunnel tests on flutter resistance of Centaur flight insulation panels
[NASA-TM-X-1417] 18 p3348 N67-32552
Finite element dynamic stiffness matrix for two-dimensional panel flutter calculations
[LR-476] 20 p3738 N67-34429
Aerodynamic nonlinearity of hypersonic panel
[NASA-CR-89268] 23 p4361 N67-39328
Transonic panel flutter
[NASA-TT-F-11314] 24 p4545 N67-40157
PANORAMIC SCANNING
Scientific evaluation of television panoramas from lunar surface station
[NASA-CR-80180] 02 p0907 N67-12302
Geometrical problems analyzed in mapping from line scan imagery and panoramic scan photography 04 p0548 N67-13493
PAPER
Impregnated papers tested for corrosion-preventive properties when used with metal parts
[TDCK-46179] 01 p0089 N67-10154
Methods for measuring scattering and absorption coefficients of paper and wood pulp
[FPL-0162] 16 p2937 N67-29109
Overlap probability of flaws in electric insulating papers of laminated dielectric
[AWRE-TRANS-53] 20 p3664 N67-34450
PAPER CHROMATOGRAPHY
Paper electrophoresis effect on equilibrium of iron /II/-iron /III/ mixture in sulfuric acid solution of pH 2.8
[USNRDL-TRC-84] 09 p1468 N67-19618
Reversed phased paper chromatography of p-nitrophenyl methylphosphonates
[TDCK-46831] 13 p2369 N67-25656
Preparation, distillation, and paper chromatography studies of labeled phosphorus 32 of high specific activity
[EUR-3453.I] 20 p3599 N67-35261
Colorimetric and paperchromatographic methods for purity control of radioactive chromium-51
[INR-811/XIII/C] 24 p4393 N67-39438
PARA HYDROGEN
Thermodynamic-transport and related property data for para-hydrogen - tables
[LA-3669] 19 p3551 N67-33225
Background effect, and nitrogen and para hydrogen concentration factors effect on accuracy of thermal conductivity coefficient measurements of multilayer insulations
[JINR-P9-3236] 19 p3556 N67-33279
Establishment of thermodynamic and transport properties for parahydrogen
[NASA-CR-88857] 23 p4167 N67-37975
PARABOLA
Membrane stresses, bending state, and end effect for elliptical paraboloid ceiling resting on series of columns 09 p1534 N67-20111
Linear partial differential equations of elliptic and parabolic type
[TG-230-T518] 16 p2918 N67-29907
PARABOLIC EQUATION
Numerical solution for quasi-linear parabolic equations
[FTD-TT-65-2003] 06 p1303 N67-19222
Fortran program for computation of Weber functions and first derivatives
[NASA-TN-D-3823] 09 p1422 N67-19823
Parabolic coordinate method for analyzing potential of long range Coulomb interactions 11 p1931 N67-22104
Parabolic approximation method for determining extremum of multiple variable function
[NASA-TT-F-11222] 23 p4094 N67-37931
Optimum control of system governed by linear parabolic equation with white noise inputs
[NASA-CR-88580] 24 p4422 N67-39483
PARABOLIC FLIGHT
Method for measuring energy expended in rowing task completed during 12-second zero gravity parabola
[AMRL-TR-65-205] 01 p0015 N67-10376
Vestibular changes encountered by Russians during space flights, parabolic flight of aircraft, and simulated laboratory experiments 05 p0854 N67-15123
Inversion illusion in parabolic flight related to functioning of otolith apparatus 05 p0854 N67-15123
Lack of response to thermal stimulation of semicircular canals during parabolic flight weightlessness for study of caloric nystagmus mechanism in man 05 p0857 N67-15140
PARABOLIC REFLECTOR
Modified root-mean-square computer program used to evaluate distortion of reflective surface of paraboloidal antenna - Deep Space Instrumentation Facility /DSIF/ 02 p0237 N67-12126
Radiometer instrumentation of 16-foot millimeter wavelength antenna system
[NASA-CR-80090] 02 p0239 N67-12159
Cross polarization effects in paraboloidal antennas
[TR-36] 04 p0510 N67-13735
Subreflector support structure effects on radiation patterns of Cassegrainian antenna
[TR-416] 11 p1821 N67-22696
Plate study associated with reflector dynamics of Rosman I antenna 11 p1822 N67-22754
Frequency response of Rosman I 85 foot dish antenna 11 p1822 N67-22755
Radiation pattern calculated for Rosman I 85 foot paraboloidal dish 11 p1822 N67-22756
Dynamic responses of Rosman I antenna 11 p1822 N67-22757
Parabolic antenna array and reflector system and interferometer for Applications Technology Satellite /ATS/
[NASA-CR-81616] 12 p2216 N67-24604
Parabolic reflector design and fabrication, and thermal and structural dynamic analyses for Applications Technology Satellite-4
[NASA-CR-81668] 12 p2217 N67-24606
Computer analysis for determining optimum horn dimensions, illumination tapers, and gain efficiencies of parabolic aerial
[REPT.-66012] 14 p2490 N67-27255
Fabrication, deployment, control, and system configuration of orbiting 1500 meter radio telescope using parabolic reflector formed by network of aluminum ribbon
[NASA-CR-793] 14 p2630 N67-27630
Edge diffraction from truncated parabolic and hyperbolic reflectors
[NASA-CR-84707] 15 p2754 N67-28275
Electromagnetic field from diffraction of plane wave by parabolic reflector receiving off-axis
[D5230-448-P410] 16 p2963 N67-29685
Feasibility of manufacturing large solar collectors by rotation of matrices 21 p3836 N67-35476
Spinning paraboloid of revolution formed from network of flexible fibers
[NASA-CR-873] 22 p3907 N67-37028
PARABOLOIDAL MIRROR
Antenna, mirror, and reflector design and construction for spacecraft systems 01 p0211 N67-11289
Geometrical interpretation of mathematical model used to calculate energy distribution of solar radiation beam energy distribution in focal plane of paraboloid in collector receiver system 15 p2644 N67-28143
Optical and calorimetric tests of nickel mirrors for use as power source for thermionic generators
[NASA-CR-85750] 17 p3122 N67-31428
PARACHUTE
SA DROGUE PARACHUTE
SA LOW OPENING PARACHUTE
SA RECOVERY PARACHUTE
Dynamic stability and nonlinear oscillations of parachutes
[NASA-TT-F-10391] 04 p0480 N67-12796

Design techniques for hypersonic and supersonic decelerators - parachutes 07 p0987 N67-16978
Soviet circular belt parachute design with improved stability and lift coefficient [FTD-HT-66-104] 07 p0993 N67-17857
Inflation, drag, and stability characteristics of 26-meter diameter ringsail parachute in simulated Martian environment [NASA-TM-X-1356] 06 p1221 N67-19250
Improved rocketsonde parachute derived wind profiles [ECOM-5666] 10 p1672 N67-21336
Methods of testing deployment characteristics of man carrying parachutes [RAE-TR-66380] 10 p1855 N67-21741
Model laws governing parachute performance in Martian environment landing 15 p2637 N67-27805
Flight test of 31.2-foot-diameter modified ringsail parachute deployed at Mach 1.39 and dynamic pressure of 11 pounds per square foot [NASA-TM-X-1414] 18 p3189 N67-32265
Deployment methods using parachutes for balloon inflation, and altitude cycling for inflatable buoyant Venus station [NASA-CR-66405] 18 p3345 N67-32389
Flight test of disk-gap band parachute deployed at low supersonic speed and low dynamic pressure to obtain performance data on planetary entry parachute configurations [NASA-TM-X-1451] 21 p3940 N67-35616
Scaling method to predict opening characteristics of parachute from model drop test results [NASA-TN-D-4123] 21 p3754 N67-35778
Design and testing of three-stage parachute system for low level deployment up to Mach 1.2 [SC-DR-66-2707] 21 p3757 N67-36005
Feasibility of parachute entry system for Mars lander [NASA-CR-66498] 22 p4139 N67-36932
Planetary entry parachute testing using balloon as launching platform 23 p4179 N67-39268

PARACHUTING
Capability of parachutists and aircraft pilots to perform astronaut functions [NASA-CR-84859] 17 p3010 N67-30622
Electrocardiogram recordings of experienced parachutists before, during, and after free-fall jumps [USAARU-67-7] 20 p3572 N67-34391
Assessment of type B full pressure suit as parachuting garment [RAE-TR-66330] 20 p3566 N67-35195

PARAGLIDER
S DORNIER PARAGLIDER ROCKET

PARALLAX
Parallax sensing dependency on density patterns in stereoscopic measurements 03 p0397 N67-12849
Celestial body astronomical coordinate determined from geocentric right ascension, declination and parallax [ESRO-SN-1] 23 p4142 N67-37716

PARALLEL
Detection of implicit computational parallelism in computer programs [ECOM-03463-1] 11 p1839 N67-23814
Plan for detection of parallelism in computer programs [TR-67-3] 22 p4007 N67-37794

PARALLEL PLATE
Higher order diffraction concept applied to computation of parallel-plate waveguide aperture radiation patterns [NASA-CR-79408] 02 p0236 N67-12042
Reflection coefficient of transverse electromagnetic mode parallel plate waveguide illuminating perfectly reflecting sheet [NASA-CR-66234] 03 p0367 N67-12984
Transition radiation in parallel plate waveguide 07 p1161 N67-16844
Deformation analysis of circular coupled plate structure under axisymmetric loading [ANL-7145] 07 p1203 N67-17731
Nonisothermal stationary flow of nonnewtonian fluid between two parallel planes, headless axial flow in annular gap, and flow between two rotating cylinders in presence of dissociation 08 p1264 N67-18241
Transient heat transfer through collisionless gas enclosed between parallel plates [NASA-TM-X-52278] 10 p1772 N67-21392
Statistical correlation techniques and parallel plate filter arrangement for determination of particle deposition in turbulent slot flow [AD-634671] 15 p2690 N67-27952
Energy equation used to determine temperature distribution in laminar flow of fluid between two flat plates [ARL-67-0003] 15 p2807 N67-28823
Hall effect and initial velocity profile influence on magnetohydrodynamic flow in entrance region of parallel plate channel [AEDC-TR-67-79] 16 p2953 N67-29622
Second order effects as related to critical coolant flow velocities and reactor parallel plate fuel assembly [ANL-7261] 16 p2934 N67-29654
Aperture reflection coefficient of parallel plate waveguide by wedge diffraction analysis [NASA-CR-818] 18 p3252 N67-31802
Radiant heat transfer between nongray parallel plates of polished tungsten, molybdenum, and tantalum by summing monochromatic energy exchange [NASA-CR-87255] 19 p3566 N67-33960
Weakly ionized gas flow through parallel plate, continuum, electrostatic probe - boundary layer solution, and plasma sheath equations [AEDC-TR-67-71] 21 p3940 N67-35536
Parallel plate and gas injection accelerators, and magnetoplasma dynamic arc simulation [NASA-CR-88199] 21 p3911 N67-36236
Ferrite loaded series feed system for phased arrays and E-plane parallel plate wye circulator [NRL-MEMO-1777] 23 p4212 N67-38351
E-plane parallel plate wye circulator 23 p4213 N67-38353

PARAMAGNETIC RESONANCE
SA ELECTRON PARAMAGNETIC RESONANCE
Magnetic properties of alkali-metal compounds - Neel points, exchange constants, magnetic susceptibility, canted spin configurations, and paramagnetic resonance [SRRC-CR-66-31] 11 p1967 N67-22680
Balancing device for paramagnetic resonance radiospectroscope 12 p2098 N67-23514
Mossbauer effect study of electronic relaxation rates in paramagnetic ferric compounds [TR-6] 12 p2047 N67-24790
Rates and mechanisms of solvent exchange reactions studied with paramagnetic transition metal ions in solution [AFOSR-67-0663] 15 p2858 N67-28256
Estimation of relative concentration of trivalent ytterbium ions in multiple site symmetries of calcium tungstate using paramagnetic resonance method [HDL-TR-1345] 17 p3146 N67-30287
Radiospectrometer electromagnet for observing nuclear magnetic and electron paramagnetic resonance, and instability of electron flow in dielectric or semiconductor media [FTD-TT-65-1548] 17 p3037 N67-30795
Radiospectrometer electromagnet for observation of nuclear magnetic and electron paramagnetic resonance 17 p3037 N67-30796
Spin wave resonance in ferromagnetic gadolinium thin films [AFOSR-67-1961] 24 p4514 N67-39561

PARAMAGNETISM
SA NUCLEAR MAGNETIC RESONANCE
Paramagnetism of stable aromatic carbazyl and hydrazyl free radicals [AD-636388] 01 p0113 N67-16286
Reaction of molecules in excited electronic states with paramagnetic gases [AFOSR-67-0280] 12 p2046 N67-24755
Electronic and nuclear paramagnetism and energy exchange mechanisms [RADC-TR-66-627] 12 p2134 N67-24908
Superexchange interaction between magnetic ion pairs and super transferred hyperfine interaction in weakly covalent crystals [AD-647956] 14 p2803 N67-26866
Reorientation frequencies of ferroelectric dipoles near paramagnetic center in neutron irradiated potassium arsenate [NLS-R-495] 15 p2782 N67-28852
Diamagnetic and paramagnetic surface currents in Type II superconductors in static magnetic fields [TR-1001/9230-01/-3] 23 p4134 N67-38784
Magnetic resonance spectra of vanadium chloride and other paramagnetic species [UCRL-17406] 23 p4204 N67-38632
Superparamagnetic behavior of powders of ferromagnetic films at liquid helium temperatures [AFOSR-67-2662] 24 p4514 N67-39512

PARAMETER
S COLLISION PARAMETER
S REGGE PARAMETER
S STOKES PARAMETER

PARAMETRIC AMPLIFIER
Parametric amplifiers and tunnel diodes as L-band and S-band down-converters - frequency division multiplexing [NASA-CR-80091] 02 p0239 N67-12270
Strip form iterated traveling wave parametric amplifier using series connected diodes [AD-642766] 06 p0852 N67-15984
Test signals, AC analysis, transfer function determination, and nonlinear components for single parameter testing of amplifier [NASA-CR-61164] 07 p1038 N67-17632
ELDO second stage stainless steel structures and third stage structure and development, varactor performances for parametric amplifiers, and orbiting satellite attitude stability 08 p1370 N67-19421
Varactor performances for parametric amplifiers used in receiver system of downrange guidance station 06 p1256 N67-18434
Soviet research summaries on parametric oscillation and amplification at optical frequencies [ATD-66-131] 11 p1893 N67-22576
Noise sources in varactor p-n junction diode and use in parametric amplifier circuit to reduce total output noise power [RCS-OSD-1366] 11 p1824 N67-23106
Performance prediction and operation theory for superconducting parametric amplifier used in measurement of small direct current voltages [R-344] 15 p2680 N67-28716
Field effect transistor and parametric amplifier characteristics, and bolometer fabrication for advanced astronomical infrared detectors [NASA-CR-84824] 15 p2714 N67-28784
Feasibility of parametric upconverter technique as ultrahigh frequency communications receiver preselector [AD-651866] 17 p3024 N67-30517
Nonlinear interaction of laser radiation - laser induced gas breakdown and parametric amplification at optical frequencies [AROD-6038-2-P] 17 p3078 N67-30731
Fundamental theory and construction of parametric amplifiers [FTD-HT-66-425] 19 p3416 N67-33445
Phase locked loop studies and gain in parametric amplifiers 19 p3424 N67-33613
Cryogenic cooling for noise reduction of parametric amplifier with capacity diode 21 p3818 N67-35947
Reducing effects of parametric amplifier on weather clutter of surveillance radar receivers [RD-67-41] 23 p4212 N67-38306
Radio receiver with degenerate parametric synchronous mode input amplifier [FTD-HT-66-275] 24 p4402 N67-39443

PARAMETRIC DIODE
S VARACTOR DIODE

PARAMETRIC OSCILLATOR
Argon FM laser, parametric oscillator, and backward wave oscillator development [NASA-CR-81730] 07 p1097 N67-18018
Wind parameter transducers with oscillographic recording and automatic printout 11 p1874 N67-23969
Parametric oscillations and rotation of magnetization vector in ferromagnetic films 13 p2292 N67-25703
Digital computer solution to extending parametric oscillations by means of transitional process 13 p2292 N67-25703
Mathematical formulation for phase synchronization of parametric subharmonic oscillator [ECOM-01870/E/-8-T] 18 p3250 N67-32263
Optical parametric fluorescence and continuous-wave high efficiency parametric oscillator [NASA-CR-88272] 21 p3868 N67-35861

PARAMETRON
Band pass filter based on parametrons [FTD-TT-65-2927] 01 p0055 N67-11137
Parametron frequency divider and

multiple interference light filters for ruby lasers
[FTD-HT-66-276] 10 p1649 N67-30449
Parametron frequency divider for ruby lasers 10 p1890 N67-30450
Computation of oscillation regions in magnetic film parametrons 13 p2292 N67-25706
Systems design and calculation of magnetic film parametron 13 p2293 N67-25709
Oscillation regions in magnetic film parametrons consisting of Permalloy film, winding, and capacitor 13 p2294 N67-25710
Three phase power supply for parametrons [FTD-HT-66-697] 16 p2822 N67-29547
PARASITIC DISEASE
Radiation effects on host-parasite relationships [TID-23114] 01 p0017 N67-10906
PARAWING
Wind tunnel studies of flight characteristics of model parawing utility vehicle [NASA-TN-D-3673] 06 p0790 N67-16684
Deployment and load tests of NASA limp parawing for use as manned aerial delivery system [USAAVLABS-TR-66-82] 13 p2246 N67-25117
Performance, static stability, and control characteristics of flexible parawing [NASA-TN-D-3856] 14 p2444 N67-27271
Recovery of sounding rocket by means of paraglider [DGRR/WGLR PAPER-66-057] 15 p2794 N67-27936
Wind tunnel and flight tests to determine aerodynamic characteristics and rigging control of flexible parawing for lifting body spacecraft [NASA-TN-D-4016] 15 p2641 N67-28757
Longitudinal and lateral stability and control characteristics of tension-structure parawings [NASA-TN-D-3946] 19 p3365 N67-33747
PARITY
Beta decay experiments and parity of iridium 192 03 p0437 N67-12577
Baryon resonances with spin and parity, and meson resonances [JINR-P-2790] 04 p0566 N67-14010
Spins and parities of nuclei, stripping and pick-up reactions, and nuclear structure and mechanism of direct processes 06 p0921 N67-15566
Neutral kaons with measurable mass differences, and experiments dealing with scattering, transitions, and parity changing 07 p1146 N67-17215
Elasyic electron-deuteron scattering and charge parity invariance violation [JINR-P-2891] 08 p1330 N67-18471
Angular anisotropy of photofission and parity of plutonium-239 ground state [LA-TR-66-46] 08 p1394 N67-18613
Charge parity violation in decay of neutral kaon into pions [BNL-10606] 10 p1712 N67-20989
Quasiparticle second Tamm-Dancoff theory applied to study of even-parity states of even tin isotopes [IC/67/5] 10 p1731 N67-21764
Isotopic spin analysis of possible charge parity violating effects in decay of kaon into 3 pions [TH/181] 11 p1935 N67-22464
Separable non-local nucleon-nucleon potential for odd-parity spin triplet states [IC/66/121] 11 p1936 N67-22484
Parity bit performance curves for pulse code modulated telemetry system [NASA-TM-X-53744] 11 p1823 N67-22877
Nondynamical integral tests for parity of unstable particles [INR-741/VII/PH] 11 p1938 N67-22908
Parity SU/3/ mixing in meson resonance decays [UR-875-157] 13 p2375 N67-25644
CP invariance in neutral kaon decay [NEVIS-160] 16 p2947 N67-29756
Parity and residual effects in collective energy level states of spherically symmetric nuclei [NP-16596] 19 p3511 N67-33920
PARKING ORBIT
Ascent trajectory, transfer and parking orbits for lunar and interplanetary space rendesvous maneuvers 05 p0758 N67-14499
Graphs of station contact times for Apollo parking orbits with variable launch azimuths [NASA-TM-X-55965] 24 p4530 N67-40168
PAROTID
Correlation between parotid fluid flow rate and calcium concentration in humans [SAM-TR-67-18] 18 p3215 N67-32660
Human parotid fluid collector [SAM-TR-67-19] 19 p3379 N67-32710
Effect of mental exercise on parotid flow rate in humans [SAM-TR-67-36] 21 p3766 N67-36088
PARTIAL DIFFERENTIAL EQUATION
SA BIHARMONIC EQUATION
SA HEAT EQUATION
SA HYPERBOLIC EQUATION
SA KINETIC EQUATION
SA LAGRANGE MULTIPLIER
SA PARABOLIC EQUATION
SA POISSON EQUATION
Literature review on stability of solutions to partial differential equations [NASA-CR-79707] 01 p0096 N67-10689
Approximation solution of nonlinear equation in partial differentials in oscillation theory [FTD-TT-65-1917] 01 p0097 N67-11099
Variational problem in Hilbert space and application to partial differential equations 04 p0568 N67-13863
Partial differential equations and matrix method for obtaining equations of motion in orbit 05 p0727 N67-14412
First derivative solution estimates of Dirichlet problem for quazilinear elliptic equations in unbounded domain [TG-230-T500] 06 p0903 N67-16190
Regularity theorems for tangential Cauchy Riemann equations [AROD-3965-1] 06 p0904 N67-16367
Partial differential equations for theory of atomic collisions [NASA-CR-69990] 07 p1156 N67-17778
High speed Monte Carlo technique for hybrid computer solution of partial differential equations 07 p1048 N67-18061
Theory and numerical application of parametrix method for solving higher order differential equations and boundary value problems [REPT.-33] 08 p1297 N67-18223
Lagrange coordinates and partial differential equations for solving nonstationary gas dynamics problems with two space variables 08 p1267 N67-18904
Bibliographical survey of research on stability theory of solutions to partial differential equations [NASA-CR-83662] 09 p1302 N67-19109
Dynamic stability of thin isotropic circular cylindrical shells in elastic range with time dependent end conditions - approximate solution of coupled nonlinear partial differentials [DVL-558] 08 p1379 N67-19191
Computation of proper values of membrane by finite-difference method [MRC-TSR-664] 09 p1467 N67-19697
Iterative analog simulation to solve partial differential equations describing systems containing flowing fluids [RT/ING/66/1] 09 p1436 N67-20202
Extremum principle and linear inequalities in eigenvalues of self-adjoining linear operators [REPT.-3543] 10 p1668 N67-21760
Optimal control of distributed parameter systems using multilevel techniques [REPT.-66-55B] 11 p1848 N67-23111
Approximating optimal regulator control laws for two distributed parameter systems [REPT.-66-64] 11 p1848 N67-23113
Evolution of elliptic partial differential equation theory under influence of variational calculus [JPRS-39638] 11 p1909 N67-23407
Optimal control theory applied to systems described by partial differential equations [REPT.-66-31] 12 p2067 N67-23546
Mathematical models, algorithms, and solutions of optimal control problems for distributed parameter systems - boundary value problems, and partial differential equation systems [REPT.-66-32] 12 p2069 N67-23978
Mathematical techniques for control of distributed parameter systems - optimal and stochastic control, and stability of partial differential equations 12 p2069 N67-23980
Maximum principle established as necessary condition for optimal control of nonlinear system of partial differential equations with distributed parameters 12 p2071 N67-24124
Model equations for class of approximations to linearized Boltzmann equation 12 p2131 N67-24238
Elliptic partial differential equation solution to neutron scattering problem [EUR-3262.E] 12 p2169 N67-24585
Group theoretical techniques for similarity solution of systems of partial differential equations with auxiliary conditions [MRC-TSR-698] 13 p2347 N67-25469
Dimensional analysis and group theory methods of solving ordinary and partial differential equations [NASA-CR-84056] 13 p2350 N67-26329
Variational problem in Hilbert space and its application to partial differential equations 13 p2330 N67-26384
Optimal control of distributed parameter systems using multilevel techniques [NASA-CR-84511] 14 p2510 N67-27671
Green matrix applied to steady state wave propagation in homogeneous anisotropic media [MRC-TSR-702] 15 p2783 N67-28341
Linear partial differential equations of elliptic and parabolic type [TG-230-T518] 16 p2918 N67-29097
Unified approach to one-dimensional elastic waves by method of characteristics [NASA-CR-79498] 16 p2978 N67-29260
Finite difference solution to partial differential equations of short-term weather forecasting 17 p3096 N67-30468
Stability of solutions in partial differential equations [NASA-CR-83585] 17 p3093 N67-30943
Contact transformations [NASA-CR-85853] 17 p3094 N67-31290
Partial derivatives of fundamental thermodynamic functions in terms of temperature and pressure variables [NASA-TT-F-11069] 17 p3189 N67-31383
Boundary value problem - second-order linear equations of non-negative characteristic shape [TG-230-T521] 21 p3877 N67-35626
Accurate and stable numerical solutions to Schroedinger equations [NRL-6558] 22 p4080 N67-36828
Partial regularity results for nonlinear elliptic systems [AD-655293] 22 p4081 N67-36894
Numerical investigation of higher order methods for solving elliptic partial differential equations [NOLTR-67-51] 23 p4372 N67-38123
Conservation laws in equation for vanishing coefficient in nonlinear partial differentiation 23 p4323 N67-38759
Asymptotic limit of finite amplitude solutions of equation for vanishing coefficient 23 p4323 N67-38760
Derivation of equation for vanishing coefficient in nonlinear dispersive plasma problems 23 p4323 N67-38761
Equation for vanishing coefficient in differential problem as Hamiltonian system 23 p4323 N67-38762
Reduction of solution of game of pursuit for survival payoff to solution of Cauchy problem for first order partial differential equation [NASA-TM-X-60896] 23 p4276 N67-38945
Existence theorems for nonlinear partial differential equation of viscous incompressible flow [R67SD43] 23 p4192 N67-39023
Quasi-linear elliptic equation arising in non-Newtonian fluids theory [MRC-TSR-734] 24 p4429 N67-39428
Numerical analysis of triangular elements which satisfy equilibrium conditions between adjacent elements in plate bending problems [RAE-TR-67110] 24 p4544 N67-39881
PARTIAL PRESSURE
Storage of oxygen by tissues under increased partial oxygen pressure - electroencephalographic activity of rabbit brain 02 p0184 N67-11442
Oxygen partial pressure dynamics in brain during normal breathing conditions, after undergoing anoxia, and during disturbances of blood circulation in brain 02 p0189 N67-11525
Retinal vascular response to oxygen at increased partial pressures 07 p1611 N67-17604
Pulmonary function and chest X-rays of humans exposed to pure oxygen environment at 250 mm Hg pressure 07 p1612 N67-17606

Quadrupole mass spectrometer for determining relationship between partial pressures and filament temperature in synthesis of hydrocarbons
[NASA-TN-D-3906] 11 p1811 N67-22869
Compatibility of artificial gas mixtures under high and low pressures, and dependence on carbon dioxide and oxygen partial pressure of inert gases
[DGRR/WGLR PAPER-66-000] 13 p2263 N67-25486

PARTICLE
SA ANTIPARTICLE
SA CHARGED PARTICLE
SA ELEMENTARY PARTICLE
SA HADRON
SA METAL PARTICLE
SA MICROPARTICLE
SA NEUTRAL PARTICLE
SA NUCLEAR PARTICLE
SA PENETRATING PARTICLE
SA PLASMA-PARTICLE INTERACTION
SA PRECIPITATION PARTICLE MEASUREMENT
SA QUARK
SA RADIOACTIVE PARTICLE
SA RELATIVISTIC PARTICLE
SA TRAPPED PARTICLE
Research and developments in geology, hydrology, mineral chemistry, particles, and gases
[BNWL-235-3] 04 p0541 N67-13741
Errors associated with particle sampling at filter face velocities below carrying velocity in air stream 04 p0530 N67-13760
Errors in sampling zinc sulfide particles with nozzles designed to achieve isokinetic flow 04 p0530 N67-13761
Electron synchrotron of 4 GeV
[DNPL-2] 04 p0528 N67-13994
Hydrodynamic interaction between particles in suspension 05 p0642 N67-14571
Extraterrestrial particles in sedimentary rocks
[AFCRL-66-638] 05 p0706 N67-15306
Physical and chemical gas-surface interactions for SNAP fuel particle atmospheric reentry
[NAA-SR-MEMO-11845] 10 p1681 N67-21017
Color metallography technique for optically identifying carbon, iron, aluminum, and silicon particles in uranium metal 12 p2108 N67-24244
Development of stress-plastic strain increment relation for behavior of granular media
[REPT.-36] 13 p2411 N67-25134
Zodiacal light as indicator of nature of interplanetary dust, and interpreted in terms of small solid particles in solar system 18 p3332 N67-32058
Solar cosmic rays and high-energy particles of earth's inner radiation belt as intermediaries in transmission of disturbance from sun to troposphere 19 p3485 N67-33525
Particle measurement by ESRO satellite in highly eccentric polar orbit for investigation of neutral points in magnetosphere
[ESRO-SN-30] 19 p3445 N67-33533
Spherical dust particle terminal velocities in model Venus atmosphere
[LMSC-6-77-67-18] 20 p3725 N67-34596
Activity level designator chart for forecasting solar flares, and prediction techniques for energetic particle events 24 p4524 N67-39820

PARTICLE ACCELERATION
Modifications to cyclotron to permit acceleration of helium molecular ions
[ANL-7171] 01 p0129 N67-10533
Theory and experiments in plasma and particle acceleration, theta pinch, magnetic field, and related physics subjects
[JUL-264-PP] 03 p0450 N67-13241
Introduction to linear accelerators
[CERN-66-20] 03 p0444 N67-13274
Charged-particle activation analysis - particle acceleration and analysis of protons, deuterons, helium 3 ions, alpha particles, tritons, and recoil particles in nuclear reactor
[NAS-NS-3110] 04 p0500 N67-13627
Influence of azimuthal displacement of ion source on acceleration process in cyclotrons
[JINR-P-2854] 07 p1155 N67-17691
Modification of magnetic structure of isochronous synchrotron to study proton acceleration up to 60 MeV 09 p1482 N67-19363
Positron beam for linear acceleration of electrons and wave excitation in limited plasma
[FTD-HT-66-175] 10 p1697 N67-20485
Obtaining accelerated beams of positrons for linear acceleration of electrons 10 p1697 N67-20486
Velocity of charged particles in changeable magnetic field
[JUL-157-PP] 10 p1738 N67-21093
Radiation effect on self-resonance acceleration of wave particle exposed to magnetic field 11 p1949 N67-21899
Effects of generator geometry and electrical parameters on creation and acceleration of fast particles in plasma guns 11 p1953 N67-21925
Fast particles trapped in magnetic field 12 p2184 N67-24189
Proton multiple acceleration system resonator designed for synchrophasotron
[JINR-P13-3004] 12 p2663 N67-24466
Design and construction of linear accelerator for accelerating micron size particles to micrometeoroid velocities
[NASA-CR-66466] 21 p3826 N67-35971
Direct conversion device using thermally accelerated, charged colloidal particles 22 p3963 N67-36948
System and component operation, physics, klystron studies, mechanical engineering and fabrication, instrumentation and control, and electronic engineering in two-mile accelerator project
[SLAC-73] 22 p4021 N67-37550
Statistical mechanics of particle acceleration in turbulent plasma
[NASA-TT-F-10460] 24 p4511 N67-40199

PARTICLE ACCELERATOR
SA BETATRON
SA BEVATRON
SA CYCLOTRON
SA ELECTRON ACCELERATOR
SA ELECTRON GUN
SA LINEAR ACCELERATOR
SA SYNCHROTRON
Time of flight measurement of fast neutron spectra using pulsed ion accelerator
[CEA-R-2936] 01 p0124 N67-10663
Activities of Cambridge 6-BeV synchrotron group
[CEAL-1031] 03 p0382 N67-13261
Operating characteristics of multiple stem drift tube structure for proton accelerator
[BNL-10376] 03 p0444 N67-13283
Two-hundred BeV accelerator employing separated function magnet lattice
[BNL-10508] 03 p0446 N67-13331
Background from showers generated by electrons lost by mean-life effect and from interactions of circulating electrons with residual gas in particle accelerator
[LNF-66/22] 04 p0564 N67-13391
Design of beam position and charge monitoring circuits for two-mile accelerator
[SLAC-63] 04 p0526 N67-13621
Summary reports on accelerator structures, radio frequency power sources, accelerator control and instrumentation, accelerator physics, and building and site planning
[LA-3587-MS] 04 p0526 N67-13640
Facilities, capabilities, equipment, and instrumentation at accelerator laboratory that conducts radiation effects studies for space vehicles and components
[ESD-TR-66-430] 05 p0690 N67-14733
Interactions of proton beams and particle accelerator cavities
[FSD/ING-48] 06 p0920 N67-15440
High frequency system for proton accelerator constructed as cavity resonator 06 p0862 N67-16232
Operating characteristics of 800 MeV proton linear accelerator - Meson factory projects
[LA-DC-8144] 07 p1050 N67-17571
Alignment techniques for use with Astron device and 4 MeV accelerator
[UCRL-70025] 07 p1060 N67-17684
Functional analysis of final amplifier-cavity group, and correction circuit for detuning effects in resonating cavity of particle accelerator
[LNF-66/28] 07 p1155 N67-17689
Astron program mechanical engineering design of experimental apparatus, chamber, and accelerator
[UCRL-70027] 07 p1157 N67-17688
Elementary particle, bubble chamber, nuclear emulsion, computer programming, S-matrix theory, mesic atom, field theory, accelerator, and gravitation research
[UCRL-16863] 08 p1344 N67-19143
Electron guns, ion sources, and other instrumentation for synchrotrons and cyclotrons
[AEC-TR-6636] 09 p1482 N67-19361
Electro-optics and charged particle beamshaping for direct action accelerators 09 p1483 N67-19369
Chemical biodynamic research on spectroscopic techniques, photosynthesis, amino acid synthesis, organic geochemistry, and ion accelerator improvements
[UCRL-16806] 09 p1397 N67-19521
Filament lifetime, arc-disrupting discharge, and ion production efficiency studies for 10-kV ion accelerator 09 p1430 N67-19527
Interaction of high velocity particles with gaseous targets using electrostatic particle accelerator
[NASA-CR-82920] 09 p1543 N67-20000
Design study for muon and antiproton facility at Stanford linear accelerator
[UR-875-161] 10 p1599 N67-20752
Fabrication and testing of full power cloverleaf standing wave accelerator tank
[LA-DC-8249] 10 p1599 N67-20753
Experimental equipment, facility, and targeting application of 200 GeV accelerator
[UCRL-16830, VOL. II] 10 p1600 N67-20765
High energy elementary particle reaction and secondary beam experiment applications of 200 GeV accelerator
[UCRL-16830, VOL. I] 10 p1700 N67-20766
Emittance, beam spot size, proton extraction efficiency, and beam time structure of external proton beam at ZGS
[COO-1545-13] 10 p1711 N67-20974
Handling system for liquefaction, evacuation, purification, storage, and pressurization of sulfur hexafluoride gas for potential drop particle accelerator
[NASA-TM-X-52274] 10 p1601 N67-21170
Borehole charged particle accelerators for improved radioactivity logging efficiency in prospecting coal, ore, and petroleum deposits 10 p1622 N67-21290
Injector performance and electrostatic generator for accelerating ions
[RHEL/R-120] 10 p1720 N67-21525
Microtron application as electron particle accelerator
[LNF-66/45] 11 p1930 N67-23018
Partial energy beams from ion linear accelerator 12 p2076 N67-24070
Structural design of resonant cavities with LALA computer program 12 p2077 N67-24078
High field measurements of 200 MHz in conventional proton linear accelerator geometries at 5, 50, and 130 MeV 12 p2078 N67-24088
Cavity resonance, power generator, and experimental results of RCA 7835, with factor of initial operating parameters of FTH 516 12 p2078 N67-24089
Structural design equations in Alvarez type proton linear accelerator 12 p2166 N67-24094
Coupled motion in low energy proton linear accelerator 12 p2166 N67-24096
Numerical calculations of coupling effects in low energy proton linac 12 p2166 N67-24098
Comparison of particle motions as calculated by PARMILA and LINDY computer programs 12 p2166 N67-24099
Transverse beam instabilities in multisection linear accelerators 12 p2167 N67-24107
Brookhaven recent preaccelerator progress to report proton acceleration 12 p2060 N67-24117
Linear accelerator study, and 100mA ion beam with large brightness 12 p2060 N67-24119
Nonferrous charged-particle accelerator
[FTD-HT-66-603] 12 p2063 N67-24720
Tuning and field measurements on long cavity chain accelerator tank
[LA-DC-8243] 13 p2383 N67-25918
Accelerator structures, power sources, accelerator control and instrumentation, accelerator physics, and project planning in medium-energy physics program
[LA-3674-MS] 14 p2514 N67-27589
Particle accelerator technology - bibliography
[AED-C-18-07] 16 p2872 N67-29234
Design and engineering development of pulsed beam facility for MP tandem particle accelerator
[UR-NSRL-2] 17 p3043 N67-30429

Nuclear physics and chemistry experiments conducted in German tandem accelerator and cyclotron research facilities
[AR-3] 18 p3311 N67-32341
Particle reactions and structures measured in experiments using German tandem accelerator 18 p3311 N67-32342
Shift in resonant frequency of 200-MeV linac cell due to stems supporting drift tubes
[BNL-11287] 19 p3426 N67-32925
Secondary beam magnets for 200-GeV particle accelerator
[UCRL-17269] 19 p3425 N67-33238
Radiation safety levels at Los Alamos tandem accelerator facility
[LA-3641] 19 p3426 N67-33506
Pole-zero analysis of input impedance in radio frequency acceleration systems
[UCRL-17446] 20 p3693 N67-34351
Thermostable material of high isotopic hydrogen content, and fabrication of new target for neutron production in accelerators
[EUR-3474.F] 20 p3664 N67-34364
Test prototype gradient magnet for Omnitron with prestressed laminated core and hollow-strap coil
[UCRL-17268] 20 p3619 N67-34395
Elementary particle interactions and 200 GeV accelerator
[UCRL-17483] 20 p3693 N67-34397
Automatic reengagement of pumping and neutron safety of GNP-1 accelerator
[NT-65-18] 20 p3619 N67-34447
Diffusion model for radio frequency noise effects of particle motion in storage ring of synchronous particle accelerator
[CERN-67-1] 20 p3696 N67-34562
Rf system high power components and accelerating structures in interlaced-beam injector synchrotrons for use as possible component of injection system for 200-BeV accelerator
[UCRL-17451] 20 p3620 N67-34709
Remote maintenance techniques considered in determining main ring enclosure size for 200 GeV accelerator
[UCRL-17195] 20 p3621 N67-34889
Improvement of hydrogen pumping characteristics of Penning discharge getter-ion pumps used with accelerators employing hydrogen ion sources
[BNL-11365] 21 p3826 N67-35837
Alternating gradient pole tips mounted on yoke structure of full scale prototype magnet sector of 10 to 50 Mev separated orbit cyclotron
[ORNL-P-3091] 21 p3826 N67-36050
Booster design study of large aperture AG synchrotron magnet
[BNL-11441] 21 p3827 N67-36075
High energy physics index - nuclear reactions and interactions, strange particles, accelerators, methods and instruments, experiments, symmetry principles, and field theory
[AED-C-23-12] 21 p3903 N67-36095
Beam current measurements in 6 GeV electron synchrotron using synchrotron radiation
[DESY-67/9] 21 p3904 N67-36196
Selection of injector synchrotron parameters to minimize cost of 200 GeV accelerator
[UCRL-17191] 21 p3828 N67-36434
Radiation problems associated with high energy accelerators
[UCRL-17141] 21 p3828 N67-36435
Accelerator requirements for production of very heavy ions and of super elements with atomic number greater than 101
[UCRL-17295] 21 p3906 N67-36458
Multiple revolution injection system with walled magnetic inflector for collision rings
[LAL-1170] 21 p3829 N67-36649
Experimental and theoretical high energy physics research projects
[TID-4005, PT. 6, REV.] 23 p4300 N67-38344
Accuracy of very high energy radiation monitoring of particle accelerators
[UCRL-17412] 23 p4301 N67-38430
PARTICLE BEAM
SA MOLECULAR BEAM
SA NEUTRAL BEAM
SA NEUTRON BEAM
SA PROTON BEAM
Beam monitoring of Bevatron operation
[UCRL-16554] 01 p0105 N67-10524
Feasibility of using 15 to 70 MeV separated orbit cyclotron as booster injector for Nimrod
[RHEL/R-122] 01 p0116 N67-10711
Primary beam optics - analysis of nonuniform density in transverse phase space
[CERN-66-25] 03 p0428 N67-12823
Particle beam extraction from 600-MeV synchrocyclotron
[JINR-P-2811] 04 p0583 N67-13380
Alpha, deuteron reaction on calcium 40 nuclei using alpha particle beam
[REPT.-478/PL] 04 p0585 N67-13765
Differential equation for resistive instabilities of self-pinched cylindrically symmetric charged particle beam in ohmic plasma channel
[IDA/HQ-66-4868] 06 p0944 N67-16581
Particle detectors and accelerators, and particle beam production in 80-inch hydrogen bubble chamber development
[BNL-9065] 06 p1231 N67-18479
Deflection of accelerated beam to internal target in strong focusing synchrotron 09 p1487 N67-19362
Beam break-up effect shown in microwave cold, microwave beam, and focusing beam tests
[SLAC-PUB-224] 10 p1700 N67-20771
Radiative decay of neutral bosons studied in xenon bubble chamber exposed in pion meson beam
[JINR-P1-2948] 10 p1701 N67-20782
Neutral particle beam direction in bubble chamber of synchrophasotron determined by conversion pairs and gamma quantum spectrum
[JINR-P-2916] 10 p1675 N67-20783
Measurements of position variations, emittance, and energy spread for linear accelerator exit beam of bevatron injector
[UCRL-17001] 10 p1702 N67-20810
Kaon-meson beam for determining sigma hyperon branching ratio in hydrogen bubble chamber
[ORO-2504-98] 10 p1710 N67-20946
Radio frequency beam separator and transport system for alternating-gradient synchrotron
[BNL-10565] 10 p1711 N67-20978
Cross sections for electron capture by fast protons in hydrogen, helium, nitrogen, and argon
[UCRL-16765] 10 p1720 N67-21527
Effective resolving time in coincidence measurements on cyclotron beam
[JINR-E13-2926] 10 p1721 N67-21543
Quasi-linear approximation of velocity and temperature instabilities in charged particle beam interaction with plasma 11 p1951 N67-21908
Fast hydrogen particle beam for measuring hydrogen plasma parameters 11 p1952 N67-21915
Fortran program for computing acceptance as function of momentum in high energy particle beams
[RHEL-R-103] 14 p2569 N67-27321
Superconducting RF beam separator to separate particle beams for counter experiments
[BNL-11048] 14 p2582 N67-27481
Multiple Coulomb scattering effects on small proton beams
[NASA-CR-84505] 14 p2593 N67-27684
Single pulse transverse phase space beam analyzer for linear accelerator
[BNL-11111] 15 p2763 N67-28424
Mathematical method for improved calculations of slow beam extraction from alternating gradient synchrotron
[BNL-11169] 15 p2770 N67-28585
Stability of modulated beam in disk-loaded waveguide 16 p2874 N67-29700
Superconducting magnets used to focus and bend beams of charged particles produced from accelerators while consuming small amounts of power
[BNL-11139] 17 p3046 N67-31090
Supersonic molecular beams applied to study of interactions of neutral-particle beams with solid surfaces
[NASA-CR-80653] 18 p3307 N67-31556
TEUTA Fortran IV program used in kinematical analyses of colliding beam events
[SLAC-72] 18 p3307 N67-31685
Electrohydrodynamic generation of charged particle beams 19 p3518 N67-33607
Uniform field beam bending magnets used with electrostatic generators analyzed using field measuring techniques and defined beams of alpha particles
[RHEL/R-119] 20 p3687 N67-34385
Transverse coherent motion of two particle beams in strong focusing storage ring
[CERN-67-19] 20 p3706 N67-34615
Alternating gradient synchrotron injector beam monitoring system
[BNL-11499] 22 p4049 N67-37691
Superconducting magnets for beam handling and accelerators
[BNL-11394] 22 p4021 N67-37700
Calculation method for beam orbits in alternating gradient synchrotron
[BNL-11469] 22 p4167 N67-37721
Techniques and evaluation of particle bombardment for crystal growth welding and bonding
[ECOM-00420-F] 24 p4458 N67-39827
Finite difference equations calculation of beam cavity coupling instability of coherent synchrotron oscillations
[LNF-67/45] 24 p4502 N67-40228
PARTICLE CHARGING
SA CHARGED PARTICLE
Interactions of ions and protons with material surfaces - surface density, velocity spectrum, mercury ion sputtering, aluminum-aluminum oxide sputtering, and ion implantation
[NASA-CR-72015,SER.NO.8,ISSUE 6] 11 p1931 N67-23064
Mission planning and research project on electric propulsion systems
[NASA-CR-80419] 22 p4132 N67-36941
Propellant efficiency and particle charging by electron bombardment 22 p4133 N67-36943
Charged protein molecule production by electrostatic spraying 22 p4133 N67-36949
PARTICLE CLOUD
Coalescence of liquid drops and colloidal stability of liquid particle clouds 18 p3268 N67-32631
Mobile laser transceiver for detection of ablative material clouds from SNAP reentry vehicles
[SC-DC-67-1596] 23 p4263 N67-39195
PARTICLE COLLISION
SA MOLECULAR COLLISION
Methods for applying infrared radiative corrections to measured results of electron and positron colliding beam experiments in quantum electrodynamics
[LNF-66/33] 01 p0121 N67-10533
Regge pole model used for describing particle interactions at high energy - complex moment theory
[REPT.-417] 01 p0116 N67-10702
Particle interactions and photon scattering in ionized gases
[AROD-6092-6] 06 p0942 N67-15973
Differential cross section for deuteron production in proton-proton collisions measured for kinetic energies of 1.85, 2.5, and 2.9 GeV
[REPT.-03106-26-T] 06 p0940 N67-16413
Collision processes between particles in gaseous discharge plasma measured by mass spectrometry
[AD-640582] 06 p0942 N67-16441
Multi-particle collision theory applied to study of direct nuclear reactions
[PUC-237-237] 07 p1149 N67-17458
Impulse approximation for quasi-elastic scattering in high energy particle collisions with light nuclei
[JINR-P-2881] 10 p1702 N67-20807
Isobar production mechanisms in proton-proton collisions
[PPAD-6007] 10 p1710 N67-20955
Classical theory for calculating scattering cross section for two particles interacting through Coulomb potential 11 p1922 N67-22112
Total reaction cross sections for high energy alpha particle interactions with chromium, iron, nickel, cobalt, copper, and zinc nuclei
[NP-503/PL] 11 p1928 N67-22911
Schroedinger equation for system of one dimensional particles with point interaction 12 p2129 N67-23704
Reconstruction of scattering matrix for collinear production of baryon resonances in baryon collisions
[JINR-P2-3069] 12 p2172 N67-24692
Gas density measurements using electron scattering method
[AEDC-TR-66-212] 13 p2306 N67-25623
Calculation of total number of ionizations, excitations, and other displacements in

cascades of identical particle collisions
[NASA-CR-84085] 13 p2362 N67-26361
Computer program to evaluate collision probabilities in pin clusters and infinite rod lattices
[EUR-3296.E] 14 p2575 N67-26999
Quasi-free scattering experiments and nuclear separation energy measurements
[ISS-67/2] 14 p2588 N67-27134
Calculation of repulsive and attractive inverse power potentials for collision integrals
[NASA-CR-84416] 14 p2590 N67-27375
Electron pairs, secondary interactions, track tracing, and electromagnetic cascade in nucleon-nucleon collisions
[REPT.-734/VI/PH] 14 p2593 N67-27708
Collisional drift instability in nonisothermal plasmas
[MATT-507] 15 p2773 N67-28303
Single pi production in pi-nucleon collisions
[LA-DC-8617] 15 p2787 N67-28526
Hypervelocity impact of solid particles with obstacles at various angles 15 p2801 N67-28814
Energy spectra of charged pions from high energy neutron-proton collisions measured by multichannel magnetic spectrometer
[LA-TR-66-59] 16 p2941 N67-29270
Prototype system for exciting beam of neutral gas molecules by low energy electrons
[AFCRL-66-790] 17 p3040 N67-30404
Mass spectrometer for measuring single bosons produced in positron electron collisions 18 p3309 N67-31963
Nuclear transformation theory and instability boundaries of nuclei and effects of assumed collisions of cosmic body material with antimatter
[NASA-CR-66637] 18 p3310 N67-32033
Energy transfer probability in collision between diatomic molecule and atom, and vibrational relaxation of diatomic molecules 18 p3327 N67-32591
Fortran computer program employing optical model for calculating elastic scattering from collision of nuclear particles
[USC-136-119] 19 p3500 N67-32784
Alternative definition of adiabatic electronic states not constrained by noncrossing rule 19 p3502 N67-32945
Empirical formulas for particle production in proton-beryllium collision
[BNL-11299] 19 p3510 N67-33036
Azimuthal angular distributions of secondaries from interactions of cosmic ray particles with emulsion nucleons
[REPT.-788-VI-PH] 20 p3699 N67-34885
Calculated cross sections of pi-meson production processes by collisions of neutrino and antineutrino with nucleons
[JINR-P2-3197] 20 p3701 N67-34902
Measuring apparatus for signal phase displacement and coherent loss in colliding storage rings
[NP-16690] 21 p3829 N67-36652
Empirical formulas for collisional kaon and antiproton production
[BNL-11479, PT. II] 22 p4107 N67-37692
Collisional and radiative energy transfer process effects on population distribution in expanding gas flows 22 p4236 N67-38685

PARTICLE COUNTER

Luna-10 satellite charged particle trap measurements of tail of earths magnetosphere
[JPRS-38796] 02 p0305 N67-12016
Circuit design with flip-flop sensor for pickup rejection in low counting rate experiments 03 p0440 N67-12814
Low cost alpha particle counter
[RFP-777] 04 p0553 N67-14133
Particle counter for absolute measurements of beta activity, and measurements of radiation absorption in aluminum foil 06 p0937 N67-16233
Assay method of uranium 235, uranium 238, and neptunium 237 fission foils by two pi and low geometry alpha counters 06 p1341 N67-16863
High solid angle alpha counter - detector, vacuum chamber, electronics, geometry, and performance in measuring activity of americium-241
[NP-TR-1438] 10 p1711 N67-20971
Nuclear particle counters using n-p type and homogeneous semiconductors
[FTD-MT-65-138] 10 p1633 N67-21367
Optimum characteristics and cost considerations for aspiration-type ion counters formulated for specified critical mobility 11 p1876 N67-22028
Dead time corrections for losses in slow particle counting rate systems
[HEPL-481] 21 p3898 N67-35432
Fission counter for measuring neutron capture to fission ratio in plutonium 239
[AEEW-R-514] 21 p3900 N67-35846
Design and efficiency of large area spark chamber for counting cosmic ray particles 23 p4251 N67-38230
Integrated circuits and decision electronics in multicounter experiments
[LNF-67/37] 23 p4251 N67-39527

PARTICLE DECAY

Source and function expressions for gamma ray production from decays of secondary mesons and hyperons produced in high energy interactions
[SAO SPECIAL REPT.-220] 01 p0147 N67-10439
Detector for bursts of neutrons by measurement of silver beta decay
[LA-3498-MS] 01 p0130 N67-10530
Trapping, transport, and decay from transverse shock-produced plasma flow interaction with magnetic field
[TID-23144] 01 p0134 N67-10628
Charged sigma production reactions in two-body and three-body decays
[TR-559] 01 p0122 N67-10633
Form factors in K sub 13 decay evaluated by SU-3 algebra of currents and dispersion techniques
[IC/66/74] 01 p0122 N67-10636
Particle physics research
[MPG-66-6] 01 p0125 N67-10680
Group theory SU/3 algebra of currents and P-wave non-leptonic hyperon decays
[IC/66/73] 01 p0136 N67-10717
Underground scintillation detector for recording high energy fragments from baryon nonconserving nucleon decay
[COO-818-87] 01 p0128 N67-10801
Investigation of positronium and annihilation in particle physics and nuclear decay experiments
[AROD-3347-7] 02 p0291 N67-12200
Nuclear physics technology studies on particle decay, fission, directional correlation, reactor components, neutron cross section, and related topics 03 p0432 N67-12541
Beta particle decay matrix elements in decay of silver 111 03 p0437 N67-12579
Particle decay, and beta-gamma scintillation technique to investigate thulium 174 03 p0438 N67-12584
Particle decay of thulium 176 and energy level of ytterbium 176 03 p0438 N67-12585
Beta spectrum of enriched germanium, and decay of gallium 76 03 p0438 N67-12586
Holmium 164 decay, and radiation detector technique 03 p0438 N67-12587
Sum coincidence, and particle decay of silver 110 03 p0438 N67-12589
Fractional intensities in decay of lutetium 177 and rhenium 186 03 p0439 N67-12592
Observation of radiative decays of resonances with lambda hyperons in propane bubble chamber exposed to high energy negative pions
[JINR-E-2858] 03 p0444 N67-13284
Observation of kaon pair yielding three pion decays forbidden by CP invariance
[JINR-P-2850] 03 p0445 N67-13287
Evidence of C violation in eta particle decay
[ORO-3965-10] 03 p0445 N67-13296
Lifetime ratio of pion and antipion mesons measured to determine weak interaction invariance causing pion decay
[JINR-P-2802] 03 p0445 N67-13298
Energy spectra reduction of nonstable particles according to particle decay
[JINR-P-2797] 04 p0591 N67-14074
Fortran program for calculating kinematical and dynamical quantities for particle interactions and decay
[UCRL-11650, REV.] 06 p0940 N67-16597
Particle decay widths and energy shifts due to continuum transitions calculated for oxygen-16
[NASA-CR-81347] 06 p0941 N67-16612
Neutral particle decay modes measured using Cerenkov counter
[LNF-66/31] 07 p1149 N67-17421
Measurement of relative branching ratio in decay modes of kaon-muon-pion interactions
[UCRL-16803] 07 p1153 N67-17592
Experimental test of delta Q equals delta S rule in neutral leptonic kaon decay
[BNL-10609] 08 p1332 N67-18538
Possible C-nonconserving interactions and models of elementary particles
[RIFP-56] 08 p1344 N67-19205
Fortran program for computing degradation by beta spectra emerging from particulate debris
[USNRDL-TR-1098] 09 p1479 N67-19782
Beta decay and muon capture, with form factors describing weak nuclear interactions
[TH/171] 09 p1490 N67-20372
Baryon decays with Dalitz pair formation
[JINR-P-2823] 10 p1700 N67-20772
Branching ratio in kaon decay
[JINR-P-2892] 10 p1702 N67-20804
Collective level systems in thulium to erbium decay
[JINR-P-2820] 10 p1705 N67-20872
Maximum beta decay energy tables for 120 isotopes
[SZS-4/1966/] 10 p1706 N67-20874
Energy spectra and angular correlations of electron and pi-meson particles in K/sub e 3/sup 0/decay
[JINR-P-2855] 10 p1707 N67-20982
Three-body scattering amplitude equations for analysis of pion-pion interaction parameters during decay modes
[UCR-34P107-35] 10 p1709 N67-20943
Low energy pion-pion interaction from particle decay
[UCRL-17088] 10 p1711 N67-20983
Three photon decay of particles with 0 or 1 spin
[NP-16329] 10 p1711 N67-20984
Charge parity violation in decay of neutral kaon into pions
[BNL-10606] 10 p1712 N67-20989
Hadron decay in quark model
[JINR-P2-2954] 10 p1718 N67-21482
Matrix element calculation of particle decay in internal symmetry group
[JINR-P2-2957] 10 p1720 N67-21518
Measurement of half-life of 53 keV energy level in platinum
[AE-266] 10 p1731 N67-21789
Isotopic spin analysis of possible charge parity violating effects in decay of kaon into 3 pions
[TH/181] 11 p1935 N67-22464
Nonleptonic decays of hadrons, and two-body weak interactions
[INS-104] 11 p1935 N67-22475
Nondynamical integral tests for parity of unstable particles
[INR-741/VII/PH] 11 p1938 N67-22998
Unified explanation of forbidden modes of decay by introducing meso-strong interactions between baryons and mesons 11 p1940 N67-22996
Quark model for pionic two-body hadron decays which relates S-wave hyperon amplitudes and decays of kaon mesons into two pions
[TH/182] 11 p1941 N67-23007
Nuclear matrix elements of first forbidden beta transitions in rhenium 186, rhenium 188, and thulium 170
[IC/66/111] 11 p1946 N67-23368
Nuclear physics studies of energy levels, particle decay, and gamma transitions
[UCD-CNL-67] 12 p2162 N67-23742
CP-violation in weak electromagnetic interactions and particle decay
[JINR-P2-3067] 12 p2162 N67-23749
Pole model for decay of neutrino into three pions
[LNF-67/2] 12 p2165 N67-24039
Gamow-Teller beta decay in heavy spherical nuclei and unlike particle-hole random phase approximation
[TR-27] 12 p2173 N67-24075
Evaluation of kaon decays from magnetic cloud chamber observations on kaon-meson events
[JINR-P1-3098] 13 p2377 N67-25915
Soft photon emission approach to pion-gamma and neutrino-gamma pion decays
[ISS-66/49] 13 p2379 N67-26091
Positive and negative muon decay spectra in copper
[UCRL-16168] 15 p2783 N67-28427
Neutral boson production and decay into neutral pi mesons and gamma quanta
[JINR-E1-3100] 15 p2784 N67-28436
Neutral decays of eta-meson
[NEVIS-156] 15 p2786 N67-28475
Geometric interpretation of CP-violating interaction in Maxwell field

[JINR-E3-3089] 15 p3769 N67-38536
Identification of tellurium-111 by daughter isotopes of proton decay
[JINR-P6-3138] 15 p3769 N67-38539
Nonleptonic hyperon decay in quark model
[TUEP-67-7] 15 p3771 N67-38842
CP invariance in neutral kaon decay
[NEVIS-166] 16 p3947 N67-39756
Group theory and unitary symmetry applications to problem of weak particle interactions
[TH/115] 16 p3960 N67-39883
Model of weak interactions and applications to pi-and K-meson decays
[NUP-67-4] 16 p3951 N67-39912
Expansion of 3 pion wave functions and 3 pion decay amplitudes in terms of complete set of orthonormal functions on Dalitz plot
[CTS-HE-67-3] 17 p3128 N67-30613
Corrections for screening in beta decay calculated from solutions of Klein-Gordon equations with Hulthen and Coulomb potentials
[RISO-148] 17 p3132 N67-30652
Molecular hydrogen ion decay in collisions with thermal electrons
[NASA-CR-85568] 17 p3132 N67-30890
Design and construction of large gas Cerenkov counter for electron detection from lambda hyperon beta decay 17 p3066 N67-30990
Automatic scanning and measuring system for leptonic and radiative decay modes in bubble chamber events 17 p3067 N67-31007
Prompt neutron, time decay, eigenvalue, and reactivity coefficient measurements in ROSPO reactor using experimental endogenous pulsed source technique
[RT/FI/66/20] 17 p3117 N67-31346
Quantum mechanical treatment of neutral K-meson decay in vacuum
[TH/197] 17 p3139 N67-31457
Conversion coefficients in decay of gold with semiconductor counters
[NP-16672] 19 p3510 N67-33883
Regge trajectories of elementary particles, eta meson decay, current algebras, and three-body problem
[AD-653866] 20 p3897 N67-34645
Current algebra applied to pion yields pi pi gamma decay mode 20 p3897 N67-34746
Galactic secondary electron sources from pion decay and cosmic ray nuclei collision with interstellar material 20 p3722 N67-35060
Four-body semileptonic decay of hyperons studied within algebra of currents 21 p3899 N67-35528
Relation between vector and axial vector Cabibbo angles in broken SU-3 symmetry
[AD-654194] 21 p3899 N67-35590
Numerical calculations of particle decay curves from mass distributions
[IS-T-166] 21 p3900 N67-35651
Algebra of current and deviation from delta I equals 1/2 rule in kaon yields three pions decay
[TH/207] 21 p3901 N67-35895
Spectrum shape measurements of first forbidden beta transitions in some nuclei
[NP-16764] 21 p3903 N67-36068
Phenomenological analysis of kaon-three pion decay
[TH/208] 21 p3904 N67-36174
Flying spot digitizer /CYCLOPS/ for spark chamber film analysis 21 p3905 N67-36342
Automatic Hough-Powell device for processing spark chamber pictures 21 p3906 N67-36345
CERN spark chamber film experiments using Hough-Powell Device /HPD-1/ 21 p3907 N67-36348
SNAP reactor data used for comparison of beryllium photoneutron decay sets
[NAA-SR-MEMO-12347] 21 p3905 N67-36388
Decay rates of charged K mesons into tau mode
[TR-43] 22 p4105 N67-37402
Absolute activity measurements of molybdenum 99 and 4 pi-gamma ion chamber measurement of technetium 99m, and molybdenum 99 with ingrown technetium 99m
[AAEC/TM374] 22 p4107 N67-37622
Correlations in strong decays of neutral kaon anti-kaon pair into neutral particles
[JINR-P2-3310] 22 p4109 N67-37912
Bubble chamber and emulsion methods to study pion decay of K-plus mesons and high energy interactions, electromagnetic processes induced by electrons, and hypernuclei of K-neg mesons
[UCR-P107-46] 22 p4111 N67-37971
Electromagnetic current vertex and axial current divergence examined to determine limitations of pion pole dominance
[AFOSR-67-1652] 23 p4297 N67-38158
Weinberg sum rules generalized by including scalar meson states to obtain predictions for decay widths
[AFOSR-67-1630] 23 p4297 N67-38173
Spin, decay parameters, and density matrix of decaying states
[CERN-67-20] 23 p4301 N67-38422
Kaon decay and branching ratios studied with magnet and spark chambers
[CU-1932-365] 23 p4302 N67-38542
Excitation levels and spin-parity assignments from decay of Bi-200 and Bi-202
[KFK-541] 23 p4304 N67-38566
Finiteness of radiative corrections to pion beta decay
[NP-16868] 23 p4305 N67-38630
Electron radial wave function for positron beta decays
[KFK-559] 23 p4308 N67-38718
Strong decays of baryonic resonances in baryons, pseudoscalar mesons, and SU/3/ symmetry
[TH/214] 23 p4312 N67-39062
Energy dependence of form factor in positive kaon decay to positron, pion, and neutrino
[PPAD-621F] 23 p4313 N67-39153
Conservation laws and selection rules in kaon decay
[TH/204] 24 p4498 N67-39440
Radioactivity observations - fractions of aerosol beta activity 24 p4488 N67-40101
Chiral dynamics for photo-hadron and weak interactions 24 p4505 N67-40590
Dynamic transformation solution of current-current type Lagrangian for weak hadronic decay
[TUEP-67-20] 24 p4505 N67-40600

PARTICLE DETECTOR
SA ELECTRON DETECTOR
SA NEUTRON DETECTOR

Fission product spectra of slightly irradiated uranium and plutonium obtained by lithium-drifted germanium detector
[AE-341] 02 p0296 N67-11903
Computer program for processing and analyzing spectral data and excitation functions recorded by four detectors 03 p0370 N67-12817
Sensitive particle detectors aboard Mariner IV indicate absence of Martian radiation belts 03 p0481 N67-12750
High temperature nuclear fission detection using mica and quartz glass
[JINR-P-2705] 03 p0444 N67-13278
Differential recombination chamber using volt-ampere characteristics of ionization for radiation detection and dosimetry
[INR-739/XIX/D] 04 p0592 N67-14127
Graphs of Explorer XIV charged particle detectors responses
[NASA-CR-81141] 05 p0709 N67-15251
Breadboard model of solar proton-alpha telescope spectrometer
[NASA-CR-65571] 06 p0878 N67-15674
Feasibility study and breadboard fabrication of switching proton electron channeltron spectrometer for detection of charged particles during manned spacecraft missions
[NASA-CR-65567] 06 p0878 N67-15680
Silicon detectors of thermal neutrons 06 p0938 N67-16284
Charge collection in semiconductor particle detectors
[ANL-7226] 07 p1081 N67-17467
Neutron and high energy particle dosimeter for medical dosimetry applications
[BNWL-SA-610] 07 p1081 N67-17591
Elementary particle detection by high resolution cosmic ray charged particle telescope during three flights in summer of 1966
[NASA-CR-81781] 07 p1088 N67-18134
Interplanetary dust particle flux measured by Explorer XVI cadmium sulfide and wire grid dust particle detectors
[NASA-TM-X-55676] 08 p1361 N67-18577
Neutron physics studies in high energy radiation shielding and detection
[NASA-CR-77961] 08 p1335 N67-18708
Detectors of ionizing particles and radiation 09 p1444 N67-19431
Germanium extraction, formation, and decay studied for use of gallium as solar neutrino detector
[BNL-TR-86] 10 p1690 N67-20752
Aerosol generation for instrument calibration, calibration of aerosol particle analysers, data analysis computer program, and particle monitoring in space cabin atmosphere study
[NASA-CR-83915] 13 p2264 N67-26072
Superconducting thin film for detection of nuclear particles
[AD-634694] 15 p2769 N67-27982
Electronic methods for coupling automated instrumental activation analysis system to cooled lithium drifted germanium detector 16 p2883 N67-29891
Application of Harwell 2000 series adapter units to detection and measurement of radioactivity
[AERE-M-1632] 16 p2898 N67-30013
Titanium as detector of fast integrated neutron flux
[NP-16630] 17 p3129 N67-30689
Crossed field electron multiplier for particle detection by Cerenkov effect 17 p3133 N67-30694
Digital time sorter for improved resolution of nuclear detectors 17 p3066 N67-30695
Electronics, photomultipliers, Cerenkov counters, and new detector devices for high-energy physics 17 p3068 N67-31012
Neutron spectra in presence of plutonium determined from activation ratios of detector foils having cross sections with different energy dependence
[RT/FI/66/28] 17 p3112 N67-31089
Energy for electron-hole pair generation in silicon by protons using lithium drifted semiconductor detectors
[NASA-CR-85784] 17 p3150 N67-31222
Explorer XVI cadmium sulfide and wire grid dust particle detector measurements of interplanetary dust particle flux 18 p3223 N67-32071
Design of particle detector used in Mariner IV cosmic ray observations
[NASA-CR-86068] 19 p3521 N67-33971
Particle measurements in magnetosphere near equatorial plane and in auroral zone by particle detectors on ESRO satellites 20 p3721 N67-34155
Test results of digitized wide gap wire spark chambers
[CERN-67-13] 20 p3696 N67-34634
High energy physics research summaries on data analysis systems, accelerator construction and operation, and particle detectors
[TID-4005, PT. 6] 20 p3704 N67-35305
Low-noise wide-band current preamplifier for use in fast signal processing systems for semiconductor detectors
[ORNL-P-3064] 21 p3813 N67-35438
Nuclear particle identification solid state detector telescope systems
[TR-163] 21 p3849 N67-35889
Solid state nuclear track detectors in reactor physics experiments
[NORA-MEMO-123] 21 p3823 N67-36484
Optimization of signal to noise ratio in presence of noise and pile-up fluctuations
[CISE-107] 21 p3902 N67-36590
Total and differential detection efficiencies for circular detector viewing circular radiator of finite thickness
[AE-292] 22 p4109 N67-37066
Semiconductor counting system for high resolution alpha particle spectroscopy
[IN-1062] 22 p4048 N67-37685
Neutron cross sections of several isotopes with charged particle detection by CsI/Tl/ scintillator coupled to photomultiplier - fast coincidence /nHe3/ in /d,d/ reactions
[CEA-R-3134] 23 p4298 N67-38220
Particle sensor evaluation to develop system for automatic monitoring of space cabin aerosols
[NASA-CR-85975] 23 p4352 N67-38919
Collectrons - self powered detectors for continuous measurement of neutron fluxes
[EUR-3567.F] 23 p4313 N67-39135

PARTICLE DIFFUSION

Gamma spectrometric analysis of fission products into fuel particle coatings for high temperature reactors
[SGAE-CH-36/1966] 01 p0104 N67-10166
Dynamics code that solves two-group neutron diffusion equations simultaneously with thermal and hydraulic equations for average channel of water-cooled reactor
[AEEW-R-441] 01 p0107 N67-10239
Three-dimensional mathematical model for estimating transport and dispersion of

falling particles released in atmosphere at altitudes of 10 to 90 km
[SC-CR-66-2050] 04 p0543 N67-14125
Neutron diffusion parameters in water determined from thermal neutron mean lifetimes using fast chopper 06 p0913 N67-16396
Diffusion model of low energy charged particles along open field lines of magnetosphere
[AFCRL-66-671] 06 p0957 N67-16359
GRISM computational system in Fortran II for IBM 7094 for generating multigroup constants from microscopic neutron cross section data
[NAA-SR-11980, VOL. III] 06 p1319 N67-18693
Diffusion of weakly ionized plasma in magnetic field
[NP-16363] 10 p1735 N67-20733
Enhanced diffusion of charged particles in discharge plasma with nonconducting walls 11 p1951 N67-21913
Variational principle for neutron diffusion equation using discontinuous trial flux functions - Lagrange multiplier method
[WAPD-TM-610] 12 p2156 N67-23562
Difference equations for neutron diffusion equations in hexagonal geometry option of PDQ-7 program - truncation error
[WAPD-TM-645] 13 p2158 N67-23563
Colloid chemical method for effecting oxide particle dispersion hardening in refractory metals and alloys 13 p2336 N67-25359
Vacancy formation from diffusion of metal atoms through surface oxide film and medium effect on dislocation structure
[NASA-TT-F-11099] 15 p2781 N67-28236
Randomized problem of diffuse reflection, and radiative transfer in presence of both scattering and absorption 17 p3134 N67-31624
Differential equation for parent and daughter decay influence on radioactive tracer diffusion profiles
[NASA-TN-D-4099] 16 p3318 N67-33370
Data requirements of triangular mesh neutron codes Trifid and Raven
[TRG-1374/R/] 20 p3681 N67-34430
Neutron diffusion code for reactor core containing large cylindrical cavities
[RT/FI/66/44] 21 p3889 N67-36291
Particle transport and dispersion model for estimating air concentration and deposit density of SNAP fuel particles in atmosphere
[SC-CR-67-2534] 22 p4039 N67-37593
Unidimensional diffusion model for solar cosmic ray propagation within bounded layer 22 p4337 N67-38304
Neutron time-of-flight effect on decay constant in diffusion measurements
[UJV-1730] 23 p4301 N67-38453
Neutron diffusion in polarizing media 23 p4311 N67-38966

PARTICLE EMISSION

SA QUANTUM GENERATOR

Coulomb effects studied in energy states and particle emission of nuclear interaction 06 p0923 N67-15579
Particle emission, energy levels, and decay states due to gamma quantum studied in nucleon clusters during deep photodisintegration of light nuclei 06 p0931 N67-15629
Yield characteristics, emission spectrum, and angular and energy distributions studied with photoprotons from Sn114 and Sn124 06 p0933 N67-15637
Formula for reduced width for emission of cluster of nucleons from nucleus with atomic number A - shell theory 06 p0935 N67-15657
Particle emission measurements on metal surface absorption of radiation pulses from Q-switched ruby laser
[AD-645473] 11 p1894 N67-22727
Photon emission during large angle scattering of high energy electrons
[SLAC-TRANS-53] 13 p2374 N67-25607
Analytic representation of nonelastic cross sections and particle emission spectra from nucleon-nucleus collisions in 25 to 400MeV energy range
[NASA-CR-83961] 13 p2378 N67-26017
Polar cap absorptions and associated solar cycle variations in high energy particle emission of sun throughout nineteenth solar cycle
[NASA-TM-X-55812] 16 p2889 N67-30630
Ternary fission of uranium 236
[INP-529/PL] 17 p3138 N67-31402
Emission from aluminum oxide particles in rocket engine exhaust 18 p3355 N67-32005
Experiment to detect interaction of photon with electric field with subsequent emission of two photons
[NASA-TM-X-1403] 18 p3311 N67-32323
Emission of correlated proton pairs in negative pion-xenon nucleus interaction in bubble chamber
[REPT.-787-V1-PH] 20 p3699 N67-34893
Mechanisms of particle emission production in laser surface interaction - angular distribution of charged particles
[AD-654524] 21 p3845 N67-35538

PARTICLE FLUX

Computer program for two-dimensional mapping of directional fluxes of energetic particles trapped in outer magnetosphere
[NASA-CR-55615] 03 p0458 N67-13163
Optimization of reactor shutdown margin measurements in high gamma fluxes
[ORNL-P-2311] 07 p1133 N67-17543
Critical mass and flux distribution measurements as supplementary data for determining neutron cross sections 08 p1316 N67-18806
Photon flux of substandard quartz iodine lamps in range from 2500A to 8000A 11 p1855 N67-22775
Computer program for calculating flux, energy flow, and radiation dose due to solid or toric cylindrical source
[ORNL-TR-1372] 12 p2159 N67-23575
Radiation retardation effect on angular and energy distribution of charged particle flow across magnetic field
[NASA-CR-83866] 13 p2385 N67-25625
Waveguide analog of particle tunneling through quantum potential barriers investigated by electromagnetic propagation
[AD-624667] 15 p2751 N67-27950
Reactor flux distribution measurements - post construction research and development test procedures
[GAMD-7353] 15 p2746 N67-28310
ESRO sounding-rocket payload experiment utilizing Geiger-Mueller counter and far ultraviolet monochromator to determine relation between proton fluxes and intensity of auroral light
[ESRO-SN-61] 17 p3168 N67-31172
Thermal method for measurement of neutral particle flux using junction temperature effect
[CEA-R-3094] 19 p3506 N67-33518
Computer code for calculating omnidirectional vehicle encountered trapped particle fluxes
[NASA-TM-X-55875] 20 p3721 N67-34156
Energy fluxes of low energy protons and positive ions in earths inner radiation belt
[NASA-CR-88886] 22 p4136 N67-37322
Particle fluxes and magnetic fields in magnetosphere 22 p4138 N67-38032
Collisional model of meteoroids
[NASA-CR-88864] 22 p4145 N67-38048
Solution of Fokker-Planck diffusion equation in intensity prediction of antiproton component of primary cosmic ray flux
[NASA-CR-82977] 23 p4329 N67-38397

PARTICLE IN CELL TECHNIQUE

Truncation error in particle-in-cell numerical process for solving hypervelocity impact and nuclear burst problems
[RM-4876-PR] 05 p0729 N67-14941

PARTICLE INTENSITY

Inductive beam intensity monitor for extracted proton beam from synchro-cyclotron
[CERN-67-9] 20 p3643 N67-34970

PARTICLE MASS

Sign of neutral kaon mass difference, Fermi-Yang statistical ambiguity, and Monte Carlo results
[UCRL-17007] 04 p0588 N67-14009
Talmi coefficients to determine transition to center of mass system of particles with different masses - quantum mechanics 06 p0935 N67-15656
Existence and quark properties of elementary particles of largest mass
[JINR-E2-2973] 10 p1701 N67-20788
Magnitude of kaon mass difference measured by time dependence of strangeness produced by neutral kaons originating from positive kaon reaction with deuteron
[BNL-10606] 10 p1704 N67-20829
Fermium isotope synthesis with mass numbers 246 and 247
[JINR-P7-3022] 11 p1943 N67-23119
Mass operators and particle mixing equations used to obtain mass matrices for meson mass regularity and 405 multiplet of SU/6/
[TUEP-67-5] 14 p2584 N67-27777
Measurements on kaon long lived state mass minus short lived state mass in deuterium bubble chamber
[BNL-11179] 17 p3128 N67-30219
Semiclassical and quantum theoretical analyses for two particle interaction nucleon-transfer model
[YALE-1807-45] 22 p4111 N67-37981
Mass term in simple Lagrangian model for subhadronic fields
[RIFP-64] 23 p4306 N67-38643
Optimum control problems on kinetics of particles with piecewise-continuous changes of mass 23 p4297 N67-39171

PARTICLE MOTION

SA ELECTRON MOBILITY

Motion of calcium in chromosphere, and connection of motion with magnetic field
[T-24] 01 p0147 N67-10478
Radiation attenuation effects upon relativistic particle motion in uniform magnetic field
[NASA-CR-80179] 02 p0291 N67-12393
Adiabatic motion of energetic particles in model magnetosphere
[NASA-TM-X-55614] 03 p0458 N67-13182
Least squares method used for determining momentum spectra of secondary particles in anti pi,N interactions at 7 GeV
[JINR-E-2738] 03 p0445 N67-13239
Theory and analysis of relative motion and internal excitation in molecular collisions
[NASA-CR-80729] 04 p0585 N67-13983
Massive neutrinos in perfect fluid sphere and neutrino motion in superdense matter 04 p0586 N67-13984
Classical unstable particles and long range scalar field
[TH/169] 05 p0741 N67-14944
Terrestrial magnetic field effects on electron particle motion in Coulomb field of electrostatic analyzer
[AFCRL-66-377] 06 p0955 N67-15466
Radiation decrease effect on relativistic particle motion in uniform magnetic field
[NASA-CR-81270] 08 p0941 N67-16667
Particle motion near triangular libration point in Earth-Moon system 07 p1190 N67-17233
Channeling, blocking, and related directional effects in passage of charged particles through crystal lattices
[BNL-10544] 07 p1177 N67-17407
Charged particle motion parameters in stopping and scattering matter placed in inhomogeneous magnetic field determined by maximum likelihood method
[JINR-P-2829] 07 p1157 N67-17918
Topological study of trapped particle motion in magnetic field
[NASA-TM-X-57233] 08 p1357 N67-18796
Analytical calculation of charged particle motion in accelerators, equilibrium orbits, and betatron oscillation frequencies
[MURA-719] 08 p1342 N67-18977
Geodesic motion in incompressible fluid sphere studied in framework of general relativity 08 p1328 N67-19031
Temporal and spatial behavior of low energy solar protons in magnetosphere
[NASA-TM-X-55729] 10 p1757 N67-21439
Plasma wave interaction expressed in terms of wave-particle resonance due to particle motion in turbulent electric and magnetic fields
[IC/66/82] 10 p1741 N67-21797
Plasma parameters for transverse and longitudinal motion interaction in transverse magnetic field 11 p1953 N67-21986
Particle scattering through short range central field - definition of scattering cross section 11 p1931 N67-23188
Micrometeoroid composition determined using spectrographic analyzer to measure emission spectra of heated particles
[NASA-CR-65907] 11 p1867 N67-23225
Motion of charged particles in toroidal magnetic field
[CLM-R-67] 12 p2176 N67-23548
Spin quadrupole forces and collective states in deformed nuclei
[JINR-E4-3025] 12 p2163 N67-23765
Microinstabilities due to anisotropic velocity distribution function of particles in

homogeneous plasma
[CEA-R-3074] 12 p2179 N67-23895
Probability and canonical distribution functions for characterizing particle position and velocity in Brownian motion model
[NASA-CR-83935] 13 p2313 N67-25883
Two-dimensional pulse height analysis of particle-gamma, gamma-gamma, and particle-particle coincidence effects
[BNL-10864] 13 p2377 N67-25930
Charged particle motion in magnetic traps of acute geometry
[NASA-TT-F-10750] 14 p2594 N67-26562
Motion of charged particles in magnetic traps with acute angle geometry
[NASA-TT-F-10751] 14 p2594 N67-26564
Interaction of laser radiation with plasmas and nonadiabatic motion of particles in magnetic fields
[NASA-CR-84403] 14 p2597 N67-27097
Motions of low density crossed field electron beams studied on computer in plasma radiation shielding investigation
[NASA-CR-84403] 14 p2597 N67-27362
Treatment of collective motion of charged particles
[NUP-67-3] 14 p2598 N67-27683
Kinetic theory of radiometric force acting on small particle suspended in Knudsen gas regime
[R-343] 15 p2803 N67-28185
Motion of plasma jet across nonuniform transverse magnetic field
[NASA-TT-F-11016] 15 p2773 N67-28330
Directional effects in transmission of protons through silicon monocrystals
[LYCEN-6654] 15 p2781 N67-28506
Complete system for each value of total angular momentum in three-body problem with wavefunction of three particles depending on two vectors
[AEC-TR-6835] 15 p2789 N67-28583
Charged particle motion in electric and magnetic field distributions in rod plasma injector
[INR-712/VII/PP] 15 p2775 N67-28593
Schroedinger equation for three particle problem in internal coordinate sets for body axes motion
[NASA-CR-85909] 17 p3019 N67-31224
Euler potentials and geomagnetic drift shells
[NASA-TM-X-55622] 17 p3057 N67-31339
Motion of particles in radial space-charge field and in magnetic field
[CEA-R-3163] 19 p3519 N67-33621
Nonlinear analytic study of long period features of particle motion in Earth-Moon system
[NASA-CR-87312] 19 p3536 N67-33630
Diffusion model for radio frequency noise effects of particle motion in storage ring of synchronous particle accelerator
[CERN-67-1] 20 p3696 N67-34582
Neutrino motion in Volkoff spheres
[NP-16738] 20 p3699 N67-34690
Neutrino motion in fluid sphere described by solution with singularity
[NASA-CR-85909] 20 p3702 N67-35034
Relative motion and coagulation of particles in turbulent gas
[USNRDL-TR-67-49] 21 p3830 N67-35598
Methods of labeling sand with radioactive isotopes for studying particle movement in river and sea beds
[PAECL/CHEM/MISCELL-1] 22 p4039 N67-37570
Plasma sheet model with two-dimensional motion and emitted radiation
[NASA-CR-85909] 23 p4222 N67-38754
Construction of optical mode filters for application with seismic data
[SC-DC-67-1910] 23 p4248 N67-39158
Shock wave stress gauge utilizing capacitance change of solid dielectric disk
[SC-DC-67-1910] 23 p4255 N67-39218

PARTICLE PRODUCTION
SA KAON PRODUCTION
Electromagnetic cascades and neutron production by 6.3 BeV bremmstrahlung in lead, copper, and heavy concrete measured by ionization chamber
[DESY-66/12] 01 p0123 N67-10627
Table to evaluate potential radioactive nuclei production occurring in accelerator laboratory
[NASA-TM-X-55577] 02 p0290 N67-11359
Helium 8 production and decay in negative pion capture by carbon and oxygen nuclei using photographic emulsion
[JINR-E-2774] 04 p0591 N67-14068
Computation of nuclide yield when given target is bombarded with charged particles in cyclotron
[TG-837] 05 p0741 N67-14725
Neutron production rate of fusion reaction in deuterium plasma calculated by non-Maxwellian average
[NRL-6391] 05 p0749 N67-15369
Differential cross section for deuteron production in proton-proton collisions measured for kinetic energies of 1.85, 2.5, and 2.9 GeV
[REPT.-03106-26-T] 06 p0940 N67-16413
Lambda hyperon and non-mesic hypernuclei production in kaon interactions
[AFOSR-68-2606] 07 p1141 N67-17121
Lambda hyperon production in kaon interactions at rest in heavy liquid bubble
[JINR-P2-3197] 07 p1141 N67-17122
Non-mesic hypernuclei produced by kaon captures in light nuclear emulsions
[JINR-P2-3197] 07 p1141 N67-17123
Scattering amplitude of unstable particles at zero energy, and three-particle singularity
[LA-DC-7642] 07 p1145 N67-17211
Linear accelerator for generating proton beam for meson production
[LA-DC-7642] 10 p1710 N67-20962
Neutron production and scattering around high energy accelerator
[CEA-R-2975] 10 p1712 N67-20988
Statistical model of multiple particle production in broken unitary symmetry
[JINR-P2-3956] 10 p1720 N67-21510
Unitary statistical model of multiple particle production
[JINR-P2-3997] 10 p1727 N67-21636
High intensity neutrons produced by electrical means
[AECL-2818] 10 p1688 N67-21640
Collinear production of vector mesons and SU-3 symmetry
[JINR-P2-2967] 10 p1738 N67-21656
Particle production and scattering amplitude involving pions and nucleons
[TH/177] 11 p1938 N67-22929
Hyperon-nucleon interactions and associate production on deuteron
[TH/175] 11 p1940 N67-22990
Simple ion source for negative ion production
[ORNL-TR-1423] 11 p1857 N67-22204
Double pion production without annihilation in antiproton-proton interactions at 2.7 GeV/c
[IS-T-127] 12 p2161 N67-23597
Unitary symmetry in hadron production reactions
[AEC-TR-6807] 13 p2371 N67-25390
Statistical models of high energy multiparticle production and elastic scattering processes
[DESY-66/35] 13 p2378 N67-25985
Slow extracted beam handling at targeting stations and external proton beam production
[BNL-11634] 14 p2591 N67-27483
Single pion and multi-pion production in pion proton interactions at 1.6 GeV/c
[CEA-R-3036] 14 p2591 N67-27485
Production of negative omega hyperons in negative kaon proton interactions at high energy
[COO-1195-79] 15 p2764 N67-28459
Annihilation of stopping antiprotons into kaons
[R-575] 15 p2767 N67-28523
Single pi production in pi-nucleon collisions
[LA-DC-8617] 15 p2767 N67-28526
Unitary-symmetrical statistical model for particle production and transition
[JINR-P2-3182] 17 p3136 N67-30236
Coherent particle production in collisions of 300 GeV pions with nuclei of photographic emulsions
[REPT.-774/VI/PH] 17 p3135 N67-31100
Pi proton interaction yielding pions and neutrons at 8 GeV/c
[NYO-2171-218] 19 p3510 N67-33857
Empirical formulas for particle production in proton-beryllium collision
[BNL-11296] 19 p3510 N67-33866
Photoproduction of strange particles studied in hydrogen bubble chamber exposed to bremsstrahlung beam
[DESY-67/8] 19 p3511 N67-33910
Neutrons from d-d reactions in hot deuterium plasma for plasma diagnostics
[IPP-1/60] 20 p3707 N67-34189
Inelastic sum rules for electromagnetic processes on nuclear targets in one photon exchange approximation
[LNF-67/34] 20 p3692 N67-34330
Coherent particle production in collisions of 300 GeV pions with nuclear emulsion
[INR-774/VI/PH] 20 p3694 N67-34466
Photomonoproduction of positively charged pi mesons for incident photon energies between 1.3 and 3 GeV
[NP-16741] 20 p3695 N67-34569
Height of effective muon production level determined by attenuation measurements
[REPT.-883-VI-PH] 20 p3699 N67-34857
Photoproduction of positive pions
[NP-16737] 20 p3700 N67-34923
Calculated cross sections of pi-meson production processes by collisions of neutrino and antineutrino with nucleons
[JINR-P2-3197] 20 p3701 N67-34962
Lithium 8 production in capture of slow negative pions by carbon, nitrogen, and oxygen nuclei
[JINR-P1-3305] 21 p3906 N67-36453
Empirical formulas for collisional kaon and antiproton production
[BNL-11479, PT. II] 22 p4107 N67-37692
Eta-meson production and decay in pion-deuterium interactions
[CEA-R-3105] 23 p4301 N67-39457

PARTICLE PROPERTY
Formation of radioactive fallout and isotope fractionation after underground nuclear shot
[JPRS-36744] 02 p0257 N67-13012
Microstructure of particles from volcanic deposits in Greenland and Japan
[SAO SPECIAL REPT.-238] 06 p0872 N67-15020
Absorption properties of small particles and heavy-atom gases for use in nuclear rocket engines
[NASA-CR-693] 06 p0941 N67-16501
Tunnel diode pulse shape discriminator for separating scintillation signals from different ionized particles
[BNL-10636] 10 p1593 N67-21011
Relationship between contact and convective-conductive heat flux components during particle heating in fluidized bed
[NASA-TT-F-10425] 13 p2427 N67-26425
Cosmic dust particle properties obtained from Aerobee rocket measurements
[NASA-CR-85909] 18 p3333 N67-32067
High resolution beta spectrometer used to study electron values, particle properties, and decay, and beta-gamma circular polarization correlation of Co 60 and Na 22
[NASA-CR-87312] 18 p3311 N67-32344
Infinitely composite particle role in explaining rapid decrease of hadron form factors
[AD-653827] 19 p3503 N67-32980
Concentration during coarsening study to derive quantitative information about particle-matrix interfacial free energy in well-behaved systems
[CALT-221-39] 19 p3472 N67-33527
Radiative corrections to leptonic decays and composite models for strong interactions
[ISS-67/13] 20 p3701 N67-34972
Literature survey on energy transfer in particle and surface interactions in hypervelocity flight
[RM-4885-PR] 21 p3949 N67-36168
Hydrodynamic stability of thin liquid layer on small body reentering atmosphere - free molecular flow
[SC-CR-67-3636] 22 p4032 N67-37734
Solid and liquid state concepts for large particle or macromeritic systems - soil mechanics
[AFCRL-67-0414] 23 p4240 N67-39072
Graphs of scattered particle energies versus scattering angles and center of mass scattering angles versus laboratory scattering angles for nucleon-nucleon and pion-nucleon
[NASA-CR-85976] 23 p4309 N67-39823
Energy production and ionization losses of particles during chromospheric flare emission
[NASA-TT-F-11387] 24 p4525 N67-40196

PARTICLE SIZE
Solution of integral equations on digital computer in determining particle spectrum of polydisperson systems
[AD-653869] 02 p0269 N67-12415
Application and performance of spinning disk aerosol generator in determining turbulent deposition of monodisperse

particles 04 p0527 N67-13759
Semiempirical method including variation in particle size for use in evaluating viscosity data - Rheology 05 p0725 N67-14554
Aggregation caused by flow in macromolecular solutions of biological origin - particle size 05 p0642 N67-14586
Streaming birefringence study of interaction of submicroscopic rods and spheres 05 p0645 N67-14586
Hypervelocity cratering by microscopic particles
[TRW-03246-6001-R000] 06 p0978 N67-16639
Particle size, additive, and radiation effects on thermal decomposition of ammonium perchlorate
[TIL/T-5597] 09 p1412 N67-20309
Interaction of neutral aerosol particles in uniform electric field, and preparation of reproducible monodisperse aerosols
[FTD-HT-66-301] 10 p1691 N67-20481
Preparation of reproducible monodisperse aerosols with mean particle radius from 20 to 300 A 10 p1569 N67-20482
Particle sizing techniques and comparison of computer particle sizing programs
[LF-30] 11 p1789 N67-22338
Thorium alloys studied for effects of submicron thoria additions and temperature on mechanical, electrical, and corrosion properties 12 p2117 N67-23955
Aerosol concentration and size distribution at sea level and in troposphere
[AD-644465] 12 p2094 N67-24703
Aerosol particle size and linear flow velocity effects on penetration of dibutyl phthalate aerosol through glass fiber filters
[TDCK-47908] 14 p2483 N67-27552
Particle size distribution, concentration, and composition in aerosol samples from troposphere and stratosphere
[NYO-3615-1] 16 p2884 N67-29323
Equations derived to determine frequency distributions of particle size
[BNWL-346] 16 p2938 N67-29707
Projectile size effects on hypervelocity impact craters in aluminum
[NASA-TN-D-4067] 18 p3347 N67-31538
DC-8 aerosol sampling to determine spatial density of dust, and particle types and size distributions as functions of altitude and time 18 p3385 N67-32069
Size distribution, concentration, and influx rate of meteoric particles in stratosphere determined by light scattering techniques 18 p3334 N67-32076
Fuel particle size effect on dynamics of reactor fuelled with oxide particles dispersed beryllia
[AAEC/E167] 20 p3682 N67-34683
Conditions derived for grain size stabilization of normal grain growth for ceramic materials
[AAEC/E170] 20 p3685 N67-34697
Air pollution, dust collectors, particle size, dust precipitation measurements, and comparison of apparatus and measurements 20 p3751 N67-35081
Comparison of dust particle size measuring instrumentations for industrial safety 20 p3643 N67-35084
Measurement of particle size, adhesion, and other physical properties of dust 20 p3650 N67-35102
Dendrite structure, grain size, and mechanical property of iron and nickel base alloys solidified at large degree of undercooling
[AMRA-CR-64-07/3] 21 p3807 N67-35355
Microstructure, flow behavior, transport, and storage of granular media - Continuum theory
[AROD-4878-4-E] 21 p3894 N67-35379
Fortran programs for computation of light scattering functions for heterodisperse systems of isotropic spheres
[TR-15/61/] 21 p3894 N67-35549
Polarimetry of limonite surface as function of wavelength and particle size
[RM-37LJ] 21 p3931 N67-36001
Mathematical interrelationships in particle size distribution of atmospheric aerosols above continent
[NASA-TT-F-11091] 21 p3841 N67-36177
Growth and agglomeration behavior of ultra-small colloid metal oxide particles
[AFOSR-67-0033] 22 p4163 N67-37394
Particle distribution model with unfolding formulas and computer program for estimating particle volume density
[BNWL-310] 22 p4105 N67-37395
Reading schedule tables for particle size analyzer
[LA-3692] 22 p4049 N67-37762
Design and performance of size separating aerosol centrifuge facilitating particle size spectrometry in submicron range
[UR-49-778] 22 p4050 N67-37888

PARTICLE THEORY
SA MANY-PARTICLE THEORY
Elementary particle theory in relation to triplets, static SU-6, and spontaneously broken SU-3 symmetry
[COO-264-308] 01 p0122 N67-10622
Fundamental fields of matter to suggest common basis for higher symmetry multiplets and algebra for weak currents in particle theory
[IC/66/85] 01 p0122 N67-10624
Particle-particle interaction theory to explain mechanical properties of dental amalgam 02 p0277 N67-12122
Rostoker particle theorem for multispecies plasma in framework of Klimontovich formalism 02 p0293 N67-12130
Louis Pasteur conjecture on asymmetry of universe substantiated by discovery of non-conservation of parity in certain fundamental particle interactions 03 p0461 N67-12727
Derivation of Adler-Weisberger relation and dispersion sum rules in theory of strong interactions
[JINR-E-2876] 04 p0584 N67-13385
Extension of atomistics to part of space unoccupied by particles - new version of field theory of ether with globular structure
[RIFP-55] 04 p0586 N67-13954
Dispersion relations for particle scattering in nonrelativistic region 07 p1144 N67-17302
Nuclear fusion, ionization of energetic hydrogen atoms, turbulent plasma theory and related topics
[AEC-TR-6669] 07 p1165 N67-17385
Multiparticle effect of turbulent plasma theory 07 p1165 N67-17387
Lecture notes on weak interactions and current algebra
[CERN-66-29, VOL. I] 08 p1344 N67-19213
Stress tensors and octet generalizations as sources of 2 plus particles
[IC/66/115] 11 p1945 N67-23386
Research work in fields of elementary particle physics, nuclear physics, solid state physics, and electromagnetic interactions
[ISS-66/35] 13 p2350 N67-26102
Electron theory of metals based on Fermi statistics and Bose-Einstein statistics - general data, flow processes, and work functions
[NASA-TT-F-10671] 14 p2601 N67-26570
Nuclear particle transport with emphasis on Monte Carlo and shielding calculations
[RISO-136] 16 p2930 N67-29701
Approximation of antisymmetric wave function describing state of n identical fermion system by single Slater determinant 17 p3127 N67-30395
Theoretical and experimental research on radiation and plasma physics, hydrodynamics, thermodynamic property of matter, and nuclear structure
[UCRL-50001-66-2] 19 p3498 N67-33306
Particle theory, and thermodynamic properties of matter 19 p3551 N67-33398
Pauli exclusion principle taken into account for identifying scattered particles
[JINR-P4-3309] 19 p3508 N67-33678
Generalized master equations for composite particles - statistical mechanics
[USNRDL-TR-67-78] 22 p4104 N67-37267
Transformation of one-particle states operating in space or Lorentz rotations
[JINR-P2-3333] 22 p4110 N67-37931
General correspondence between field theories and theories of direct interparticle action
[NASA-CR-89344] 23 p4313 N67-39235

PARTICLE TRACK
Track particle detection by spark and streamer chambers
[JINR-P-2745] 03 p0362 N67-13312
Determination of energy dependence of form factor in positive K meson decay - Behr-Mittner method for calculation of momenta and errors of tracks from particle decay
[CONF-660868-12] 06 p1334 N67-18618
Range and energy loss for ions tabulated from charged particle tracks in polymers
[NASA-CR-83033] 09 p1490 N67-20193
Standardized neutron detection method based on solid state neutron track detector in contact with fissile radiators /fission foils/
[USNRDL-TR-1089] 10 p1629 N67-20621
Particle injection, tuft and vane probes, directional probes, and glow discharge density probes for nozzle flow visualization
[NASA-CR-83976] 13 p2309 N67-26168
Procedure for recording, etching, and counting fission fragment tracks in mica and Mylar
[UCRL-17075] 14 p2586 N67-26822
Electron pairs, secondary interactions, track tracing, and electromagnetic cascade in nucleon-nucleon collisions
[REPT.-734/VI/PH] 14 p2593 N67-27700
Photoelectric determination of particle track width in nuclear emulsions
[IS-1465] 15 p2760 N67-28397
Modified program for particle track following with scanning devices
[BNL-11140] 15 p2797 N67-28468
Highly-localized bright particle tracks obtained in helium-filled streamer by using admixtures of complicated hydrocarbons
[JINR-P13-2123] 16 p2944 N67-28835
Instrumentation for nuclear particle detection in spark and bubble chambers, digitized readout systems, and automatic scanning processes
[CONF-660918] 17 p3063 N67-30065
Wire spark chamber with two coordinated readout systems for particle tracking 17 p3064 N67-30080
Design of wide gap spark chamber with multiple magnetostrictive readout system 17 p3064 N67-30081
Development of large spark chambers for streamer photography 17 p3064 N67-30082
Revolving cylinder with electrophotographic layers for particle track evaluation in spark chamber 17 p3064 N67-30085
Streamer observation in high energy pressurized gas discharge chamber 17 p3065 N67-30088
Discharge track chamber for detection of muon capture by nuclei and atomic processes 17 p3183 N67-30089
High quality proton tracking by pulsed field bubble chamber 17 p3067 N67-31060
Automatic point guidance system for analysis of bubble chamber film 17 p3067 N67-31062
Design and performance of automatic bubble chamber film analyzing machine 17 p3067 N67-31064
State-of-art in flying spot digitizers for particle tracking in bubble chambers 17 p3067 N67-31066
Developments in conventional and digitized spark chambers for particle tracking 17 p3067 N67-31069
Wide-gap, projection, and streamer spark chambers for particle detection and tracking 17 p3067 N67-31610
Digital acquisition of spark chamber data and automatic processing of photographic particle tracks 17 p3068 N67-31613
Primary cosmic radiation by tracks of nuclear particles in meteorites and tektites
[NASA-CR-86636] 18 p3322 N67-31988
Shift and angular efficiency measurements of ionizing particle in wide gap spark chamber
[LNF-67/33] 20 p3618 N67-34189
Computer program simulating bubble chamber tracks
[CERN-67-10] 20 p3642 N67-34778
Spiral reader machine for measuring bubble chamber film
[UCRL-17228] 21 p3850 N67-36068
Design principles and simulation studies of stereoscopic analog track recognition machine for analysing bubble chamber film 21 p3811 N67-36376
Automatic track following system for processing bubble chamber film using Hough-Powell Digitizer /HPD/ 21 p3811 N67-36377
Improved track following program at Brookhaven National Laboratory 21 p3811 N67-36378
Track registration technique in polymer charged particle detectors based on restricted energy loss rate concept
[USNRDL-TR-67-80] 24 p4490 N67-39481
Techniques for measuring neutron energy spectra in photographic emulsions
[NDL-TR-92] 24 p4490 N67-39551

PARTICLE TRAJECTORY
Computer program to calculate geomagnetically trapped particle shell model, drift rate, and bounce paths
[NASA-CR-79705] 01 p0148 N67-10688
Computer program to calculate neutron energy from knock-on proton trajectory length and orientation in nuclear emulsion
[NDL-TM-34] 01 p0045 N67-10974
Dipole moment approximation of three-dimensional plasma acceleration through axisymmetric diverging magnetic fields
[NASA-TN-D-3783] 06 p0942 N67-15663
Particle trajectories in overlapping electric and magnetic fields, and dielectric effects in slotted waveguide antennas
[FTD-TT-65-762] 06 p0917 N67-16095
Modeling of particle trajectories in overlapping electric and magnetic fields 06 p0936 N67-16096
Theoretical calculations of currents, particle trajectories, and domain shapes of planar and spherical electrostatic plasma probes
[NASA-CR-764] 06 p0970 N67-16671
Nonmagnetic dynamic mass spectrometer in which energy selection is obtained by parabolic particle trajectories
[NASA-TT-F-10465] 06 p0883 N67-16683
Nuclear interaction and trajectory spiral effects in reentrant cosmic ray albedo calculations
[NASA-TM-X-57252] 08 p1356 N67-18490
Charged particle trajectory into magnetosphere
[NASA-CR-82997] 09 p1506 N67-20011
Nonlinear terms taken into account when finding field components of charged particle trajectory in synchrophasotron magnetic field
[JINR-P-2880] 10 p1707 N67-20913
Particle aspect analysis of drift wave instability
[IPPJ-53] 10 p1740 N67-21728
Statistical density matrix for system of charged particles in uniform magnetic field derived by Feynman path integral method
[WVT-6718] 15 p2777 N67-28946
Speeds, directions of arrival, and mass of dust particles measured from OGO-1 satellite to determine orbits of dust particles 18 p3333 N67-33070
Fragmentation parameters and interaction mean free path of cosmic ray nuclei as functions of energy in nuclear emulsion
[CR-98] 22 p4137 N67-37459
Approximation of particle trajectories in high frequency plasma in magnetic mirror 22 p4119 N67-37749
Resonance approximation in superconvergence relations
[ICTP/67/27] 23 p4298 N67-38342
Condensation of Regge cuts, vanishing total cross sections, and twisting trajectories
[NP-16870] 23 p4302 N67-38503
Thermal dissociation source, automatic tuning, and atomic trajectories for hydrogen maser
[NASA-CR-89275] 25 p4262 N67-39353
Digital computer program for computing ion saturation currents from uniform density plasma, particle trajectories, and plasma surface shape
[MATT-551] 24 p4507 N67-39074
PARTICULATE FILTER
Errors associated with particle sampling at filter face velocities below carrying velocity in air stream 04 p0530 N67-13760
Fire-resistant, high efficiency, particulate air filter requirements
[ORNL-P-2387] 07 p1092 N67-17490
Thermal stability and I retention of particulate filter materials, determination of fission products in samples, and dissolution of melted fuel 08 p1235 N67-18385
Microbiological evaluation of high efficiency particulate air filters 12 p2074 N67-23644
Continuous filter developed for ultrafine particles
[UCRL-16574] 12 p2109 N67-24644
Heat capacity, attenuating effect on shock waves, moisture capacity, protection capacity for toxic vapors, and protection capacity for aerosol and fallout particles tests of sand filter
[TDCK-47088] 13 p2265 N67-26158
Environmental and function testing of pneumatic filter
[NASA-CR-88615] 22 p4052 N67-37025

PARTITION FUNCTION
Fractionation factors and partition functions for stable isotopes of nitrogen and oxygen
[NYO-3442-2] 04 p0507 N67-14039
Matrix tearing and partitioning for solving large systems of linear or nonlinear equations 07 p1111 N67-17225
Covered space, Riemann geometry extension, and partition function research on stochastic models for multivalued, multidimensional relations
[NASA-CR-83934] 09 p1479 N67-19937
Thermal splitting and uncoiling of deoxyribonucleic acid /DNA/, and partition function of mixed system 10 p1563 N67-21030
Maximization problem in theory of partitions
[NASA-CR-86613] 18 p3286 N67-32087
Airborne sound insulation of various types of partitions 23 p4296 N67-39064
PASSENGER
Soviet supersonic aircraft
[FTD-HT-66-388] 11 p1763 N67-23145
Projection to 1990 of passenger demand for air travel by supersonic transport and effects on U.S. balance of payments
[R-118, VOL. I] 18 p3258 N67-32214
Polyimide plastic film smoke hood for protection of jet transport passengers against smoke and toxic gases during evacuation
[AM-67-4] 22 p3975 N67-36727
PASSIVE GEODETIC EARTH ORBITING SATELLITE
S PAGEOS
PASSIVE SATELLITE
Attitude stability of spinning passive satellite in circular orbit
[NASA-CR-70262] 02 p0304 N67-11961
Attitude stability of spinning passive orbiting satellite
[NASA-CR-665] 06 p0973 N67-16665
Orbit position control handbook for passive communications satellite
[NASA-CR-730] 12 p2319 N67-25050
425-foot diameter passive communication satellite with self erecting properties
[NASA-CR-83807] 13 p2408 N67-25759
Passive nonmetallic gyroscopic earth satellite for measuring in-plane precession predicted by general relativity
[NASA-CR-84370] 15 p2788 N67-28003
PATENT
Soviet patent data on correlation function measurement and infralow frequency devices
[JPRS-40874] 16 p2894 N67-29472
Device for measuring envelopes of normalized correlation functions 16 p2894 N67-29473
Infralow frequency phase shifter for obtaining sinusoidal signal 16 p2868 N67-29474
Pulse counter device for accelerated computation of correlation coefficients in statistical samples 16 p2895 N67-29475
Automatic measurement of normalized current mutual correlation and autocorrelation functions of random electric and acoustical signals 16 p2895 N67-29476
PATH
SA DIFFRACTION PATH
SA ELECTRON PATH
SA FLIGHT PATH
SA GLIDE PATH
SA MULTIPATH PROPAGATION
SA OPTICAL PATH
SA TRAJECTORY
Test selection of fault location in logic networks by path sensitizing techniques
[R-316] 05 p0682 N67-15526
PATHOLOGICAL EFFECT
Disturbances of tissue respiration under conditions of increased gravitation 02 p0200 N67-11587
Effectiveness of external compensation against pathological changes in explosive decompression in humans and animals 02 p0209 N67-11688
Toxicity and pathological effects of mercury and organic mercury compounds on cardiac function 03 p0338 N67-12294
Needs, plans, and identification of pathologic effects on vestibular organs with prolonged exposure to weightlessness 05 p0657 N67-15142
Mortality response of rats to environments of increased partial pressure of oxygen or decreased total pressure 14 p2452 N67-26720
Effect of species, age, strain, and individual susceptibility on type and severity of pulmonary lesions induced in animals after exposure to oxygen at near ambient pressures 14 p2452 N67-26721
Pathology of animals exposed to pure oxygen atmosphere at reduced pressure for prolonged periods 14 p2452 N67-26722
Pathology of animals exposed for 235 days to 5 psia 100 percent oxygen atmosphere 14 p2452 N67-26724
Electron microscopic and morphometric studies of rat lungs after exposure to oxygen at atmospheric pressure and 250 torr 14 p2452 N67-26725
Electron microscopic studies of livers of rats, dogs, and monkeys after prolonged exposure to oxygen atmospheres 14 p2453 N67-26726
Electron microscopic studies of kidneys of rats, monkeys, and dogs after prolonged exposure to hyperoxic environments 14 p2453 N67-26727
Pathological effects on animals exposed to ozone and nitrogen dioxide at ambient air and 5 psia 100 percent oxygen atmosphere 14 p2455 N67-26732
Pathological effects in animals exposed to carbon tetrachloride in ambient air and at 5 psia oxygen atmosphere 14 p2455 N67-26733
Reliability and prognostic validity of serial electrocardiograms in men over 24 year period, and relationship of observed changes to pathological or physiological variables
[NASA-CR-85241] 16 p3236 N67-30004
Pathological response of eight species of mammals to air blast waves
[DASA-1854] 18 p3218 N67-32512
PATHOLOGY
SA DISEASE
SA HUMAN PATHOLOGY
Mathematical model of extrasystolic allorhythmia 04 p0488 N67-13453
Acute effects of endrin and carbon tetrachloride poisoning on livers of rats
[AM-66-34] 07 p1016 N67-17634
Bibliography of toxicology of nickel carbonyl
[ORO-3661-8A] 10 p1565 N67-21615
Toxicology and pathology of repeated doses of monomethylhydrazine in monkeys
[AMRL-TR-66-199] 18 p3213 N67-32461
Pathology of oxygen toxicity in monkeys
[AMRL-TR-66-234] 20 p3571 N67-34369
PATIENT
S DISEASE
S INJURY
PATTERN
S DIFFRACTION PATTERN
S FLOW PATTERN
S WIDMANSTATTEN PATTERN
PATTERN DISTRIBUTION
Subarray patterns and geometry of large aperture seismic arrays
[TN-1965-44] 03 p0387 N67-12529
Idealized antenna patterns for communication satellite interference studies
[NASA-CR-79486] 03 p0368 N67-13020
Current distributions and radiation patterns of resistively loaded V-antenna at quarter scale for radio astronomy Explorer satellite
[NASA-CR-83968] 09 p1418 N67-19024
Design, construction, shielding, and performance data of 120-ft. anechoic chamber for testing radiation patterns
[NASA-CR-83947] 09 p1431 N67-19052
Utilization of radar echo pattern distribution in weather forecasting
[IERTM-NSSL-38] 11 p1827 N67-23470
Soviet research in automatic pattern recognition and distribution, information processing, human behavior simulation, and cybernetics
[JPRS-39077] 13 p2048 N67-25948
Properties of antennas with stepped phase distribution 13 p2279 N67-25112
Multiple regression equations and regional approach to developing forecasting model on geographic distribution patterns for NASA subcontract awards
[NASA-CR-88436] 22 p4170 N67-37784
Superdirective design effects on antenna gain and angular resolution, phase pattern characteristics, and pattern correlation
[AFCRL-67-0317] 24 p4405 N67-39059
PATTERN RECOGNITION
SA AUTOMATIC PATTERN RECOGNITION
Method of selecting variables in succession for best discrimination when correlation between any pair of variables is same - learning system
[TN-4] 01 p0089 N67-10219

Television equipment for automatic recognition of objects
[FTD-HT-66-84] 01 p0072 N67-10415
Spectral analysis techniques and pattern recognition methods for electroencephalographic data
[NASA-CR-79743] 01 p0024 N67-10688
Information transmission problems - method of correcting error bundle and device for recognizing continuous functions
[FTD-TT-65-980] 02 p0232 N67-11307
Device for recognizing continuous functions 02 p0233 N67-11309
Algorithm for converting images into sound based on pattern recognition theory 03 p0350 N67-12351
Technical cybernetics problems of optimal control, queueing, random processes, speech and pattern recognition, and information processing
[JPRS-29381] 05 p0625 N67-14341
Pattern recognition method for automatic control of soaking pits using readings from indirect sensors 05 p0686 N67-14344
Pattern recognition methods for speech signal discrimination 05 p0670 N67-14353
Design technique for cloud pattern recognition applied to Tiros photographs
[NASA-CR-80063] 05 p0706 N67-14897
Multiple separation function for pattern classification
[R-313] 06 p0804 N67-16377
Method of selecting variables in succession for best linear discrimination - pattern recognition
[IRA-100-10] 06 p0905 N67-16472
Tactual perception experiments and models
[NASA-CR-623] 06 p0816 N67-16661
Sequential stochastic convergence algorithm for teaching machines to classify input signal
[TR-121] 07 p1109 N67-17033
Linear network for classification of analog parallel input signals
[NOLTR-65-108] 07 p1055 N67-17039
Unsupervised adaptive signal detection and pattern recognition for multivariate normal distribution
[RADC-TR-66-488] 07 p1036 N67-17174
Unsupervised adaptive signal detection and pattern recognition 07 p1036 N67-17175
Processing methods of functional neural networks employed to solve pattern recognition problems
[NOLTR-65-160] 07 p1055 N67-17347
Statistical analysis of moment invariant variations in pattern recognition 06 p1253 N67-18449
Electroencephalographic baselines in astronaut candidates estimated by computer and pattern recognition techniques
[NASA-CR-82506] 08 p1233 N67-19092
Learning techniques for pattern classifiers and derivation of synthesis technique for time optimal controller through off-line training
[DAC-59322] 08 p1260 N67-19152
Adaptive decomposition of superposed patterns of probability density functions
[RADC-TR-66-540] 08 p1252 N67-19329
Methods of analyzing electrophysiological responses to patterned visual fields
[AFOSR-66-2337] 09 p1400 N67-19682
Pattern recognition techniques to identify and classify objects in video data
[NASA-CR-86012] 09 p1419 N67-20167
Cybernetics conference on information theory, stochastic process, Pert project, probability theory, optimal control, pattern recognition, and related concepts
[JPRS-39990] 11 p1843 N67-23401
Algorithm for training a linear perceptron 11 p1843 N67-23414
Pattern recognition in self-training mode 11 p1843 N67-23415
Formation of attributes in pattern recognition, and problem solving 11 p1843 N67-23416
Pattern recognition system based on analysis of orientation of local segments of image 11 p1844 N67-23417
Shape recognition using medial axis transformation
[AFCRL-66-759] 11 p1832 N67-23356
New method for system identification based on relaxation technique used in pattern recognition
[NASA-CR-756] 12 p2067 N67-23716
Distribution, correlation, and recognition of images and patterns in control systems 12 p2068 N67-23947
Signal selection, pattern recognition, and encoding problems of information processing and transmission theory 12 p2052 N67-24214
Algorithm for solving pattern recognition problems as applied to parallel action classifiers - coding 12 p2071 N67-24317
Mechanisms of thermionic emission, recurrence algorithms of pattern recognition, underground electromagnetic wave propagation, and effect of magnetic field on gas laser 12 p2155 N67-24912
Recurrence algorithms for teaching pattern recognition 12 p2072 N67-24314
Generalization of Motzkin theorem - mathematical model for mapping and visual pattern recognition
[SR-3] 12 p2131 N67-24706
Bibliography on preprocessing problem in pattern recognition
[RADC-TR-66-819] 12 p2061 N67-24942
Nearest neighbor estimate in infinite parameter problem
[SEL-66-090] 12 p2122 N67-24973
Linear rankings of finite dimensional pattern vectors
[SEL-66-091] 12 p2132 N67-24974
Brownian motion and Wiener canonical analysis and synthesis applied to nonlinear systems
[REPT.-102-3] 13 p2347 N67-25334
Techniques for implementing pattern recognition by isotropic boundary propagation
[MRC-G43-F] 13 p2296 N67-25404
Digital computer methods for automatic speech pattern recognition 13 p2296 N67-25786
Statistical analysis of speech pattern recognition with unequal covariance matrices, and normal distribution of random vector representing audio image 13 p2349 N67-25787
Russian open syllable count for automatic speech recognition in man-computer information systems 13 p2279 N67-25790
Digital computer research on IBM 7094-1401 system, pattern recognition computer, and network analysis of ILLIAC computer series 14 p2496 N67-26613
Signal patterning effects on human alertness and physiological responses during performance of monotonous tasks
[NAVTRADEVCEN-IH-62] 14 p2455 N67-26737
Approximation functions for describing images in sets of lines - pattern recognition with reading machines
[JPRS-40235] 14 p2464 N67-27390
Numerical restoration of incoherent optical objects obscured by diffraction and background noise
[AFCRL-67-0070] 15 p2753 N67-28333
Recognition of class membership by means of weak statistically dependent features
[AMRL-TR-66-174] 15 p2736 N67-28683
Neural modeling of human processes of speech production and pattern recognition
[REPT.-9] 15 p2650 N67-28720
Pattern recognition by Fourier series transformations
[GE/EE/67A-11] 17 p3009 N67-30250
Linguistic specification and analysis of pattern classes
[TR-400-147] 17 p3040 N67-30551
MANS - Map analysis system for processing maps and line drawings
[NASA-CR-85580] 17 p3061 N67-30800
Pattern recognition techniques for extracting information from video data and for reducing amount of data to convey this information - decision mechanisms and property filters
[NASA-CR-85604] 17 p3026 N67-30965
Applicability of moire patterns produced by superposed screens in analysis of lineaments on lunar photographs 18 p3338 N67-31951
Classification of mappings for finite sets - applications for edge detector and for relationships between information theory and algebraic theory of machines
[BCL-2.2] 18 p3287 N67-32153
Pattern recognition, computer storage unit, control systems, network analyses, and communication theory 18 p3254 N67-32506
Computer program enables symbolic notation /FDL-1/ to describe pictures composed of rectilinear segments
[AFCRL-67-0133] 18 p3219 N67-32676
Pattern recognition and learning systems 19 p3423 N67-33600
Remote sensing, and pattern recognition studies in application to agriculture 19 p3424 N67-33619
Hyperplanes and selection of variables for pattern classification
[TR-11] 19 p3482 N67-33633
Acoustic stimulation of human auditory analyzer studied in connection with speech signal recognition 20 p3583 N67-34513
Recognition algorithm for two-dimensional pattern description and recognition, and Algol 60 procedure for finding and linking curvature points
[SLAC-70] 20 p3608 N67-35203
Optimal decision rule and optimized distribution function construction in relation to pattern recognition problems 21 p3796 N67-35817
Representations for likelihood functions of separable stochastic processes to aid in signal detection, classification, waveform recognition, and parameter extraction
[TR-9] 21 p3823 N67-35942
Automatic track following system for processing bubble chamber film using Hough-Powell Digitizer /HPD/ 21 p3811 N67-36277
Improved track following program at Brookhaven National Laboratory 21 p3811 N67-36278
Recursive algorithms for pattern recognition
[TR-520] 22 p4080 N67-36827
Pattern recognition theory related to detection, correlation, decision theory, and mathematical problem solving
[RE-303] 22 p3977 N67-36870
Computer programs for pattern recognition
[MAC-TR-37] 22 p4005 N67-37169
Electrochemically active field-trainable pattern recognition system
[SGC-485/FR-3] 22 p3979 N67-37549
Linear programming formulation of problem of pattern separation in study of pattern recognition
[BRL-MR-1856] 23 p4273 N67-38194
System of pattern recognition independent of displacement, scale, and orientation
[RAE-TR-66307] 23 p4230 N67-38443
Metrizability and pattern recognition
[NASA-TM-X-1434] 23 p4275 N67-38780
Preprocessing, character classification, and context analysis of graphical material and Fortran data
[ECOM-01901-27] 24 p4412 N67-39414
Random store and forward communication networks with applications to pattern recognition
[REPT.-56] 24 p4403 N67-39839
Communications - adaptive technique for multiple signal detection and identification, pattern recognition
[RADC-TR-67-260] 24 p4403 N67-39845
Recursive Bayes optimal solution for problem of sequential, multicategory pattern recognition when unsupervised learning is required
[AFOSR-67-1889] 24 p4414 N67-39780
Weather satellite picture pattern discrimination method
[NASA-CR-89780] 24 p4410 N67-40271
Trainable multicategory pattern classifier and learning procedures studied in self-organizing machine research program
[AD-656527] 24 p4417 N67-40301

PAULI EXCLUSION PRINCIPLE
Partial conservation of tensor currents and Pauli interaction
[IC/66/70] 01 p0127 N67-10733
Pauli exclusion principle and Fierz rearrangement theorem shown to limit arbitrariness of Lorentz invariant interaction Lagrangian for self-coupled Dirac field 06 p0936 N67-15762
Method for explicit treatment of identical particle effects in N-coupled channel problem, and anti-symmetrization and exchange scattering
[MIT-2098-302] 19 p3501 N67-32911
Pauli exclusion principle taken into account for identifying scattered particles
[JINR-P4-3209] 19 p3508 N67-33679

PAVEMENT
Influence diagrams for vertical stresses, shear stresses, and surface deflections in three-layer pavement systems for airfields
[TR-3] 12 p2231 N67-24997
Airport pavement requirements for large commercial aircraft

[PRC-R-890, VOL. IV] 17 p2994 N67-30748
Behavior of cement treated clays under repeated compressive stress and flexure, load duration and frequency effects, and fatigue failure analyses
[AEWES-CR-3-145] 17 p3055 N67-30624
Full scale crawler belt shoe tests on surfaces and lubricants for structural and sliding friction effects
[NASA-CR-88984] 23 p4232 N67-38347

PAYLOAD
SA INSTRUMENT PACKAGE
Payload capabilities of Saturn IB-Centaur for launch opportunities to Mars in 1971, 1973, and 1975 and to Venus in 1972 and 1973
[NASA-TM-X-1327] 03 p0465 N67-13177
ELDO launch vehicle configurations, upper stage payload, and performance estimates
[DTA/S-12/5-616] 04 p0616 N67-14270
Technical feasibility of increasing payload of ELDO-A launch vehicle to capabilities of launching communications satellite in polar orbit
[BOLKOW-RF-12E] 04 p0607 N67-14311
Helicopter design for range, endurance, payload, and hovering mission requirements 05 p0633 N67-15189
High speed and payload capability of rotary wing aircraft 05 p0633 N67-15193
Scientific objectives and payload definition for automated biological laboratory for exploration of life on Mars
[NASA-CR-81310] 06 p0969 N67-16576
Booster and upper stage system capabilities of placing payloads into Mars orbit
[NASA-TM-X-1334] 08 p1361 N67-18359
Design and fabrication of instrumented payload test vehicle and three types of radio frequency transparent, omnidirectional, impact absorbing, landing systems
[NASA-CR-66301] 10 p1765 N67-21178
Payload and trajectory data for Nike Apache firings tracked by radar - January-June 1965
[NASA-TM-X-55723] 10 p1762 N67-21396
Payload and trajectory data for Nike Apache firings tracked by radar - July-December 1965
[NASA-TM-X-55726] 10 p1762 N67-21399
Sodium and trimethylaluminum payloads for test rocket flight - camera equipment for night and twilight photography
[GCA-TR-66-8-A] 11 p1981 N67-22396
Payload preparation and launching of Black Brant III rocket
[SRFB-001] 11 p1982 N67-22944
Experimental payloads for manned Mars flyby mission, including onboard remote sensors and unmanned probes for measuring Martian environment
[NASA-CR-85122] 16 p2970 N67-29691
Performance and payload gains by launching rockets from ejection tube
[NASA-TM-X-52338] 16 p2976 N67-30142
Payload preparation and launching of Black Brant rockets AAF-III-12 and AAF-IV-05
[SRFB-004] 17 p3165 N67-30378
ESRO sounding-rocket payload experiments - total stellar flux measurement and primary cosmic radiation measurement
[ESRO-SN-63] 17 p3168 N67-31405
Payload missions and design of third Rubis rocket launched in April 1966, and data on geomagnetic and electric field structure
[MPI-PAE-EXTRATERR.-35/66] 19 p3542 N67-33942
Comet-intercept space probe mission constraints, and suggested scientific payload for cosmogonical research 20 p3727 N67-34781
Latch diaphragm release mechanism for payload separation in space 21 p3927 N67-36205
High speed and payload capabilities of various rotary wing aircraft designs 23 p4178 N67-38542
Stratoscope II telescope shock sensitivity, payload, and launching site problems 23 p4256 N67-39276
Balloon shapes and stresses under off-design conditions of payload and altitude 23 p4179 N67-39279
Management planning guidelines for standard payload module definition network
[NASA-TM-X-53299] 24 p4426 N67-40151
Payload preparation and launching of Black Brant rocket AAF-VA-107
[SRFB-006] 24 p4538 N67-40387

PAYLOAD MASS RATIO
Electric propulsion and payload mass ratio for moon-earth payload transport 10 p1754 N67-20510
Performance characteristics of 17 sounding rockets according to payload mass ratio
[ESRO-TM-8] 19 p3540 N67-33937

PBBE
S PEBBLE BED REACTOR EXPERIMENT /PBRE/

PCM
S PULSE CODE MODULATION /PCM/

PDM
S PULSE DURATION MODULATION /PDM/

PEARSON DISTRIBUTION
Feasibility of determining robustness regions of T-test in Pearson system by Monte Carlo technique
[RR-23] 01 p0008 N67-10305
Likelihood ratio test criterion for small samples from multinomial distributions
[ORNL-3991] 07 p1113 N67-17471
Estimation of location parameters of Pearson type III and Weibull distributions in nonregular case and other results in nonregular estimation
[ARL-66-0233] 17 p3089 N67-30217

PEBBLE BED REACTOR EXPERIMENT /PBRE/
Creep behavior calculations and experiments for fuel sphere circulation in pebble bed reactor
[EUR-3284.D] 14 p2576 N67-27137
Ring addition and side chain substitution for chlorination of toluene to produce benzotrichloride
[NYO-3718-1] 19 p3388 N67-32910
Reactivity worth of tubular control rods in beryllium oxide moderated pebble bed reactor system
[AAEC/TM375] 20 p3677 N67-34011
Burnup code for treating space dependent pebble bed reactor fuel management
[AAEC/E173] 20 p3682 N67-34579
Pebble bed reactor compared to gas turbine coupled reactor to achieve optimum gas cooled reactor design for nuclear power plant
[THTR-32] 23 p4293 N67-39344

PEGASUS SATELLITE
Satellite instrumentation and data retrieval procedures for collecting meteoroid penetration data from Pegasus satellite
[NASA-TN-D-3505] 02 p0311 N67-11381
Structural design and data acquisition systems of Pegasus satellite 02 p0312 N67-11382
Thermal environment factors affecting electronic canister design for Pegasus satellite 02 p0312 N67-11383
Meteoroid detector development, and hypervelocity impact and electron radiation test data 02 p0312 N67-11384
Satellite control station methods and facilities for evaluating Pegasus in-flight performance, and meteoroid penetration data 02 p0312 N67-11385
Data collection and analysis of meteoroid penetration recorded on Pegasus flights, and derived flux figures 02 p0312 N67-11386
Pegasus measurements of temperature, radiation, and rigid body motion 02 p0312 N67-11387
Thermal design evaluation of meteoroid detector panels, louver system, and service module adaptor for Pegasus satellite
[NASA-TN-D-3642] 02 p0313 N67-11906
Statistical analysis of Pegasus satellite measurements of meteoroid penetration
[NASA-TM-X-1316] 03 p0388 N67-12908
Thermophysics, emissivity physics, thermal similitude, ultraviolet interactions with control surface materials, Pegasus satellite measurements, and infrared instrumentation
[NASA-TM-X-53557] 12 p2103 N67-24641
Environmental effect sensor data and albedo measurements for several thermal control coatings on Pegasus satellite - thermophysics 12 p2237 N67-24646
Test tool to simulate critical portions of Pegasus meteoroid detector electronics
[NASA-CR-84431] 14 p2513 N67-27440
Thermally isolated temperature sensor for space application Pegasus satellite 17 p3060 N67-30585
Electrical power system for Pegasus satellite 17 p2995 N67-30590
Meteoroid penetration measurements by Explorer XVI and XXIII satellites and Pegasus satellites for application to spacecraft design 18 p3332 N67-32964
Pegasus satellite measurement of near earth meteoroid environment - Van Allen belt radiation, and earth albedo data
[NASA-TM-X-53629] 20 p3733 N67-34548

PELLET
Thin sectioning technique for cumulus cloud snow pellets 03 p0418 N67-12497
Clad-pellet contact conductance for reactor fuel elements
[EUR-3155.E] 07 p1129 N67-17356
Comparative cost of fabricating oxide fuel element by vibration compaction, and sintered pellet processes incorporating three modes of enrichment
[BNWL-273, VOL. 3] 07 p1132 N67-17497
Fabrication of gadolinium oxide-30 wt percent aluminum oxide compacts
[Y-1571] 14 p2579 N67-27583
Behavior of crystals and voids in centrally heated uranium dioxide green pellets
[WAPD-TRANS-47] 16 p2961 N67-28274
Calculation of plasma fraction emitted as hypersonic jet from laser irradiated pellet
[LGI-67-7] 19 p3607 N67-32284
Preparation of ceramic high density pellet compacts of uranium dioxide from powder form
[Y-DA-1733] 23 p4280 N67-39024

PELTIER EFFECT
SA SEEBECK EFFECT
SA THOMSON EFFECT
Thermoelectric cooling advantages and physical principles using Peltier effect on semiconductor devices
[FTD-TT-65-1762] 10 p1769 N67-20586

PENDULUM
SA GYROSCOPIC PENDULUM
Classical pendulum problem in weightlessness environment of artificial earth satellite
[FTD-TT-65-1563] 15 p2795 N67-28681
Behavior of gelatin tested at cryogenic temperature with torsion pendulum
[NASA-CR-89278] 23 p4188 N67-38809

PENDULUM APPARATUS
Pendulum apparatus and method for testing combustion properties of black gunpowder
[TDCK-66451] 07 p1181 N67-18071
Generalized spherical functions for solving problem of motion of axisymmetric solid with spherical cavity filled with viscous fluid around fixed point 13 p2419 N67-26183
Pendulum sclerometric determination of surface energy and hardness of rocks
[BM-RI-6962] 17 p3061 N67-30630
Modified ballistic pendulum standard for calibration of shock transducers
[SC-TM-66-567] 17 p3071 N67-31473
Device for computing correlation functions, sound field analyzer, method for finding envelopes of correlation functions, and pendulum device for measuring surface slope of underwater structures
[JPRS-40884] 20 p3638 N67-34227
Instrument for measuring surface slope of underwater hydraulic structures using hermetically enclosed gravitational pendulums 20 p3639 N67-34231
Pendulum steering attitude stabilization for thermal probes or coring drills in glaciers
[CRREL-SR-116] 24 p4436 N67-39434

PENETRATING PARTICLE
Onset patterns of polar cap atmosphere due to enhanced ionization caused by penetrating solar cosmic ray particles
[NASA-TM-X-55637] 05 p0757 N67-15155
Theory of ion and atom penetration in solids
[ARL-66-0149] 07 p1179 N67-17654
Detection system for monitoring plutonium penetration through tantalum capsules by counting alpha particles with silicon surface barrier detectors
[LA-3684] 17 p3134 N67-31038

PENETRATION
SA CRATERING
SA FRAGMENTATION
SA IMPACT
SA PROJECTILE PENETRATION
SA TARGET PENETRATION
Techniques for estimating thunderstorm penetrations of tropopause
[AFCRL-66-558] 04 p0572 N67-14318
Penetration of barriers by meteorites 05 p0771 N67-14872
Penetration of thin shield by meteorite 05 p0771 N67-14873
Penetrability of bird wings

[RAE-LIB-TRANS-1143] 06 p1238 N67-19068
Hardness term derivation to relate Rammsonde number to energy equation - penetration resistance
[CRREL-SR-100] 10 p1620 N67-29500
Penetration of drops determined for cross current injection of isooctane jets into high velocity airstreams
[NASA-TM-X-1363] 11 p1859 N67-22839
Satellite measurements of penetration rate for particles causing Zodiacal light 11 p1979 N67-23439
Dependence of induced coloration in glass on penetration depth of fast electrons
[BM-350] 12 p2168 N67-24198
Meteoroid penetration measurements by Explorer XVI and XXIII satellites and Pegasus satellites for application to spacecraft design 18 p3332 N67-32064
Meteoritic penetration and impact damage to earth satellites 18 p3335 N67-32186
Oxygen chemisorption and penetration at nickel surface by measuring surface potential changes
[REPT.-66-C-327] 20 p3596 N67-35212
Atomic penetration in solids and crystal lattice influence on penetration behavior
[AECL-2757] 23 p4297 N67-39074
Time-acceleration traces for cylindrical ogival nose projectiles penetrating soil medium
[SC-DC-66-2424] 23 p4356 N67-38359
PENETRATION BALLISTICS
Armor plate stress waves and penetration mechanics
[AROD-3842-7] 01 p0115 N67-10501
Transient behavior and response tests of synthetic fiber felts under ballistic impact and projectile penetration
[TR-67-8-CM] 06 p0900 N67-16453
Multivariable analysis of mechanics of penetration of high speed particles
[NASA-CR-664] 06 p0978 N67-16664
Computer code to study low velocity penetration phenomena
[AD-646457] 12 p2062 N67-24068
PENETROMETER
Penetrometer technique applied to lunar surveying staff concept
[NASA-TN-D-3937] 12 p2099 N67-23819
Design, instrumentation system, target, and test facility of penetrometer for determining projectile impact deceleration effects in soil-like materials
[SC-DR-66-2715] 17 p3066 N67-31035
Design, construction, and operation of portable, manually operated penetrometer and shear unit for testing soil strength 18 p3270 N67-31929
Soil response to dynamic loads measured by penetrometers
[NASA-CR-849] 20 p3627 N67-34028
PENNING DISCHARGE
Electron oscillation observed in radio frequency study of Penning plasma discharge 03 p0394 N67-12622
Penning discharge in a strongly inhomogeneous magnetic mirror field produced using collisionless plasma
[REPT.-67-11] 19 p3517 N67-33419
Brightness of Penning discharge ion source used in cosmotron injector
[BNL-11364] 21 p3825 N67-35835
Improvement of hydrogen pumping characteristics of Penning discharge getter-ion pumps used with accelerators employing hydrogen ion sources
[BNL-11365] 21 p3826 N67-35837
Beam-plasma interaction in cold-cathode Penning reflex discharge
[CEA-R-3681] 23 p4316 N67-38269
PENNING GAUGE
Investigation of Penning ionization gauge discharge and lithium ion emission for plasma synthesis for microwave applications
[ECOM-2740] 05 p0685 N67-15273
Penning ionization gauge apparatus to investigate Bernstein plasma waves by scattered microwave detection 07 p1163 N67-17012
Modified Penning gauge for generating collimated flowing plasma without confining magnetic fields
[GE/EE/67A-3] 17 p3140 N67-30186
PENTABORANE
SA PROPYL PENTABORANE
Toxicology of boron hydrides - alterations in tissue amines by toxic decaborane-14 and pentaborane-9 modified by hydrazines and propynylamines
[SAM-TR-66-112] 14 p2461 N67-27017
Simulated altitude performance of full scale, high temperature turbojet engine using pentaborane and HEF-2 fuel
[NASA-MEMO-12-31-58E] 18 p3319 N67-31544
Postcombustion behavior of boric oxide from pentaborane-air combustion during expansion through convergent-divergent nozzle
[NACA-RM-E57120] 18 p3354 N67-31730
PENTAERYTHRITOL TETRANITRATE /PETN/
Mechanical and detonation properties of rubber bonded sheet explosives containing PETN
[ISL-T-36/65] 20 p3667 N67-35269
PENTANE
Synthesis of thiacyclopentanes and thiacyclohexanes to provide reference compounds in needed for identification of sulfur compounds in crude oils
[BM-RI-6970] 16 p2853 N67-29975
Proportional counter filled with mixture of isopentane
[NASA-CR-87328] 19 p3509 N67-33741
PENTOLITE
Finite difference method for calculating transient isentropic flow resulting from pentolite explosion 07 p1064 N67-17029
PEPTIDE
Inelastic slow neutron scattering for investigation of biological systems including polypeptides, glutamic acid, and glycines
[PA-TR-3367] 02 p0212 N67-11837
Effect of acetic anhydride in anhydrous dioxane on C-terminal residues of peptides
[EATR-4038] 02 p0216 N67-12288
Ionizing radiation effects in solid amino acids, peptides, and proteins
[TID-23265] 10 p1562 N67-20779
Imine reaction as intermediate step in syntheses of alanine peptides 21 p3783 N67-35952
Precipitation-peptization method for preparation of mixed thoria-urania sols
[ORNL-TM-1782] 21 p3785 N67-36295
PERCEPTION
SA AUDITORY PERCEPTION
SA COLOR PERCEPTION
SA CUTANEOUS PERCEPTION
SA DEPTH PERCEPTION
SA MOTION PERCEPTION
SA OLFACTORY PERCEPTION
SA RECOGNITION
SA SENSORY PERCEPTION
SA SIZE PERCEPTION
SA SPATIAL PERCEPTION
SA VERTICAL PERCEPTION
SA VISUAL PERCEPTION
Method of perception and amplitude time classification of image 04 p0522 N67-13456
Scheme for human behavior studies in conceptual attainment tasks
[R-331] 06 p0806 N67-16481
Evolution of perceptual frames of reference in human psychological behavior studies
[AD-635784] 09 p1398 N67-19561
Shift agreement and disagreement in dyads under conditions of perceived differences in task competence
[AD-641675] 12 p2021 N67-23822
Evolutionary approach to speech perception theory and application to machine recognition of human speech
[NASA-CR-80020] 12 p2032 N67-24479
Perception of leadership capabilities in small groups
[AD-646769] 13 p2034 N67-24757
Methods for determining intelligibility of voice communication systems
[IZF-1967-2] 13 p2278 N67-25565
Literature review on prompting and feedback in in verbal and perceptual learning and resulting human performance
[STB-67-8] 13 p2285 N67-26232
Three-dimensional statistical analysis of complex perception mechanisms, recognition of phonemes, and estimation of amount of information received 14 p2467 N67-26684
Characteristics of human visual system of importance in automatic perception systems 14 p2468 N67-26690
Genetic method to describe different levels of information transformation and to isolate individual perceptual operations 14 p2469 N67-26692
Interpersonal perception and psychological adjustment of group members
[AD-648741] 14 p2472 N67-26966
Relationship between ambivalence, risk taking, and perceptual styles as personality variables
[AFOSR-67-1157] 18 p3219 N67-32671
Multimode factor analysis of interpersonal perceptions in culturally heterogeneous groups
[TR-56] 24 p4391 N67-40229
PERCEPTRON
Algorithm for training a linear perceptron 11 p1843 N67-23414
Perceptron and pattern recognition systems for control of random processes 12 p2069 N67-23968
Computer program for simulation of perceptrons and similar neural networks
[REPT.-8] 12 p2059 N67-24402
Feasibility of perceptron type computer for recognition of vortex patterns in cloud cover photographs
[NASA-CR-83907] 13 p2352 N67-25849
PERCEPTUAL DEPRIVATION
S SENSORY DEPRIVATION
PERCEPTUAL SPEED
Perception and information processing by pilot under ordinary emergency conditions 02 p0219 N67-11827
PERCHLORATE
SA AMMONIUM PERCHLORATE
SA HYDROXYLAMMONIUM PERCHLORATE
SA MAGNESIUM PERCHLORATE
SA POTASSIUM PERCHLORATE
Polarographic study of cadmium, lead, and mercury in anhydrous acetic acid
[CEA-R-2903] 03 p0360 N67-13230
Roentgenographic characteristics of nitrates and perchlorates of nitrogen containing bases
[JPRS-39282] 05 p0688 N67-15188
Electrochemical characterization using multisweep cyclic voltammograms of chloride, perchlorate, and fluoride electrolytic systems for secondary battery applications
[NASA-CR-72256] 16 p2845 N67-29436
Thermal annealing of neutron irradiated tris dipyridyl cobalt III perchlorate - redistribution of electrons among donors
[AEET-271] 20 p3568 N67-34123
Pentakis-2,8,9-trioxa-1-phosphaadamantane nickel/III/ perchlorate crystal structure determined by X-ray diffraction
[IS-T-153] 21 p3913 N67-35488
Organic binders containing soluble inorganic perchlorate oxidizers for increasing illumination of castable visual flares
[RDTR-92] 22 p4080 N67-38068
PERCHLORIC ACID
Ignition of polyisobutene, polyurethane, polystyrene, and polymethyl methacrylate by oxygen gas and perchloric acid vapor
[RPE-TR-66/8] 04 p0662 N67-14285
Isobutyl alcohol effects on reduction of ferric ions in solutions of perchloric and sulphuric acids 06 p0622 N67-16239
Molecular hydrogen effects on reduction of ferric ions in perchloric and sulfuric acid solutions 06 p0622 N67-16240
Extraction of mineral acids by alkyl sulfoxides 06 p0627 N67-16315
Burning rates, temperatures, and burnt gas compositions for ethylene-perchloric acid premixed flames
[RPE-TR-66/1] 07 p1209 N67-17069
Burning rates, temperatures, and burnt gas compositions for ethane-perchloric acid premixed flames
[RPE-TR-66/2] 07 p1209 N67-17069
Burning velocity, temperature, and burnt gas composition measurements for methane-perchloric acid flames premixed with excess methane
[RPE-TR-65/16] 11 p1999 N67-23706
Burning velocities, temperatures, and burnt gas compositions measured for ethylene-rich ethylene -perchloric acid premixed flames
[RPE-TR-66/1, PT. V] 11 p2000 N67-23126
Refractive index of aqueous perchloric acid
[RPE-TR-65/4] 17 p3017 N67-30821
PERFECT GAS
SA IDEAL GAS
Perfect gas, flow stability, and matrix analysis concepts
[TP-360/1966/] 02 p0252 N67-11975
Uniform two-zone perfect gas expansions in convergent-divergent nozzles
[NASA-CR-65596] 08 p1355 N67-18943
Differential equations for determining reaction zone structure of steady nonideal

detonation in perfect gas with constant lateral expansion
[ISL-T-19/65] 11 p2000 N67-23072
Hypersonic flow of perfect gas at zero angle of attack past slender cone
[NASA-TT-F-485] 12 p2011 N67-24613
Strong shock propagation from piston for case of perfect gas
[C-4280-21] 17 p2047 N67-30377
PERFLUOROALKANE
Perfluoroalkanes as gamma dosimeters in mixed radiation fields
[SGAE-CH-37/1966] 10 p1582 N67-21814
PERFORATED PLATE
Rigorous analysis using complex eigenfunctions for three-dimensional stress state in infinite plate with hole
[NASA-TT-F-10451] 06 p0975 N67-15492
Gun tunnel investigations on influence of perforated plate at exit of high pressure chamber
[DLR-FB-67-07] 13 p2203 N67-26089
Theoretical study of plate thickness effect on bending stress distribution around slotted cracks
[NASA-CR-85751] 17 p2174 N67-31304
Strain and deformation calculations for perforated plates in heat exchangers and reactors
[WAPD-TRANS-55] 22 p4158 N67-37969
PERFORMANCE
S AIRCRAFT PERFORMANCE
S ANIMAL PERFORMANCE
S ASTRONAUT PERFORMANCE
S HELICOPTER PERFORMANCE
S HUMAN PERFORMANCE
S MENTAL PERFORMANCE
S OPERATOR PERFORMANCE
S PILOT PERFORMANCE
S PROPULSION SYSTEM PERFORMANCE
S PSYCHOMOTOR PERFORMANCE
S SPACECRAFT PERFORMANCE
PERFORMANCE CHARACTERISTICS
Performance evaluations of low cost carbon monoxide indicators for use in aircraft
[ADS-80] 01 p0072 N67-10422
Implementation, test, and evaluation of selective dissemination system for NASA scientific and technical information
[NASA-CR-62030] 02 p0327 N67-11241
Precision variable parameter test vehicles for parametric studies of plane-parallel cesium vapor thermionic converter performance
[NASA-CR-79388] 02 p0175 N67-11843
Performance characteristics of image dissecticon image tube
[AD-639067] 02 p0244 N67-11885
Efficiency and performance characteristics of very short conical spiral antenna
[TP-373/1966/] 02 p0235 N67-11918
Operational performance of gas discharge counters used on Luna-10 for measuring soft corpuscular radiation in earth magnetospheric tail
[JPRS-38795] 02 p0300 N67-12007
Operations, characteristics, and performance of Telstar satellite tracking facilities in Italy, France, and England
[NASA-SP-32, VOL. 4] 03 p0363 N67-12301
Operational performance and procedures for Agesta nuclear power and heating station
[AE-246] 03 p0421 N67-12461
Operational summary for Agesta nuclear power plant from 1964 through 1966 03 p0422 N67-12462
Performance characteristics of aerosol generator, and distribution sampling errors of electrostatic precipitator sampling device for space cabin atmosphere
[NASA-CR-79538] 03 p0353 N67-12641
Performance characteristics of amplitude comparators used in voltage-digit converters 03 p0378 N67-12774
Development, qualification, and system utilization of SNAP-10A secondary containment flight-type expansion compensator
[NAA-SR-11953] 03 p0426 N67-12878
Performance and reliability studies of solar conversion power supply subsystem for Nimbus-B satellite
[NASA-CR-80338] 03 p0335 N67-12970
Theoretical and experimental evaluation of radar boresight range on Merrit Island
[NASA-CR-80430] 03 p0381 N67-13025
Characteristics and circuit diagrams of new electronics instruments for radiation detectors and control systems
[EUR-3063.E] 03 p0399 N67-13151
Operating characteristics of multiple stem drift tube structure for proton accelerator
[BNL-10376] 03 p0444 N67-13223
Derivation of correlating parameter for gas turbine combustion performance using burning velocity model for primary zone
[COA-AERO-163] 04 p0603 N67-13900
Performance characteristics of conical face high pressure rotary shaft seals
[AECL-2551] 04 p0556 N67-13998
Steady state power, coupled drum impulse transition, and cascade step transition tests of SNAPTRAN reactor
[IDO-17165] 04 p0578 N67-14057
Preliminary design of spacecraft configuration and performance analysis of passive attitude control subsystem for gravity gradient stabilized Nimbus satellite
[NASA-CR-80600] 04 p0615 N67-14178
ELDO launch vehicle configurations, upper stage payload, and performance estimates
[DTA/3-12/5-616] 04 p0616 N67-14270
Performance, availability, reliability, launch facilities, and cost of launch vehicles available or under development
[ESRO-TM-24] 04 p0617 N67-14302
Central frequency synthesizer performance and voltage controlled oscillator static phase error 06 p0839 N67-15920
Photographic performance evaluation of hovering helicopter rotor with and without blade pitch servocontrol flaps
[NASA-TN-D-3786] 06 p0786 N67-15958
Turbine research package for research and development of high performance axial flow turbine compressor
[NASA-CR-54883] 06 p0795 N67-16565
Analytical procedure and Fortran IV program for determining off-design performance of multistage axial flow turbines
[NASA-CR-710] 06 p1222 N67-18397
Fortran 7094 computer program for calculation of design point performance of turbojet and turbofan engine cycles, and thermodynamic equations
[NASA-TM-X-1340] 06 p1253 N67-18399
Performance characteristics and new developments in magnetostrictive readouts for wire chambers
[UCRL-17121] 08 p1281 N67-18533
Data evaluation of isotope analytical results for electromagnetic isotope separator performance analysis
[NP-TR-1423] 08 p1237 N67-18644
Performance characteristics of bundle controlled expansion concept in carbide-fueled fast breeder reactor
[WCAP-3589-2] 08 p1312 N67-18647
Off-design performance characteristics of two isentropic plug nozzles designed for pressure ratio of 16.5
[NASA-TN-D-3852] 08 p1355 N67-18964
Inflation, drag, and stability characteristics of 26-meter diameter ringsail parachute in simulated Martian environment
[NASA-TM-X-1356] 08 p1221 N67-19280
Performance characteristics of electrochemical cell for oxygen content measurement and removal in sodium test systems 09 p1497 N67-19683
In-pile performance of platinum-rhenium and tungsten-rhenium thermocouples exposed to long term irradiation at high temperatures 09 p1477 N67-19623
In-pile performance of refractory metal thermocouples 09 p1478 N67-19642
Performance characteristics of cutting fluid in extreme pressure, water-base metal working lubricant program
[SA-TR16-1062] 09 p1453 N67-19815
Operational performance of modified inertial navigation system for ELDO launch vehicle
[RAE-TR-66314] 09 p1475 N67-20329
Design and performance characteristics of optical controlled automatic water surface evaporator
[JUL-375-ST] 09 p1452 N67-20365
Performance characteristics of heat exchangers for sodium cooled reactors
[UNC-5163] 10 p1675 N67-20641
SNAP-10A FSM-4 performance analysis - sodium potassium loading and thermal reference test
[NAA-SR-MEMO-10446] 10 p1680 N67-20994
Effects of molten-salt combination, structural materials, and fuel element combination on breeding performance of fast reactor
[JUL-380-RG] 10 p1683 N67-21077
Performance characteristics of centerbody propelling nozzle with shroud in external flow
[ARC-CP-896] 10 p1550 N67-21186
Conical convergent divergent nozzle with area ratio 2.5 in external flow
[ARC-CP-891] 10 p1551 N67-21197
Three-stage turbine of low reaction to examine effects of reduced motor pitch and improved sealing
[ARC-CP-861] 10 p1551 N67-21200
Nuclear radiation damage to semiconductor devices and materials, and effect on performance characteristics
[ARD-66-42R] 10 p1751 N67-21353
Ion source, beam, accelerating tube, and high voltage performances in Brookhaven linear preaccelerator
[BNL-10651] 10 p1722 N67-21555
Methods of testing deployment characteristics of man carrying parachutes
[RAE-TR-66280] 10 p1585 N67-21741
Operation and stability of Kuibyshev-Ural high voltage transmission line 11 p1834 N67-22187
Performance characteristics and stability of high voltage power systems with direct current transmission lines 11 p1835 N67-22189
Performance characteristics of solid state atomic cesium beam frequency standards
[ECOM-3783] 11 p1582 N67-22589
Thermal performance of SNAP-8 model condenser
[NASA-CR-72215] 11 p2060 N67-22935
Induction coupled plasmatron design
[INR-736/XVIII/PP] 11 p1856 N67-22914
Performance comparison of fluid diodes 11 p1787 N67-23071
Performance characteristics of electronic apparatus for measuring stable reactor period 12 p2097 N67-23564
Performance characteristics of gas discharge counters with controlled pulse input 12 p2097 N67-23565
Initial operating experience and performance of Stanford Linear Accelerator Center 12 p2075 N67-24063
Performance characteristics of European Organization for Nuclear Research linear accelerator 12 p2075 N67-24067
Performance characteristics of zero gradient synchrotron linac automatic gradient stabilizer 12 p2076 N67-24071
Operating characteristics of full power cloverleaf accelerator tank 12 p2077 N67-24081
Stanford Linear Accelerator Center alignment system, and performance characteristics 12 p2078 N67-24084
Performance characteristics of new high duty cycle Sachs electron linac 12 p2080 N67-24125
Performance characteristics and structural design of two European linear accelerators 12 p2080 N67-24127
Performance characteristics of superconducting cavities 12 p2082 N67-24128
Thermoptic type radiometric calorimeters
[UCRL-50145] 12 p2101 N67-24159
Performance of current satellite and probe launch vehicles 12 p2215 N67-24456
High voltage performance characteristics of large gap concentric cylinder electrode
[NASA-TN-D-3949] 12 p2018 N67-24617
Syncom III engineering data, launch and orbital maneuvers, and television transmission
[NASA-TR-R-252] 12 p2218 N67-25044
Additional flight test data for XV-8A hot cycle research aircraft - evaluation of propulsion system performance and operating characteristics
[USAAVLABS-TR-66-81] 13 p2241 N67-25460
Functional and operating characteristics of time measuring devices
[UCRL-12256] 13 p2219 N67-25811
Development and performance characteristics of secondary zinc-oxygen test cell
[NASA-CR-83053] 13 p2249 N67-25837
Operation and modifications of 6 GeV electron accelerator
[CEAL-1023] 13 p2277 N67-25838
Performance characteristics of high speed wind tunnels relevant to testing aeroelastic models
[ARC-CP-878] 13 p2260 N67-26048
Performance of vibrational gaseous hydrogen Stokes

oscillator 14 p2548 N67-36708
Relative effectiveness of light table and projection viewing devices to aid in photograph interpretation - display and magnification
[TRN-179] 14 p2534 N67-27079
Performance characteristics of Tacan antennas, and techniques for improving ground station directional antenna designs and siting practices
[RD-66-91] 14 p2489 N67-27214
Pictorial fact sheet listing physical and performance characteristics of Saturn V [NASA FACTS, VOL. IV, NO. 5]
14 p2619 N67-27416
Performance evaluation tests on secondary spacecraft cells
[NASA-CR-84421] 14 p2450 N67-27639
Performance and characteristics of United States launch vehicles
[ELDO-TM-F-29] 15 p2794 N67-27932
Nuclear and thermal-hydraulic performance analysis of boiling water reactor core by one-dimensional analyzer code
[JAERI-1114] 15 p2746 N67-28309
Fuel cell acceptance, performance evaluation, and reliability testing
[NASA-CR-84826] 15 p2646 N67-28786
Performance test results of butterfly valve for air conditioning flow control
[NASA-CR-84843] 15 p2720 N67-28827
Review of telescope accuracy technique, and performance criteria for ground-based optical telescopes
[NASA-CR-84834] 15 p2742 N67-28839
Relationship between major area of study in college and performance in naval flight officer training
[AD-651935] 17 p3000 N67-30260
Performance characteristics of 280-mm gun device for launching upper atmospheric probes
[SC-RR-66-149] 17 p3043 N67-30466
Operational characteristics of dynode electron strip multipliers
[NASA-CR-85567] 17 p3035 N67-30524
Characteristics of track-following spark chamber 17 p3065 N67-30966
Mounting procedures, optical performance, and materials selection for retrodirective liner in bubble chamber 17 p3066 N67-30978
Comparisons of cost, performance, and confidence estimates between fast flux test facility alternate and interim reference reactors
[APDA-186] 17 p3111 N67-31040
Geometric scaling effect on performance of stacked clone contactor
[ORNL-4055] 17 p3068 N67-31048
Performance test results on position indicator
[NASA-CR-85296] 17 p3073 N67-31066
Design and performance of aerodynamic molecular beam system
[NASA-CR-85824] 17 p3070 N67-31331
In-flight performance of solid propellant rocket engine for Delta launch vehicle
[NASA-TN-D-4050] 17 p3154 N67-31409
Subscale tests of M-1 rocket engine injector performance and chugging stability characteristics
[NASA-TN-D-4053] 17 p3154 N67-31442
Operation and performance of microcalorimeter for in-pile nuclear energy measurements
[CONF-651154-3] 17 p3119 N67-31470
Partial and full-admission characteristics of two-stage velocity-compounded turbine
[NASA-TM-X-410] 18 p3196 N67-31525
Design and performance of radial-bladed 4-inch-diameter centrifugal pump for liquid hydrogen
[NASA-TM-X-388] 18 p3273 N67-31526
Performance of three isentropic all internal compression axisymmetric inlets designed for Mach 2.5
[NASA-TM-X-250] 18 p3230 N67-31843
Performance characteristics of Little Joe launch vehicle
[NASA-TM-X-561] 18 p3341 N67-31978
Calculation method for determining principal characteristics in design of sounding rockets
[NASA-TT-F-489] 18 p3343 N67-32123
Performance and orbital characteristics of Anchored Interplanetary Monitoring Platform-I Explorer XXXIII
[NASA-TM-X-55838] 18 p3344 N67-32307
Performance characteristics of burning zone location at combustion chamber wall of turbojet engine 18 p3355 N67-32349
Design, fabrication and testing of steel irradiation capsule and rig 18 p3296 N67-32408
Life test measurements of capacitance, dissipation factor, and current leakage on solid electrolyte tantalum capacitor
[ECOM-3812] 18 p3251 N67-32544
Performance evaluation of carbon-arc solar radiation simulator
[NASA-TM-X-1411] 18 p3257 N67-32555
Operation and performance of rubidium 85 vapor magnetometer flown aboard SE-5 satellite
[TG-890] 18 p3347 N67-32636
Technical performance evaluation of VOR localiser guidance system for low density airports
[FAA-RD-66-90] 19 p3486 N67-33357
Design review procedures for space system contractors to optimize design and functional performance in terms of total system requirements
[NASA-SP-6502] 19 p3557 N67-33400
Performance characteristics of 17 sounding rockets according to payload mass ratio
[ESRO-TM-8] 19 p3540 N67-33637
Performance characteristics of quadrupole lens systems 19 p3458 N67-33812
Armature design for miniature dc motors and performance characteristics calculation
[SC-TM-67-92] 19 p3419 N67-33992
Digital computers and performance characteristics for manned space flights and other aerospace applications
[NASA-CR-87173] 20 p3607 N67-34283
Performance tests of delayed neutron monitor used in conjunction with boiling water loop in materials testing reactor
[TRG-1416/D/] 20 p3681 N67-34428
Electric performance of heat sterilized nickel-cadmium cell
[NASA-CR-87615] 20 p3569 N67-34737
Circuitry, fabrication, and performance characteristics of 75-VA integrated static inverter for gyro platform power supply
[NASA-CR-87988] 21 p3813 N67-35371
Structural, mechanical, and electrical design data on large area solar cell array, ground support equipment designs, and performance analyses
[NASA-CR-87989] 21 p3759 N67-35394
Performance testing, diagnostic experiments, and analytical studies of Alkali Plasma Hall Accelerator /ALPHA/
[NASA-CR-72233] 21 p3926 N67-35446
Performance characteristics of gas lubricated spiral grooved journal bearings operating at high eccentricity ratios and with misalignment
[NASA-CR-88065] 21 p3856 N67-35554
Evaluation of low pressure performance of orbitron ionization gauge
[NASA-CR-886] 21 p3847 N67-35672
Operational performance of military cargo and surveillance helicopters
[NASA-TN-D-4120] 21 p3757 N67-35733
Improved radar system performance using random signal as transmitted waveform
[NASA-CR-88209] 21 p3799 N67-35915
Performance of prototype portable beta radiation corrosion detector gauge
[REPT.-O-9003-FR] 21 p3849 N67-35990
Design considerations and performance features of yo-yo despinning mechanisms 21 p3937 N67-36209
Analytical and structural characteristics of BI-STEM mechanism for erecting unfurlable structures in space 21 p3943 N67-36221
Design performance and integration of Brookhaven flying spot device measurement facility and bubble chamber research program 21 p3906 N67-36257
Programming improvements and performance data for spiral reader system 21 p3810 N67-36270
Method for designing blades of highly loaded two-stage turbines, and performance of blades tested in single-stage and two-stage configurations
[ARC-CP-941] 22 p3955 N67-36884
Mathematical models and performance assessment tradeoff studies on interplanetary guidance system requirements
[NASA-CR-86018] 22 p4066 N67-37180
Lunar orbiter picture data handling system performance analysis
[NASA-CR-66460] 22 p4046 N67-37199
Performance of combination phase and frequency lock system
[NOLTR-67-31] 22 p3999 N67-37237
Damping effects on performance characteristics of oleo struts
[ARC-CP-951] 22 p4155 N67-37321
Emitter fabrication and testing, engine testing and performance, and accelerator material studies in development of cesium contact ion engine
[NASA-CR-54693] 22 p4134 N67-37657
Operating characteristics of stainless steel heat pipe, and analytical model for predicting operating limits of capillarity limited heat pipes
[TID-25809] 22 p4167 N67-37886
Performance study for application of Saturn V to high energy earth escape missions
[NASA-TM-X-53639] 23 p4352 N67-38690
Performance requirements and evaluation of fire resistant air filters for atomic energy systems 23 p4288 N67-38694
Behavior of irradiated photomultiplier in gamma flux in storage well, and in EL 2 reactor channel
[CEA-R-3154] 23 p4228 N67-39207
Operation of constant resistance hot-wire anemometer
[ISAV-189] 23 p4255 N67-39257
Single-stage investigation of slotted stators
[NASA-CR-54551] 23 p4176 N67-39288
Design and performance of isothermal water bath calorimeter for measuring large heat sources
[MLM-1341] 24 p4451 N67-39842
Performance characteristics of phase diluting constant-flow rebreathing oxygen mask
[AM-67-9] 24 p4289 N67-39864
Network performance analysis for Gemini GTA-8 mission
[NASA-TM-X-55985] 24 p4407 N67-39982
Steady state performance of multitube, centrally finned, potassium condensing radiator
[NASA-TN-D-4227] 24 p4351 N67-40146
Experimental verification of mathematical model performance predictions for gamma ray atmospheric density sensors
[NASA-CR-86476] 24 p4452 N67-40182
Applications Technology Satellite-1 Atlas Agena launch vehicle flight performance evaluation
[NASA-TM-X-52348] 24 p4538 N67-40321
Development and in-pile performance of Belgian Engineering Test Reactor /BR2/ irradiation rigs
[EUR-3636.E] 24 p4494 N67-40455

PERFORMANCE PREDICTION
Life predictions of diffused germanium transistors by power stress 01 p0047 N67-10168
Maximum collection efficiency prediction method for paraboloid solar collector
[NASA-TM-X-1323] 02 p0176 N67-11945
Application of K-factors for reliability evaluation of test programs
[NAA-SR-11913] 03 p0426 N67-12876
Qualitative predictions for peripheral compressor performance at high impeller Mach numbers
[K-1665] 03 p0404 N67-12889
Accurate burnout prediction for increased power output from pressurized water reactor core with constant hot channel
[EUR-3113.E] 03 p0473 N67-12899
Thermal scale modeling in simulated space environment
[NASA-CR-80372] 03 p0473 N67-12998
Reliability prediction and failure mode analyses for mechanical feedback servoactuator
[MR-1083, REV. A] 04 p0483 N67-13881
Performance estimation for cylindrical supersonic diffuser using semigraphical method
[RPE-TR-65/12] 04 p0606 N67-14133
Effects of aerodynamic coefficients on aeroelastic stability of autopiloted aircraft
[TP-418] 04 p0451 N67-14376
Mathematical model for improved prediction of mechanical properties of glass fiber resin composite materials
[RAE-TR-66245] 04 p0621 N67-14377
Theoretical model for predicting performance of thin base solid state diode in low current range 06 p0851 N67-15709
Derivation of analytical model to predict operator transition response 06 p0869 N67-15886
Analysis and performance prediction of digital computer facility servicing nonpredictable, randomly varying load in

flight simulation 06 p0813 N67-15860
Dynamic model for human operator behavior prediction during sudden changes in vehicle control mode
[NASA-CR-671] 06 p0813 N67-16011
Method of predicting step response of control systems described by third order nonlinear differential equations 06 p0858 N67-16068
Optimization of fluid dynamic criteria in turbine performance prediction
[R-6805] 06 p0794 N67-16436
Mathematical models for predicting reliability of semiconductor diodes
[NASA-CR-702] 06 p0905 N67-16870
Performance capabilities of nuclear rocket engines using gaseous hydrogen in ideal state at stagnation temperatures up to 100,000 R
[NASA-CR-696] 07 p1182 N67-17506
Fatigue life prediction method for structural elements using data obtained under random loading conditions
[RAE-TR-66223] 07 p1304 N67-17844
Comparative analysis of strain and pressure gauge methods for evaluating relative performance of explosives in rock
[BM-RI-6888] 08 p1275 N67-18213
Predictor display technique for manual altitude control, and automatic pitch axis performance
[NASA-CR-73068] 08 p1306 N67-18405
Correlation between predicted and measured dynamic behavior for full scale Surveyor stability drop test
[NASA-CR-82994] 09 p1515 N67-19909
Predicting statistical performance indexes for high frequency ionospheric telecommunications systems
[IER-1-ITSA-1] 09 p1419 N67-20188
Performance prediction for large scale ejector using mixing length flow theory
[NAL-TR-109] 10 p1552 N67-21413
Cut-off behavior of cylindrical magnetron and deviation from predictions of Hull theory examined as function of operating conditions
[WRE-TN-CPD-118] 11 p1930 N67-23088
Stochastic differential equations used to describe behavior of inertial metering device used in prediction of trajectories of stochastic systems 12 p2071 N67-24323
Analysis and correlation of thermodynamic cycles for spacecraft power systems using maximum cycle irreversibility concept and second law of thermodynamics 12 p2235 N67-24373
Parameter estimation in mathematical modeling using least squares method
[WRE-SAD-41] 12 p2059 N67-24382
Prediction of performance and characteristics of automatic control devices from results of theoretical experiments
[FTD-HT-66-242] 13 p2296 N67-25458
Prediction method for transverse mode beam blow-up in linear accelerator
[LA-DC-8245] 13 p2303 N67-25920
Plated coaxial cable design - reproducibility and predictability of electrical properties
[AD-646529] 14 p2505 N67-26799
Computer program for performance calculations of rocket propellants
[TG-230-T511] 14 p2606 N67-26897
Model laws governing parachute performance in Martian environment landing 15 p2637 N67-27905
Prediction methods for estimating success or failure during training in naval flight officer program
[NAMI-996] 16 p2839 N67-29420
Digital computer program for developmental analyses of mathematical model of experimental steam powered, free piston air compressor
[TM-327/66] 16 p2822 N67-29609
Additional follow-up criterion for validating predictor scores for measuring psychological characteristics of sample of Air Force scientists
[AFOSR-67-0696] 16 p2834 N67-29685
Suitability evaluation of part of general vehicular research trainer as test for predicting success in naval aviation training
[AD-651869] 17 p3009 N67-30169
Evaluating two methods for predicting towline tensions and configurations of towed body system using bare cable
[DTMB-2313] 17 p3169 N67-30329
Response mode effects on post-test errors and human performance during learning
[AIR-C38-4/67-TR11] 17 p3001 N67-30386
Criteria and methods for evaluating trainer aircraft effectiveness during training of pilots for fleet fighter and attack type aircraft
[REPT.-3-55109/TR-50392] 17 p2993 N67-30347
Geographic orientation in aircraft pilots - flight method of reporting navigation performance
[TR-751-10] 17 p3009 N67-30369
Conference on flight mechanics during aerospace instrumentation symposium
[DLR-MITT.-66-23] 17 p2994 N67-30450
Analytical methods to predict flight characteristics for different aircraft designs 17 p2994 N67-30452
Digital data transmission system performance prediction
[TDR-64-91-64] 17 p3024 N67-30544
Theory and performance of viscoseal and buffered seal under laminar and turbulent conditions
[NASA-CR-85893] 17 p3074 N67-31390
Analytical methods for predicting performance of wheeled or tracked vehicles over off-road terrain 18 p3256 N67-31926
Comparison of fixed ratio and variable ratio punishment on pigeons with and without warning signals
[NASA-CR-86578] 18 p3211 N67-32117
Reliability theory for complex technical systems-evaluation tests methods, failure analyses, and statistical control probabilities
[JPRS-41634] 18 p3274 N67-32193
Precision theory in design and reliability control of machines and instruments 18 p3274 N67-32194
Predicted reliability and effectiveness of dynamic systems with finite sets of states 18 p3274 N67-32197
Mathematical methods of reliability theory for damage and repair problems of mechanical components 18 p3275 N67-32199
Reliability prediction for repairable redundant communication channel 18 p3275 N67-32202
Mean time estimation and probability of failure free operation for redundant equipment system 18 p3275 N67-32207
Computer engineering methods for reliability estimation of complex radio electronics system 18 p3275 N67-32208
Distribution function in operating time to failure analysis for reduced test statistics 18 p3276 N67-32212
Capabilities of evolutionary operations research programs
[TR-106] 19 p3420 N67-32687
Digital computer simulation, and model to predict operator performance of man machine system 19 p3382 N67-32307
Performance prediction and methodology of real time field calibrated simulation for complex man machine systems 19 p3382 N67-32310
Human reliability method of operator performance prediction 19 p3383 N67-32313
Information retrieval effectiveness based on numerical taxonomy method for evaluating and predicting equipment performance from environmental engineering data
[FA-R-1847] 19 p3406 N67-32913
NRX/EST nuclear rocket test system transfer function measurements by control drum perturbation, and comparison with analysis model predictions
[NASA-CR-87373] 19 p3495 N67-32923
Human performance prediction by identifying trait rating patterns
[PRL-TR-66-13] 20 p3581 N67-34186
Performance prediction of VTOL propellers operating at zero forward speed
[TN-67-3] 20 p3565 N67-34494
Evaluation of basic assumptions in contingency model for predicting group performance on basis of leadership behavior and task situation elements
[TR-53] 21 p3772 N67-35674
Scaling method to predict opening characteristics of parachute from model drop test results
[NASA-TN-D-4123] 21 p3754 N67-35778
Design principles and simulation studies of stereoscopic analog track recognition machine for analyzing bubble chamber film 21 p3811 N67-36278
Method for predicting propellant performance based on analysis of ingredient properties
[REPT.-67-902] 23 p4131 N67-37344
Feasibility demonstration of parametric charting portion of material prediction technique - testing of composite materials in hypothetical thermal environment
[NASA-CR-88470] 22 p4078 N67-37535
Performance analysis of two-burn guidance equations for injecting Atlas/Centaur vehicle into lunar trajectory
[NASA-CR-72311] 22 p4144 N67-37806
Accuracy and speed comparison of Vinti and Brouwer orbit prediction methods
[NASA-TM-X-55941] 23 p4343 N67-38240
Prediction of heat flux distribution during condensation in tube nest with by-pass lanes
[NEL-374] 23 p4365 N67-38994
Saturn IB launch vehicle AS-206A operational flight trajectory dispersion analysis
[NASA-CR-89294] 23 p4347 N67-38996
Performance analysis of Apollo unified S-band communications system for typical lunar mission
[NASA-TM-X-53440] 23 p4216 N67-39125
Performance evaluation of heat exchangers for sodium cooled reactors
[UNC-5183] 23 p4291 N67-39134
Reliability mathematical model established from failure modes and effects for generator, power conditioning unit, telemetry, ejection system, and other units - prediction
[MND-3607-123] 23 p4227 N67-39148
Analytical model for prediction of hydrodynamic instability in parallel heated channels
[AECL-2681] 23 p4240 N67-39215
Effect of structure and material research on weight, performance, and cost of advanced launch vehicle systems
[NASA-CR-89270] 23 p4362 N67-39851
Measurements and analytical extrapolation validity in predicting full scale flight performance from model wind tunnel tests
[NASA-CR-921] 24 p4375 N67-40431

PERIGEE
Relationship of perigee motion of satellite orbit to latitude and local time
[NASA-TM-X-55703] 09 p1365 N67-18703
Air drag effect on contraction of satellite orbits in atmosphere where air density varies sinusoidally
[RAE-TR-66029] 15 p2789 N67-28154
Spin stability of single-boom configuration, precession damping, infrared aspect sensor, and perigee attitude selection for multiple satellite system
[NASA-CR-73144] 23 p4345 N67-38865

PERIODIC FUNCTION
Time periodic solutions of transport and Poisson equations for layer-like field inhomogeneities propagating through crystal
[TR-14] 05 p0751 N67-14947
Table of periodic continued fractions for positive nonsquare integers computed by IBM 7090 digital computer
[AD-640834] 06 p0901 N67-15415
Mathematical analysis of modes in periodic waveguide-structures
[AROD-4155-4] 11 p1837 N67-22571
Second order linear differential equation with almost periodic or nearly periodic coefficient analyzed for dynamic stability applications
[R66SD65] 11 p1995 N67-23351
Periodic solutions for restricted three-body problem of celestial mechanics
[NASA-CR-765] 12 p2129 N67-23719
Finite time stability of periodic solutions of Hamiltonian systems
[PR-8] 14 p2613 N67-27175
Reflection from periodically composed half-space
[TR-10] 16 p2928 N67-29766
Weakly almost periodic functions on discrete groups
[AD-653894] 20 p3609 N67-34241
Approximation of periodic atmospheric drag function for satellites by piecewise constant function
[NWL-2090] 22 p4140 N67-37171

PERIODIC ORBIT
Nonperiodic motion of small mass and theory of librational motions 03 p0485 N67-13135
Trojan orbit computations of nonperiodic trajectories 04 p0613 N67-13966
Nonperiodic motions near long-period librations about equilateral points of restricted three-body problem 07 p1191 N67-17285
Numerical integration of periodic orbits in

elliptic restricted three-body problem 08 p1360 N67-18311
Rotating emission ring in terms of stability of periodic orbits in restricted three-body problem for binary systems [NASA-CR-82476] 08 p1367 N67-19034
Stability of periodic orbits of restricted three-body problem [NASA-CR-82921] 09 p1513 N67-19999
Doubly symmetric orbits about collinear Lagrangian points [D1-82-0673] 11 p1978 N67-23157
Periodic and almost periodic trajectories in cislunar space - techniques for determining behavior of dynamical systems of known periodic solutions, and space flight safety concept [NASA-CR-83963] 14 p2612 N67-27174
Classification of periodic orbits in dynamical systems with two degrees of freedom [D1-82-0622] 23 p4344 N67-38662
Collinearity of gradients of Hamiltonian and third integral of galaxy for family of periodic solutions, and new family of periodic solutions for which third integral is not conserved [D1-82-0634] 24 p4529 N67-39846
PERIODIC OSCILLATION
Small parameter method used for calculating periodic vibrations of flexible shallow shells and plates 09 p1528 N67-20072
Nonlinear differential equation describing extensional motion of freely spinning and gravitationally stabilized spring-mass system in orbit plane [TR-1001/2507/-4] 09 p1513 N67-20184
Construction and reliability characteristics of semi-Markov process systems operating in periodically alternating modes 12 p2070 N67-24207
Instability of periodic motions near collinear points of libration in plane restricted three-body problem examined with Liapunov theory [NASA-TM-X-59681] 13 p2403 N67-26282
Numerical integration of periodic and nonperiodic solutions of planar restricted three-body problem [D1-82-0635] 24 p4527 N67-39536
PERIODIC PROCESS
Stability of simple equilibrium periodic system for interstellar gas and magnetic field [NASA-CR-79744] 01 p0148 N67-16885
Axially symmetric periodic disturbances effects on stability of Poiseuille flow in cylindrical tubes with elastic dissipative walls [NYU-AA-66-62] 16 p2880 N67-29849
PERIODICITY
SA LONG PERIOD EFFECT
SA SYNOPTIC PERIOD
Analysis of sinusoidal periodicity in Pioneer VI Doppler tracking data 05 p0672 N67-14433
Numerical continuation of manifolds of periodic orbits for conservative dynamical system with two degrees of freedom [D1-82-0574] 12 p2307 N67-23613
Periodicities of solar activity derived from sunspot data [FTD-HT-66-115] 12 p2301 N67-23827
Rocketborne radiation detector observations of 10 cps periodicity in auroral electron precipitation [NASA-TM-X-55811] 16 p2889 N67-30029
Experimental analysis of microphysical structure of cloud and fog fluctuations over Heng Shan, China [EMM-66-130] 19 p3485 N67-33912
Period measurement of neutron flux during reactor startup using logarithmic integrator [CNEA-181] 20 p3685 N67-35158
PERIPHERAL CIRCULATION
Qualitative predictions for peripheral compressor performance at high impeller Mach numbers [K-1665] 03 p0404 N67-12680
Synoptic and Nimbus I infrared radiometer data used to investigate peripheral subsidence in hurricane outflow [NASA-CR-80823] 03 p0419 N67-12974
PERIPHERAL JET
Mixed propulsion system of peripheral jet air cushion vehicle [REPT.-4] 20 p3567 N67-34979
PERIPHERAL NERVOUS SYSTEM
Morphological changes of various peripheral nervous system components of rats, rabbits, and guinea pigs under influence of cobalt 60 irradiation [NASA-TT-F-10605] 02 p0214 N67-12152
Peripheral versus central explanations for operant control of response latency in monkeys [PRP-32N] 23 p4187 N67-38436
PERISCOPE
Design feasibility of stereoscopic fiber optic periscope for aircraft application [AD-651060] 16 p2896 N67-29661
PERMALLOY
Permalloy data units for magnetic measurements in accelerators 09 p1483 N67-19368
Method for studying galvanomagnetic interactions in ferromagnetic resonance and application to thin films of nickel and Permalloy [PIBMRI-1337-66] 10 p1745 N67-20520
Oscillation regions in magnetic film parametrons consisting of Permalloy film, winding, and capacitor 13 p2294 N67-25710
Eddy current free switching of permalloy thin magnetic film, and large-angle flux reversal measurements [NASA-CR-89204] 23 p4331 N67-38589
Stress relaxation in steel, nickel alloys, and iron alloys - thermomagnetic effects on metal friction, heat treatment and work hardening, and loading curves for steel joints [FTD-MT-65-262] 24 p4468 N67-40111
Thermomagnetic effects on internal friction and shear modulus of Permalloys 24 p4468 N67-40112
PERMANGANATE
Cobalt 60 radiation effects on kinetics of thermal decomposition of potassium permanganate [NASA-TT-F-481] 14 p2474 N67-26596
PERMEABILITY
SA DIELECTRIC PERMEABILITY
Permeability measurements of porous graphites measured from room temperature to 1000 deg F in gaseous nitrogen and helium [NASA-CR-66212] 01 p0089 N67-10251
Permeability measurements of low-density phenolic-nylon chars in gaseous nitrogen and helium [NASA-CR-66213] 01 p0089 N67-10252
Flow pressure in channels with permeable walls 03 p0249 N67-11216
Turbulent boundary layer on permeable surface 04 p0529 N67-13540
Blood plasma flow pattern pertaining to vascular permeability observed by fluorescent microscopy 05 p0646 N67-14596
Pressure wave propagation in snow with nonuniform permeability [CRREL-RR-210] 05 p0706 N67-15287
Gas flow permeability of nuclear grade graphite to argon, helium, hydrogen, oxygen, and nitrogen [AERE-R-3994] 06 p0616 N67-15765
Method for solving variable permeability two dimensional and axially symmetric magnetostatic problems by using NUTCRACKER computer code [SLAC-56] 06 p0919 N67-16536
Semipermeable membrane technology for commercial and industrial applications [NASA-SP-5061] 07 p1000 N67-17822
Permeability of materials to gaseous tritium [CEA-R-3018] 09 p1490 N67-20180
Magnetic interface theorem for treating two-dimensional magnetic fields at cylindrical interface between media of differing permeability [BNL-10507] 10 p1693 N67-20628
Permeation of helium and argon through aluminum oxide bodies [UCRL-17063] 10 p1615 N67-21472
Permeability of thin macromolecular plastic films and foils to gases, vapors, and liquids [REPT.-1966-16] 12 p2041 N67-23966
Air permeability and elutriation methods for determining specific surface of dry chemical fire extinguishing powders [NRL-6499] 12 p2045 N67-24736
Water transfer function of human skin [AD-646848] 13 p2035 N67-24851
Void fraction, permeability, and capillary rise for stainless steel bead sizes for stainless steel heat pipe [QPR-5] 13 p2423 N67-25558
Water vapor permeation effect on capacitance and conductance of plastic insulated underground telephone cables [AD-646528] 14 p2487 N67-26806
IBM 7030 computer program for processing permeability data in porous media [AERE-M-1825] 15 p2655 N67-27808
Permeation of nitrogen through arc-cast tungsten [NASA-CR-72238] 15 p2725 N67-28370
Solution deoxygenation and specimen pretreatment techniques for use in hydrogen permeation apparatus [NAEC-AML-2592] 15 p2661 N67-28494
Hypobaric and hyperbaric pressure effects on permeability of human red blood cells [SAM-TR-66-106] 16 p2827 N67-29227
Solid hydrogen purification membranes - permeation rate of hydrogen through tantalum coated with thin film of palladium at high temperatures [ITR-2] 17 p3014 N67-30359
Permeabilities of elastomer, low density epoxy and phenolic-nylon char [NASA-CR-66435] 18 p3283 N67-32490
Electrical conductance of semipermeable membranes [AD-655137] 21 p3894 N67-35419
Bistatic radar measurement for determining permeability and dielectric constant of smooth spherical target material [NASA-CR-80082] 21 p3901 N67-36421
Ultrahigh vacuum studies of hydrogen permeation in tungsten and replacement of one adsorbed gas by second from gas phase [WERL-2823-36] 22 p3992 N67-37918
PEROXIDE
SA HYDROGEN PEROXIDE
Effects of sintering atmospheres and temperatures on composition of pellets of plutonium dioxide powder prepared from oxalate and peroxide methods [LA-3493] 04 p0500 N67-13628
Voltage measurements of oxygen/peroxide couple on bright platinum for evaluating possible use as fuel cell at deep sea ambient conditions [MEL-TM-447/66] 06 p0829 N67-16471
Continuous process for peroxide precipitation of uranium from nitrate solutions [ISO-207] 06 p0830 N67-16581
Alkaline-peroxide colorimetric methods for determination of uranium [MCW-1499] 07 p1027 N67-17485
Cathodic behavior of oxygen-peroxide system on platinum [MEL-TM-8/67] 11 p1814 N67-23128
Superoxide configurations for atmosphere control systems [MSAR-66-144] 12 p2035 N67-24986
Orienting effect of silver crystals on growth of surface oxide and peroxide films [NASA-TT-F-11072] 17 p3150 N67-31066
PERSONALITY
SA APTITUDE
SA CREATIVITY
Sensory deprivation effect on psychological aspects of personality 02 p0197 N67-11567
Personality and interpersonal functioning role in promoting human effectiveness [TR-29] 11 p1800 N67-23131
Item response characteristics in attitude and personality measurement [STB-67-16] 13 p2385 N67-26248
Behavioral response measures for determining effects of fear of failure on risk taking and performance [AD-650302] 16 p2835 N67-29127
Relationship between ambivalence, risk taking, and perceptual styles as personality variables [AFOSR-67-1157] 18 p3219 N67-32671
Perceived stress, performance personality and biochemical factors in humans [ARL-TR-67-11] 19 p3377 N67-33571
PERSONALITY ASSESSMENT
Evaluation of airman jobs by four categories of raters [PRL-TR-66-3] 06 p0816 N67-16645
Human reactions to perceived consistencies and inconsistencies in personality assessment tests [TR-18] 07 p1019 N67-16997
Statistical analysis of job preferences of government and nongovernment personnel based on questionnaire survey 07 p1211 N67-16976
Conference on Air Force behavioral problems - aspects and applications of military psychiatry for personnel evaluation, mental health, therapeutic methods, and

animal studies
[AD-648168] 14 p2458 N67-26921
Psychiatric assessment and presentation before military lawyers 14 p2459 N67-26927
Therapeutic process to obtain changes in human behavior 14 p2460 N67-26930
Group behavior, leadership, and personality assessment under conditions of cold and stress
[AAL-TR-66-11] 15 p2648 N67-28091
Code transformation task for measuring performance of nonverbal mediation
[NASA-CR-895] 22 p3977 N67-37929
Multimode factor analysis of interpersonal perceptions in culturally heterogeneous groups
[TR-36] 24 p4391 N67-40239
PERSONNEL
SA ASTRONAUT
SA FLYING PERSONNEL
SA MANPOWER
SA MEDICAL PERSONNEL
SA PILOT
SA SPACECREW
Electronics technician training
[STB-67-1] 01 p0022 N67-10321
Directory of scientific government personnel in plastics
[PLASTEC-5B] 09 p1547 N67-30344
Military interpersonal relations and performance of trainees
[REPT.-3] 11 p1797 N67-22543
Performance oriented electronics technician training program - fleet performance evaluation of graduates
[STB-67-15] 13 p2261 N67-25120
Personnel and equipment at radio astronomical observatory, and VLF measurements during 30 May solar eclipse 13 p2278 N67-25142
Mental sickness among women Air Force personnel 14 p2459 N67-26926
Filing system of frequently used programs for maintenance personnel
[RM-5357-PR] 16 p2864 N67-28992
Electronics technicians performance in equipment maintenance tests
[TR-52] 18 p3219 N67-33851
Transitorized reading instrument for ionization chamber personnel dosimeters
[NP-16705] 20 p3638 N67-34159
Five-year radioisotope production plans based on present trends, facilities, and personnel
[AAEC/TM360] 20 p3590 N67-34191
Personnel radio frequency radiation monitor
[LA-3722] 22 p3978 N67-37356
Personnel management in research and development organization - phasedown analysis of Gemini Program Office at Manned Spacecraft Center
[NASA-TM-X-60470] 23 p4348 N67-39239
PERSONNEL SELECTION
SA PHYSICAL EXAMINATION
SA PILOT SELECTION
Hyperventilation as function test for selection and medical examination of flying personnel 02 p0161 N67-11428
Fixed-X linear multiple regression model used in conjunction with electronic computer to determine weighting of relevant variables in policy implementation problems 07 p1019 N67-16975
Statistical analysis of job preferences of government and nongovernment personnel based on questionnaire survey 07 p1211 N67-16978
Quantification of human performance in electronic maintenance
[RADC-TR-66-442] 07 p1022 N67-17658
Method for scoring tests with ten choice differentially weighted response alternatives on IBM 805 Test Scoring Machine
[MEMO-66-18] 11 p1797 N67-22536
Psychological problems in selection of aviation, military, and industrial personnel 14 p2470 N67-26700
Conference on Air Force behavioral problems - aspects and applications of military psychiatry for personnel evaluation, mental health, therapeutic methods, and animal studies
[AD-648168] 14 p2458 N67-26921
Psychiatric evaluation and selection of university students for flying assignments 14 p2460 N67-26922
Space psychology and physiology, life support systems, radiobiology, acceleration tolerance, medical diagnostics by computer, astronaut selection, and hypokinesis prevention
[NASA-TT-F-11100] 16 p2825 N67-29205
Age and physical fitness factors in selecting scientist-astronauts 16 p2830 N67-29210
Prediction methods for estimating success or failure during training in naval flight officer program
[NAMI-996] 16 p2839 N67-29430
Test series administered to Air Force personnel to determine weather forecaster proficiency
[ESD-TR-67-236] 16 p2925 N67-29488
Additional follow-up criterion for validating predictor scores for measuring psychological characteristics of sample of Air Force scientists
[AFOSR-67-0890] 16 p2834 N67-29665
Suitability evaluation of part of general vehicular research trainer as test for predicting success in naval aviation training
[AD-651869] 17 p3009 N67-30169
Relationship between major area of study in college and performance in naval flight officer training
[AD-651935] 17 p3009 N67-30200
Evaluation of several experimental aviation personnel selection tests
[NAMI-1003] 20 p3585 N67-34938
Medical selection of spacecraft crews for long duration space missions
[NASA-TT-F-11126] 21 p3768 N67-36680
Flight learning process formulated in terms of aviator psychomotor function, body image, and space orientation ability
[NAMI-996] 22 p3980 N67-37578
Extremal factors of long-term space flight and health requirements for spacecraft crews 23 p4191 N67-39016
PERSPECTIVE
SA DEPTH PERCEPTION
Fortran computer program for plotting three-dimensional perspective of two-dimensional arrays
[NASA-CR-85796] 17 p3033 N67-31219
PERSPEX
Threshold Cerenkov counter with Perspex radiator
[JINR-P13-3228] 23 p4253 N67-38909
PERSPIRATION
S SWEATING
PERT PROJECT
Algorithms for computing cumulative distribution of completion times of PERT networks
[AROD-4721-4] 01 p0005 N67-10520
Program to draw flowcharts automatically from PERT, Fortran II, Fortran IV, or FAP cards
[NASA-TM-X-1217] 02 p0240 N67-11343
Survey of Critical Path Method /CPM/ and Program Evaluation and Review Technique /PERT/ network planning techniques
[DLR-MITT.-66-13] 04 p0625 N67-13766
Theory of PERT and control systems for handling mathematical models
[JPRS-39592] 05 p0688 N67-15163
Program management study on effects of PERT on industries with large R+D organizations
[NASA-CR-81725] 07 p1213 N67-16914
Cybernetics conference on information theory, stochastic process, Pert project, probability theory, optimal control, pattern recognition, and related concepts
[JPRS-39690] 11 p1843 N67-23401
PERT model constructed with stochastic structure 11 p1843 N67-23404
Special optimization algorithms for distribution of resources in operations on PERT charts 11 p1907 N67-23465
Bibliography and abstracts on network analysis and applications in construction and military operations
[TDCK-46824] 11 p2006 N67-23969
Critical path technique for automatic control of complex systems design planning 13 p2289 N67-25769
Linear activity diagrams, logical networks, and time parameters for PERT projects 13 p2289 N67-25770
Algorithm for critical path analysis in PERT network 13 p2289 N67-25772
Probabilistic problems of PERT time 13 p2289 N67-25774
PERTURBATION
SA LUNAR PERTURBATION
SA ORBIT PERTURBATION
SA PLASMA PERTURBATION
SA SATELLITE PERTURBATION
Attitude perturbations and magnetic control of spin stabilized satellite
[ESRO-TR-2] 04 p0614 N67-14252
First-order nonlinear one-dimensional mathematical model of viscoelasticity using perturbation method 05 p0700 N67-14488
Interaction of nonpolar atom or molecule with inhomogeneous surface electric field 06 p0935 N67-15725
Solution to equation of magnetic surfaces by perturbation method
[IAE-1150] 07 p1138 N67-17447
Instability of parallel viscous incompressible fluid flows relative to spatially periodic perturbations 08 p1367 N67-18966
Expressions for second order short periodic perturbations for satellite motion
[NASA-CR-82797] 09 p1509 N67-19415
Distribution function perturbation expression for establishing fluctuation mechanism of steady plasma fluctuations 09 p1498 N67-20236
Radio frequency perturbation measurements in long linear accelerator standing wave cavities
[MURA-723] 10 p1605 N67-21828
Asymptotic expansion method for solving certain classes of singular perturbation problems with application in viscous flow
[NASA-TN-D-3890] 11 p1869 N67-23067
Two-mode reactor kinetic equations, and required reactivity components using perturbation edits
[KAPL-M-6576] 12 p2144 N67-23556
Theory of gradient perturbations in alternating synchrotron
[BNL-10890] 12 p2164 N67-23770
Radio frequency perturbation measurements in long linear accelerator cavities 12 p2077 N67-24062
Perturbation criterion of inhomogeneous elastic body based on energy approach study of crack formation using concepts advanced by Griffith 12 p2226 N67-24534
Perturbation effects on gravimeters mounted on cardan joint and gyro-stabilized platforms and installed onboard hydrographic ship
[JPRS-40656] 14 p2537 N67-27205
Mathematical models on stability of attitude control systems acted upon by random perturbation processes
[NASA-CR-731] 14 p2510 N67-27619
Perturbation velocities in chordwise and spanwise direction for thin rectangular wings of low aspect ratio without lift in compressible subsonic flow
[DLR-FB-67-18] 15 p2839 N67-28668
Perturbation techniques used to analyse short period dynamics in space launch vehicle
[NASA-CR-830] 16 p2974 N67-29685
Higher order perturbation energies for two-electron Hooke law model atom
[NASA-CR-85809] 17 p3134 N67-31051
Selection of perturbation coupling operator and calculation of parameters in combined control systems - invariance conditions 19 p3422 N67-32542
Perturbation coupling operator influence on combined control system 19 p3422 N67-32543
Information theory in relation to state space perturbation of the Zubov equation and global stability for nonlinear systems 19 p3423 N67-32588
Multigroup diffusion perturbation ALTAC code for Philco 2000 computer
[IA-1069] 19 p3496 N67-32662
NRX/EST nuclear rocket test system transfer function measurements by control drum perturbation, and comparison with analysis model predictions
[NASA-CR-87373] 19 p3456 N67-32823
Perturbation functions for determining vocal tract area functions from vocal tract eigenvalues 20 p3606 N67-33839
Rounding error bounds by perturbation condition analysis, and conditioning for eigenvalue problem
[NASA-TN-D-4113] 21 p3977 N67-36614
Perturbation technique using selective decoupling method for analyzing nonequilibrium flows and calculating asymptotic wall values
[CAL-136] 22 p4027 N67-37410
Numerical verification of stable, periodic, coplanar orbit existence about flat perturbed Earth-Moon triangular point
[NASA-TM-X-55861] 24 p4287 N67-39989
Networks of stationary geophysical

polygons developed to determine connections between temporal gravitational and magnetic potentials and perturbated bodies which change with time
[ACIC-TC-1248] 24 p4445 N67-40063
PERTURBATION THEORY
Iterative perturbation analysis of axially dependent electromagnetic structures using nonlinear phase progression
[AFCRL-66-421] 01 p0114 N67-10340
Modifications in Brouwer theory of perturbations in rectangular coordinates
[NASA-TN-D-3721] 01 p0154 N67-10797
Paired correlations of electrons in theory of many-electron systems 03 p0432 N67-12366
One-group perturbation theory applied to substitution measurements with void in shrouds
[AE-348] 03 p0434 N67-12688
Second-order one-group perturbation theory for approximating reactor control rod interaction effects
[AE-350] 03 p0435 N67-12825
Physical model for missile free flight trajectory perturbation between cut-off and reentry
[RAE-TR-66068] 03 p0331 N67-13147
Perturbation technique used for approximate solutions to nonlinear hydromagnetic equations of cold collisionless plasma
[NASA-TN-D-3778] 04 p0594 N67-13679
Coupled mode and perturbation theories applied to gaseous plasma waveguide problems 04 p0595 N67-13690
Initial value problem for oscillations in interstellar gas
[NASA-CR-81123] 05 p0764 N67-15313
Radiative transport effects in corner flow - solution to diabatic flow problem found as perturbation on adiabatic Prandtl Meyer solution
[TR-124] 06 p0960 N67-15414
Mathematical model and computer program for minimum variance estimates of orbital parameters, geopotential coefficients, station locations, and tracking systems error coefficients
[AD-640321] 06 p0672 N67-15483
Two-dimensional unsteady flow in traveling wave plasma accelerator studied using small perturbation theory
[NASA-CR-81298] 06 p0944 N67-16558
Surface wave guiding and radiating systems - perturbation theory, ferroelectrics at microwave frequencies, magnetoplasmaguides, warm plasma wave propagation, and correlation radiometry
[SR-95] 07 p1163 N67-17001
Perturbation theories for nonuniform electromagnetic structures 07 p1035 N67-17002
Perturbation theory applied to homogeneous magnetoplasmaguide 07 p1162 N67-17008
Liapunov stability and solar perturbations of passively damped gravity gradient satellite
[TG-854] 07 p1189 N67-17236
Variational methods and degenerate perturbation theory
[NASA-CR-70027] 07 p1156 N67-17773
Perturbation calculation of energy of first excited state of molecular hydrogen ion
[WIS-TCI-192] 07 p1158 N67-17915
Emission spectrum and Stark splitting analyzed in europium dibenzoylmethide using first order perturbation theory
[NASA-TM-X-57104] 08 p1236 N67-18443
Perturbation theory and Fortran program for reactor burnout calculations 08 p1315 N67-18802
Correction to random phase approximation for first 2-plus state in spherical even nuclei evaluated with perturbation theory
[RIFP-57] 08 p1345 N67-19257
Perturbation method to derive geomagnetic Euler potentials for magnetic field
[NASA-TM-X-55710] 09 p1442 N67-19868
Boundary layer and vortex flows on aft portion of blunt body, using perturbation method
[NYU-AA-66-64] 09 p1435 N67-20007
Perturbation theory and new cell concept for substitution measurements of buckling heavy water assembly
[AE-256] 09 p1481 N67-20291
Construction of S-matrix using perturbation theory free from ultraviolet divergences by one-component scalar quantized field
[JINR-P-2870] 10 p1705 N67-20622
Perturbation and successive approximation methods for coupled form solution of transport equations on reactor shell problem
[INR-685/IX/RP] 10 p1686 N67-21410
Fortran program applying first order perturbation theory to problems in multigroup neutron transport theory
[AWRE-O-40/66] 10 p1719 N67-21513
Expansion method for calculating correlation energies of lithium sequence using electron pair energies
[AFCRL-66-819] 10 p1667 N67-21696
Polarizability, polymer chemistry, and relation to perturbation theory
[REPT.-3739] 10 p1663 N67-21758
Application of perturbation method to measuring electromagnetic field in resonant cavities
[LYCEN-6627] 10 p1732 N67-21785
Analytical perturbation theory for three-body problems using regulating variables
[REPT.-3772] 11 p1974 N67-22100
Time dependent perturbation theory used to determine output boundedness and stability of nonlinear reactor system
[ANL-7189] 11 p1930 N67-22305
Iterative perturbation analysis using nonlinear phase progression modified and extended for gross perturbations
[ISR-92] 11 p1856 N67-22574
Perturbation of resonance states and energy shift in mirror nuclei
[IC/66/106] 11 p1946 N67-22389
Equal time commutators of renormalized current operators in perturbation theory
[DESY-66/24] 12 p2156 N67-24691
Nonequilibrium shock expansion method as simple wave perturbation
[MIT-DSR-5316] 13 p2305 N67-25091
Analytical perturbation theory in three-body problem by regularization of variables, and series expansion convergence 13 p2401 N67-25700
Perturbation analysis to determine atom interaction with free metal electrons
[NASA-TT-F-10645] 13 p2376 N67-25811
Measurement of dielectric constant of vegetation at microwave frequencies by cavity perturbation method
[NASA-CR-83925] 13 p2368 N67-25893
Perturbation theory used in quantum mechanics to determine molecular energy and properties
[NASA-CR-68474] 13 p2381 N67-26275
Infrared radiative corrections for resonant processes
[LNF-67/10] 13 p2361 N67-26307
Orbit perturbation in terrestrial field and those due to third body - Lagrange equations and disturbing functions
[ELDO-TM-F-33] 13 p2405 N67-26462
Perturbation times for hydrogen and alkali halide systems
[NRL-6456] 14 p2482 N67-27478
Perturbation solutions for differential equation governing dynamic buckling of elastic column
[SUDAAR-281] 15 p2799 N67-28333
First-order perturbation theory as used in multigroup diffusion code Exterminator-2
[ORNL-TM-1741] 15 p2761 N67-28349
Methods of regularization for computing orbits in celestial mechanics
[NASA-CR-769] 16 p2968 N67-29387
Quantum theory, transition probability, molecular orbitals, and perturbation theory - research projects 16 p2943 N67-29467
Numerical analysis of inviscid flow field about right circular cone in unsteady planar flight using modified perturbation method
[FDL-TDR-64-148] 16 p2813 N67-29602
Convergence of Von Zeipel method
[SP-2810/000/00] 17 p3068 N67-30195
Perturbations of collectively compact operators - convergence of approximate solutions of integral and operator equations
[MRC-TSR-726] 17 p3089 N67-30280
Celestial mechanics, and perturbation theory in deriving perturbed processing elliptic orbits 17 p3159 N67-30666
Three-dimensional generalization of Birkhoff regularization for spatial three-body problem
[DISS-3816] 17 p3160 N67-30899
Radiation shielding calculated by approximation method using conjugate equations and perturbation theory 17 p3114 N67-31250
Tensor equations of equilibrium for nonlinear membrane shell theory and small perturbations of pressurized membrane shells
[NASA-CR-86656] 18 p3350 N67-31737
Computation of bounds for invariant subspaces of general matrix operator
[CS-66] 19 p3481 N67-33274
Multigroup transport perturbation ALTAC code for Philco-2000 computer
[IA-1165] 19 p3507 N67-33659
Perturbation method for simultaneous adjustment by gradient method of multiple parameters in adaptive control systems
[CT-11] 19 p3424 N67-33689
Quasi-particle scattering by s-d exchange interactions due to magnetic impurities in superconductors calculated by perturbation method
[TUEP-67-9] 20 p3712 N67-34127
Equal mass spacing of decuplet of baryons using perturbation theory
[UCRL-17450] 20 p3692 N67-34312
Two-dimensional, first order perturbation theory computer code for use in fast reactor analysis
[BNWL-409] 20 p3696 N67-34619
Perturbation solution for effectively controlled ferrite phase converters - waveguides
[FTD-HT-66-391] 21 p3813 N67-35415
Electron scattering cross section by strongly polar molecules
[ISAS-412, VOL. 32, NO. 5] 21 p3902 N67-35865
Electron exchange effects in degenerate perturbation theory of intermolecular potentials
[NASA-CR-88189] 21 p3902 N67-35885
Correction of error in application of Hirschfelder-Silbey perturbation theory to molecular hydrogen ion
[NASA-CR-86791] 21 p3902 N67-36039
Perturbation theory analysis of sum rules derived from isotopic spin current algebra
[DESY-67/11] 21 p3904 N67-36196
Superperiod gradient perturbations in alternating gradient synchrotrons
[BNL-11423] 21 p3906 N67-36509
Rate of convergence estimates for solutions of singular perturbations of linear elliptic boundary value problem
[TR-12] 22 p4100 N67-37507
Linear and nonlinear theory of grid excitation of low frequency plasma waves
[NASA-CR-89281] 23 p4325 N67-39256
Heterogeneous perturbation theory and computer code for zero power reactor neutronic calculations
[AI-67-91] 23 p4292 N67-39323
Thermodynamic theory and small perturbations in flows beyond equilibrium
[REPT.-67-4] 23 p4367 N67-39338
Continued fractions and upper and lower bounds in Brillouin-Wigner perturbation scheme
[SR-36] 24 p4499 N67-39628
Studies of guided electromagnetic waves in presence of axially nonuniform or random perturbations
[CU-EE-100] 24 p4405 N67-39656
Perturbation method for eigenfunction expansion of Schroedinger operator
[MRC-TSR-744] 24 p4490 N67-39707
Convergence proof for Von Zeipels perturbation analysis of celestial mechanics
[SP-2810/000/01] 24 p4481 N67-39682
PERU
Photo-mosaic of western Peru composed of photographs taken from Gemini 9
[NASA-CR-89072] 23 p4241 N67-38145
PETN
S PENTAERYTHRITOL TETRANITRATE /PETN/
PETROGRAPHY
SA ROCK
Gabbro, serpentine, and artificial olivine analyses and petrographic properties of cast and formed geometric shapes
[NASA-CR-81339] 06 p0849 N67-16619
Astrogeologic studies - crater investigations
[NASA-CR-82745] 09 p1437 N67-19939
Diagnostic petrographic criteria for establishing progressive stages of hypervelocity meteorite impact 09 p1439 N67-19936
Petrographic studies on absolute ages of rocks in East Antarctica 11 p1867 N67-22345
Petrographic evidence of meteorite impact in Canadian rock structure
[NASA-TM-X-55789] 14 p2528 N67-27374

Uranium loss in mines subject to action of rain water
[LFEN-NI.33/ALPHA/] 18 p3261 N67-31561
Meteoritic and projectile cratering, petrography, and geologic applications to lunar surface studies
[NASA-CR-87057] 19 p3449 N67-33163
Geologic structure, petrographic data, and suggested meteoritic impact origin of Canadian Manicouagan-Mushalagan Lakes area 19 p3441 N67-33166
PETROLEUM
SA GASOLINE
SA KEROSENE
Low voltage mass spectrometric characterization of sulfur compounds on high-boiling petroleum fractions
[BM-RI-6879] 03 p0360 N67-13158
Radioactivity methods for prospecting petroleum, gas, coal, and ore deposits 10 p1621 N67-21282
Borehole charged particle accelerators for improved radioactivity logging efficiency in prospecting coal, ore, and petroleum deposits 10 p1623 N67-21290
Petroleum industry use of radioactive isotopes for technical control of wells, and development of producing reservoirs 10 p1633 N67-21291
Radioactive isotope technique for checking results of hydraulic fracturing of petroleum reservoirs 10 p1775 N67-21295
Highly sensitive apparatus for recording tritium isotope for exploiting petroleum deposits - hydrogeology and hydraulic engineering problems 10 p1634 N67-21296
Identification and characterization of petroleum fuel using temperature programmed gas liquid chromatography
[CCL-218] 12 p2045 N67-24718
Chemical analysis of organosulfur compounds in kerosene-gasoline fractions of petroleum
[FTD-MT-65-282] 12 p2046 N67-24781
Continuous flowing paper electrophoresis cell for separation of petroleum
[BM-RI-6912] 13 p2273 N67-26309
Hydrogenation of petroleum distillate fuels, and effects on storage stability and composition of fuels
[BM-RI-6961] 15 p2784 N67-28795
Neutron activation analyses of trace elements in petroleum and long-lived nuclides
[SGAE-CH-46/1967] 20 p3598 N67-35244
PETROLOGY
SA METAMORPHISM
SA ROCK
Experimental rock deformation - Bibliography
[AFCRL-65-740/II/] 06 p0702 N67-14740
Whole-rock rubidium-strontium age of Silurian Devonian boundary in northeastern North America
[NASA-TM-X-57221] 08 p1275 N67-18244
Cosmic chemistry and petrology studies related to tektites, origin of lamellar troilites in iron meteorites, determination of metallic content in silicates, and geochemical techniques
[NASA-CR-82837] 09 p1459 N67-19501
Topography, geology, petrology, and geography of Antarctica
[TT-65-50143] 11 p1866 N67-22341
Geologic and petrologic data on rock formations in East Antarctica, and chemical compositions of schists 11 p1867 N67-22346
Detection, identification, and structural analyses of tektites
[NASA-CR-83861] 13 p2312 N67-25630
Recovery of magnetic spherules in sedimentary rock
[AFCRL-67-0315] 22 p4035 N67-36598
PFM
S PULSE FREQUENCY MODULATION /PFM/
PFM TELEMETRY
Small scientific satellite PFM telemetry encoding system evolution
[NASA-TN-D-3757] 04 p0511 N67-13781
Digital data processor, circuit design and fabrication, digital word readout, and interfaces for IMP D and IMP E pulse frequency modulation encoding system
[NASA-TM-X-55653] 06 p0646 N67-16674
Radio frequency test console for deep space communications system simulation and telemetry and ranging system evaluation
[NASA-CR-86685] 24 p4409 N67-40351
PH
Acid and alkaline denaturation of DNA and its dependence on salt concentration
[ISS-66/33] 11 p1793 N67-23087
Effects of pH on electrosorption of oxygen on fuel cell electrodes
[MEL-406/66] 12 p2018 N67-24485
Acid-base mechanism of photochromic reactions
[AFOSR-67-0614] 14 p2476 N67-28891
Hydrogen ion concentration fluctuations in urine, and correlation with simultaneously measured carbon dioxide tension in arterial blood
[NASA-TT-F-11293] 24 p4385 N67-40006
PH FACTOR
Acidity and alkalinity effects on grease in relation to effectiveness as lubricant and corrosion inhibitor
[RIA-TR-67-342] 15 p2717 N67-28270
Pressurized water reactor pH reactivity effect
[WCAP-3696-1] 15 p2748 N67-28426
Flow apparatus with glass electrode for pH-determination of acidity constant and dehydration rate of carbonic acid
[JPRS-41613] 20 p3594 N67-34614
Chemical kinetics of papain and chymotypsin derivatives with respect to pH activity profiles and local gradient effects of enzyme and substrate
[AFOSR-67-3025] 24 p4381 N67-39484
PHANTOM AIRCRAFT
S F-4 AIRCRAFT
PHARMACOLOGY
SA DRUG
SA TOXICOLOGY
Psychopharmacological evaluation of effects of prolonged exposure to oxygen atmospheres on performance of subhuman primates 14 p2454 N67-28730
Specific effects of medication during simulation of space flight stresses, and for enhancement of body tolerance to extreme flight factors
[SAM-TT-R-808-0167] 15 p2648 N67-28199
Pharmacology problems in space medicine 23 p4193 N67-39100
PHASE
S GAS PHASE
S LIQUID PHASE
S RETURN-TO-EARTH PHASE
S SINGLE-PHASE FLOW
S SOLID PHASE
S TWO-PHASE FLOW
S TWO-PHASE SYSTEM
S VAPOR PHASE
PHASE ANGLE
Azimuth angle measurement errors contributed by atmosphere, using short baseline microwave antenna systems
[IER-4-ITSA-4] 10 p1584 N67-20588
Instruments for measuring impedance magnitudes and phase angles of components and circuits over broad frequency range 18 p3250 N67-32163
Standard for accurate phase angle measurements at audio frequencies
[NBS-TN-347] 20 p3613 N67-34191
PHASE CHANGE
Phase equilibria and specific volumes of liquid metals and alloys
[NYO-2731-7] 04 p0561 N67-14076
Surface oxidation and phase change in heat resistant nickel alloys in loaded state 10 p1650 N67-20477
Transient and steady state phase and amplitude changes measured and energy distribution calculated for Brookhaven linear accelerator
[BNL-10070] 10 p1699 N67-20742
Mossbauer effect of Te 125 in simple cubic and amorphous phases determined in tellurium-base alloys
[REPT.-46] 10 p1747 N67-20746
Equation of state for iron assuming instantaneous phase change
[LA-3599] 10 p1854 N67-21154
Integral expressions for approximating phase shift and scattering amplitude 11 p1931 N67-22103
Ultrasonic properties of solids studied to obtain information about bulk systems near phase transitions or critical points 11 p1867 N67-22647
Microstructural phase discrimination by vacuum deposition of surface films 12 p2108 N67-24243
Color staining metallographic technique for phase identification in sigma-bearing type 304 stainless steel 12 p2118 N67-24260
Polytypic phase relations among complex inorganic structures
[REPT.-07325-3-T] 14 p2475 N67-28645
Phase relations in beryllium-oxide plutonium-oxide uranium-oxide pseudo ternary system
[BNWL-350] 14 p2579 N67-27595
Gravitational and phase change sources of energy in Jupiter
[NASA-CR-85851] 17 p3164 N67-31296
Irreversible thermodynamics of liquid-vapor phase change process
[NASA-CR-87478] 20 p3745 N67-34539
Polarization and phase characteristics of radio waves propagating through lower ionosphere
[NRL-6532] 21 p3797 N67-35704
Phase migration in monothermal field - nonequilibrium process of forced vaporization of water, carbon tetrachloride, chlorobenzene, and butanol
[ITRI-C212-11] 21 p3792 N67-36479
Measuring apparatus for signal phase displacement and coherent loss in colliding storage rings
[NP-16690] 21 p3829 N67-36652
PHASE COHERENCE
System performance of phase coherent receivers preceded by bandpass limiters
[NASA-CR-88523] 22 p3998 N67-37072
PHASE CONTRAST
Composition of carbonaceous chondrites examined by phase contrast, fluorescence microscopy, X-ray diffraction, biological staining, and electron microprobe analysis 03 p0341 N67-12723
Schlieren photography and phase contrast methods for hypersonic and supersonic flow visualization
[TP-423/1967/] 22 p4020 N67-37085
PHASE CONTROL
Dynamic properties of hysteresis motors with phase control for application to automatic control systems 03 p0373 N67-13772
Parallel-T resistance-capacitance network circuit for developing quadrature voltage at variable frequency
[NRL-6440] 05 p0688 N67-15323
Variable waveguide coupler with 360 degrees of phase control for slot antenna having rapid scanning capability
[P67-01] 15 p2807 N67-28288
Fast automatic phase and amplitude control of high power radio frequency systems for proton linear accelerator
[LA-DC-8344] 16 p2808 N67-29283
Electronic phase analyzer for high speed stellar polarimeter 17 p3061 N67-30897
Design, development, and testing of low cost capture effect glide slope amplitude and phase control unit
[FAA-RD-66-58] 19 p3486 N67-33356
PHASE DEMODULATOR
Phase demodulator of second harmonic with width modulation
[FTD-TT-65-1616] 10 p1580 N67-20439
PHASE DETECTOR
Amplitude-phase measuring device without phase sensitive detectors
[FTD-TT-66-9] 01 p0076 N67-11100
Phase lock loop system with modulo 2n pi phase detector 07 p1634 N67-16622
Rapid acting microwave interferometer with direct phase reading for plasma diagnostics
[FTD-HT-66-272] 07 p1662 N67-17651
Operating principle and properties of phase detector with pulse width modulation
[FTD-TT-65-1538] 07 p1663 N67-17905
Properties of pulse frequency detector with tunnel diodes
[FTD-HT-66-186] 11 p1819 N67-23444
Random number generator circuit with pulsed amplified signal at gate output
[ISS-66/43] 14 p2599 N67-27124
Evaluation of signal data processor employing synthetic phase isolator technique
[NASA-CR-728] 14 p2490 N67-27267
PHASE DEVIATION
Phase front distortion due to soil irregularities in attempt to put selection of sites for direction finding equipment on theoretical basis
[RAE-LIB-TRANS-1175] 04 p0582 N67-14327
Application of ultrastable oscillators to one-way ranging systems - Measurement technique for determining phase fluctuation spectrum of highly stable oscillators
[NASA-CR-84444] 14 p2494 N67-27427
PHASE DIAGRAM
Phase equilibrium diagrams of hafnium-tantalum system in solid state
[NASA-TT-F-10290] 01 p0082 N67-10509

Binary phase diagrams of halide salts [YALE-2723-1, VOL. I] 01 p0033 N67-10633
Binary phase diagrams of halide salts [YALE-2723-1, VOL. II] 01 p0034 N67-10634
Phase equilibrium of titanium aluminum molybdenum system in titanium rich alloy field 02 p0269 N67-11763
Phase diagram of titanium vanadium niobium molybdenum system 02 p0270 N67-11765
Partial phase diagram of titanium chromium iron silicon boron system 02 p0270 N67-11767
Partial phase diagram of titanium aluminum chromium iron silicon boron system 02 p0270 N67-11768
Phase diagram of titanium-aluminum alloy 02 p0271 N67-11772
Width of homogeneity region of intermetallic phases in niobium tin and vanadium gallium systems [ATD-66-101] 06 p0691 N67-15779
Sintering behavior and phase structure characteristics of europium oxide-uranium oxide binary system [GEAP-5006] 07 p1177 N67-17405
Phase diagram structure of titanium-copper system [NASA-TT-F-10661] 08 p1291 N67-18925
Antenna measurements at superhigh frequencies - radiation patterns, gain, errors, electric impedance, phase diagrams, polarization, and test equipment [FTD-MT-65-394] 09 p1416 N67-19810
Phase analysis of uranium iron aluminum ternary system with electron microprobe [MCW-1503] 09 p1411 N67-20214
Thermoanalytic and X-ray measurements for lead telluride phase diagram [AERE-TRANS-1063] 12 p2234 N67-23682
Correlation of thermodynamic data with binary eutectic-type phase diagrams [IS-T-123] 12 p2041 N67-23760
Phase behavior, crystal structure, and vaporization of titanium varadium oxygen system [COO-1140-132] 15 p3655 N67-37911
Phase diagram and relationships for zirconium oxide-scandium oxide system [ARL-66-0230] 15 p3730 N67-38690
Mutual diffusion characteristics and phase diagram of titanium tungsten mixtures at high temperatures [NASA-TT-F-11010] 15 p3724 N67-38237
Phase diagram of titanium vanadium carbon system in high temperature environment [NASA-TT-F-11012] 15 p3724 N67-38238
Phase diagram of titanium-rich aluminum alloys, using thermal, microstructural, dilatometric, and X-ray analyses [NASA-TT-F-11011] 15 p3728 N67-38744
Phase diagrams for cobalt-tungsten alloys for compositions to 85 atomic percent cobalt and temperatures to solidus [RI-BM-6956] 15 p3728 N67-38781
Phase relations in uranium monocarbide region of ternary system uranium carbon oxygen at 1700 deg C [RI-6968] 17 p3915 N67-39692
Hafnium alloy-carbon phase diagram [BM-RI-6963] 17 p3979 N67-39869
Melting range of natural gabbro determined at pressures up to 45 kilobars [NASA-CR-86627] 18 p3261 N67-31820
Pressure effect on melting points of silver and copper and eutectic point in binary phase diagram [CEA-R-3667] 19 p3471 N67-33257
Physicochemical determination of interaction between titanium and phosphorus in mixture containing up to 45 atomic percent phosphorus - phase diagram of titanium phosphorus system [NASA-TT-F-11162] 19 p3395 N67-33648
Phase diagrams and crystal structure of solid solutions of magnesium, cadmium, and nickel with chromium oxide, and europium titanium oxygen system [ECOM-01304-7] 19 p3397 N67-33901
Phase diagrams and crystal structure of europium titanium oxygen system 19 p3397 N67-33902
Phase diagrams of solid solutions of nickel oxide, magnesium oxide, and cadmium oxide with chromium oxide and oxygen gas 19 p3397 N67-33903
Preparation, crystal structures, phase diagrams, and magnetic properties of rare earth manganese alloys [AFML-TR-66-366] 21 p3868 N67-35720
Chemical, physical, and mechanical problems related to metallurgy of rare earths, and lack of high purity metals and phase diagrams for rare earths 21 p3871 N67-36353
Differential thermal, metallographic, and X-ray analyses for establishing ytterbium lead and europium lead phase diagrams 21 p3871 N67-36357
Reactor materials development including metal preparation and purification, phase diagrams, mechanical behavior and forming, and methods for single crystal preparation [IS-RD-9] 21 p3872 N67-36442
Calculation methods for phase diagrams of binary oxyde systems from thermodynamic data [TUBIK-3] 21 p3876 N67-36647
Phase diagrams and thermal expansion coefficients of titanium-oxygen system 22 p4062 N67-37123
Three dimensional graph of quarternary titanium aluminum molybdenum vanadium system 22 p4062 N67-37124
Phase structure of titanium aluminum based alloy with constant aluminum content 22 p4062 N67-37125
Alloy phase structures in ternary titanium aluminum zirconium system along binary titanium alloy section 22 p4063 N67-37126
Study of alloy theory - structure and properties of metastable phases of copper, zinc, and silver alloys [F-C1869] 22 p4070 N67-37257
Phase equilibria of niobium rich regions in ternary alloys and effect of interstitial additions [DRI-2397] 23 p4264 N67-38671
Phase diagram cross section of aluminum copper cadmium manganese system with constant manganese concentration at 500 C [NASA-TT-F-11014] 24 p4465 N67-39660

PHASE ERROR

Probability distribution of phase error of Mariner type communication system - differenced output statistics of cross correlators 02 p0239 N67-12149
Central frequency synthesizer performance and voltage controlled oscillator static phase error 06 p0839 N67-15920
Degradation of pulse compression system due to random phase errors [TG-843] 09 p1416 N67-19840
Double mirror antenna with automatic compensation of phase error [FTD-HT-66-94] 09 p1418 N67-19978
Influence of phase errors of phase shifters on directional properties of scanning antennas 13 p2375 N67-25113
Prediction of feasible data rates and corresponding error rates over band limited channels with specified phase and amplitude characteristics [MTP-68] 24 p4408 N67-40163

PHASE LOCK

Wideband modulation techniques and phase-locked loop studies for airborne range and orbit determination system [NASA-CR-79751] 02 p0223 N67-11691
Phaselock techniques as applied to aerospace transponders [NASA-CR-80567] 03 p0369 N67-13247
Threshold studies of phase lock loop systems - effect of phase comparator on overall performance and threshold phenomena [NASA-CR-80844] 04 p0523 N67-14240
Phase-locking scheme for frequency-stabilized gas laser oscillators [NASA-CR-80958] 05 p0715 N67-14893
Limit cycles in passive filter phase locked loops of digital communication and tracking systems 06 p0834 N67-15760
Phase lock loop system with modulo 2n pi phase detector 07 p1034 N67-16923
Narrow bandwidth phase-locked tracking filter for improved signal to noise ratio of ionospheric data receiving system [BRL-MR-1759] 08 p1244 N67-18296
Random walk model for determining cycle slipping in phase locked loops 08 p1246 N67-18349
Simplified phase lock tracking filter for ground testing of satellite systems [TG-829] 09 p1415 N67-19740
Optimal values of filter parameters in phase-lock loop 11 p1845 N67-22496
Probability distribution of time to first loss of lock investigated by second order phase-locked loop - spacecraft telemetry and command 12 p2050 N67-23462
Self locking of modes in lasers, phase locking of laser oscillations by injected signal, and effects of intensity dependent anomalous dispersion on mode shapes of oscillators [S-928] 14 p2548 N67-26758
Method for mode locking carbon dioxide laser [IER-7] 16 p2904 N67-29668
Determination of mathematical equivalence of ideal bandpass limiter discriminator followed by non-linear feedback filter and bandpass limiter followed by phase-lock loop [NASA-CR-85789] 17 p3041 N67-30988
Engineering developments in communication science research, including phase lock loop studies 19 p3407 N67-33610
Phase locked loop studies and gain in parametric amplifiers 19 p3434 N67-33613
Automatic acquisition of carrier frequency of AM and PM signals by phase-lock loop system [NASA-CR-87997] 21 p3794 N67-35822
Airborne range and orbit determination system studies on wideband modulation methods and phase lock loop advanced circuit - appendices [NASA-CR-89259] 23 p4214 N67-38508

PHASE LOCK DEMODULATOR

Threshold improvement capabilities of feedback and band dividing demodulation methods for phase and frequency modulation signals [NASA-CR-682] 06 p0846 N67-16668
Performance of combination phase and frequency lock system [NOLTR-67-21] 22 p3999 N67-37237

PHASE MODULATION

SA FREQUENCY MODULATION

Noise spectrum of single-sideband phase modulation 02 p0237 N67-12134
Detection of coded phase modulated signals [REPT.-66-1] 04 p0515 N67-14191
Molecular beam research - square-wave phase modulation in molecular beam resonance studies and search for shift in transverse electromagnetic mass of electron 11 p1927 N67-22642
Design, fabrication, and evaluation of advanced FM-PM digital demodulator [ESD-TR-66-516] 14 p2458 N67-26915
Phase characteristics of incoherent multipath reflection between airborne and ground based radio transmission systems [TM-67-9] 16 p2861 N67-29687
Phase modulation effects due to earth atmosphere and solar corona on communication system sensitivity [NASA-CR-86630] 18 p3229 N67-32024
Diurnal average and standard deviation of phases in modulated very low frequency signals 18 p3292 N67-32214
Crystal oscillator, phase modulator, frequency multiplier, and power amplifier modules used in design telemetry transmitter for satellite applications [TG-887] 18 p3234 N67-32561
Characteristics of split phase telecommunications link [NASA-TN-D-4163] 20 p3604 N67-34428
Sunblaser phase modulation communication system performance for noisy dispersive channel with regard to signal detection [NASA-CR-88814] 22 p3997 N67-37023
Phase modulated microwave interferometer with fixed frequency signal source 23 p4252 N67-38778

PHASE SHIFT

Measurements of nonlinear amplitude distortion and phase shift in traveling wave tube [RADC-TR-66-563] 02 p0244 N67-11931
Phase shift analysis of nucleon-nucleon scattering at 14.5 MeV [JINR-P-2742] 03 p0446 N67-13366
Application of magnetically controlled ferrite phase shifters in scanning leaky wave antennas 04 p0520 N67-13816
Fast switching microwave phase shifters for high power array radar antennas 04 p0514 N67-13946
Recoil proton polarization in elastic pion-proton scattering and phase shift analysis of pion-nucleon scattering [JINR-E-2860] 04 p0530 N67-14067
Hybrid servo-positioning system and experimental facility for computer controlled manipulator - digital-to-analog converter, RC active filter, and phase switching servoamplifier

[NASA-CR-80651] 04 p0524 N67-14256
Method for evaluating traveling wave tube stability and atomic hydrogen frequency standard 05 p0683 N67-14443
Interferometer designed to measure phase shifts of three superimposed microwave beams transmitted across common plasma path
[IPP-2/49] 07 p1081 N67-17593
Quantum mechanical calculations to evaluate barrier penetration and resonance effects on phase shifts
[NASA-CR-49590] 07 p1157 N67-17855
Phase composition, structure, and properties of steel and high temperature nickel alloys
[FTD-MT-66-16] 10 p1649 N67-20474
Analysis of isolated phases and phase composition of alloys 10 p1650 N67-20475
Phase shift analysis of nickel alloys containing intermetallic compounds and variable carbon content 10 p1650 N67-20476
Phase composition of heat resistant nickel alloy surface layers after heat treatment in nitrogen containing media 10 p1650 N67-20478
Specification of nucleon-nucleon phase shift analysis at 23.1 MeV
[JINR-E1-2953] 10 p1701 N67-20797
Specification of nucleon-nucleon phase shift analysis at 147 MeV
[JINR-E1-2953] 10 p1701 N67-20798
Simultaneous phase shift analysis of nuclear potential and peak to peak data at 18.2 and 9.7 MeV
[JINR-E1-2969] 10 p1703 N67-20812
Phase shift analysis on recoil proton polarization in elastic pion-nucleon scattering
[JINR-P-2698] 10 p1710 N67-20953
Controllable fast-response photomultiplier test showing coincidence rate electric pulses in relation to phase shift of ultrahigh frequency control voltage
[UCRL-TRANS-1335] 10 p1594 N67-21476
General conditions for achieving phase shifts of pi and two-pi by magnetic quadrupole multiplets
[BNL-10813] 10 p1695 N67-21563
Elastic nucleon-nucleon scattering amplitudes calculated by phase shift analysis
[JINR-P-2961] 10 p1727 N67-21643
Phase shift analysis of nucleon-nucleon analysis
[JINR-E-2743] 10 p1732 N67-21796
Iterative perturbation analysis using nonlinear phase progression modified and extended for gross perturbations
[ISR-92] 11 p1858 N67-22574
Low energy behavior of 7 equals zero, S-wave, pion-pion scattering phase shift and possible scalar meson
nonet 11 p1939 N67-22951
Pseudo-atom phase shifts of liquid metals and alloys
[ORNL-P-2569] 12 p2171 N67-24686
Bibliography of pulse magnetized ferrite device references
[RAE-LIB-BIBL-270] 13 p2295 N67-26190
Broadband, low noise, phase shift, radio frequency amplifier
[AD-634663] 15 p2665 N67-27946
Phase shift measuring method in dual light beam ultraviolet analyzer for high speed analysis of oil in solid petroleum paraffins 15 p2710 N67-28102
Elastic neutron-neutron scattering in meson model of nuclear forces
[JINR-P4-3135] 15 p2767 N67-28524
Phase shift calculations for real and realistic potentials
[AECD/TP/15] 15 p2767 N67-28525
Compact, symmetrical, three-port S-band ring circulator with nonreciprocal ferrite phase shift filters
[TR-439] 16 p2892 N67-29092
Infralow frequency phase shifter for obtaining sinusoidal signal 16 p2968 N67-29474
Triple scattering parameter and phase shift analysis of proton scattering at 600 MeV
[JINR-P1-3167] 16 p2946 N67-29694
Plasma diagnostics using microwave interferometer and resonance phase shift techniques
[REPT.-66-33] 16 p2955 N67-29748
Distortion of radiation pattern of 96-element phased array with matching dielectric sheet at each face of phase shifter matrix 19 p3405 N67-33381
Low energy behaviors of S-wave pion-pion scattering phase shifts studied in terms of forward dispersion relation 20 p3699 N67-34832
Mode patterns, phase shifts, and power losses in unstable regions of flat roof open resonator
[AFCRL-67-0357] 21 p3865 N67-35282
Perturbation solution for effectively controlled ferrite phase converters - waveguides
[FTD-HT-66-391] 21 p3813 N67-35415
Heterodyne phase shifter with inductive delay line pickup providing stepless phase shift
[NASA-TN-D-4111] 22 p3995 N67-36763
Low frequency phase shift measurement techniques 22 p4019 N67-36947
Supconvergent phase shift, asymptotic Regge residua, and elastic-width versus mass relations
[NP-16863] 23 p4304 N67-38548
Synchronous self-tuning filter with simplified multiplier designed to separate weak, quasi-harmonic signals from background interference
[FTD-HT-66-724] 24 p4404 N67-39669
Phase analysis of operation modes of octave band all pass with electronically tunable limiter ranges
[RADC-TR-67-453] 24 p4419 N67-39843
Controllable broadband differential phase shifter for low-power application using periodic loading of transmission lines with varactors
[DISS-3926] 24 p4420 N67-40039

PHASE-SHIFT KEYING
Frequency differential phase-shift keyed digital data modem for operation over long range HF paths
[ESD-TR-66-639] 16 p2880 N67-29497
Wideband waveguide-mounted ferrite-pencil phase shifters for X-band transmission
[RAE-TR-66337] 17 p3149 N67-31078
Pulse code modulation/phase-shift keying subcarrier demodulator for data acquisition
[NASA-TM-X-55866] 19 p3405 N67-33407

PHASE-SPACE INTEGRAL
Uniform charge density of beam and its phase space distribution 12 p2166 N67-24697
Phase space representation of aberrations due to longitudinal fields in quadrupoles 12 p2167 N67-24163
Phase space solution of buoyant jets in calm stratified atmosphere
[R675D8] 14 p2517 N67-27194
Thermonuclear plasma and accelerator technology - limitation on injection, topology of phase space, and stellarator construction problems
[COO-1233-44] 15 p2775 N67-28591

PHASE TRANSFORMATION
Thermodynamic theory for effect of pressure on crystallization kinetics of phase transformation in fused silica
[TR-6] 01 p0090 N67-10503
Phase transformations in titanium aluminum molybdenum alloys 02 p0270 N67-11764
Phase composition of alloys of titanium aluminum chromium iron silicon system 02 p0271 N67-11773
Phase transformations in titanium alloys subjected to continuous cooling during welding 02 p0275 N67-11790
Influence of metastable structural transformations on mechanical properties of alpha-beta phase titanium alloys 02 p0275 N67-11800
Titanium alloy with stable phases for use in industrial tube production 02 p0276 N67-11808
Titanium alloy studies on phase transformation and additive effects on welded joints, and hot and cold rolling
[JPRS-38370] 03 p0409 N67-12856
Phase transformations in welded titanium alloy joints 03 p0409 N67-12857
Solid-liquid phase transformations of serpentine and olivine at varying temperatures and pressures
[NASA-CR-80435] 03 p0390 N67-13114
Crystallographic study of orientational relationships between gamma to alpha phase transformations for uranium-molybdenum alloys
[CEA-R-3973] 03 p0413 N67-13228
Beta to alpha isothermal transformation in pure and weakly alloyed uranium
[CEA-R-3956] 03 p0414 N67-13232
Fluctuation phenomena near phase transitions in condensed systems
[TR-2] 05 p0667 N67-15666
Effect of quenching on ductile-brittle bend transition temperature of chromium wire 06 p0892 N67-18094
Effect of quenching on ductile-brittle bend transition temperature of Cr-36Re wire 06 p0892 N67-18095
Determination of diffusion coefficients in alloys with several phases
[NASA-TM-X-53230] 06 p0895 N67-18502
Ionic forces in polymers - properties of polyphosphates in glass transition region
[TR-13] 06 p0831 N67-18649
Transformation curves for continuous cooling of manganese-molybdenum-vanadium steel determined under argon
[EURAEC-1677] 07 p1104 N67-17980
Phase transformation of titanium-zirconium alloys studied after heat treatment 09 p1388 N67-18207
Beta to alpha transformation characteristics of several dilute uranium alloys
[MCW-1506] 09 p1391 N67-18883
Effect of interstitial addition on phase equilibrium of niobium-rich region of niobium tungsten hafnium and niobium tungsten zirconium alloy systems
[DRI-1092-235] 10 p1656 N67-21568
Phase transformation for accurate temperature control, and thermostatic control methods for gravimeters
[NASA-TT-F-467] 12 p2000 N67-23758
Multiple transitions in polymer and copolymer systems
[NASA-CR-84427] 14 p2561 N67-27706
Bulk material and thin film structures and phase transformations 16 p2846 N67-29468
Phase space transformation by means of quadrupole multiplets in optical systems
[CERN-67-6] 16 p2939 N67-30061
Dimensional change of stellite 6B during phase transformation from face centered cubic to hexagonal close-packed crystal structure
[NASA-CR-72343] 18 p3281 N67-32575
Allotropic transformations in plutonium determined by metallography, dilatometry, thermal analysis, resistivity measurements, and hot stage microscopy
[CEA-R-3062] 19 p3471 N67-33228
Formation of new metal phases on surfaces of metals in contact with liquid sodium at high temperatures
[KFK-406] 20 p3655 N67-34128
Possible and impossible phase space transformations by means of alternating gradient doublets and triplets
[CERN-67-8] 20 p3698 N67-34365
Thermal history influence on phase transformation behavior and hardness in maraging steel
[UCRL-50207] 20 p3631 N67-34427
Mathematical model representing low temperature instability and phase transition in anharmonic chain
[LA-3670] 20 p3596 N67-35219
Crystal growth kinetics, morphology, and structure of bainite transformation in beta brass
[TR-6] 21 p3868 N67-35454
Comparison of structure, morphology, and growth kinetics of displacive reactions in beta brass with like features of bainite reaction in steel
[AD-655123] 21 p3869 N67-35941
Metallography used for examining allotropic phase transformations in cerium 21 p3871 N67-36355
Physical properties of titanium metallurgy - phase transformation and hardness effects, alloy compositions and lattice structures, creep and temperature resistance, and manufacturing
[FTD-HT-66-354] 22 p4062 N67-37121
Stability effect of beta alloys in titanium chromium molybdenum iron aluminum system 22 p4063 N67-37130
Metastable polymorphic transformations in niobium and zirconium alloys during quenching in beta region 22 p4063 N67-37131
Dilatometric aging and surface hardening effects in thermally treated titanium alloys 22 p4063 N67-37132
Formation and properties of metastable phases in titanium alloy 22 p4069 N67-37167
Phase transformations during heating of sintered aluminum powder
[NASA-TT-F-10449] 23 p4055 N67-37471
Three-dimensional diffractometer analysis of yttrium tantalate structure and phase transformation at low and high temperatures

[TR-1001/2250-10/-5] 22 p3991 N67-37849
A15-type phase in vapor-deposited W-Re alloys
[ORNL-P-3101] 23 p4263 N67-38356
PHASE VELOCITY
Calculation of phase velocity perturbations due to small changes in earth models 23 p4248 N67-39160
Tectonic features of earth crust and upper mantle from Rayleigh wave phase velocity map of North America
[AFOSR-67-1797] 24 p4437 N67-39526
PHASED ARRAY
Electro-optical processor for phased array antennas 03 p0368 N67-13060
Techniques for electronic beam scanning applicable to phased array radars 04 p0514 N67-13942
Electronic scanning of aerial beams using phased array antennas 04 p0514 N67-13943
Interstice effect in phased antenna array
[AFCRL-66-535] 07 p1036 N67-17193
Conjugate-pair microwave feed circuits developed for use in electronically scanned antenna arrays
[NRL-6425] 09 p1415 N67-19723
Radio receiver used in satellite communications phased array
[REPT.-1963-8] 12 p2067 N67-24943
Uniform theory for optimum array processing
[REPT.-4190666] 16 p2862 N67-29679
Monopulse tracking scheme for phased array antenna
[NASA-CR-85859] 17 p3028 N67-31239
Distortion of radiation pattern of 96-element phased array with matching dielectric sheet at each face of phase shifter matrix 19 p3405 N67-33381
Measurements of C-band phased array antenna system 19 p3405 N67-33391
Phased arrays for meteorological satellites
[NASA-CR-86000] 22 p3963 N67-36755
Radiation admittance of rectangular waveguide acting as element in infinite phased array
[ESD-TR-67-279] 22 p4011 N67-36980
Mathematical model of monopulse excitation for maximal gain antenna radiation patterns with sidelobe constraints
[AFCRL-67-0332] 22 p4001 N67-37859
Ferrite loaded series feed system for phased arrays and E-plane parallel plate wye circulator
[NRL-MEMO-1777] 23 p4212 N67-38351
Ferrite loaded series feed system for phased arrays 23 p4212 N67-38352
C-band phased array antenna development
[TG-883] 23 p4214 N67-38559
Method of achieving matched radiating element in phased array antenna in investigation of superimposed surface wave modes
[FR-67-14-151, PT. II] 23 p4214 N67-38701
PHASOTRON
Computer programming of accelerating voltage amplitude of model of circular proton phasotron radio frequency system
[JINR-P-2732-1] 04 p0563 N67-13355
PHENOL
SA EPOXY RESIN
Transesterification of phosphites and phosphinites with monohydric and polyhydric alcohols and phenols - reaction conditions, equilibrium, product stability, and yields
[JPRS-38595] 02 p0238 N67-12002
Carbon phenolic, graphite phenolic, and silica phenolic nozzle ablative materials performance for large solid propellant rocket boosters
[NASA-CR-73060] 06 p0755 N67-15157
Reaction kinetics of dichlorophenol indophenol in illuminated chloroplasts in program of research in photosynthesis
[NASA-CR-81345] 06 p0907 N67-16613
Gas chromatographic estimation of carbon monoxide produced during oxygen absorption by alkaline pyrogallol
[REPT.-14] 15 p2851 N67-28896
Material property effects on ablative performance of silica phenolic, graphite phenolic, and graphite epoxy materials
[NASA-CR-73142] 22 p4076 N67-37114
PHENOL FORMALDEHYDE
Decomposition characteristics of char-forming phenol formaldehyde polymer used for ablative composites
[NASA-TN-D-3819] 07 p1108 N67-18143
Kinetic parameters for constant heating rate thermogravimetry of phenol formaldehyde polycondensates
[AFML-TR-65-246] 12 p2272 N67-26219
Empirical kinetic parameters for phenol formaldehyde polycondensate materials
[AFML-TR-65-246, PT. II] 18 p3226 N67-32528
PHENOL RESIN
Permeability measurements of low-density phenolic-nylon chars in gaseous nitrogen and helium
[NASA-CR-66213] 01 p0069 N67-10252
Characterization and reproducibility of nylon phenolic resin syntactic foam for use in ablative heat shields of Scout vehicle nosecaps
[NASA-CR-73041] 02 p0278 N67-11906
Phenolic honeycomb as energy dissipator 02 p0318 N67-12112
Synthesis of double chain novolac resins from polyhydric polynuclear phenols
[PA-TR-3346] 06 p0828 N67-16401
Decomposition kinetics of phenolic-carbon cloth FM 5055A ablator
[SC-RR-66-584] 06 p1297 N67-19144
Composition, density, and environmental effects on ablative performance of phenol resin and nylon mixture
[NASA-TN-D-3908] 11 p1994 N67-23294
Temperature effects on strength of phenol formaldehyde, phenol phosphorus, melamine formaldehyde, and organosilicon resins
[NASA-TT-F-10934] 15 p2731 N67-28290
Thermophysical properties of nondegradated and thermally degradated low density phenolic-nylon ablating material
[NASA-CR-809] 18 p3282 N67-31536
Permeabilities of elastomer, low density epoxy and phenolic-nylon char
[NASA-CR-66435] 18 p3283 N67-32490
Thermophysical properties of ablative materials - phenolic resins
[NASA-CR-65545] 18 p3283 N67-32581
Thermophysical properties of nondegraded and thermally degraded phenolic-carbon fiber composite material
[NASA-CR-896] 22 p4074 N67-38017
PHENOMENON
S CHORUS PHENOMENON
S GIBBS PHENOMENON
S MEDICAL PHENOMENON
S PHYSIOLOGICAL PHENOMENON
S THERMONUCLEAR PHENOMENON
PHENYL
SA POLYPHENYL
Feasibility demonstration program for organic Rankine cycle using monoisopropylbiphenyl as working fluid
[U-3673] 04 p0483 N67-14083
Irreversible inhibition of aliesterase, trypsin, acetylesterase, and chymotrypsin by S-alkyl p-nitrophenyl methylphosphonothiolates
[TDCK-47663] 13 p2256 N67-25650
Reversed phased paper chromatography of p-nitrophenyl methylphosphonates
[TDCK-46831] 13 p2269 N67-25656
Analysis of organic mixtures substitutes for terphenyls by chromatography, spectroscopy, microdistillation, carbon to hydrogen ratio, and molecular weight
[EUR-3292.I] 17 p3019 N67-31363
Thermophysical properties and synthesis of aromatic polymers from boron fluoride bis-diazonium diphenyl 18 p3222 N67-31818
Transmetallic reactions on metallic quaternary ammonium salts and pentaphenyl compounds 20 p3595 N67-34880
PHENYLENE DIAMINE
Radiation effect on oxidasic activity of human serum in presence of paraphenylene diamine
[LFEN.57/ALPHA/] 06 p1239 N67-19207
Phenylene diamines used as artificial electron donors, and quinones used as electron acceptors in photosynthesis reactions
[AFCRL-67-0442] 23 p4200 N67-38236
PHILOSOPHY
Problems of philosophy - semiotics, semantics, information theory, and creation of living matter
[JPRS-32876] 01 p0012 N67-10156
Definition of science of semiotics - pragmatics, semantics, and syntactics 01 p0021 N67-10157
Equilibrium systems form dialectical or tensional point of view
[NASA-CR-80089] 02 p0229 N67-12259
Philosophy of mental performance, observational behavior, and mathematical information theory
[NASA-CR-80117] 02 p0230 N67-12272
Scientific and philosophical application of cybernetics in military science
[JPRS-38476] 03 p0477 N67-13[illegible]
Philosophical problems of cybernetics 03 p0477 N67-13[illegible]
Contemporary bionics problems in U.S.S.R., and their philosophical significance
[JPRS-39056] 04 p0494 N67-14[illegible]
Naval Air Systems Command technical philosophy of logistics support 11 p1851 N67-21[illegible]
PHION MESON
Computer programs for data processing of phion meson produced X-radiation measurements at cyclotron
[UCRL-17253] 13 p2371 N67-25[illegible]
PHOEBUS NUCLEAR REACTOR
Decontamination of test cell after Phoebus reactor accident
[LA-3633-MS] 13 p2357 N67-25[illegible]
Rover/Phoebus scale model chemical explosive destruct tests for safety analysis of nuclear space power supplies
[SC-RR-66-589] 14 p2574 N67-26[illegible]
Neutronic stability of coupled Kiwi and Phoebus nuclear rocket engines confirmed by transfer function and pulsed neutron source measurements
[LA-DC-8516] 15 p2748 N67-29[illegible]
PHONEME
Studies of Latvian morphophonemics, metrics of Arabic poetry, and intersection of regular languages and languages generated by transformational grammars 05 p0779 N67-14[illegible]
Phonemic transcription of speech entered into computer by microphone and analog to digital converter - classification, segmentation, pitch detection, and parameters of speech
[CS-49] 09 p1414 N67-19[illegible]
Russian phoneme analysis for machine recognition of speech 13 p2288 N67-25[illegible]
Three-dimensional statistical analysis of complex perception mechanisms, recognition of phonemes, and estimation of amount of information received 14 p2467 N67-26[illegible]
Phonetic variability of phoneme production, and articulatory models compatible with acoustic variability 20 p3586 N67-35[illegible]
PHONOCARDIOGRAM
Effect of increased resistance to respiration on phonocardiogram and ballistocardiogram characteristics 02 p0230 N67-11[illegible]
Application of punched card in analysis of phonocardiograms of congenital heart defects 04 p0488 N67-13[illegible]
PHONON
Attenuation of transverse and longitudinal ultrasonic waves in presence of magnetic field for various values of phonon wave number and electron mean free path
[NASA-TN-D-3723] 02 p0294 N67-11[illegible]
Plasma oscillations in solids - nonlinear wave interaction in plasmas, amplification of optical phonons in polar semiconductors, and ionization waves in semiconductors and gaseous plasmas
[AFCRL-66-685] 05 p0752 N67-18[illegible]
Transmission line models of magnon-phonon modes in ferrite - uncoupled modes
[AFCRL-66-663, PT. I] 07 p1137 N67-16[illegible]
Conduction electron-optical phonon interaction in polar semiconductors
[SR-3] 07 p1179 N67-17[illegible]
Theoretical physics research on neutron fluxes, linac shunt impedance, slow neutron scattering, silicon 28 structure, phonon frequencies in transition metals, and computation 08 p1229 N67-18[illegible]
Applicability of random phase approximation to collective excitation in spherical even nuclei - correction to two-phonon state
[RIFP-58] 08 p1345 N67-19[illegible]
Identification of zero-phonon emission spectral lines at color centers in alkali halides
[NYO-3464-2] 10 p1573 N67-20[illegible]
Multiarm spectrometer used for studying phonon energies in crystal lattices 10 p1631 N67-21[illegible]
High strength aluminum alloy pressure vessel for measurement of phonon energy shifts produced by neutron inelastic scattering
[SGAE-PH-43/1966] 10 p1733 N67-21[illegible]
Phonon physics measurements of thermal and infrared properties of solids

[NYO-2391-41] 11 p1943 N67-33300
Approximate treatment of nucleon phonon interaction using simple model with quadrupole phonon
[JINR-P4-2985] 12 p2156 N67-33568
Transition matrix elements effects on two-phonon absorption in crystal models with zinc blende structure, and nearest neighbor interactions 12 p2186 N67-33785
Pressure induced phonon frequency shifts in lead measured by inelastic neutron scattering
[SGAE-PH-49/1966] 13 p2381 N67-36314
Two-phonon matrix elements and absorption for crystal models with zinc blende structure - nearest neighbor interaction through noncentral harmonic and central third order potentials 18 p2316 N67-31683
Internal position-like variables derived for phonons and electrons in crystalline lattice for finite strain problem
[NOLTR-67-61] 21 p3912 N67-35339
Coupled transmission line models of magnon-phonon modes in ferrimagnets
[AFCRL-67-0314] 23 p4126 N67-37192
PHONON BEAM
Zero-phonon absorption lines detected in lithium fluoride 07 p1172 N67-16750
PHOSPHATE
SA ADENOSINE TRIPHOSPHATE /ATP/
SA AMMONIUM PHOSPHATE
SA POTASSIUM PHOSPHATE
SA TRIBUTYL PHOSPHATE
Optimum constituent concentration and operating conditions for room temperature zinc phosphating process
[RIA-66-1858] 01 p0077 N67-10232
Phosphate films evaluated for use as protective coating for metal surfaces
[M-66-656] 01 p0028 N67-10544
Transesterification of phosphites and phosphinites with monohydric and polyhydric alcohols and phenols - reaction conditions, equilibrium, product stability, and yields
[JPRS-38535] 02 p0228 N67-12002
Life detection systems based on phosphate and sulfur uptake for automated microbial metabolism laboratory
[NASA-CR-81263] 06 p0606 N67-16563
Ionic forces in polymers - properties of polyphosphates in glass transition region
[TR-13] 06 p0631 N67-16649
Electron and phosphate group transfer to carbon compounds and light quality effects on products of photosynthesis and glycolysis 09 p1398 N67-19524
Electrochemical potential of transition metals and lanthanides dissolved in molten alkali metaphosphate
[SC-CR-66-2104] 10 p1573 N67-30907
Collection and determination of trace amounts of uranium using cellulose phosphate ion exchange paper
[AECL-2648] 11 p1813 N67-23073
Gas chromatographic determination of tri-isobutyl phosphate in trinormalbutyl phosphate
[PG-755/W/] 11 p1813 N67-23077
Hydrolysis mechanism of hexaatomic cyclic phosphates
[NT-153] 13 p2372 N67-36007
Phosphate films on metal surfaces evaluated for corrosion inhibition, mechanical properties, and compatibility with paints
[M67-363] 20 p3586 N67-34130
Sorption of biphosphate ions by radioactive and irradiated barium sulfate precipitates 21 p3778 N67-35508
Phosphate industry and resources in Wyoming and Utah
[BM-RI-6934, PT. 4] 23 p4249 N67-39301
Western phosphate industry and resources
[BM-RI-6935, PT. 5] 23 p4250 N67-39307
PHOSPHIDE
S BORON PHOSPHIDE
S GALLIUM PHOSPHIDE
S INDIUM PHOSPHIDE
PHOSPHINE
Reaction of diethylchlorophosphine with chloranhydride of crotonic acid and method for synthesis of chloromethylthiophosphonic and O-arylmethyl acids
[JPRS-39180] 05 p0668 N67-15161
Phosphine-oxygen diffusion system as manufacturing process for silicon integrated circuit fabrication
[RCS-OSD-1366] 11 p1968 N67-23851
Synthesis of chromium III phthalocyanine phosphinates
[TR-52] 12 p2042 N67-34651
Nuclear magnetic resonance spectral analyses of platinum compounds with tertiary phosphines
[AFOSR-67-0417] 12 p2047 N67-34816
Titanium /IV/ phosphinate polymers preparation and analysis
[TR-53] 19 p3390 N67-32151
Comparative studies of feasibility of tri-n-octylarsine oxide and tri-n-octylphosphine as extraction agents for trivalent lanthanides and actinides
[JUL-434-PC] 20 p3592 N67-34359
Tertiary phosphine complexes of platinum and palladium
[AFOSR-67-1434] 21 p3782 N67-35765
PHOSPHONITRILE
Synthesis of linear, double-chain, ladder polymers from substituted tetraphosphonitriles
[NASA-CR-79280] 02 p0230 N67-12222
Synthesis of linear, double-chain ladder polymers from substituted tetraphosphonitriles
[NASA-CR-79273] 02 p0230 N67-12361
Synthesis of linear, double chain ladder polymers from substituted tetraphosphonitriles
[NASA-CR-80722] 04 p0501 N67-13670
Synthesis of linear, double chain, ladder polymers from substituted tetraphosphonitriles
[NASA-CR-81137] 05 p0668 N67-15250
Synthesis of linear double chain ladder polymers from substituted tetraphosphonitriles
[NASA-CR-84471] 14 p2483 N67-37505
Synthesis of linear double chain ladder polymers from substituted tetraphosphonitriles
[NASA-CR-80613] 23 p3984 N67-37036
PHOSPHOR
Rapid extraction of periodic signals by phosphor recording 03 p0454 N67-13076
Open gas furnace for preparing phosphors in fluorimetric determination of uranium 06 p0623 N67-16239
Radioluminescence mechanism of alkali halide phosphor crystals 07 p1175 N67-17171
Photoluminescent emission spectra of powder phosphors - aluminum phosphide films on tungsten substrates - electroluminescent materials
[QPR-2] 12 p2192 N67-34377
Construction of ionizing radiation dosimetry unit having thermoluminescent phosphor detector 13 p2234 N67-36397
Thermoluminescent phosphors for radiation dosimetry
[CLOR-59/D] 15 p2660 N67-38495
Target enhancement on simulated radar/sonar type display using multi-phosphor cathode ray tube
[REPT.-9001021] 19 p3400 N67-32864
Cathode ray tube using cathodoluminescent phosphor with excitation time dependent color for moving target indicator radar
[REPT.-10] 20 p3611 N67-34382
Thin film electroluminescent display fabricated on glass substrate using vacuum deposition procedures and manganese doped zinc sulfide phosphor
[AMRL-TR-67-1] 22 p4013 N67-37393
PHOSPHORESCENCE
SA AFTERGLOW
Emission wavelength, output power, decay time, and aging characteristics of ultraviolet emitting cathodoluminescent phosphors
[RADC-TR-66-497] 06 p0649 N67-16371
Molecular spectroscopy - multiplicities of phosphorescent states of organic molecules, polarization of absorption of uranyl nitrate, and electronic structure of S-S bond
[TID-23756] 17 p3122 N67-30928
Phosphorescent characteristics of thallous dimer center in sodium iodide crystals
[TID-23773] 19 p3501 N67-32900
PHOSPHORIC ACID
Dependence of chemical composition of pyro and condensed phosphoric acids on changes in dilution, pH, and temperature
[REPT.-736/XIII/C] 04 p0565 N67-13899
Raw materials, processes, principles, properties, and applications of sulfuric, nitric, phosphoric, and hydrochloric acids, caustic soda, soda ash, and washing soda
[JPRS-39267] 05 p0668 N67-15165
Refractometric study of chemical interaction between diluents and monododecylphosphoric acid 06 p0626 N67-16393
Anodic oxidation of normal hexane and cyclohexane in phosphoric acid for determining reaction kinetics
[REPT.-4] 06 p0629 N67-16474
Hydrocarbon-air fuel cell using phosphoric acid electrolytes for generation of dc electric power
[AD-634677] 15 p2643 N67-37986
Human body elimination of sulfuric acid and phosphoric acid during physical exercise
[NASA-TT-F-10427] 15 p2649 N67-38281
Feasibility of phosphoric acid water vapor electrolysis cell for spacecraft cabin air conditioning system
[NASA-CR-771] 16 p2821 N67-39480
Cathode and anode catalysts evaluated for phosphoric acid fuel cell matrix - hydrocarbon fuel cells
[PR-4] 21 p3780 N67-35539
Stack testing of low temperature, acid electrolyte fuel cells
[AD-654323] 21 p3781 N67-35618
Ionizing radiation effects on deoxyribonuclease and phosphatase distribution in subcellular fractions of guinea pig epidermis
[NYO-3445-13] 22 p3974 N67-37980
PHOSPHORUS
Effect of phosphorus diffusion in thermal oxides on high temperature stability of metal oxide semiconductor structures 01 p0127 N67-10123
Biological selection of sulfur and phosphorus in organic group and energy transfer functions 03 p0344 N67-12764
Excitation of phosphorous 31 and sulfur 32 by electron scattering
[HEPL-394, REV.] 06 p0626 N67-16110
Preparation of phosphorus-33 by irradiation of enriched sulfur-33 in highly thermalized flux
[ORNL-4051] 11 p1935 N67-23456
Ferrocene chemistry of phosphorus and boron for fuel potential in pyrotechnics
[AD-634641] 15 p2654 N67-37980
Physicochemical determination of interaction between titanium and phosphorus in mixture containing up to 45 atomic percent phosphorus - phase diagram of titanium phosphorus system
[NASA-TT-F-11163] 19 p3395 N67-33648
Phosphorus determination methods on centimilligram scale for organic compounds
[RAE-TR-67115] 22 p3982 N67-36854
PHOSPHORUS COMPOUND
SA ORGANIC PHOSPHORUS COMPOUND
Interaction of diethyl phosphite with glass surfaces studied by radioisotope techniques to determine factors affecting use of organophosphorus compounds in reinforced plastic
[AD-636753] 03 p0414 N67-13455
Signs of phosphorus-fluorine nuclear resonance spin-spin coupling constants 06 p0618 N67-15728
Radiochemical technique using 14-C labelled diethyl ether to study solvent chain transfer reaction during tetrahydrofuran polymerization by phosphorus pentafluoride
[ERDE-4/M/66] 06 p0630 N67-16074
Method of producing phosphorus containing polyesters
[FTD-HT-66-95] 12 p2125 N67-34775
Synthesis of phosphorus-nitrogen reagents
[ARL-66-0003] 13 p2342 N67-36076
Irreversible inhibition of alkesterase, trypsin, acetylesterase, and chymotrypsin by S-alkyl p-nitrophenyl methylphosphonothiolates
[TDCK-47663] 13 p2356 N67-33630
Reversed phased paper chromatography of p-nitrophenyl methylphosphonates
[TDCK-40821] 13 p2369 N67-33636
Thermodynamic properties for compounds of the elements carbon, hydrogen, nitrogen, oxygen, phosphorus, and sulfur
[NASA-CR-83075] 13 p2370 N67-33664
Air Force supported studies of quantum organic chemistry, chemistry of organosulfur intermediates, phosphorus photochemistry, and reactivity of phosphorus compounds with ketones 14 p2479 N67-37165
Organic and physical chemistry research - derivatives of trichloroethylphosphinic acids and excitation of explosion by cavitation in liquid explosives
[JPRS-46270] 18 p2847 N67-29620
Derivatives of trichloroethylphosphinic acids and effects on white mice and

rabbits 16 p2847 N67-29534
Heat capacity data analysis and molal thermodynamic properties of C-8 to C-16 hydrocarbons and tetraphosphorus decasulfide
[NASA-CR-87905] 21 p3774 N67-35345
Pentakis-2,8,9-trioxa-1-phosphaadamantane nickel/III/ perchlorate crystal structure determined by X-ray diffraction
[IS-T-153] 21 p3913 N67-35458
Aluminum-nitrogen and aluminum-phosphorus polymers
[AFML-TR-67-69] 22 p3986 N67-37343
Reflection infrared spectroscopy - non-destructive technique to determine phosphosilicate-aluminum reaction which contributes to electronic equipment failure by inversion 22 p4339 N67-38466
Phosphorus compounds synthesized to increase ultraviolet emission efficiency of cathode ray tubes
[ECOM-00304-F] 24 p4514 N67-39503
Phosphorus nitride salt synthesis
[SR-1] 24 p4400 N67-40354
PHOSPHORUS METABOLISM
Immobilization effects on phosphorus, calcium, and nitrogen balance in monkeys, and rapid analytical procedures 08 p1226 N67-18701
Rapid procedures for analyzing daily calcium, nitrogen, and phosphorus balance of inactive monkeys 08 p1226 N67-18702
Immobilization of monkeys, and effects on calcium, phosphorus, and nitrogen balance 08 p1226 N67-18703
Calcium, phosphorus, and nitrogen mobilization resulting from conditions of inactivity in Macaca irus monkeys
[SAM-TR-66-94] 13 p3024 N67-34416
PHOSPHORUS POLYMER
Industrial preparation of organo phosphorus compounds based on fluoroalkoxy substituted phosphonitrile structure
[D-MAT-139] 04 p0508 N67-14309
Nitrogen-phosphorus polymer chemistry
[AFML-TR-64-417, PT. II] 17 p3015 N67-30661
Synthesis of metal phosphinate and silicone carbonane polymers, high temperature and fluid resistant elastomers and aircraft protective coatings, and grease thickeners
[NAEC-AML-2571] 21 p3875 N67-36011
Synthesis of linear double chain ladder polymers from substituted tetraphosphonitriles
[NASA-CR-89613] 22 p3984 N67-37036
PHOSPHORUS 32
Sulfur 35 and phosphorus 32 used to study crystal structure of steel in centrifugally hollow cast hollow tube blanks 10 p1643 N67-21242
Iridium 192 and phosphorus 32 for radioactive inspection of homogeneity of cermet reference specimens used in spectroscopic analysis of precious metals 10 p1576 N67-21284
Phosphorus 32 used to study nature of deformation in steel rolled into rails 10 p1648 N67-21272
Preparation, distillation, and paper chromatography studies of labeled phosphorus 32 of high specific activity
[EUR-3453.I] 20 p3509 N67-35361
PHOSPHORYLATION
Phosphorylation as related to electron transport in isolated chloroplasts 18 p3204 N67-31758
Inhibition and uncoupling photophosphorylation in chloroplasts 18 p3205 N67-31760
Phosphorylation and hydrogen ion transport in chloroplasts - effect of coupling factor and its antiserum 18 p3205 N67-31763
Chemi-osmotic hypothesis as phosphorylation mechanism in chloroplasts 18 p3206 N67-31764
Light-induced energy conversion and inorganic pyrophosphatase reaction in chromaphores from Rhodospirillum rubrum 18 p3206 N67-31765
Ion and water transport processes in spinach chloroplasts - relation to electron transport and phosphorylation 18 p3206 N67-31766
PHOTIC STIMULATION
Intermittent photic stimulation effect on pilot performance under simulated IFR conditions
[FAA-AM-66-39] 12 p2028 N67-24823
PHOTOCATALYSIS
Products of radiation initiated sulphoxidation of dodecane - biodegradable detergent
[AERE-R-5434] 20 p3587 N67-34043
PHOTOCATHODE
SA PHOTOTUBE
Electron image information storage using photocathode to convert optical information into electrons 03 p0379 N67-13066
Spectral sensitivity as function of temperature for cesium antimonide photocathodes
[CEA-R-2995] 10 p1592 N67-20816
Partially permeable metal film of interference reflector as photoelectrically sensitive film
[ERDL-T-1879-66] 11 p1837 N67-22448
Response curves and tables for quick selection of photocathode-filter combination
[ARL-67-0067] 23 p4233 N67-38401
PHOTOCHEMICAL REACTION
Role of chains in photochemical decomposition of ozone in liquid phase
[NASA-TT-F-10388] 01 p0027 N67-10231
Photochemical equilibrium and ionic composition of upper atmospheric layers 10 p1617 N67-20389
Thermophototropic response of films and solutions containing copper bromide studied for preventing flash blindness
[NRA-854] 11 p1810 N67-22564
Correlation of photochemical with radiation induced reactions, energy transfer rates, fluorescence quenching, photoreaction kinetics, and free radicals by irradiation of fluids
[AFOSR-67-0165] 12 p2038 N67-23809
Effects of mercaptans and disulfides on photochemical and high energy radiation induced reactions
[NYO-3499-20] 12 p2040 N67-23740
Reaction of molecules in excited electronic states with paramagnetic gases
[AFOSR-67-0220] 12 p2046 N67-24755
Acid-base mechanism of photochromic reactions
[AFOSR-67-0614] 14 p2476 N67-26891
Required structure of aromatic nitro compounds for photochromic reaction to visible and ultraviolet light
[AD-634651] 15 p2656 N67-27995
X-ray and electron damage and photochemical reactions in CdS single crystals and layers with defect annealing
[NASA-CR-86669] 18 p3318 N67-32395
Compilation of abstracts from symposium on reversible photochemical processes
[AD-659039] 19 p3388 N67-32950
Reduction and oxidation mechanisms of acridines and acridanes studies at normal and low temperatures 20 p3592 N67-34378
Theoretical and experimental study of photochemical reactions in cadmium sulfide 20 p3713 N67-34599
Ultraviolet radiation used in study of effect of alpha-substituents on photochemical reaction of saturated ketones
[DISS-3893] 24 p4399 N67-40252
PHOTOCHEMISTRY
Changes in electric conductivity in ice produced by optical irradiation - photochemistry
[CRREL-RR-175] 01 p0118 N67-10069
Energy transfer processes in photochemistry and radiation chemistry - triplet-triplet transfer in polybutadiene
[AFML-TR-66-292] 01 p0035 N67-11190
Photochemistry of unsaturated systems containing hetero atoms other than oxygen
[AROD-3069-4] 03 p0357 N67-12530
Photochemistry of planetary gases and planetary aeronomy
[NASA-CR-81262] 06 p0968 N67-16515
Photoperiod effects on efficiency and internal structure of chloroplast membranes 09 p1396 N67-19523
Noctilucent cloud nature, and some questions of photochemistry and dynamics of earth atmosphere 15 p2699 N67-29029
Primary processes in photochemistry
[TID-23710] 16 p2843 N67-29267
Chlorophyll-independent photochemistry in algae 18 p3209 N67-31781
Laser damage threshold of aluminum oxide thin films
[QR-4] 19 p3386 N67-32732
ESRO sounding rocket project - study of comet tail photochemistry by observing fluorescent emission from ammonia cloud ejected into upper atmosphere at twilight
[ESRO-SN-67] 21 p3936 N67-35892
Survey on photochromism in triphenylmethane derivatives and related compounds
[C+OM-29] 22 p3983 N67-36977
Three-level numerical model of stratosphere for yielding predictions based on thermodynamic and ozone equations - diabatic heating and photochemistry
[AFCRL-67-0344] 23 p4281 N67-39145
PHOTOCONDUCTIVITY
Photoconductivity processes in low mobility organic materials
[SC-DC-66-1823] 04 p0600 N67-15981
Photoconductivity laws in liquid organic semiconductors
[FTD-TT-65-933] 05 p0665 N67-14781
Photoconductivity in zinc selenide telluride p-n junctions 06 p0947 N67-16882
Temperature dependence of electric and photoconductivity investigated in monchab derivatives of benzene
[ATD-66-118] 06 p0829 N67-16439
Spectral dependence of optical absorption and photoconductivity due to hydrogenic donor impurities in indium antimonide 07 p1176 N67-17371
Model of anomalous photocurrent generation in transistor structures
[SC-DC-66-1821] 07 p1052 N67-17683
Cadmium sulfide, germanium plus magnesium fluoride, and other films for solid state image intensifiers - photoconductive and optical black films
[MTER-4] 09 p1501 N67-19745
Cadmium selenide mixtures for photoconductive layers, and problems in modular construction of solid state image intensifiers
[MTER-5] 10 p1751 N67-21389
Capture center effect on photoconductivity of semiconductors at high illumination levels
[NASA-TT-F-10785] 12 p2196 N67-25811
Effects of picking agents and surface alloying on photosensitivity of cadmium sulfide crystal
[NASA-TT-F-10921] 13 p2393 N67-25817
Intrinsic photoconductivity and infrared quenching regularity in mercury sulfide crystals with copper and silver impurities within framework of semiconductor model
[NASA-TT-F-10920] 15 p2781 N67-28233
Photoconductivity of X-ray irradiated cadmium sulfide single crystal and annealing of intrinsic defects
[NASA-CR-86629] 18 p3317 N67-31811
Photoconductivity and electric conductivity of polycrystalline zinc oxide thin film under low intensity irradiation
[NASA-CR-87157] 19 p3521 N67-32740
Photoconductivity, solubility, diffusion and electric properties of doped and undoped gallium phosphide crystals
[NASA-CR-87418] 20 p3711 N67-34823
Electric field distribution measured in cadmium sulfide photoconductive single crystals using linear electro-optic effect
[AFCRL-67-0359] 21 p3914 N67-35468
Pulse detection system for measurement of transport properties of photoexcited carriers in insulating crystals
[AROD-4928-6-P] 23 p4327 N67-38279
Mathematical model for secondary electron emission and radiation induced conductivity in insulating materials
[AFCRL-67-0459] 24 p4517 N67-40119
PHOTOCONDUCTOR
Electric properties of organic semiconductors and photoconductors
[ATD-66-49] 01 p0026 N67-10130
Electronic electrophotographic system capable of producing near-real time images simultaneously with exposure
[RADC-TR-66-361] 01 p0075 N67-11045
Coupling problems between transistor logic and electroluminescence-photoconductor logic circuits 03 p0379 N67-13065
Photoconductor concepts, and properties of recrystallized evaporated cadmium sulfide layers 06 p0945 N67-15710
Soviet research on electric properties of organic semiconductors and photoconductors
[ATD-66-94] 06 p0818 N67-15779
Beam alignment techniques based on current multiplication effect in photoconductors for application to spacecraft communications system
[NASA-CR-80094] 06 p0947 N67-16054
Solid state display device using binary

input information
[GRR-65-1063] 07 p1051 N67-17656
Heterodyne sensitivity using copper-doped germanium photoconductor, and carbon dioxide operation 13 p3388 N67-35123
Production of large area uniform photoconductors and transparent conductors using thin film solid state material process techniques for facsimile scanner
[REPT.-19661] 13 p3295 N67-36224
Topographic mapping using monoscopic photographs and surface photometric properties, and testing photoconductors for slow-scan vidicons 16 p3893 N67-39156
Low temperature infrared photoconductors
[AD-657445] 23 p4228 N67-39232
PHOTODECOMPOSITION
Identification of volatile photodegradation products of plastic coatings by infrared spectroscopy
[R-469] 03 p0414 N67-12493
Particle emission, energy levels, and decay states due to gamma quantum studied in nucleon clusters during deep photodisintegration of light nuclei 06 p0931 N67-15629
Photodesorption of oxygen from nickel oxide at room temperature using 635, 705, and 1070 millimicron light
[NASA-TN-D-4180] 21 p3791 N67-36420
PHOTODETACHMENT
SA PLANE WAVE
Theoretical photodetachment cross section for negative atomic oxygen ion
[NASA-CR-69646] 07 p1156 N67-17774
PHOTODETECTOR
Gallium arsenide p-n junction noncoherent photon emitting diodes combined with silicon photodetector in single miniature package 03 p0373 N67-13062
Efficient signal processing techniques for celestial scanning optical systems - models of energy received by sensors from star and stellar background radiation - photodectors
[NASA-CR-672] 06 p0906 N67-16667
Solid state image sensor in infrared and visible regions
[NASA-CR-82478] 06 p1259 N67-19021
Volume effect cadmium sulfide position sensitive photodetectors for space star tracking applications
[NASA-CR-66319] 09 p1502 N67-19915
Comparison of storage and nonstorage type television camera tubes for use as image detectors in orbiting solar observatories 12 p2216 N67-34471
Brenner information marks for frame location in detectors for automatic film stop devices
[CERN-66-36] 13 p2222 N67-26103
Feasibility of electronic fringe detector for operation in cojunction with Michelson stellar interferometer
[AFCRL-67-0117] 16 p2895 N67-29517
Microprobes for medical research, photodetectors, crystal growth, semiconductor fabrication and characteristics, and p-n junction amplifier and MOS transistor construction 18 p3251 N67-32504
Miniature semiconductor photodiode detection system for determining horizontal displacement of ballistic pendulum used in laser impulse measurements
[BRL-TN-1651] 18 p3378 N67-33638
Guidance and control research on solid state triodes, evaporated thin film cadmium sulfide photodectors, and reduction of plasma maintenance voltage with magnetic field 20 p3612 N67-34765
Sensitivity of photoelectric diode detector for soft fluorescent X-rays
[UCID-15164] 22 p4046 N67-37225
PHOTODIODE
Gallium arsenide p-n junction noncoherent photon emitting diodes combined with silicon photodetector in single miniature package 03 p0373 N67-13062
Noncoherent infrared emitter diode for optimization of transmitting and receiving components of transmission system 03 p0431 N67-13063
Gallium-arsenide optical diode and xenon-hydrogen discharge tube noncoherent optical sources for voice communication systems 03 p0369 N67-13064
Current multiplication effect on diode bandwidth in InAs photodiodes for use in design of solid state optical heterodyne detectors
[NASA-CR-82542] 06 p1261 N67-19340
Heterodyne operation of avalanche photodiodes
[NASA-TN-D-4198] 23 p4332 N67-36782
PHOTODISSOCIATION
Abundance, photodissociation, and microbiological production of atmospheric nitrous oxide
[AFCRL-66-822] 10 p1627 N67-21695
Photodissociative laser systems used to convert solar radiation to monochromatic coherent emission - excitation mechanisms, spectroscopy of gases absorbing light, and chemical processes
[NASA-CR-85005] 18 p3277 N67-31658
Potential of photodissociative laser system for converting solar radiation to monochromatic coherent emission
[NASA-CR-85006] 20 p3853 N67-35020
PHOTOELASTIC MATERIAL
Flow and brittle fracture propensity of notched steel plates using photoelastic model
[AD-638456] 03 p0469 N67-12459
PHOTOELASTIC STRESS MEASUREMENT
Bending stresses in shaft with transverse hole 01 p0162 N67-11135
Photoelasto-plastic method for studying stress distributions in vicinity of simulated crack
[NASA-CR-655] 06 p0978 N67-16663
Stress analysis of discontinuity stress problem in ESSOR reactor vessel wall
[EUR-3159.E] 06 p1321 N67-19063
Photoelastic measurement of stress concentration in hyperboloid shell of revolution weakened by small circular hole 12 p2224 N67-34510
Scattered light photoelastic method for determining tempered stresses in aircraft windshields
[D1-82-0606] 18 p3351 N67-32131
Photoelastic stress analysis of composite fiber reinforced matrices with inserts
[REPT.-12] 20 p3736 N67-34206
Shear stress distribution in adhesive layer of Saturn stage bonded joints using photoelastic stress analysis techniques
[NASA-CR-85369] 23 p4357 N67-36632
PHOTOELASTICITY
Photoelastic stress patterns from simplified model of skull and brain under dynamic loads
[A68-9] 01 p0025 N67-10967
Photoelastic modeling techniques for seismic wave propagation
[ECOM-2769] 09 p1441 N67-19780
Photoelastic observation of ultrasonic waves in transparent plate
[ORNL-TM-1671] 13 p2416 N67-25611
Photoelasticity used to determine stress concentration factor associated with transverse slot end in finite plate subjected to uniformly distributed load - rocket propellant grain
[REPT.-13] 21 p3939 N67-35431
Mechanical and optical properties of epoxy resins employed in photoelastic techniques
[EUR-3604.F] 24 p4474 N67-40297
PHOTOELECTRIC APPARATUS
Photoelectric apparatus for precise detection and measurement of Kerr longitudinal magneto-optic rotation effect
[TR-10] 01 p0114 N67-10909
Highly sensitive, photoelectric spectropolarimeter for measuring dispersion of optical activity in biopolymers
[TT-66-62179] 01 p0074 N67-10964
Photoelectric polarimeter for measuring skylight polarization characteristics in visible spectrum
[NASA-CR-80192] 03 p0398 N67-12935
Velocity measurements of particles in rotating plasma using Fabry-Parot interferometer with photoelectric recording
[FTD-HT-66-522] 09 p1499 N67-20042
Shipborne gravimeter with photoelectric micrometer
[ACIC-TC-1114] 10 p1629 N67-20633
Range indicator attachment to phototelegraphic recording instrument for depth measurement 11 p1861 N67-22378
Photoelectric and television devices for combating noise from atmospheric turbulence during astronomical observations 11 p1975 N67-22506
Photoelectric observations of Nova Herculis 1963 in three colors - brightness fluctuations
[REPT.-60] 14 p2615 N67-27580
Photoelectric determination of particle track width in nuclear emulsions
[IS-1485] 15 p2780 N67-28207
Photoelectric device for recording occultations of stars by moon 19 p3458 N67-33197
Sensitivity of photoelectric diode detector for soft fluorescent X-rays
[UCID-15164] 22 p4046 N67-37225
Photoelectric observations of Y Aquilae perturbations using Cassegrain telescope 23 p4349 N67-39948
Design and performance of gain compensated airborne photopolarimeter for skylight polarization measurements
[AFCRL-67-0290] 24 p4450 N67-39706
PHOTOELECTRIC CELL
Mechanical design features of prototype facsimile scanner using fiber optics
[QR-7] 09 p1448 N67-19758
Spectral sensitivity and thermal properties of photoelectric transducers and effective ranges of application 10 p1585 N67-20894
Germanium devices studied for use in thermophotovoltaic converter
[ECOM-02543-1] 18 p3252 N67-32639
Spectral characteristics of photoelectric cells, thermoelectricity, and parameters of solar concentrators, collectors, and reflectors
[JPRS-41144] 21 p3790 N67-35470
Integral short circuit current of photoelectric cells determined from power spectral distribution of light source radiation - silicon photocell coatings 21 p3790 N67-35471
PHOTOELECTRIC EMISSION
Photoemission study of electronic structure of cadmium telluride single crystals
[NASA-CR-79706] 01 p0140 N67-10880
Backward and forward photoemission quantum yields from evaporated KBr films measured as function of film thickness
[NASA-CR-80149] 03 p0453 N67-12975
Spectral sensitivity as function of temperature for cesium antimonide photocathodes
[CEA-R-2995] 10 p1592 N67-20616
Band structure photoemission of ferromagnetic nickel-aluminum alloys
[UCRL-50118] 11 p1986 N67-22316
Electronic structure photoemission studies of cadmium telluride, cadmium selenide, and cadmium sulfide
[NASA-CR-83873] 13 p2399 N67-25861
Three-photon photoelectric effect in gold using ruby laser
[REPT.-648] 15 p2780 N67-28067
Analytical approximations for photoelectric, incoherent scattering, and energy transfer X-ray cross sections
[SC-RR-66-452] 16 p2949 N67-29040
Delayed hole discharge at tetracene crystal/aqueous electrode interfaces
[AD-653468] 19 p3521 N67-32748
Autoionization in anthracene through photoelectric effect produced by single photon and exciton-exciton processes
[AD-653461] 19 p3522 N67-32872
External photoelectric effect and secondary emission in photoelectric detector - cathode illumination
[CEA-R-3143] 19 p3538 N67-33079
Photoejection of electrons from bubble states in liquid helium
[COO-1112-114] 23 p4306 N67-39870
PHOTOELECTRIC MATERIAL
Partially permeable metal film of interference reflector as photoelectrically sensitive film
[ERDL-T-1879-66] 11 p1837 N67-22448
Photogeneration of charge carriers in anthracene with polarized light to ascertain dependence on absorption coefficient
[AD-653493] 19 p3521 N67-32720
Chemical sensitization used to stimulate photosensitivity of single crystal cadmium sulfide
[NASA-TT-F-11200] 24 p4518 N67-40300
PHOTOELECTRIC PHOTOMETRY
Photoelectric observations of magnitudes and colors of southern stars 06 p0894 N67-15766
Multicolor photoelectric photometry of nuclei of galaxies, including Virgo star cluster region
[A66-4A] 09 p1510 N67-19873
Multipass photoelectric photometry system for sea water transparency measurements 11 p1870 N67-22300
Magnetic and related stars examined by photoelectric narrow-band photometry for Zeeman effect 11 p1988 N67-23443

Resonance fluorescence theory, polarization measurements of solar spectral line, and photoelectric recording photometer 12 p2301 N67-34323
Photoelectric UBV observations of RR Lyrae variable stars - Tables 17 p3160 N67-36681
Photoelectric-photographic map of normal albedo of moon 18 p3338 N67-31954
Photoelectric spectrometer to measure absorption line series and autoionization resonance in ultraviolet spectrum of strontium vapor
[NASA-CR-89561] 24 p4495 N67-39725

PHOTOELECTRICITY
Engineering model of ultraviolet oxygen detector for photoelectric measurements of partial oxygen pressure
[AM-2360-201] 01 p0025 N67-10089
Photoelectric method, and spectroscopic determination of isotopic composition of nitrogen 03 p0355 N67-12372
Calibration of photoelectric standard
[NASA-CR-79393] 03 p0454 N67-13001
Calculation of photoelectric absorption coefficient by statistical method
[LA-3561-MS] 07 p1150 N67-17463
Photoelectric and optical properties of platinum, gold, and palladium foils and evaporated aluminum and silver films in extreme ultraviolet under good vacuum conditions
[ORNL-TM-1393] 07 p1178 N67-17561
Photoelectric transducers as controlled elements of electric circuits, with assembly based on photoresistors and low power incandescent lamps 15 p2677 N67-27835
Photoelectrical and optical properties of gallium phosphide
[NASA-CR-84660] 15 p2779 N67-28014

PHOTOELECTROMAGNETIC DETECTOR
Photo-electric detection instrumentation for observing meteor impacts on lunar surface using ground based telescope
[NASA-CR-85817] 17 p3163 N67-31351

PHOTOELECTRON
Mathematical models for determining photoelectron density of lunar atmosphere - Poisson equation
[NASA-CR-80428] 03 p0465 N67-13112
Photoelectron energy distribution from molecular oxygen measured by partial photoionization cross sections 13 p2375 N67-25493
Planar retarding-potential analyzers examining photoelectron emission from solid tungsten, nickel, and semitransparent aluminum cathodes exposed to extreme ultraviolet radiation
[AFCRL-66-718] 14 p2601 N67-26658
Photoelectron energy spectrometer determinations of partial photoionization cross sections of molecular gases
[AD-653214] 19 p3386 N67-32774
Presunrise heating effects due to conjugate region photoelectrons
[NASA-CR-89273] 23 p4245 N67-38717
Statistical properties of electromagnetic radiations - Annotated bibliography
[AROD-4965-28-P] 24 p4461 N67-39460

PHOTOENGRAVING
Cryotron logical design and photoetching technique for constructing circuits
[C-67024] 19 p3421 N67-33175

PHOTOGRAMMETRY
SA AERIAL PHOTOGRAPHY
SA MAPPING
Photogrammetric cumulus cloud measurements using aerial cameras and radar 03 p0418 N67-12484
Classification technique for photogrammetric stereo restitution systems 03 p0396 N67-12841
Fortran II computer programs for analytic solutions of general problem of photogrammetry
[BRL-MR-1769] 05 p0681 N67-15068
Czechoslovakian survey of photogrammetric plotting instruments
[ERDL-T-1878-66] 09 p1448 N67-19680
Optics of photographic and aerophotogrammetric instruments
[FTD-HT-66-334] 12 p2100 N67-23874
Determination of parameters of noctilucent clouds in 1964 15 p2699 N67-28026
Reliability of aerial photogrammetric surveying of forest areas
[T-1865-07] 15 p2702 N67-28062
Description and maintenance manual for flexible photogrammetric satellite attitude determination system with programmed sequential control
[NASA-CR-84841] 15 p2714 N67-28825
Photogrammetric methods applied to calculation of target position and attitude relative to missile
[WRE-TN-TRD-23] 16 p2897 N67-29939
Geodetic positioning with satellite borne PC-1000 camera
[ACIC-TR-165] 17 p3061 N67-30729
Stereometrograph for compiling relief and planimetric detail for topographic maps from vertical aerial aerial photographs
[FTD-HT-66-390] 19 p3451 N67-33064
Multidetector spectrometer for measuring surface temperature of Mars, and error analysis on application of stereophotogrammetry to extraterrestrial mapping 20 p3643 N67-34773
Lunar geologic analysis and mapping from Ranger photographs, Ranger photogrammetry, analysis of small lunar craters, and site reports made for Lunar Orbiter I mission
[NASA-CR-88533] 22 p4142 N67-37651

PHOTOGRAPH
SA CLOUD PHOTOGRAPH
SA LUNAR PHOTOGRAPH
Photographic study of mercury droplet parameters including effects of gravity
[NASA-TN-D-3705] 01 p0071 N67-10237
Photometry of comets using 1963-1964 patrol photographs 06 p0959 N67-15442
Photographs of classical source sink and circulatory flow situation visualized with dye streams in flow visualization apparatus
[GAM/AE/66B-10] 06 p0968 N67-16463
Enhanced filtering and matched filtering methods for improving photographic details 07 p1085 N67-17790
Sorting of holographic information for transmission 09 p1483 N67-19463
Evaluation of lunar surface photographs obtained by lunar spacecraft
[NASA-CR-83863] 13 p2408 N67-25828
Semiautomatic device for scanning and measuring spark chamber photographs
[NP-TR-1416] 15 p2712 N67-28451
Digital techniques for photographic image quality evaluation
[HRB-352.16-R-5] 19 p3452 N67-33023
Aerodynamic application of holography
[ISL-T-38/66] 21 p3852 N67-36284
Nomograph for distortion of photographs 24 p4451 N67-39877

PHOTOGRAPH INTERPRETATION
Reference map display systems for using image interpreters
[AD-639136] 01 p0075 N67-11003
Photograph interpretation of lunar disk in earthshine
[FTD-HT-66-119] 01 p0155 N67-11165
Tables of computer generated photographic parameters necessary for detailed interpretation of Ranger VII television camera pictures - trajectory and time-to-impact data
[NASA-CR-79938] 02 p0259 N67-11817
Tables of computer program generated photographic interpretation of selected Ranger VIII television camera pictures
[NASA-CR-79939] 02 p0259 N67-11818
Graphic interpretation of Luna-9 panoramas of lunar surface
[JPRS-38792] 03 p0365 N67-12005
Interpretation of stratified and faceted shapes appearing in lunar photographs
[NASA-CR-80094] 02 p0307 N67-12154
Aerial photography interpretations of tropical and subtropical forests and vegetation 03 p0397 N67-12842
Aerial photograph interpretation of fresh water swamp forest structure and vegetation 03 p0397 N67-12850
Interpretation of aerial photographs on mangrove forest vegetation 03 p0397 N67-12851
Vegetative, soil, and photographic factors affecting tone in agricultural remote sensing 04 p0535 N67-13475
Remote sensing and photo interpretation applied to ecology 04 p0550 N67-13518
Lunar mare data from color photographs of Ranger VII
[NASA-CR-81160] 06 p0956 N67-15400
Photograph interpretations of lunar and Martian surfaces, lunar limb areas, and comet Ikeya-Seki
[NASA-CR-80925] 06 p0966 N67-16101
Photographs and interpreted drawings of west lunar limb 06 p0966 N67-16104
Interpretation of mesoscale cellular convection patterns in cumulus clouds photographed from satellites
[REPT.-37] 06 p0907 N67-16320
Surveyor I lunar photographs interpretation, and television subsystem
[NASA-CR-81520] 07 p1189 N67-17161
Group interpretation in information exchange, confidence, and agreement forming
[REPT.-1151] 08 p1290 N67-18231
Depressions on far side of lunar surface observed by automatic interplanetary station Zond III
[NASA-CR-82093] 08 p1361 N67-18439
Increase of interpretation properties for aerial photography
[FTD-MT-65-243] 09 p1448 N67-19773
Lunar surface interpretation based on Luna IX and Surveyor I photographic data 09 p1513 N67-20274
Graphic and textual indexing for photograph image interpretation
[AD-643343] 10 p1774 N67-20830
Coordinate measurements of satellite positions determined from photographs
[FTD-HT-66-332] 10 p1564 N67-20840
Optical correction method in interpreting photographs for geodetic surveying
[FTD-TT-65-2016] 10 p1638 N67-21041
Photographic techniques, processing, and interpretation of Antarctic sastrugi 11 p1868 N67-22330
Vertical and oblique view use in photograph interpretation
[AD-643242] 11 p1886 N67-22117
Catalog technique for measuring image quality
[AD-645644] 12 p2098 N67-23666
Prediction of parameters related to occurrence of flares from photographs of solar filament structure
[LR-20444] 13 p2397 N67-25618
Feasibility of perceptron type computer for recognition of vortex patterns in cloud cover photographs
[NASA-CR-83907] 13 p2352 N67-25940
Data reduction from photographs of blasts
[BRL-MR-1804] 14 p2496 N67-26697
Relative effectiveness of light table and projection viewing devices to aid in photograph interpretation - display and magnification
[TRN-179] 14 p2534 N67-27077
Identification of lunar surface photographs by cross references to readout periods and photo sites
[NASA-CR-66233] 14 p2815 N67-27789
Photographic determination of radiants, altitudes, and velocities of meteors
[NASA-TT-F-10068] 15 p2789 N67-28228
Photograph evaluation for determining orbits of meteor bodies
[NASA-TT-F-10969] 15 p2790 N67-28284
Topographic mapping using monoscopic photographs and surface photometric properties, and testing photoconductors for slow-scan vidicons 16 p2893 N67-29118
Effects of overlapping frames on speed and accuracy in screening and interpretation of aerial photographs
[AD-649908] 16 p2896 N67-29479
Synoptic relationship between concurrent radar precipitation patterns and Tiros IX cloud photographs
[AD-649063] 16 p2925 N67-29871
Photogrammetric satellite attitude determination system
[NASA-CR-85242] 16 p2898 N67-29886
Instrumentation for nuclear particle detection in spark and bubble chambers, digitized readout systems, and automatic scanning processes
[CONF-660918] 17 p3063 N67-30958
Engineering and economic aspects on data reduction of bubble chamber films 17 p3067 N67-31051
Automatic point guidance system for analysis of bubble chamber film 17 p3067 N67-31052
Design and performance of automatic bubble chamber film analyzing machine 17 p3067 N67-31054
Improved image plane measuring machine for digitized scanning of bubble chamber film 17 p3067 N67-31055
Digital acquisition of spark chamber data and automatic processing of photographic particle tracks 17 p3068 N67-31913
Astrogeologic studies - lunar and planetary research
[NASA-CR-86649] 18 p3338 N67-31954

Morphological rock units, structure, and geologic history of Plato quadrangle 18 p3327 N67-31944
Structure of Triesnecker-Hipparchus region of moon 18 p3327 N67-31947
Applicability of moire patterns produced by superposed screens in analysis of lineaments on lunar photographs 18 p3328 N67-31951
Improved rapid processing methods for handling large amounts of photoclinometric data, and maximizing ratio of work done by computer relative to manual reduction 18 p3328 N67-31952
Photographic interpretation of orbital element distribution of bright meteors 18 p3330 N67-32042
Meteor masses and distributions calculated from photographs 18 p3330 N67-32043
Photographic analysis of minor meteor shower orbits 18 p3330 N67-32047
High altitude Aerobee coronagraph and meteoritic dust tracks 18 p3333 N67-32074
Reconstructed and reassembled photographs taken by Lunar Orbiter I [NASA-CR-847] 18 p3344 N67-32334
Weather forecasting and cloud photo interpretations 20 p3672 N67-34307
Screening and overlapping imagery effect on speed and accuracy of aerial photograph interpretation [BESRL-TRN-52] 21 p3851 N67-36184
Lunar geologic analysis and mapping from Ranger photographs, Ranger photogrammetry, analysis of small lunar craters, and site reports made for Lunar Orbiter I mission [NASA-CR-88533] 22 p4142 N67-37651
Photo-mosaic of western Peru composed of photographs taken from Gemini 9 [NASA-CR-89072] 23 p4341 N67-38145
Agricultural applications of photographic sensors and photograph interpretation techniques from orbiting satellites [NASA-CR-89645] 24 p4449 N67-39649
Meteorological satellite data interpretation of cloud photographs for weather forecasting and analyses 24 p4486 N67-39603
Surface and upper air analyses for sparse data regions based on meteorological satellite cloud photograph interpretations 24 p4486 N67-39604
Meteorological satellite cloud photograph interpretation key for regional use 24 p4450 N67-39605
Interpretation of line-scan pictures produced by flying-spot scanner system - image degradation by addition of noise and by varying line frequency [IZF-1967-16] 24 p4452 N67-40007
Aerial photography and photograph interpretations for agricultural uses [NASA-CR-89611] 24 p4452 N67-40161
Development and evaluation of probability indexes for photointerpreter performance [AD-658653] 24 p4392 N67-40350
Lunar Orbiter II photography of landing sites for Apollo spacecraft [NASA-CR-931] 24 p4540 N67-40577

PHOTOGRAPHIC APPARATUS
Analysis of passive, low light level photographic systems for application to topographic mapping [REPT.-32-TR] 06 p0880 N67-16171
Applications, performance, and maintenance of rapid process photographic film equipment display systems 07 p1078 N67-16982
Aerial reconnaissance facilities and instruments, and resolving power, haze and rain effects, scanning devices, and optical and photographic media [TIL/T-5899] 09 p1451 N67-30319
Optics of photographic and aerophotogrammetric instruments [FTD-HT-66-334] 12 p2100 N67-33874
Camera shutter for low frequency photography [FTD-HT-66-660] 12 p2103 N67-34735
Photographic apparatus used for Soviet satellite tracking [JPRS-40683] 16 p2895 N67-29478
Systems theory and test methods used in analysis of photo-optical systems [REPT.-353] 19 p3451 N67-32560
Design and fabrication of multifunction contact and projection printer [ECOM-00177-F] 20 p3640 N67-34534
Design and development of lunar orbiter photo-subsystem mechanisms 21 p3837 N67-36206

PHOTOGRAPHIC DEVELOPER
Design and development of photopolymer printer processor to make positive transparencies from aerial roll film [ECOM-2721] 01 p0073 N67-10459
Camera and photographic film processor [NASA-CR-81649] 07 p1087 N67-17998

PHOTOGRAPHIC EMULSION
Exponential relation between development speed and redox potential of ferozalate developers for emulsions of different sensitivities and exposures - illumination [IFA-PN-17] 03 p0361 N67-12397
Luminescent intensification method for silver photographic images [FTD-TT-66-94] 06 p0880 N67-16136
Latensification of Soviet color-negative film by exposure to light sources [RAE-LIB-TRANS-1179] 07 p1086 N67-17927
Nuclear photographic emulsions, materials, and techniques used in autoradiography 10 p1681 N67-21235
Method for photographic emulsion removal from nontransparent backing and transfer to transparent backing [EGG-1183-2133] 16 p2897 N67-29736
Coherent particle production in collisions of 300 GeV pions with nuclei of photographic emulsions [REPT.-774/VI/PH] 17 p3135 N67-31100
Negative pion capture by carbon, photoemulsion, and tetraneutron nuclei [JINR-P1-3306] 22 p4106 N67-37730
Techniques for measuring neutron energy spectra in photographic emulsions [NDL-TR-92] 24 p4499 N67-39651
Numerical analysis of spectral lines on photographic plates of nebulae to determine characteristic curves of spectrophotometric emulsion [ARL-67-0125] 24 p4453 N67-40174

PHOTOGRAPHIC FILM
SA MICROFILM
Photographic film dosimetry of beta rays and electrons [BMWF-FBE-65-08] 01 p0127 N67-10729
Feasibility of diapositive processing for aerial surveillance film record [USACDCINTA-65-6] 01 p0076 N67-11193
Prototype film transport system for collection from four remote launch vehicle cameras to single recovery capsule [NASA-CR-80743] 04 p0551 N67-13728
Low humidity induced fog in photographic films 13 p2319 N67-25471
Text on optical data processing - optical spectrum analysis, optical correlation, photographic film characteristics, and holography [NASA-TM-X-55767] 14 p2530 N67-26633
Revolving cylinder with electrophotographic layers for particle track evaluation in spark chamber 17 p3064 N67-30965
Improving photographic film sensitivity to high energy electrons 19 p3459 N67-32816
Flying spot digitizer /CYCLOPS/ for spark chamber film analysis 21 p3805 N67-36242
Development of flying spot digitizer and automatic data processing methods for analyzing spark chamber pictures 21 p3806 N67-36244
Automatic Hough-Powell device for processing spark chamber pictures 21 p3806 N67-36245
Hummingbird automatic film digitizers used at Stanford Linear Accelerator Center for scanning and measuring bubble chamber film 21 p3806 N67-36246
Development and incorporation of Hummingbird I scanner into IBM 360/50 computer 21 p3806 N67-36247
CERN spark chamber film experiments using Hough-Powell Device /HPD-1/ 21 p3807 N67-36248
Automatic analysis of spark chamber film at CERN using LUCIOLE cathode ray tube flying spot digitizer 21 p3807 N67-36249
Simple computer controlled flying spot digitizer for scanning and measuring spark chamber film 21 p3807 N67-36250
On-line bubble chamber measuring system 21 p3807 N67-36251
Time sharing operations of Purdue University SMP measuring system for bubble chamber film analyses 21 p3807 N67-36252
Glasgow measuring machines for spark chamber film analyses 21 p3807 N67-36253
Heidelberg SMP measuring system for analyzing bubble chamber photographic film 21 p3807 N67-36254
Improved Hough-Powell Device /HPD/ filtering method for analyzing bubble chamber film 21 p3808 N67-36261
Feasibility of controlling Hough-Powell Device /HPD/ using small computer 21 p3809 N67-36263
Status of Hough-Powell Device /HPD/ programs at Saclay, France 21 p3809 N67-36264
Preliminary results of Thresh and Grind obtained from flying spot digitizer and IBM 7094 measured events 21 p3809 N67-36265
Programming modifications, production operation, and status of PEPR point guidance system 21 p3810 N67-36271
Prototype and production version of POLLY bubble chamber film measuring system 21 p3810 N67-36272
Operator console design concepts for production version of POLLY bubble chamber film measuring system 21 p3810 N67-36273
Bubble chamber data processing system for Illiac III computer 21 p3811 N67-36275
Automatic track following system for processing bubble chamber film using Hough-Powell Digitizer /HPD/ 21 p3811 N67-36277
Improved track following program at Brookhaven National Laboratory 21 p3811 N67-36278
Columbia University studies of automatic scanning system for bubble chamber film 21 p3811 N67-36279
Effects of stretch temperature, heat set time, and heat set temperature on cryogenic mechanical properties of polyethylene terephthalate film [NASA-TM-X-52351] 22 p4077 N67-37255

PHOTOGRAPHIC MEASUREMENT
SA PHOTOGRAMMETRY
Analysis of cinematographically measured blade deflection at front rotor of tandem helicopter [DLR-FB-66-55] 04 p0479 N67-13436
Photographic measurements on trail density variations of moving stars 06 p0861 N67-15464
Improved method of quantitative autoradiography for industrial use [EUR-3173.E] 09 p1455 N67-30226
Automatic device for measurement of spark chamber photographs [DESY-66/25] 10 p1635 N67-21572
Scanning and measuring projector for particle interactions from bubble chamber photographs [COO-1106-61] 10 p1635 N67-21660
In situ method and camera for photographing air suspended fog and cloud droplets [CRREL-TR-185] 11 p1882 N67-22570
Surveyor III capabilities and accomplishments using photographs to illustrate lunar surface and measurements 17 p3165 N67-31447
Stereometrograph for compiling relief and planimetric detail for topographic maps from vertical aerial photographs [FTD-HT-66-390] 19 p3451 N67-32604
Luminous intensity of nonabsorbent rotation-symmetric source determined using method based on photographic measurement and integral equation [ISL-T-43/65] 20 p3642 N67-34594
Supersonic combustion of hydrogen in air test program using optical and photographic measuring techniques [NASA-CR-66395] 20 p3748 N67-34598
Photographic and oscillographic data for triggered natural lightning discharges [DB-67-3] 23 p4347 N67-38084
Tabulated photographic supporting data for lunar orbiter mission analysis [NASA-CR-86473] 24 p4522 N67-40434

PHOTOGRAPHIC RECORDING
Interferometric photographic techniques for recording optical path length variations in pumped laser rods [ECOM-2751] 04 p0588 N67-14321
Data from horizontal intensity photographic variable area recording magnetograph - Tables [AFCRL-66-720] 10 p1639 N67-20625
Design and performance characteristics of eight Australian airborne and missile-borne instrumentation cameras [NRE-ISD-TN-70] 11 p1894 N67-22806
Streak shutter and image intensifier for photographic recording of electron avalanche

to streamer transition
[BMWF-FBK-66-31] 13 p3321 N67-25933
Meteor photographic recording with image orthicon tube 18 p3530 N67-32045
Photographic recording and strain gauge transducer techniques for observing RAE satellite extendible antenna boom motions during damping tests 19 p3403 N67-33138
Free flight measurements of axial force, normal force, and pitching moment of HB-2 model in shock tunnel using multiple spark photographic recording
[NPL-AERO-1212] 20 p3560 N67-34626
Radar, photographic, and meteorological methods for forecasting bird migration intensities to reduce aircraft hazards 21 p3758 N67-36069
PHOTOGRAPHIC RECORDING INSTRUMENT
Rapid extraction of periodic signals by phosphor recording 03 p0454 N67-13076
Wide range multi-input pulse height recording system
[NASA-CR-83658] 06 p1283 N67-19119
Digital conversion of photographic information in bubble chamber facility
[NP-TR-1413] 09 p1450 N67-20179
Equipment, techniques, and potential applications of electrostatic imaging
[AD-646037] 11 p1862 N67-22569
High resolution infrared photofacsimile recorder for image rectification
[NASA-CR-83890] 13 p2320 N67-25880
Instrument for photographically recording gyroscopic pendulum motion trajectory 15 p2706 N67-27845
Photographic brightness pyrometer for recording thermophysical measurements 15 p2708 N67-27851
Probability of recording and tracking satellite images optically
[NASA-CR-84870] 17 p3063 N67-30884
Digitization of photographs with subsequent reproduction of data on computer controlled microfilm recorder
[UCID-15144] 23 p4252 N67-38799
PHOTOGRAPHIC TRACKING
SA CINETHEODOLITE
Equatorial and horizontal coordinate data for Soviet satellites compiled from visual and photographic tracking data - February 1965 01 p0156 N67-10565
Equatorial and horizontal coordinates of Soviet satellites compiled from visual and photographic tracking - January 1964 01 p0156 N67-10567
Visual-photographic position observations and tracking data of artificial earth satellites
[FTD-TT-65-848] 02 p0232 N67-11293
Visual and photographic position observations of artificial earth satellites 02 p0232 N67-11294
Cinetheodolite observations of several satellites received from Malta station during May 1966 06 p1251 N67-19186
Characteristics of track-following spark chamber 17 p3065 N67-30966
Cinetheodolite observations of satellites from Malta during August 1966 21 p3800 N67-36362
Dynamic evaluation of radar and photo-tracking systems
[ECOM-5129] 22 p3997 N67-37033
Computation of wind velocity data from high speed radar or photo trackers
[ECOM-5133] 24 p4484 N67-39453
PHOTOGRAPHY
SA AERIAL PHOTOGRAPHY
SA ALL-SKY PHOTOGRAPHY
SA ASTRONOMICAL PHOTOGRAPHY
SA CLOUD PHOTOGRAPHY
SA COLOR PHOTOGRAPHY
SA ELECTRO-OPTICS
SA ELECTRONIC PHOTOGRAPHY
SA FRACTOGRAPHY
SA FRAME PHOTOGRAPHY
SA HELIOGRAPHY
SA INFRARED PHOTOGRAPHY
SA LUNAR PHOTOGRAPHY
SA PHOTOMICROGRAPHY
SA RADIOGRAPHY
SA ROCKET PHOTOGRAPHY
SA SATELLITE PHOTOGRAPHY
SA SCHLIEREN PHOTOGRAPHY
SA SHADOW PHOTOGRAPHY
SA SPACE PHOTOGRAPHY
SA SPARK PHOTOGRAPHY
SA STEREOSCOPIC PHOTOGRAPHY
SA STREAK PHOTOGRAPHY
SA X-RAY PHOTOGRAPHY
High speed camera mechanisms and high speed photography applications
[FTD-TT-65-724] 01 p0075 N67-11061
Development of high speed camera of high resolution with image orthicon television camera tube
[JUL-290-PP] 04 p0553 N67-14194
Meteor fragmentation, photography, and relations with comets 06 p0961 N67-15452
High altitude multispectral imagery of wildland area studied to determine accuracy of mapping wildland resources
[NASA-CR-82973] 09 p1450 N67-19939
Light and electromagnetic wave similarities, laser oscillator and radiation studies, and laser use in space, communication, medicine, and photography research
[FTD-TT-65-1453] 09 p1457 N67-20183
Scanning table for bubble chamber photography
[CEA-R-3045] 10 p1636 N67-21809
Real-time visual information acquisition and processing using advanced photographic and television techniques 11 p1883 N67-22683
Transformation of logical systems of algorithms and optimum methods of photographing faint objects
[FTD-TT-65-2042] 13 p2100 N67-23906
Optimum methods of photographing faint objects 13 p2100 N67-23908
Photographic studies of A Z pinch for plasma acceleration
[FHR-2242-4, VOL. II] 12 p2187 N67-24926
Bibliography on infrared detectors, radiation, applications, systems, scanners, and photography
[AECL-PAK/LIB-13] 13 p2367 N67-25562
Bubble chambers - conventional chambers, picture production, high field chambers, camera location, illumination and photography, and use of neon-hydrogen mixtures
[ANL-7265] 14 p2512 N67-27052
Coronal photographs, isophotes, and flash spectrum from solar eclipse of 30 May, 1965
[NASA-TN-D-4012] 14 p2538 N67-27285
Remote multispectral photographic sensing of earths surface for identifying inorganic materials
[NASA-CR-84495] 14 p2540 N67-27856
Universal radio electronics device for studying and photographing electromagnetic superhigh frequency fields 15 p2710 N67-28105
Ionization measurements, photography, and high voltage technology associated with streamer chamber and linear accelerator
[SLAC-PUB-252] 15 p2763 N67-28429
Seasonal climatic changes revealed by time-lapse photography
[TR-67-34-ES] 18 p3288 N67-32684
Geodetic laser system with specified photographic range and rangefinding distance capabilities
[B-3546] 19 p3467 N67-33106
Attenuating brightness methods for photographic astrometric observations of major planets 19 p3534 N67-33195
High speed photorecorder with filament optics and electro-optical converter for high speed filming of rapid processes
[FTD-HT-67-9] 21 p3846 N67-35489
Comparison and descriptions of slitless spectrographs for low-light-level research
[NASA-TN-D-4145] 23 p4251 N67-38262
Gas flow in shock tunnel studied by Tepler method and high speed photography 23 p4238 N67-38787
PHOTOIONIZATION
Photoionization of oxygen as possible mechanism for precursor phenomenon ahead of argon shocks 07 p1161 N67-16849
Forbidden photoionization and electron spin polarization
[NASA-TM-X-55543] 12 p2170 N67-24640
Photoelectron energy distribution from molecular oxygen measured by partial photoionization cross sections 13 p2375 N67-25693
Effect of corpuscular fluxes and electron photolocossing reaction on formation of ionospheric D layer
[NASA-CR-83936] 13 p2398 N67-25862
Photoionization mass spectrometer studies of ion-molecular reactions in oxygen-nitrogen atmosphere, and McLeod gauge measurements of ion source pressures
[NASA-CR-84114] 13 p2374 N67-26453
Detector using photoionization technique for measuring nitric oxide in lower ionosphere
[DASA-1887] 16 p2885 N67-29443
Continuous absorption coefficients and atomic photoionization cross sections for astrophysical applications 18 p3225 N67-31823
Revised formula for atomic photoionization cross sections, for astrophysical calculations 18 p3225 N67-31827
Photoelectron energy spectrometer determinations of partial photoionization cross sections of molecular gases
[AD-653214] 19 p3386 N67-32774
Energy transfer and radiation effects on optical, mechanical, and electrical properties of ionic solids
[COO-1052-7] 19 p3524 N67-33341
Photoionization cross sections of calcium vapor
[TR-1001/9200-01/-6] 21 p3775 N67-35422
Energetic positive ions from photoionization of gases
[D1-82-0542] 24 p4399 N67-40289
PHOTOLUMINESCENCE
Photoluminescent emission spectra of powder phosphors - aluminum phosphide films on tungsten substrates - electroluminescent materials
[QPR-3] 12 p2192 N67-24377
Photoluminescence and thermoluminescence of LiF with Ti and Mg impurities 13 p2390 N67-25682
Radio photoluminescence spectra of silver activated dosimeter glasses
[USNRDL-TR-67-66] 23 p4206 N67-38870
PHOTOLYSIS
Photochemistry of unsaturated systems containing hetero atoms other than oxygen
[AROD-3869-4] 03 p0357 N67-12580
Chemical diffusion kinetics, low energy electron scattering, vacuum photolysis of hydrocarbons, deuteration, molecular beams, and quantum mechanics
[CALT-532-1] 07 p1148 N67-17419
Flash photolysis and time resolved mass spectrophotometry - reaction of excited iodine atoms in decomposition of methyl iodide
[SC-RR-66-869] 11 p1809 N67-22249
Kinetics of reactions of human hemoglobin and of myoglobin studied by flash photolysis
[AFOSR-67-0521] 14 p2529 N67-26685
Photolysis of metal ion complexes of olefins, heavy metal acetates, carboxylic acids and synthesis of ceric acetate
[AFOSR-67-0396] 14 p2477 N67-27000
Photoisomerization and thermal kinetics of N benzylideneaniline derivatives - cis trans isomerization about carbon nitrogen double bond
[SR-2] 15 p2663 N67-28097
Photodegradation of high polymers in solution - additives effect on photolysis of polymethyl methacrylate
[NRL-6514] 16 p2848 N67-29016
Photolysis studies utilizing radioactive tracers
[AFOSR-67-1079] 18 p3220 N67-31501
Chemical activity and comet phenomena - photochemical models of astrophysical reactions, electron bombardment of low pressure gases, and singlet carbide studies
[NASA-CR-86551] 18 p3224 N67-32289
Molecular elimination and disproportionation effects on formation of nitrogen in hydrazine and hydrazine in photolysis 18 p3225 N67-32290
Atomic and molecular hydrogen formation in photolysis of hydrogen peroxide 18 p3225 N67-32291
Molecular elimination of hydrogen during methyl acetylene photolysis in vacuum ultraviolet 18 p3225 N67-32292
Ionization processes in atmospheric methane-oxygen flames and chemi-ionization processes induced by flash photolysis
[ARL-67-0155] 22 p3964 N67-36898
Surface effects in polymer film photodegradation
[NRL-6563] 24 p4394 N67-39565
PHOTOMECHANICS
Photomechanics of structure and materials in redesigned AB5-K8 gyroscope components
[NASA-CR-80060] 02 p0216 N67-13045
PHOTOMETER
SA SPECTROPHOTOMETER
Photometer designed as transfer standard for light emission measurements in star tracking systems
[NASA-CR-79702] 01 p0074 N67-10839
Reactor materials and components - fuel studies, portable smoke photometer, coated-particle fuels, and corrosion studies of

fluidized bed fluoride volatility process [BMI-1778] 06 p1321 N67-19145
Digital technique for computing position of photometric wedge when measuring optical density of sea water 11 p1879 N67-22361
Photometric detection contrast of airport runway lighting in decreasing visibility [SRDS-RD-66-47] 11 p1855 N67-22732
Celestial photometer developed for geodetic stellar photography [AFCRL-67-0031] 12 p2104 N67-24952
Data reduction methods for OGO airglow photometer measurements [NASA-TM-X-55794] 14 p2539 N67-27778
Laboratory tests on interference sensitivity of polar OGO airglow photometer [NASA-TM-X-55791] 14 p2539 N67-27779
Design and construction of rocket-borne photometer for measuring day airglow emission [AFCRL-67-0257] 21 p3846 N67-35477
Signal to noise ratio, light collection area, and spectral passband characteristics of lenses used in all-sky photometer - fluorescence in upper atmosphere [LA-3727] 24 p4449 N67-39561
Control system for plate movement of photometer television microscope [UUIP-544] 24 p4452 N67-40106

PHOTOMETRY
SA ASTRONOMICAL PHOTOMETRY
SA PHOTOELECTRIC PHOTOMETRY
SA SPECTROPHOTOMETRY
SA TELEPHOTOMETRY
Photometric observations of RR Lyrae variable stars for radial velocity studies 01 p0149 N67-10003
Rocket photometer measurement of altitude profile of daytime sodium in upper atmosphere [NASA-CR-70293] 01 p0068 N67-10741
Photometry of comets using 1963-1964 patrol photographs 06 p0659 N67-15442
Detailed photometry of comet Arend-Roland 06 p0659 N67-15443
Spectroscopic and photometric analysis of Venus and Mars atmospheres to determine luminescence and other properties [NASA-TT-F-394] 07 p1186 N67-16801
Optical thickness of Mars atmosphere determined by photometric observations 07 p1187 N67-16807
Photometric analysis of aerosol component of Mars atmosphere 07 p1186 N67-16810
Discrepancy between Mars atmospheric pressure data from spectroscopic measurements and from photometric and polarimetric observations 07 p1188 N67-16811
Photometric study of brightness distribution across Martian disk, and analysis of limb darkening 07 p1188 N67-16814
Photometric calibration of automatic exposure control systems for aerial photography [ECOM-2748] 07 p1063 N67-17662
Optical and photometric properties of lunar surface and implications for human visual performance [NASA-CR-81756] 07 p1023 N67-18965
Mobile 24-inch satellite photometric observatory [NASA-CR-66304] 10 p1602 N67-21230
Functional expression for describing lunar surface directional reflectance characteristics 12 p2210 N67-24272
Photometry of spectrograms of three artificial meteors [NASA-TN-D-3930] 12 p2313 N67-25039
Photometric method of measuring dust concentration in fuel filters [CMER1-A5] 13 p2332 N67-26121
Ground-based photometry of Passive Geodetic Earth Orbiting Satellite /PAGEOS/ [NASA-CR-791] 14 p2490 N67-27291
Photometric determination of masses and densities of meteoric bodies [NASA-TT-F-10967] 15 p2789 N67-32229
Comparison of photometric profiles of meteors and stars using images of stars on unguided negatives [NASA-TT-F-10966] 15 p2789 N67-32239
Photometric and astrometric determination of stellar structure and dynamics for globular cluster Omega Centauri 16 p2972 N67-33067
Airglow and enhanced penetrating electromagnetic radiation in southern radiation anomaly observed with photometers and scintillation counters 16 p2990 N67-33119
Interpretation and application of photometric-polarimetric observations of planetary surfaces [RM-3677J] 17 p3165 N67-31429
Improved rapid processing methods for handling large amounts of photoclinometric data, and maximizing ratio of work done by computer relative to manual reduction 18 p3239 N67-31952
Telescopic spectroscopic, and photometric observations of galaxies, various types of stars, night sky, and zodiacal light 20 p3732 N67-34871
Determination of atmospheric composition by solar absorption photometry using rocket-borne detectors 20 p3839 N67-35073
Display and processing program for data from gegenschein photometry experiment from OGO-B spacecraft [NASA-TM-X-55907] 21 p3935 N67-35595
Photometric measurements on deviations from equilibrium state in burnt flame gases [TR-22] 21 p3949 N67-36125
System of photometric standards and data for three hundred stars on UBV system [PUBL.-1] 21 p3933 N67-36564
Photometric measurements of light intensity from variety of surfaces to determine lunar surface light scattering characteristics [NASA-CR-89078] 23 p4342 N67-38197
Properties of intermediate bandpass photometric system with filters located in stellar spectral sensitive regions [REPT.-66-42] 23 p4345 N67-38198
Upper stratosphere study by photometric observations of twilight [NASA-CR-89235] 23 p4347 N67-39077

PHOTOMICROGRAPHY
Photomicrography studies of steel austenization after overheating [EURAEC-1711] 15 p2723 N67-32215

PHOTOMULTIPLIER
Analog photoresistive multiplier [AMRL-TR-66-71] 01 p0046 N67-11196
Design of multiplier phototubes used for single event photon counting - pulse response properties, residual gas pressure effects, gain, and cascade aperture [NASA-CR-80475] 02 p0274 N67-13106
Parallel analog matrix multiplier for large capacity matrices using optical storage of elements [AFCRL-66-610] 04 p0519 N67-14333
Resistance and voltage stabilization for constant amplification of photomultipliers 06 p0654 N67-15256
Intensity microphotometer design in which input signal is converted by piecewise-linear diode approximators 07 p1070 N67-16819
Electrodeless plasma propulsion system with conical discharge coil investigated by photomultiplier display [DVL-579] 08 p1349 N67-19072
Wide range multi-input pulse height recording system [NASA-CR-83656] 08 p1383 N67-19119
Pulse amplitude, preamplifier, photomultiplier, and other electronics improvements in design 09 p1423 N67-19435
Photomultiplier tube socket testing, and electronic equipment instrumentation program developments 09 p1444 N67-19437
Fortran program to compute secondary electron distribution in photomultipliers [KAPL-M-6575] 10 p1594 N67-21463
Afterpulses in experimental photomultipliers used in dark pulse studies [NYO-3421-9] 10 p1594 N67-21464
Controllable fast-response photomultiplier test showing coincidence rate electric pulses in relation to phase shift of ultrahigh frequency control voltage [UCRL-TRANS-1335] 10 p1594 N67-21476
Airborne photomultiplier for measuring particle size and concentration in clouds and precipitation 11 p1876 N67-22019
Electron optics of multichannel photomultipliers for broadband X-ray recording 12 p2063 N67-23502
High speed nonlinear multiplier with argon and neon tubes as light source, and photomultiplier tubes 12 p2066 N67-23722
Sodium iodide /thallium/ scintillation crystal measurements of photomultiplier tubes [USNRDL-TR-1099] 12 p2064 N67-24099
Wideband, high frequency photomultiplier circuit for reproducing low light intensity signals [RM-336] 12 p2064 N67-24197
Nonuniform quantum efficiency effect on photomultiplier tube performance [RADC-TR-66-794] 12 p2066 N67-24648
Photomultiplier tube problems of dark pulses and gain shift with count rate or short term stability [NYO-3421-8] 13 p2393 N67-25620
Design, construction, and testing of photomultiplier tube amplifier-discriminator system [NASA-CR-83681] 13 p2394 N67-25871
Cascade aperture design, gas pressure effects, gain calibration, and photon counting efficiency of multiplier phototube [NASA-CR-84698] 14 p2508 N67-27365
Monte Carlo calculations and computer simulation of statistical model of photomultiplier [NP-16546] 15 p2670 N67-32283
Automatic regulation of photomultiplier gain and of relative chain linear electronics [LNF-67/11] 15 p2681 N67-32557
Modified stethoscope acceptability and effectiveness for use in areas of high noise levels on aircraft carrier [AFCRL-66-538] 16 p2936 N67-32930
Photomultiplier detectors for laser interferometry [SC-DR-66-2669] 17 p3041 N67-36840
Charge-to-pulse converter for photomultiplier viewing light emitted by thermoluminescent material during heating [CLOR-64/D] 20 p3643 N67-34891
Vacuum diffraction ultraviolet monochromator for sensitivity evaluation of photomultipliers, photon counters, and ionization chambers [NASA-CR-82283] 22 p4048 N67-37587
Spectrographic and photomultiplier measurements of light phenomena due to ammonia release into upper atmosphere 22 p4049 N67-37686
Scintillation counters with photomultiplier for observing microvariation in cosmic ray intensity 23 p4329 N67-38228
Behavior of irradiated photomultiplier in gamma flux in storage well, and in EL 2 reactor channel [CEA-R-3154] 23 p4328 N67-39207

PHOTON
Unified approach to energetics research - electron and/or photon and phonon interactions, and solar cells for high temperature use [AFCRL-66-134, VOL. I] 01 p0127 N67-10257
Eta-meson photoproduction cross section for incident photon energies 800 to 1000 MeV [LNF-66/20] 01 p0125 N67-10634
Photoelectric absorption cross section of lead measured with manganese 54 photons 02 p0429 N67-13286
Relativistic quantum field theory on neutrino and photon concepts [JEN-157-DF/I-68] 04 p0507 N67-13967
Decay of neutral pions into three photons [JINR-P-2763] 04 p0502 N67-14014
Experiment for photon produced weakly interacting fractionally charged particles [MIT-2098-264] 04 p0509 N67-14022
Optoelectronic techniques used to develop photon coupled integrated circuit switch [NASA-CR-83220] 04 p0520 N67-14176
Radius of existence of carbon molecules in field of photon and corpuscular radiation of sun 06 p0660 N67-15444
Review of theory on total absorption and scattering of photons by nuclei - electric polarizability of atomic nuclei, elastic photon scattering, and optical anisotropy of nuclei 06 p0660 N67-15826
Absorption and scattering of photons by protons of deformed nuclei, shape of giant resonance, and interpretation of activation or yield curve data 06 p0660 N67-15827
New expressions for energy density and momentum flux of electromagnetic field 06 p0655 N67-15728
Particle interactions and photon scattering in ionized gases [ARSD-6062-6] 06 p0643 N67-15972
Dynamical computation of photon correlations and counting statistics 06 p0617 N67-16619
Photon interaction data for 25 elements and water - tabulations of cross sections and angular distribution for Compton scattering at 23 energies [AHSB/S/R-169] 07 p1142 N67-17129
Photoneutron measurements obtained with monochromatic photons

[UCRL-70002] 07 p1153 N67-17559
Spectrum of inverse Compton scattered photons - astrophysics
[NASA-TM-X-55604] 07 p1157 N67-17563
Tabulated values of total cross sections for annihilation processes, and differential cross sections for bremsstrahlung processes for fixed photon scattering angle and positron energy
[SLAC-67] 06 p1343 N67-18894
Nuclear emulsion, bubble chamber analysis, high energy photons, and nuclear groups
[NYO-1984-10] 10 p1706 N67-20827
Three photon decay of particles with 0 or 1 spin
[NP-16329] 10 p1711 N67-20964
Photon flux of substandard quartz iodine lamps in range from 2500A to 8000A 11 p1855 N67-22775
Dispersion sum rules in Compton scattering by baryons
[JINR-P2-3028] 11 p1943 N67-23302
Resonance curves for excitation of stationary oscillations, and two photon laser study
[NASA-TT-F-10621] 12 p2113 N67-25008
Multiphoton frequency increase with electrodipole reactions in gases
[NASA-TT-F-10624] 12 p2157 N67-25010
Compensation of infrared divergence in matrix element
[LNF-67/1] 13 p2373 N67-25567
Soft photon emission approach to pion-gamma and neutrino-gamma pion decays
[ISS-66/49] 13 p2379 N67-26091
Spectrum measurement of photons emanating from Crab nebula
[AFOSR-67-0410] 13 p2399 N67-26343
Application of no-recoil approximations to functional preliminaries, soft photons in quantum electrodynamics, and soft mesons
[NYO-2263TA-147] 14 p2590 N67-27448
Tabular and graphical representations of photon cross sections
[UCRL-50178] 14 p2592 N67-27562
Stopping power of sodium iodide/thallium/ crystal for gamma photons at energies between 0.01 and 10 MeV
[NP-16500] 15 p2760 N67-28301
Modified stethoscope acceptability and effectiveness for use in areas of high noise levels on aircraft carrier
[AFCRL-66-538] 16 p2896 N67-29638
Infinite medium photon spectrum code for gamma rays
[KAPL-M-6571] 16 p2948 N67-29796
Integral and differential energy spectra of secondary cosmic ray photons between 0.2 and 12 GeV measured with balloon borne lead scintillator sandwich spectrometer
[NASA-TT-F-11630] 16 p2951 N67-29981
Photoneutron spectra from bismuth 209 target
[AD-651111] 17 p3127 N67-30956
Photon attenuation and energy absorption coefficients
[NBS-8681] 17 p3129 N67-30681
High energy photon polarization measurement by coherent pair production in diamond crystal 17 p3133 N67-30991
Experiment to detect interaction of photon with electric field with subsequent emission of two photons
[NASA-TM-X-1403] 18 p3311 N67-32323
Photon scattering by giant magnetic dipole states in carbon, magnesium, and silicon
[AD-651992] 19 p3501 N67-33968
Photon, positron, and electron spectra in tagged proton beam
[CALT-68-128] 20 p3700 N67-34928
Two-photon stepwise absorption in trivalent erbium cation in yttrium oxide and lanthanum trifluoride crystals - fluorescence
[TR-1001/2230-25/-3] 21 p3914 N67-35544
Calibration standards for photon spectroscopy between 30 keV to 300 keV - photodetectors
[NASA-TM-X-55912] 21 p3852 N67-36459
Plasma production by high power Q-switched laser, and photon scattering and microwave experiments
[WERL-3472-6] 22 p4116 N67-37501
Search for high energy photons from celestial radio sources 23 p4337 N67-38206
Photon meson productions and electromagnetic couplings of baryonic resonances
[TH/210] 23 p4398 N67-38256
Real photon approximation for electromagnetic processes on light nuclei
[LNF-67/51] 23 p4305 N67-38630
PHOTON ABSORPTION
SA TOWNSEND DISCHARGE
Emission and absorption time correlation of exchange photons
[JINR-P-3791] 03 p0446 N67-13318
Photo-absorption cross sections of molecular oxygen between 1650 to 2350 angstroms 13 p2375 N67-25694
Self focusing, stimulated Brillouin scattering, multiphoton absorption, and microplasma generation mechanisms causing damage to laser component elements under high power conditions
[AFCRL-67-0137] 15 p2720 N67-28556
Expression for ionization cross section of cesium atom by absorption process involving two photons from laser beam
[CEA-R-3113] 19 p3501 N67-32927
Measurement and evaluation of photon loss in active and passive regions of GaAs laser pumped by electron beam
[REPT.-675] 24 p4462 N67-39615
PHOTON BEAM
Resonance scattering of photons studied on carbon, magnesium, and silicon using bremsstrahlung 06 p0922 N67-15640
Radiation intensity determination of pulsed photon beams by pulse height measurements
[NSJ-TR-4, REV.] 11 p1939 N67-22973
Equations for describing nonstationary processes in two-photon laser
[NASA-TT-F-10629] 13 p2333 N67-25807
Photon-photon scattering experiments - laser beams, X-rays, synchrotron radiation, and nuclear explosions
[CERN-67-15] 20 p3697 N67-34706
Photon, positron, and electron spectra in tagged proton beam
[CALT-68-128] 20 p3700 N67-34928
Quasi-monochromatic polarized photon beam obtained from Compton scattering of gas laser light on high energy electrons circulating in Adone storage ring
[LNF-67/49] 24 p4503 N67-40332
PHOTON DENSITY
Pulsed neodymium doped glass laser for high photon energy density
[WRE-TN-PAD-126] 14 p2549 N67-27125
PHOTON-ELECTRON INTERACTION
Photon-photon scattering model for red shift of light passing through magnetic field
[NASA-CR-71111] 07 p1157 N67-17870
Cabibbo-Radicati sum rule and photodisintegration of three nucleon nuclei
[JINR-P4-3223] 19 p3505 N67-33427
Compton cross section measurements for bremsstrahlung photons at 500 and 950 MeV
[HELP-506] 22 p4104 N67-37206
Angular distribution of electron pairs produced by polarized photons at Frascati electron synchrotron
[LNF-67/49] 23 p4309 N67-38816
PHOTOPHORESIS
Kinetic theory of radiometric force acting on small particle suspended in Knudsen gas regime
[R-343] 15 p2803 N67-28185
PHOTOPRODUCTION
Influence of absorption corrections on peripheral photoproduction of pions and vector mesons, and joint photoproduction of vector mesons and first pi-N resonance on nucleons
[ER-19] 01 p0125 N67-10675
Particle physics research
[MPG-66-6] 01 p0125 N67-10680
Eta-meson photoproduction cross section for incident photon energies 800 to 1000 MeV
[LNF-66/20] 01 p0125 N67-10694
Electron synchrotron data on photoproduction of neutral pions
[LNF-66/37] 02 p0290 N67-11760
Experimental photoproduction of neutral pseudoscalar mesons
[CALT-68-92] 03 p0446 N67-13314
Pion photoproduction at 3.0, 4.0, and 5.0 GeV for baryon four momentum transfers
[MIT-2098-365] 04 p0590 N67-14069
Differential cross section for eta photoproduction in region from threshold to 940 MeV
[HEPL-465] 09 p1489 N67-19760
Photoproduction of positive pions between 1.2 and 3 GeV
[DESY-66/22] 10 p1710 N67-20952
Photoproduction, electron scattering, and quantum electrodynamics experiments on electron synchrotron
[NP-16354] 10 p1721 N67-21529
Superconvergence relation in pion photoproduction process
[IC/67/6] 11 p1945 N67-23381
Photoproduction of neutral pions for incident photon energies 400 to 800 MeV measured in electron synchrotron
[LNF-66/65] 12 p2165 N67-24028
Positive pion photoproduction with coherent bremsstrahlung
[LNF-66/68] 12 p2165 N67-24029
Eta meson cusp effect in pion photoproduction at eta threshold
[LNF-66/67] 13 p2375 N67-25654
Pion photoproduction from hydrogen near second and third pion-nucleon resonances 14 p2588 N67-27211
Pion photoproduction data below 1.5 GeV - tables and graphs
[CALT-68-106] 14 p2592 N67-27496
Cross section for photoproduction of charged pions in Regge pole model related to vector meson production in pion-nucleon collisions
[TH/191] 14 p2592 N67-27550
Coupling constant determination of N32 nucleon electromagnetic current using sum rule for isovector form factor and photoproduction results
[IC/67/11] 15 p2770 N67-28701
Dispersion sum rules compared with equal-time commutator sum rules for photoproduction problem
[JINR-E2-3119] 16 p2945 N67-29686
West German electron synchrotron and theories on photoproduction and electroproduction
[DESY-67/1] 16 p2947 N67-29720
Positive pion photoproduction at high photon energies and very small angles
[DESY-67/3] 16 p2947 N67-29729
Pion photoproduction by polarized gamma radiation
[SLAC-PUB-259] 17 p3129 N67-30648
Kinematical constraints on Regge pole residues for processes with external spins - vector meson production and charged pion photoproduction
[TH/198] 17 p3138 N67-31276
Divergences of vector and axial-vector currents in strong interactions and application to meson photoproduction
[JINR-E92-3196] 19 p3501 N67-32981
Photoproduction of strange particles studied in hydrogen bubble chamber exposed to bremsstrahlung beam
[DESY-67/6] 19 p3511 N67-33910
Highly interacting particle photoproduction with absorption of 5 to 6 GeV bremsstrahlung in thick copper and lead targets
[ORNL-TR-1534] 20 p3692 N67-34215
Photomonoproduction of positively charged pi mesons for incident photon energies between 1.2 and 3 GeV
[NP-16741] 20 p3695 N67-34569
Superconvergent sum rule for pion photoproduction on lambda hyperon derived in framework of SU/3/ symmetry 20 p3697 N67-34747
Photoproduction of positive pions
[NP-16737] 20 p3700 N67-34923
Photoproduction of multipion systems
[DESY-67/17] 24 p4502 N67-40381
PHOTOREDUCTION
Reduction of photographic film by scanning microdensitometer 07 p1084 N67-17789
PHOTORESISTIVITY
Reflection coefficients of lacquers containing photostabilizing compounds - protection of aluminum mirror surfaces produced by transfer method 15 p2644 N67-28186
PHOTORESISTOR
S RESISTOR
PHOTOSPHERE
Photospheric and chromospheric observations, and optical instrumentation - Belgium
[AR-26] 02 p0300 N67-11758
Granulation, sunspots, and faculae used in describing structure of photosphere 06 p0956 N67-15487
Comparison of satellite interplanetary magnetic field observations with photospheric magnetic field and phase structure
[NASA-CR-82443] 08 p1368 N67-19126
Solar magnetic field measurements in chromosphere and

photosphere 12 p2302 N67-34325
Feasibility of photospheric observations with aid of ELOISE project 12 p2307 N67-34466
Photospheric magnetic fields and chromospheric phenomena [LR-20445] 13 p2396 N67-36240
Emission border formation in filaments due to chromosphere excitation by photospheric radiation 20 p2722 N67-35047
Photospheric radiation as source of H-alpha line excitation in solar chromosphere 20 p2723 N67-35050
Magnetic axis and rotation axis obtained by observing sunspots and magnetic field of solar corona 21 p2932 N67-36096
PHOTOSTRESS
Photostress analysis of wood structure under external load 03 p0469 N67-12888
PHOTOSYNTHESIS
SA CHLOROPHYLL
SA METABOLISM
Unified approach to energetics research - growth of SiC single crystals, anodic and cathodic processes, and photobiological studies [AFCRL-66-134, VOL. II] 01 p0137 N67-10256
Chemical inhibitor of ferredoxin dependent reactions - role of plastocyanin in photosynthesis - Chlorella [ASR-3] 01 p0014 N67-10310
Growth of halophilic, anaerobic, photosynthetic bacteria from evaporated lake deposits [NASA-CR-80104] 02 p0215 N67-12255
Origin of photosynthesis, anaerobic life, and lifelike molecules 03 p0341 N67-12726
Chlorophyll, photosynthesis, and their evolution - literature review 06 p0798 N67-15434
Reaction kinetics of dichlorophenol indophenol in illuminated chloroplasts in program of research in photosynthesis [NASA-CR-81345] 06 p0897 N67-16613
Light dependent enzymatic processes accompanying fluorescence decay in wheat leaves during photosynthesis, and effects of inhibitors on fluorescence time curve [FTD-TT-65-1091] 07 p1016 N67-17950
Biomedical research progress reported in instrumentation program 09 p1444 N67-19430
Chemical biodynamic research on spectroscopic techniques, photosynthesis, amino acid synthesis, organic geochemistry, and ion accelerator improvements [UCRL-16806] 09 p1297 N67-19521
Electron and phosphate group transfer to carbon compounds and light quality effects on products of photosynthesis and glycolysis 09 p1398 N67-19534
Difference spectroscopy, quantum yields in chloroplast reactions as function of wavelength, and analysis of oxygen evolving photoreaction in study of manganese function in photosynthesis [NASA-CR-83842] 13 p2257 N67-25753
Spectral properties of Chlorella cell suspensions in vivo and in vitro 18 p3202 N67-31746
Energy transport in photosynthetic pigment arrays - migration and trapping of excitation quanta in photosynthetic units 18 p3203 N67-31747
Excitation transfer and trapping in photosynthetic units 18 p3203 N67-31748
Physical mechanisms in bacterial photosynthesis - photochemical reaction center 18 p3203 N67-31750
Primary photosynthetic reactions in relation to transfer of excitation energy 18 p3203 N67-31751
Light-induced reactions of chlorophyll b and P 700 in intact plants and chloroplast fragments 18 p3203 N67-31752
Kinetics of P 870 absorptance changes induced in Rhodospirillum rubrum chromatophores by laser flashes 18 p3204 N67-31753
Properties of subchloroplast particles prepared by action of digitonin, Triton X-100, and sonication 18 p3204 N67-31754
Early chemical events in photosynthesis - kinetics of oxidation of cytochromes of types c or f in cells, chloroplasts, and chromatophores 18 p3204 N67-31755
Light-induced oxidation-reduction reactions of cytochromes in living thalli, cells, and isolated plastids of red algae 18 p3204 N67-31756
Light-induced absorptance changes in chloroplast fragments of wild type and mutant strains of Chlamydomonas Reinhardi with impaired photosynthesis 18 p3204 N67-31757
Phosphorylation as related to electron transport in isolated chloroplasts 18 p3204 N67-31758
Electron transport in photosynthesis - measurement of ultraviolet difference spectrum in Chlorella cells by periodic flash technique 18 p3205 N67-31759
Inhibition and uncoupling photophosphorylation in chloroplasts 18 p3205 N67-31760
Light-induced absorptance changes in cytochrome b sub 6 in spinach chloroplasts 18 p3205 N67-31761
NADPH-cytochrome f reductase of chloroplasts in photosynthesis 18 p3205 N67-31762
Phosphorylation and hydrogen ion transport in chloroplasts - effect of coupling factor and its antiserum 18 p3205 N67-31763
Chemi-osmotic hypothesis as phosphorylation mechanism in chloroplasts 18 p3206 N67-31764
Light-induced energy conversion and inorganic pyrophosphatase reaction in chromaphores from Rhodospirillum rubrum 18 p3206 N67-31765
Ion and water transport processes in spinach chloroplasts - relation to electron transport and phosphorylation 18 p3206 N67-31766
Energy conversion and light in control of conformational changes in spinach chloroplasts and their grana membrane system 18 p3206 N67-31767
Chlorophyll-chlorophyll interactions in photosynthesis 18 p3206 N67-31768
Ordered aggregates in chlorophyll a monolayers - model systems for simulation of chlorophyll arrangements 18 p3206 N67-31769
Molecular structure of photosynthetic lamellar systems of bacteria and chloroplasts 18 p3207 N67-31770
Photosynthetic apparatus in chloroplasts of higher plants 18 p3207 N67-31772
Unusual chloroplast structure correlated with unusual chlorophyll function in healthy tobacco plants 18 p3207 N67-31774
Phycobiliprotein localization in Porphyridium cruentum 18 p3207 N67-31775
Function of manganese in photosynthesis 18 p3208 N67-31776
Oxygen evolution in algae illuminated by modulated light 18 p3208 N67-31777
Fluorescence induction phenomenon in algae - changes with time and preillumination 18 p3208 N67-31778
Reducing side of oxygen-evolving photoact 18 p3208 N67-31779
Inhibition and inhibition reversal of chemiluminescence in chloroplasts 18 p3208 N67-31780
Chlorophyll-independent photochemistry in algae 18 p3209 N67-31781
Photooxidation of manganese by chloroplasts 18 p3209 N67-31782
Labile carbon 14-oxygen fixation products by chloroplasts and their possible relation to mechanism of photosynthesis 18 p3209 N67-31784
Wind tunnel studies of photosynthesis and transpiration of forage stands to determine energy budget at earth surface [ECOM-2-66I-3] 23 p4241 N67-38147
Phenylene diamines used as artificial electron donors, and quinones used as electron acceptors in photosynthesis reactions [AFCRL-67-0442] 23 p4286 N67-38236
Mineral nutrient requirements of Chlorella sorokiniana studied in continuous pure culture [SAM-TR-67-40] 23 p4186 N67-38290
PHOTOTRANSISTOR
Photon-coupled isolation switch to provide transistor output electrically isolated from driving sources and all other switch terminals [NASA-CR-80850] 04 p0521 N67-14257
PHOTOTROPISM
Inorganic phototropic coatings for flash blindness protection [TR-67-2-CM] 05 p0663 N67-14481
PHOTOTUBE
SA ELECTRON TUBE
SA PHOTOMULTIPLIER
Ion caused afterpulses and dark pulses of photomultiplier tubes [NYO-3431-7] 03 p0374 N67-13207
PHOTOVISCOELASTICITY
Photoviscuous technique for fluid flow studies - theory and experiments [NASA-CR-79619] 02 p0083 N67-12210
Photothermoviscoelastic theory of plane stress determination in viscoelastic model using birefringence pattern 05 p0768 N67-14485
PHOTOVOLTAIC CELL
Estimating integrated thermal power produced in nuclear power reactor as potential photovoltaic monitoring system [NP-16188] 01 p0107 N67-10035
Cadmium sulfide photovoltaic thin film solar cells [NASA-CR-72144] 06 p0705 N67-16582
Fabrication process for thin film gallium arsenide photovoltaic solar energy cells [NASA-CR-81314] 07 p0904 N67-16723
Effects of electron irradiation on surface recombination velocity of n and p type silicon photovoltaic cells of various resistivities [NASA-CR-81664] 07 p1062 N67-17985
Photovoltaic power system design optimization and procedures for five interplanetary missions [NASA-CR-83130] 10 p1558 N67-21173
Volt-ampere characteristics of p-i-n germanium photovoltaic cell [ECOM-01978-1] 15 p2646 N67-28914
Solar array power system concepts for variety of manned missions - mechanical design of arrays, structures, and components [NASA-CR-65697] 18 p3197 N67-31822
Photovoltaic effect - low energy electron irradiation on silicon cells [NASA-CR-86918] 18 p3199 N67-32178
Program summary for Manned mission photovoltaic power system - Integrated power system and power system module [NASA-CR-65656] 18 p3199 N67-32882
Brushless M-type data transmitter using photovoltaic cells for sensing angular position [RAE-TR-66334] 22 p3985 N67-36858
Phenomena affecting voltage and collection efficiency of p-i-n germanium thermophotovoltaic converter diodes [ECOM-01978-2] 23 p3963 N67-36899
Germanium web crystal growth and p-n junction formation techniques for thermo-photovoltaic cell construction [ECOM-02542-1] 23 p4183 N67-38495
Conversion efficiency evaluated of p-i-n thermo-photovoltaic diode [TR-EE67-13] 24 p4418 N67-39747
Controlled carrier concentrations and improved cell conversion efficiencies in cadmium sulfide photovoltaic film cell [NASA-CR-72290] 24 p4279 N67-40004
PHOTOVOLTAIC CONVERSION
SA THERMO-PHOTOVOLTAIC CONVERSION
Fundamental processes in optical behavior of solids and associated with photovoltaic energy conversion [NASA-CR-80126] 02 p0215 N67-12166
Thin film large area cadmium sulfide solar cells [NASA-CR-72158] 06 p1222 N67-18622
Historical documentation and bibliography on past research in photovoltaic solar energy converter cells [NASA-CR-84008] 13 p2251 N67-26189
Power system stowage tradeoff comparison, and computer programs for calculations of photovoltaic power system for manned missions [NASA-CR-65658] 18 p3197 N67-31827
Photovoltaic conversion - multikilowatt solar arrays with specific power densities approaching 40 lb/kW [NASA-CR-67005] 18 p3200 N67-32829
Solid state device used in photovoltaic energy conversion 19 p3418 N67-33618
PHOTOVOLTAIC EFFECT
Photodiffusion and p-n junction roles in high photovoltaic effect in semiconductor films [NASA-TT-F-10470] 04 p0600 N67-13798
Photovoltaic effects in cadmium telluride-mercury telluride heterostructures [NASA-CR-81144] 05 p0723 N67-15178
Photovoltaic effect in diodes, infrared emission from diode lasers, phosphorus ion implantation in Ge, epitaxial Gunn effect oscillators, and bulk GaAs negative conductance amplifiers 13 p2388 N67-25122
Bibliography on photovoltaic effect and

solar cell development
[NASA-CR-86979] 18 p3199 N67-32180
Bibliography of papers on photovoltaic effect and historical review of scientific investigations during years 1839-1940
[NASA-CR-89562] 24 p4378 N67-40686
PHTHALATE
SA POLYETHYLENE TEREPHTHALATE
Electronic absorption spectra and stability of uniform phthalocyanine and porophyrine complexes
[T-1865-66] 04 p0602 N67-13737
Aerosol particle size and linear flow velocity effects on penetration of dibutyl phthalate aerosol through glass fiber filters
[TDCK-47902] 14 p2483 N67-37552
PHYSICAL CHEMISTRY
Energy requirements of physico-chemical methods of mineralizing human waste products 02 p0198 N67-11568
Physico-chemical modeling of information and thought processes
[JPRS-39790] 03 p0353 N67-13696
Applicability of physical chemistry in development of model of information and thought processes 03 p0353 N67-13697
Thermodynamic model of logical thinking and information processes 03 p0354 N67-13698
Rare earths, transition elements, and kinetics - physical and inorganic chemistry 05 p0663 N67-14613
Physical chemical studies on molecular aspect of nucleic acid interactions 07 p1007 N67-16704
Annotated bibliography of laboratory research in fluid dynamics, physical and organic chemistry, and system optimization, programming, and control
[AD-641986] 07 p1061 N67-17920
Bibliography on spectroscopy of high temperature chemistry and reactions between gases and condensed phases 07 p1033 N67-18184
Research progress reported for studies in nuclear, isotope, radiation, organic, and physical chemistry, electrochemical kinetics, and aqueous and nonaqueous systems
[ORNL-3994] 08 p1343 N67-19341
Physical and analytical chemistry of carbon, nitrogen, and oxygen in alkali metals 09 p1458 N67-19589
Interaction of neutral aerosol particles in uniform electric field, and preparation of reproducible monodisperse aerosols
[FTD-HT-66-501] 10 p1691 N67-20481
Physico-chemical studies of Fe-Cr-Al clad fuel systems 11 p1802 N67-22007
Physico-chemical elution of structure and stereochemistry of cyclohexane carboxylic acids, cyclohexyl amines, and related compounds
[PROM.-3763] 11 p1813 N67-23014
Research projects in nuclear chemistry, instrumental chemistry, uses of organic isotopes, and physical chemistry
[MIT-905-81] 15 p2600 N67-28483
Physical chemistry studies of high temperature equilibria and condensation in gas cloud with cosmic element abundance, and solar wind-solids interaction
[NASA-CR-85360] 16 p2972 N67-30077
Theory of diffusion in solutions near critical point
[NASA-TT-F-11102] 21 p3950 N67-36432
Materials science, physical chemistry, solid state physics, metallurgy, magnets, and instrumentations
[TID-23852] 23 p4333 N67-38877
High temperature inorganic and physical chemistry
[RITU-1967-16] 24 p4400 N67-40351
PHYSICAL ENDURANCE
SA WORK CAPACITY
Methods of developing human physical endurance for different types of warfare
[JPRS-41444] 19 p3376 N67-33451
PHYSICAL EXAMINATION
SA PERSONNEL SELECTION
Postflight physiological and clinical examinations of Voskhod I astronauts 02 p0181 N67-11421
Postflight clinical and physiological examinations of Voskhod II astronauts 02 p0181 N67-11422
Hyperventilation as function test for selection and medical examination of flying personnel 02 p0181 N67-11428
Selection of fit pilot and astronaut candidates by physical examination procedure 02 p0217 N67-11453
Electroencephalography method for medical-flight expert testimony, based on pilot EEGs taken during physical examinations 02 p0303 N67-11610
PHYSICAL EXERCISE
SA MUSCULAR FATIGUE
SA WORK CAPACITY
Psychological basis of individualized astronaut physical training 02 p0199 N67-11577
Directed physical training for increasing work reliability of operators 02 p0230 N67-11613
Physical training of astronauts for space flights 02 p0221 N67-11647
Human cardiovascular response to physical exercise following myocardial infraction
[FAA-AM-17] 02 p0213 N67-12035
Physical conditioning program for cardiac patients
[AM-66-21] 02 p0213 N67-12036
Diurnal rhythm of human physiological functions in conditions of limited mobility
[FTD-TT-65-1994] 11 p1794 N67-23171
Exercise device for astronaut physical conditioning during weightlessness 12 p2631 N67-24379
Human body elimination of sulfuric acid and phosphoric acid during physical exercise
[NASA-TT-F-10487] 15 p2649 N67-28281
Prevention of adverse effect of hypokinesia on human cardiovascular system in space flight by physical exercise, rhythmic compression of limbs, drugs, and moderate hypoxia 16 p2827 N67-29250
Soviet articles on casual connection between mountain sickness and ionization of air, and effects of brain functions and training on human performance
[JPRS-41402] 19 p3377 N67-33589
Nontechnical description of capacity and function of human brain and central nervous system 19 p3377 N67-33591
PHYSICAL FACTOR
Physical limitations of supersonic aircraft
[FTD-TT-65-1634] 09 p1404 N67-19788
Changes in human motor coordination after prolonged confinement in small chamber
[NASA-TT-F-11139] 23 p3973 N67-37678
PHYSICAL FITNESS
SA FLIGHT FITNESS
SA MUSCULAR STRENGTH
Age limitations of flying personnel 02 p0216 N67-11429
Age and physical fitness factors in selecting scientist-astronauts 16 p2838 N67-29219
Combined effects of cold and exercise on triceps surae reflex
[AAL-TR-66-15] 21 p3706 N67-36045
Effect of hematocrit and hemoglobin values of variations in physical activity, human physical condition, and altitude
[PR-1967-4] 24 p4382 N67-39688
PHYSICAL OPTICS
Physical optics of invertebrate eyes 11 p1928 N67-23653
Statistical analysis and physical interpretation of scattering from surfaces with different roughness scales
[NASA-CR-89230] 23 p4215 N67-39091
PHYSICAL PROPERTY
Interrelationships between physical properties of organic and inorganic polymers
[TIL/T-5430] 01 p0069 N67-10095
Physiochemical properties and equilibrium diagrams of titanium alloys 02 p0269 N67-11762
Physical properties of liquid hydrogen 02 p0269 N67-12040
Physical and mechanical properties of tantalum carbide and niobium carbide composites
[NASA-CR-79757] 02 p0277 N67-12072
Temperature, pressure, moisture content, and density effects on energy dissipating properties of balsa wood 02 p0318 N67-12111
Physical properties and operating characteristics of europium and rare earth chelate lasers
[TR-66-853.13] 03 p0407 N67-12533
Superconductive materials and their physical properties
[NBS-TN-408] 03 p0455 N67-13139
Evacuation, impregnation, and irradiation processes to produce wood-plastics samples for physical testing 04 p0564 N67-13363
Test program to investigate physical and mechanical properties of wood-plastics materials 04 p0564 N67-13365
Physical properties and peculiarities of nova outburst 04 p0610 N67-13413
Instability phenomenon of eclipsing binary stars 04 p0610 N67-13414
Materials data handbook on 7075 aluminum alloy
[NASA-CR-86764] 04 p0560 N67-13870
Physical constants of semicircular canals from measurement of single neural activity in anesthesized cat brain stem under constant angular acceleration 05 p0656 N67-13139
Orbits, physical properties, and origin of asteroids 06 p0963 N67-15497
Instruments for measuring altitude dependent physical properties of Venus atmosphere from entry capsule 06 p0971 N67-15794
Physical and chemical properties of rare earth compounds and crystals
[ECOM-01304-5] 06 p0819 N67-16029
Summary reports of research in cryogenic metrology, physical properties of cryogenic fluids, cryogenic flow processes, liquid-solid hydrogen studies, and thermal conductivity
[NASA-CR-81265] 06 p0917 N67-16688
Physical properties of steam and water above 1000 psia
[NAA-SR-MEMO-12006] 07 p1138 N67-17643
Influence of ions of trivalent iron on physical-chemical properties of desoxyribonucleic acid solutions
[TT-67-60021] 07 p1014 N67-17754
Neoprene and PVC ship cable sleeve samples tested to determine physical and mechanical properties when exposed to diesel oil
[TDCK-46587] 07 p1107 N67-17845
Ambient temperature fatigue and fracture, elevated temperature, and physical property research on highly anisotropic binary eutectic alloys
[NASA-CR-81669] 07 p1105 N67-17985
Test equipment for determining composition and properties of Dutch black gunpowder for purpose of standardization
[TDCK-46449] 07 p1181 N67-18073
Physical and mechanical properties of Dutch black gunpowder evaluated to establish military specifications
[TDCK-46450] 07 p1181 N67-18180
Processing of ultrapure americium 241 metal
[UCRL-14513] 08 p1236 N67-18774
Analytical technique for predicting physical, thermal, and optical properties of composite material constituents used in radiant and/or radiant/convective heating environment
[NASA-CR-83485] 08 p1286 N67-19135
Physical and mechanical properties of butyl and neoprene mixtures evaluated for application in marine cable sleeves and insulation
[TDCK-46586] 08 p1297 N67-19180
Composition and physical properties of organic coolant mixtures formed from terphenyl feed mixture, Santowax OM, and hydrogenated terphenyl feed mixture HB-40
[AECL-3644] 08 p1323 N67-19281
Physical properties of labyrinth fluids in human vestibular system
[NASA-CR-82977] 09 p1402 N67-19983
Bibliography covering 1940 through 1966 of titles on physical and physiochemical properties of krypton
[JUL-BIBL-11] 09 p1412 N67-20307
Preparation, analysis, and properties of mercaptides of mercury, titanium, nickel, cobalt, copper, and zinc
[AD-642139] 10 p1569 N67-20581
Preparation and some properties of mercaptides of cobalt, nickel, copper, and zinc
[TR-5] 10 p1570 N67-20597
Low temperature studies and investigation of electrical, physical, optical, and transport properties of semiconductors
[PRF-3334] 10 p1746 N67-20694
Jet engine fuel properties
[FTD-MT-66-62] 10 p1754 N67-21221
Density characteristics of sedimentary rocks in Black Sea region determined from analyses of physical properties
[ACIC-TC-1146] 10 p1636 N67-21347
Radio-tracking data from Ranger lunar missions for estimated physical constants of earth and moon
[NASA-CR-83112] 10 p1586 N67-21444
Bibliography on physical properties of liquid metal binary systems
[AERE-BIB-151] 10 p1650 N67-21615

Physical properties, metallurgical processes, and applications of magnesium-lithium alloys
[NASA-SP-5068] 11 p1895 N67-32972
Radiation effects on physical properties and microstructure of BeO 11 p1901 N67-33092
High temperature chemical and physical properties of metallic and nonmetallic solids, and measuring apparatuses - bibliography 11 p1902 N67-33095
Physical-properties thermal-shock test of spacecraft thermal control coatings 11 p1901 N67-32146
Metallurgical studies on melting point of carbides reactor fuel, and physical and mechanical properties of certain metals [USBM-RC-1264] 11 p1886 N67-32288
Physical properties of high melting point carbides 11 p1888 N67-32289
Optimization of physical properties of thorium thoria cermet 11 p1888 N67-32290
Annotated bibliography of chemical and physical properties of americium [RFP-770] 11 p1909 N67-32382
Comparative study of and draw-frame blends of cotton and nylon [TR-67-23-CM] 12 p2123 N67-33638
Effect of yttrium addition on physical properties of stainless steels [TRG-1345] 12 p2116 N67-33684
Position and form of critical zone and direction of magnetization in high frequency tape recording and temperature effect on magnetic and physical properties of magnetic tapes [JPRS-39892] 12 p2100 N67-33916
Temperature effect on magnetic and physical properties of magnetic tapes 12 p2100 N67-33918
Mechanical and physical properties of tungsten-rhenium alloys prepared by powder techniques for extrusion drawing 12 p2107 N67-33958
Chemical and physical properties and methods for specification testing of unsymmetrical dimethyl hydrazine [WRE-TN-CPD-107] 12 p2195 N67-33965
Physical properties of thin films of solid state materials [AFCRL-67-0081] 12 p2192 N67-34491
Optical and physical properties of projection viewing screens [NAVTRADEVCEN-IH-53] 12 p2103 N67-34739
Rare earths, and their physical and chemical properties, isotopes, and place in periodic table [AEC-TR-6635] 13 p2267 N67-35396
Linear electron multiplier and physical properties of secondary emission [NP-16430] 13 p2293 N67-35541
Electronic computer for complex research on characterizing semiconductor materials, and controlling physical experiment using closed loop automation system 13 p2292 N67-35730
Improvement of uncoupled Hartree-Fock expectation values for physical properties [NASA-CR-83341] 13 p2376 N67-35752
Handbook on physical properties of planet Jupiter [NASA-SP-3031] 14 p2611 N67-36559
Properties of nonaqueous electrolytes - preparation of electrolytes, nuclear magnetic resonance structural studies, and physical property determinations [NASA-CR-73065] 14 p2474 N67-36628
Mechanical and physical properties determined in high temperature reactor materials research 14 p2574 N67-36982
Physical and chemical studies of clad uranium dioxide in potential meltdown environments 14 p2575 N67-36991
Effects of welding, heat treatment, and aging methods and of added metals on physical properties of alloys [FTD-MT-64-90] 14 p2553 N67-37021
Mechanical and physical properties of elastomers used in spacecraft launching equipment, propellant system, electric insulation, and as sealant for capsules [NASA-TT-F-10951] 14 p2561 N67-37313
Physical properties of Zircaloy-4 tubing [WAPD-TM-585] 14 p2545 N67-37331
Aluminum alloy 2014 materials data handbook, covering metallurgy, manufacturing, and physical and mechanical properties [NASA-CR-84454] 14 p2557 N67-37420
Physicochemical properties essential for production of explosives [FTD-MT-64-243] 14 p2485 N67-37714
Synthesis of rare gas compounds, and chemical and physical properties [AEC-TR-6669] 15 p2660 N67-38420
Plastic deformation in ordered solid solutions and effects on physical properties [REPT.-2] 15 p2728 N67-38564
Impact shock effects on electric and physical properties of piezoelectric ceramics [REPT.-11003-9] 15 p2732 N67-38668
Physical properties, mechanical grinding, electrolytic and mechanical polishing, and etching of plutonium and plutonium alloys [GA-7127] 16 p2834 N67-39653
Fabrication techniques and physical properties criteria for gum rubber and polyvinyl plastisol bags used in isostatic pressing of powdered materials [Y-1574] 16 p2852 N67-39859
Hummerite, new hydrated vanadium of sodium and magnesium from Huemul mine, Mendoza, Argentina [CNEA-169] 16 p2898 N67-39945
Physical properties of glassy carbon as function of heat treatment temperature 17 p3065 N67-30550
Mariner, IMP, Pioneer, and Vela spacecraft direct measurements of physical properties of interplanetary magnetic fields and plasmas [NASA-TM-X-55826] 17 p3159 N67-30745
Literature search of physical property data and composite surface work function models [NASA-CR-85562] 17 p3148 N67-30836
Origin and properties of ball lightning [P-3564] 17 p3056 N67-31198
Physical and mechanical properties of heat resistant concrete composites 17 p3066 N67-31283
Physical and mechanical properties of concrete with serpentine fillers 17 p3087 N67-31284
Sintering, and physical properties of hot rolled oxide glass compositions [BM-RI-6967] 17 p3087 N67-31299
Handbook of physical properties, theories, and scientific observations for planet Venus [NASA-SP-3029] 17 p3165 N67-31439
Physical properties of plutonium uranium zirconium ternary system reactor fuel [MLM-1346] 18 p3293 N67-31717
Atmospheric trajectory analysis of super-Schmidt photographic meteors, and physical properties of meteors 18 p3329 N67-32039
Physical and aerodynamic characteristics of meteor showers 18 p3330 N67-32046
Physical and chemical properties of iron meteorite and mesosiderite fusion crusts, and cosmic spherule production 18 p3335 N67-32084
Design guide for pressurized gas systems for spacecraft - thermodynamic and physical property data [NASA-CR-86590] 18 p3198 N67-32147
In-pile properties of reactor fuels by oscillating technique 18 p3301 N67-32436
Induced hearing loss relationship to physical characteristics of inducing stimuli, and temporary threshold shift measurements [AMRL-729] 18 p3214 N67-32624
Physical properties of neutron-deficient cesium isomer [JINR-P7-3185] 19 p3500 N67-32902
Polyarimide physical properties and chemical structure correlations [NASA-TT-F-11156] 19 p3393 N67-32497
Physical and mechanical property data for tungsten rhenium molybdenum alloys [GEMP-497] 19 p3474 N67-32918
Some physical and chemical properties of grain boundaries in metals [REPT.-66-C-226] 20 p3654 N67-34024
Physical properties, biological, and other effects of ultrasound [JPRS-41169] 20 p3572 N67-34348
Phase equilibria and physical properties of plutonium alloy reactor fuels [MLM-1228] 20 p3656 N67-34393
Extensive testing of elevated temperature mechanical and physical properties of beryllide composition 1 [MP-5342-R] 20 p3665 N67-34528
Preparation, nuclear magnetic resonance structural studies, and physical property determinations of aprotic electrolytes in organic solvents [NASA-CR-72277] 20 p3594 N67-34595
Physical characteristics of rolling stone and surrounding lunar surface based on Lunar Orbiter II photographic analysis [NASA-TM-X-58007] 20 p3728 N67-34631
Handbook of physical and thermal property data for hydrogen in region between triple point and critical point for study of hydrogen slush and/or hydrogen gel utilization [NASA-CR-87655] 20 p3716 N67-34912
Physical and chemical properties of human sweat and factors affecting water balance in confined spaces [NASA-CR-87512] 20 p3573 N67-34934
Physical parameters for sunspot, and graphic method of determining excitation temperature from growth curve 20 p3723 N67-35049
Literature search and experimental work on physical and engineering property data of lunar surface materials [NASA-CR-86161] 20 p3730 N67-35071
Measurement of particle size, adhesion, and other physical properties of dust 20 p3630 N67-35162
Handbook on physical properties of planet Mars [NASA-SP-3030] 20 p3730 N67-35182
Ultrasound effects on physical properties of solids and metals 21 p3858 N67-35879
Physical and mechanical properties of Teflon film by X-ray diffraction, differential thermal analysis and infrared spectrophotometry [NASA-CR-86126] 21 p3861 N67-36115
Band structure, Fermi surface and physical properties of rare earth metals 21 p3921 N67-36383
Physical properties of pyrolytic Group IV metal carbides and nitrides [NASA-TT-F-11180] 21 p3934 N67-36535
Survey on photochromism in triphenylmethane derivatives and related compounds [C+OM-29] 22 p3983 N67-36977
Electrical grade fillers in butyl rubber and other insulation materials [ELD-22622] 22 p4076 N67-37116
Physical and mechanical properties of poly-m-carboranylene siloxane copolymers [ONR-TR-RLT-98] 22 p3985 N67-37117
Physical properties of titanium metallurgy - phase transformation and hardness effects, alloy compositions and lattice structures, creep and temperature resistance, and manufacturing [FTD-HT-66-354] 22 p4082 N67-37121
Structure and properties of titanium alloy during hot forging 22 p4060 N67-37160
Heat treatment effects on structure, properties, and thermostability of aluminum containing titanium alloy 22 p4060 N67-37161
Physical properties affecting strength of sintered porous ferrous parts [IITRI-B6068-12] 22 p4069 N67-37168
Physical and chemical property effects of low temperature ablators on hypersonic wake characteristics of slender bodies 22 p4164 N67-37581
Critical review of published information of physical and thermodynamic properties of liquid oxygen difluoride and liquid diborane [NASA-CR-86519] 22 p4131 N67-37629
Structural applications and physical properties of rigid urethane foam system [BDX-613-96] 23 p4270 N67-36571
Preparation and physical properties of rigid ferrocene-urethane foam [SC-DC-67-1831] 23 p4270 N67-36632
Effect of carbide content on physical and mechanical properties of niobium carbide graphite and tantalum carbide graphite composites [NASA-CR-89079] 23 p4265 N67-36651
Soviet encyclopedia of contemporary engineering structural materials - Part II - Corrosion fatigue through Hastelloy [FTD-TT-66-22, PT. II] 23 p4300 N67-36700
Soviet encyclopedia of contemporary engineering structural materials - Part III - Heat and sound insulating loose fiber materials through nichrom [FTD-TT-66-22, PT. III] 23 p4288 N67-36997
Soviet encyclopedia of contemporary engineering structural materials - Part IV - Nickel through soft magnetic materials [FTD-TT-66-22, PT. IV] 23 p4359 N67-36962
Soviet encyclopedia of contemporary engineering structural materials - Part V - Solder through zircon [FTD-TT-66-22, PT. V] 23 p4359 N67-36963
Fortran computer program for analyzing physical and chemical properties of

molecules using factor analysis
[AD-658091] 24 p4495 N67-39679
Physical principles of fuel combustion in jet engine combustion chambers
[FTD-MT-65-78] 24 p4522 N67-39782
Mechanical, physical, and dielectric properties of ceramic and insulating materials
[JPRS-42628] 24 p4473 N67-40072
Physical properties of aluminum nitride, and measurements of thermal expansion and heat conductivity coefficients, permissivity, and dielectric losses 24 p4473 N67-40073
Chemical and physical properties of new class of compounds formed by reaction of fluorosulfuryl isocyanates with various fluorine-containing free radicals
[AR-4] 24 p4399 N67-40269
PHYSICAL SCIENCE
Data compilation and information service in physical sciences - acquisition, storage, retrieval and display
[NBS-TN-289] 02 p0229 N67-12026
Mathematical foundation for empirical science, with reference to quantum theory - calculus of experimental propositions
[KAPL-3147] 04 p0548 N67-14606
International space laws and evolution of social sciences in keeping with progress in natural and physical sciences 13 p2434 N67-25276
Air Force research objectives in physical, life, engineering, and environmental sciences
[OAR-607-1] 14 p2635 N67-26902
Cumulative index of NASA Tech Briefs dealing with electrical and electronic, physical science and energy sources, materials and chemistry, life science, and mechanical innovations
[NASA-SP-5021/04/] 14 p2635 N67-27296
Evolution and future of applied physical sciences in United States, and current emphasis on basic research 23 p4369 N67-38521
Summaries and notes on major Soviet achievements during 1966 in physical, life, and material sciences, space medicine, mathematics, and astronomy 23 p4370 N67-39196
PHYSICAL WORK
Method for diagnosing cardiovascular system adaptability to physical work load 02 p0183 N67-11440
Mathematical modeling of oxygen consumption by human body during physical work 02 p0186 N67-11462
Carbohydrate and fat metabolism during prolonged physical work 03 p0339 N67-12445
Distribution of blood lactates and pyruvates during work and recovery
[NASA-CR-82508] 08 p1229 N67-19090
Blood-urea method for analysis of heavy muscular work effect on human renal function
[NASA-TT-F-11290] 24 p4386 N67-40230
PHYSICIAN
Space medicine - biotelemetry systems, role of physician on earth and on space flight, spaceborne diagnostic machines, and prevention of disease in space
[JPRS-40383] 14 p2463 N67-27356
PHYSICS
SA ASTROPHYSICS
SA BIOPHYSICS
SA CLOUD PHYSICS
SA COMBUSTION PHYSICS
SA ELECTRONICS
SA GEOPHYSICS
SA LOW TEMPERATURE PHYSICS
SA MOLECULAR PHYSICS
SA NEUTRON PHYSICS
SA NUCLEAR PHYSICS
SA PLASMA PHYSICS
SA POLYMER PHYSICS
SA PSYCHOPHYSICS
SA RADIOPHYSICS
SA REACTOR PHYSICS
SA REENTRY PHYSICS
SA SOLAR PHYSICS
SA SOLID STATE PHYSICS
SA THEORETICAL PHYSICS
Summary reports of research projects in chemistry, biology, mathematics, and physics 01 p0169 N67-10574
Chemistry, engineering, metallurgy, physics, and reactor technology
[IS-1500] 05 p0778 N67-14612
Data processing, radio physics, radar, engineering and solid state research reports
[ESD-TR-66-401] 05 p0688 N67-15062
Observational data on physics of meteors and comets
[NASA-TT-F-340] 06 p0959 N67-15441
Research reports on physics of laser radiation, optical radar systems, corner reflector on lunar surface, photon correlations and counting statistics, and cold cathodes for gas lasers
[NASA-CR-81248] 06 p0687 N67-16014
Research project reports pertaining to physics, space sciences, computer systems, information processing, and control systems
[NASA-CR-82394] 08 p1389 N67-18970
Radiation physics
[ISS-66/27] 08 p1344 N67-19183
Physical properties of various thermistors for upper atmosphere measurements
[DLR-FB-66-72] 08 p1284 N67-19266
Theoretical and experimental studies of physics of crystalline surfaces
[NASA-CR-83855] 09 p1503 N67-20254
Excitation of waves in limited plasma by modulated stream 10 p1734 N67-20487
Stable isotope applications in physics, chemistry, and geology
[IFA-IS-56] 10 p1733 N67-21804
Medium energy physics program quarterly report emphasizing linear accelerator, radio frequency power sources, and instrumentation
[LA-3634-MS] 11 p1854 N67-22337
Reports of research in general physics, plasma dynamics, and communications
[NASA-CR-83421] 11 p2006 N67-23641
History of quantum theory to 1950
[RAE-LIB-TRANS-1202] 11 p1941 N67-23062
Annotated bibliography on Japanese research studies in physics and chemistry
[UCRL-14288] 13 p2366 N67-25509
Structural design of VARI QUIR III, and inclusion of R theta geometry
[NASA-CR-83806] 13 p2384 N67-25521
High energy physics laboratory and relations between accelerator centers and their users
[CERN-67-4] 13 p2302 N67-25587
Progress in industry and economics in New Zealand through advanced applied science 13 p2442 N67-26468
Army research and development activities in electronics, theoretical and applied physics, ballistics, pyrotechnic chemistry, and weapon system technology
[AD-634616] 15 p2808 N67-27971
Conference data on high and superhigh vacuum physics
[JPRS-41098] 17 p3121 N67-30620
Approximation method, and potential theory to study class C potentials
[TH/200] 17 p3138 N67-31366
Engineering physics articles on thermodynamics, fluid mechanics,and aerodynamics
[FTD-MT-65-329] 18 p3359 N67-32281
Nuclear structure and atomic research on scattering, cross sections and related physics research 19 p3504 N67-33307
Bibliography on high temperature chemistry and physics of materials in condensed state
[NP-16584] 19 p3396 N67-33731
Conference paper on physical quantities and natural laws, April 1967, Milan, Italy
[ISS-67/10] 20 p3688 N67-34794
Research project summaries on nuclear, neutron, space, and theoretical physics
[AECL-2752] 22 p4102 N67-36890
Open Soviet literature review on chemistry, physics, geology, and other topics in their relation to aerospace technology 23 p4100 N67-37587
Research and technology review in fields of lunar and planetary exploration, physics, astronomy, and bioscience
[NASA-CR-88536] 23 p4144 N67-37810
Multidisciplinе research in materials science
[COO-1198-443] 23 p4330 N67-38530
Physics of metastable species of rare gases
[AFOSR-67-1988] 24 p4499 N67-39569
PHYSIOCHEMISTRY
SA BIOCHEMISTRY
Literature review of biological and physiochemical data on existence of repair systems for DNA
[ORNL-P-2240] 01 p0016 N67-10041
Physiochemistry of collagen as fibrous protein with high degree of crystallinity 05 p0647 N67-14601
Physiochemical and biological properties of saliva during rolling, turning, and hypoxia
[FTD-TT-65-1645] 05 p0653 N67-15042
Biodynamic regulator chain models for physical chemical systems in mammals
[NASA-CR-81081] 05 p0658 N67-15189
Biochemical effects of static electricity during astronaut extravehicular operation
[NASA-TT-F-10725] 08 p1227 N67-18946
Equations for diffusion and physiochemical processes in multiple gas mixture
[NASA-TT-F-10925] 14 p2519 N67-27589
Radiochemical and physiochemical studies of Kiwi-TNT debris
[USNRDL-TR-1100] 15 p2743 N67-27986
Mathematical approach to physiochemical process of oxide precipitation from sodium flow
[SM-85/48] 15 p2657 N67-28178
Biochemical and physiological evaluation of human nutritional requirements under simulated aerospace conditions
[NASA-CR-85253] 16 p2837 N67-30068
Dynamic characteristics of physical-chemical systems in human behavior, and structural nature of brain
[NASA-CR-858] 17 p3006 N67-31422
Physiochemical and mechanical properties of synovia and function in extremital joints 20 p3574 N67-34507
Alloying effects on electrical resistivity, linear expansion, and oxidizability of titanium 22 p4064 N67-37134
PHYSIOLOGICAL ACCELERATION
Impulse acceleration effects on ammonia content and other components of nitrogen metabolism in rat brains
[JPRS-38380] 01 p0019 N67-11111
Effects of acceleration in centrifuge on human blind spot 02 p0196 N67-11587
Polarographic determination of cerebral and cardiac oxygenation dynamics during acceleration 04 p0485 N67-13429
Kinematics nomenclature for physiological accelerations, particularly vestibular applications
[NASA-CR-81715] 07 p1016 N67-16066
Kinematics nomenclature for physiological accelerations and special reference to vestibular apparatus
[NASA-CR-83568] 11 p1795 N67-23331
X-ray photographic determination of monkey blood circulation under exposure to physiological accelerations
[NASA-TT-F-11061] 17 p3007 N67-31194
Changes in oxygen metabolism of muscular and brain tissues of animals exposed to prolonged accelerations
[NASA-TT-F-11135] 18 p3212 N67-32317
PHYSIOLOGICAL DEFENSE
Saccharin potentiation of insulin coma in rats
[NASA-CR-80197] 03 p0345 N67-12925
PHYSIOLOGICAL FACTOR
Influence of gamma radiation on physiological and organoleptic value of food 02 p0185 N67-11451
Physiological factors affecting operator performance of tracking tasks, and mathematical representations of operator
[RAE-TN-WE-38] 11 p1799 N67-22718
Physiological factors of inert gases in space cabin atmospheres
[NASA-SP-117] 11 p1799 N67-22870
Medico-physiological incidences on pilot for flight patterns typical of VTOL
[NASA-TT-F-470] 13 p2263 N67-25947
Physiological factor, hardware, and environmental control tradeoffs for one and two gas systems of space cabin atmospheres
[NASA-SP-118] 16 p2975 N67-29908
Physiological regeneration of cornea epithelium and intestine under conditions of fractional irradiation by fission neutrons 22 p4191 N67-39014
Scanning performance of human operator exposed to space flight factors 23 p4195 N67-39111
PHYSIOLOGICAL INDEX
Dynamics of physiological indexes in prolonged standing tests of humans 02 p0196 N67-11545
Physical and chemical properties of human sweat and factors affecting water balance in confined spaces
[NASA-CR-82590] 08 p1230 N67-19216
Hematologic and serum chemistry clinical parameters for animals exposed to oxygen environments for long periods 14 p2452 N67-26722
Biochemical aspects of oxygen toxicity in rats at cellular and mitochondrial level 14 p2454 N67-26723

Reliability and prognostic validity of serial electrocardiograms in men over 24 year period, and relationship of observed changes to pathological or physiological variables
[NASA-CR-85241] 16 p2836 N67-30004
Atraumatic methods for monitoring cardiovascular functions
[NASA-CR-87800] 20 p3576 N67-34723
PHYSIOLOGICAL PHENOMENON
Physiological changes in animals in sealed chamber in which vapors enter atmosphere due to organic polymer destruction by heat 02 p0184 N67-11443
Cardiological and other physiological measurements on astronauts during flight, and spacecraft bioinstrumentation
[JPRS-40381] 14 p2463 N67-27357
Physiological functions, computer logic, and bionics
[P-3528] 16 p2824 N67-29099
PHYSIOLOGICAL RESPONSE
SA BIOLOGICAL EFFECT
SA PATHOLOGICAL EFFECT
Test method for studying salivation in human taste function
[FTD-TT-65-1915] 01 p0019 N67-11007
Effect of vestibular apparatus under stress on organisms response reaction to radiation effects 02 p0181 N67-11423
Physiological indices changes occurring in humans during prolonged state of physiological rest 02 p0185 N67-11457
Correlation between adaptability of human operator to external environmental changes and dynamics of physiological functions 02 p0230 N67-11561
Influence of vibrational stimuli on functional interrelationships between brain and central nervous system and oxygen metabolism in sensory-motor and visual areas 02 p0200 N67-11585
Adaptational reactions in rabbits formed by sympathetic-adrenal system in response to environmental changes 02 p0200 N67-11590
Cumulative effect of sound shock on human humoral-endocrine functions 02 p0201 N67-11594
Physiological evaluation of human tolerance to shock loads 02 p0208 N67-11662
Physiological response in flying personnel in aircraft and flight simulation 02 p0209 N67-11667
Human physiological response to sonic boom 02 p0209 N67-11668
Physiological responses of athletes to stress of sports events
[NASA-CR-85538] 02 p0213 N67-11968
Bioscience technology progress on radiation protection, toxicology, physiological response, immunology, cardiology, and other topics for industrial applications
[JPRS-38808] 03 p0337 N67-12390
Physiological response on certain animal functions and organs of carbon disulfide in small concentrations 03 p0338 N67-12393
Physiological response to artificial illumination of different spectral composition 03 p0338 N67-12395
Radiant energy effect on body resistance to ionizing radiation 03 p0338 N67-12396
Physiological assessment of pilots on 18-hour flight in F-4C aircraft from postflight urinalysis
[SAM-TR-66-59] 03 p0340 N67-12492
Human body reactions to prolonged stay in closed spacecraft cabin 04 p0485 N67-13432
Sweep frequency technique used in auditory nerve fiber responses to two-tone stimuli 05 p0649 N67-14635
Nystagmus response to linear and angular accelerations 05 p0656 N67-15136
Modification of rotational responses by concomitant linear acceleration 05 p0656 N67-15137
Long-term performance of squirrel monkeys under space simulation conditions 05 p0657 N67-15144
Behavioral measures from squirrel monkeys under two-degree of space simulation conditions 05 p0657 N67-15145
Physiological activities of large-nucleus multifunctional cells and blood platelets 06 p0801 N67-15944
Bioassays of Gemini IX astronauts body fluids to determine physiological effects of space flight 06 p0963 N67-16626
Genetic function, embryonic response, and cellular differentiation theory 07 p1004 N67-16710
Influence of pH on physiological movements of Amoeba Chaos chaos L
[RAE-LIB-TRANS-1163] 07 p1015 N67-17926
Physiological protective efficiency on prototype disposable passenger oxygen mask
[AM-66-7] 07 p1022 N67-17929
Sierra, hanging, Quick-don, crew, pressure breathing oxygen mask
[AM-66-30] 07 p1023 N67-17931
Physiological response related to heat conduction problems
[NASA-CR-81754] 07 p1211 N67-18127
Physiological mechanisms and inter-relations between blood volume, blood flow, and electrolyte balance
[NASA-CR-81661] 07 p1018 N67-18165
Adaptive cytochemical responses of hormone producing cells of rat anterior pituitary following exposure to simulated high altitude
[NASA-CR-83668] 08 p1229 N67-19103
Response rate of rats to qualitative change in liquid reinforcement
[TR-44] 09 p1299 N67-19565
Preflight and postflight clinical and physiological observations of Voskhod manned spacecraft crew members 10 p1559 N67-20397
Psychopharmacologic drug effects on sensory inflow in normal subjects, psychiatric patients, and animals
[REPT.-3] 10 p1562 N67-20695
Integrated ergometer/lower body negative pressure chamber system for studying physiological response to weightlessness
[LMSC-4-06-66-3] 10 p1567 N67-21348
Physiological response to varied work programs in men wearing water cooled protective clothing
[NASA-CR-739] 11 p1786 N67-22151
Relative biological effectiveness of radiations to induce response of definite strength at given absorbed dose
[JPRS-39774] 11 p1796 N67-23402
Methods for controlling negative emotions of pilots during flight
[NASA-TT-F-10606] 12 p2023 N67-24320
Oxygen deficiency effects on human body at various ages
[FTD-MT-65-223] 12 p2027 N67-24748
Pilot physiological response to severe weather flying
[AM-66-41] 12 p2034 N67-24834
Identification of contaminants associated with human occupancy of sealed environmental simulator, and evaluation of suitability of helium - oxygen atmosphere 14 p2470 N67-26718
Mortality response of rats to environments of increased partial pressure of oxygen or decreased total pressure 14 p2453 N67-26720
Response of animals to toxic materials under conditions of reduced pressure and varying partial pressures of oxygen 14 p2454 N67-26731
Signal patterning effects on human alertness and physiological responses during performance of monotonous tasks
[NAVTRADEVCEN-IH-62] 14 p2455 N67-26737
Effects of 24-hour restraint on physiological values of normal immature chimpanzees
[SAM-TR-66-100] 14 p2458 N67-26876
Biological and physiological problems in aviation space medicine - decompression sickness, enzyme changes, weightlessness, fatigue, and radiation protection
[NASA-TT-F-10957] 14 p2464 N67-27611
Cardiovascular responses in dogs to acceleration loading
[AD-648371] 15 p2648 N67-28095
Physiological properties of protoplasm streaming in myxomycete plasmodium and nitella
[RAE-LIB-TRANS-1208] 15 p2650 N67-28706
Soviet review of physiological measurements in space involving animals and cosmonauts
[NASA-TT-F-10678] 15 p2651 N67-28748
Human performance of tracking and loading tasks, and physiological effects of long term vibration
[ER-7979-12] 15 p2654 N67-28885
Electronic analog computer to calculate response of man to thermal stress
[AMRL-TR-66-197] 16 p2984 N67-29122
Physiological and psychological effects of space environment on astronauts - aerospace medicine 16 p2826 N67-29206
Human water exchange in space suits and capsules
[NASA-CR-804] 16 p2839 N67-29196
Physiological changes due to diurnal variations and effect on learning, skill retention, and psychomotor performance
[W-74] 16 p2852 N67-29407
Influence of chronic heat exposure and prolonged starvation on excretion of magnesium, calcium, phosphorus, hydrogen ion, and ketones in rats
[SAM-TR-67-20] 17 p3000 N67-30123
Physiological effects of flight and support equipment 17 p3004 N67-30822
Effects of isolation in constant environment on periodicity of physiological functions and performance levels
[NASA-CR-85700] 17 p3004 N67-30918
Human performance under winter arctic conditions during 10-day journey on foot
[NASA-CR-90610] 18 p3210 N67-31874
Bibliography of biological effects and hazards resulting from use of microwave generating equipment
[AD-652788] 18 p3213 N67-32284
Tolerance of human and mammalian ear to overpressure effects
[DASA-1856] 18 p3213 N67-32513
Physiological adaptation of human body to intense thermal conditions
[FTD-MT-65-193] 19 p3272 N67-32790
Blast and shock biology, and physical and biomedical problem areas involved in establishment of criteria for assessing blast related hazards
[DASA-1856] 19 p3272 N67-32854
Conference papers on human performance quantification in systems effectiveness
[AD-650791] 19 p3281 N67-33002
Human perception in anticipatory physical threat stress 19 p3283 N67-33212
Auditory perception of speech signals, and physiological response to electric stimulation in cerebral cortex 19 p3466 N67-33394
Electrocardiogram recordings of experienced parachutists before, during, and after free-fall jumps
[USAARU-67-7] 20 p3572 N67-34291
Physiological mechanisms and interrelations between systemic and regional blood volume - sodium electrolyte and water balance factors in blood circulation
[NASA-CR-85675] 20 p3576 N67-34702
Fear of failure and physiological response in achievement situations
[TR-24] 21 p3704 N67-35314
Observer response to signal plus noise in simulated physiological recordings
[AD-654441] 21 p3765 N67-35654
Effect of mental exercise on parotid flow rate in humans
[SAM-TR-67-36] 21 p3766 N67-35696
Physiological effects of high pressure environments of oxygen, air, and artificial gas mixtures on humans
[FTD-MT-65-245] 22 p3967 N67-36709
Effects of nitrogen dioxide-nitrogen tetroxide on oxyhemoglobin molecule dissociation in dogs after exposure
[SAM-TR-67-33] 22 p3969 N67-36956
Vigilance performance and physiological responses under fixed and variable signal schedules
[NAVTRADEVCEN-IH-71] 22 p3970 N67-37271
Nyctometric studies and effect of vestibular excitation on dark adaption
[NASA-TT-F-11143] 22 p3971 N67-37428
Physiological effects of low salt concentrations on marine
[NASA-TT-F-11236] 22 p3971 N67-37476
Changes in human water-salt metabolism during sixty two day hypokinesia
[NASA-TT-F-11141] 22 p3972 N67-37685
Acceleration and hypokinesia effects on human gastric gland secretions
[NASA-TT-F-11140] 22 p3974 N67-38019
Behavioral changes in rats at ground level following gestation and growth in one hundred percent oxygen at reduced pressures
[SAM-TR-67-50] 23 p4186 N67-38366
Method for evaluation of body response to applied stimuli 23 p4191 N67-38812
Movement coordination in man after prolonged confinement in small chamber 23 p4192 N67-38819
Developmental mechanisms of responses and adaptation to hypoxia 23 p4198 N67-39101
Early detection of organic chemical toxic effects in exposed animals
[AD-657252] 23 p4196 N67-39126
Experiment design and data processing methodology used in measuring physiological

responses to high altitude acclimatization
[PR-1967-1] 24 p4382 N67-39572
Cross-modality estimates of angular velocity made by continuous matching of auditory signal loudness to sensed angular velocity
[AMRL-738] 24 p4290 N67-40020
PHYSIOLOGICAL TELEMETRY
Critical analysis of physiological information obtained on man and animals during space flight, and planning of flight experiments 02 p0192 N67-11509
Physiological data telemetry system, comprising solid state circuits, used to monitor body temperature and ECG of personnel under high temperature conditions
[BNWL-314] 04 p0497 N67-13223
Space biology and medicine - interplanetary trajectories, impact and nonimpact acceleration, weightlessness, cosmic radiation, physiological telemetry, astronaut training, and life support
[JPRS-38935] 04 p0494 N67-14148
Microminiaturized telemetry system to monitor biological functions
[NASA-CR-83795] 09 p1403 N67-19417
Space flight physiological measurement and telemetry, and biological activity in space environment
[FTD-MT-66-42] 10 p1559 N67-20444
Techniques for fabrication of multiple-channel physiologically implantable telemetry systems
[NASA-CR-83914] 13 p2264 N67-26074
Biotelemetry problems associated with prolonged space flights
[NASA-TT-F-10464] 14 p2467 N67-26625
Space medicine - biotelemetry systems, role of physician on earth and on space flight, spaceborne diagnostic machines, and prevention of disease in space
[JPRS-40383] 14 p2463 N67-27358
Respiration and cardiac contraction rate changes in cosmonauts during performance of tasks aboard Voskhod II space flight
[JPRS-40399] 14 p2463 N67-27387
Physiological measurements in cosmonauts while performing tasks aboard Voskhod spacecraft
[JPRS-40075] 14 p2464 N67-27391
Soviet research in bioinstrumentation and physiological telemetry systems for prolonged space flight
[SAM-TT-R-814-1166] 16 p2840 N67-29493
Telemetry of body temperature from untethered wild animals in natural habitat
[NASA-CR-85802] 17 p3007 N67-31259
Planaria orientation in diminished magnetic field, and development of multichannel, implantable telemeters for biological research
[NASA-CR-85792] 17 p3007 N67-31337
Survey of unattached sensors for use in remote physiological monitoring in space including techniques for measuring eyeblink, eye movement, and pupillary diameter
[NASA-CR-85022] 18 p3218 N67-33493
Telemetry methods for manned and unmanned spacecrafts measurement of physiological, physical and operational data
[NASA FACTS 5-3/8-67] 24 p4411 N67-40538
PHYSIOLOGY
SA BODY COMPOSITION /BIOL/
SA ELECTROPHYSIOLOGY
SA ENDOCRINE SYSTEM
SA GASTROINTESTINAL SYSTEM
SA HOMEOSTASIS
SA HUMAN BODY
SA METABOLISM
SA NEUROLOGY
SA NEUROPHYSIOLOGY
SA PSYCHOPHYSIOLOGY
SA RESPIRATORY PHYSIOLOGY
Influence of borders on increment thresholds and retinal adaptation
[PLR-17A] 01 p0017 N67-10925
Physiologic mechanisms of maintaining thermal balance in high pressure environments
[REPT.-10] 01 p0025 N67-10990
Toxic effect of high oxygen pressures on animals
[FTD-TT-65-1983] 01 p0029 N67-11154
Experimental investigations of biological, physiological, and psychological factors in aviation and space flight environments
[JPRS-38272] 02 p0178 N67-11401
Postflight physiological and clinical examinations of Voskhod I astronauts 02 p0181 N67-11421
Postflight clinical and physiological examinations of Voskhod II astronauts 02 p0181 N67-11422
Problems in automating processing of physiological information obtained from space flight 02 p0219 N67-11531
Data reduction and storage connected with prolonged physiological experiments 02 p0219 N67-11544
Clinical-physiological studies on high altitude acclimatization for training astronauts 02 p0203 N67-11609
Physiological and psychological investigations pilot training in flight simulators 02 p0203 N67-11615
Physiological mechanisms of writing spoken words 02 p0205 N67-11627
Physiology of sleep and clinical aspects of sleep therapy
[SAM-TT-G-569-6866] 02 p0216 N67-12231
Multichannel diagnostic system for analyzing biopotentials - electrocardiogram, respiration, electroencephalogram, and electromyogram 03 p0350 N67-12343
Nutritional aspects of polar physiology 03 p0329 N67-12446
U.S.S.R. conference on space biology and medicine environmental factors in space cabins and human body reactions to acceleration, weightlessness, and isolation
[JPRS-38596] 04 p0494 N67-13421
Influence of restricted muscular activity and prolonged maintenance of horizontal position on human physiology 04 p0497 N67-13434
Mathematical models for qualitative studies of nervous system physiology 04 p0487 N67-13443
Optimum control methods for treatment of physiological diseases based on advanced simulation using mathematical models 04 p0487 N67-13444
Soviet physiological experiments and biological studies with animals during geophysical and orbital flights
[ATD-66-117] 04 p0495 N67-14317
Galvanometer as electrocardiographical recording instrument 06 p0798 N67-15423
Cell structure correlated with cell physiology 07 p1003 N67-16704
Levels of biological organization and their physiological significance 07 p1004 N67-16715
Comparative morphology and physiology of excretion 07 p1004 N67-16716
Physiological bases of behavior 07 p1004 N67-16718
Long term effects of space cabin simulated oxygen breathing on rat physiology and reproduction
[SAM-TR-66-90] 07 p1013 N67-17675
Soviet research trends pertaining to life support systems, bioastronautics, space physiology, and extravehicular operations 11 p1798 N67-22590
Physiological-hygienic requirements for space cabin atmosphere 13 p2261 N67-26423
Problems of gastroenterology in aerospace medicine and physiological bases of astronaut nutrition 16 p2836 N67-29208
Spacecrew sleep characteristics under conditions of simulated manned space flight
[NASA-TT-F-11138] 18 p3212 N67-32331
Human performance and physiological mechanisms of heat loss and gain during thermal stress
[TR-11] 19 p3373 N67-32917
Problems in physiology of sensory systems
[NMS-TRANS-2634] 23 p4185 N67-38251
PI-ELECTRON
Energy spectrum pi-electrons in long chains of conjugate bonds
[FTD-MT-66-27] 09 p1410 N67-19628
PICTURE
SA DISPLAY SYSTEM
SA MOTION PICTURE
SA PHOTOGRAPH
Associative memory systems and their application to picture and arithmetic processings
[TR-66-103] 09 p1421 N67-19684
Photograph of Soviet spacecraft ready for launching with group of eleven cosmonauts alongside
[NASA-CR-84098] 13 p2410 N67-26408
Compilation of digitized, rectangular, and hexagonal picture processing routines
[NASA-CR-85568] 17 p3050 N67-30532
Fully automatic Hough-Powell device system for spark chamber pictures
[NYO-2171-221] 19 p3455 N67-33790
Computer-based graphic data processing equipment, technical difficulties, and cost estimates
[UCRL-70195, REV. 1] 21 p3904 N67-35585
Lunar orbiter picture data handling system performance analysis
[NASA-CR-85490] 22 p4046 N67-37190
Weather satellite picture pattern discrimination method
[NASA-CR-89780] 24 p4410 N67-40271
PIEZOELECTRIC CRYSTAL
Perturbation solution to surface wave propagation in piezoelectric quartz 12 p2191 N67-34130
Silver iodide for possible frequency control applications
[ECOM-2784] 12 p2192 N67-34497
Impact shock effects on electric and physical properties of piezoelectric ceramic
[REPT.-11003-9] 15 p3732 N67-28468
Dependence of internal mechanical losses on stress amplitude in common piezoceramics
[AD-650474] 15 p3729 N67-28838
Electric current instabilities in piezoelectric cadmium sulfide semiconductors
[ML-1517] 16 p2959 N67-29458
Acoustoelectric oscillations, current saturation, and electron drift mobility in cadmium sulfide crystals
[AFCRL-67-0385] 20 p3713 N67-34358
Using in vivo power supplies for implanted electronic devices - bioelectric potential, piezoelectric crystals, muscle power, and biochemical fuel cell
[AD-654702] 21 p3768 N67-36197
Microwave rectification using piezoelectric quartz crystal
[AFCRL-67-0143] 22 p4123 N67-36718
Design and fabrication of very high frequency filter crystals
[ECOM-2813] 22 p4012 N67-37184
Dissipation associated with electromechanical coupling in piezoelectric ceramics
[USL-234] 23 p4336 N67-38058
PIEZOELECTRIC PRESSURE GAUGE
Piezojunction effect and silicon needle considered as sensory devices in accelerometers and transducers
[NASA-CR-80346] 03 p0398 N67-12982
Comparative analysis of strain and pressure gauge methods for evaluating relative performance of explosives in rock
[BM-RI-6883] 08 p1275 N67-18211
Development of high resolution piezoelectric pressure probes for plasma diagnostics
[NASA-TT-F-10955] 14 p2539 N67-27579
PIEZOELECTRICITY
User handbook on piezoelectric accelerometers and velocity transducers 08 p1279 N67-18317
Electric control for fluid logic elements using piezoelectric effect
[F-1] 09 p1397 N67-20080
Piezoelectric transducer accelerometers
[FTD-HT-66-106] 10 p1633 N67-21378
Amplification of ultra and hypersonic surface waves in dielectrics by current flowing in thin piezosemiconducting boundary layer 12 p2191 N67-34142
Solid-block piezoelectric ceramic keyboard transducers
[ECOM-2786] 14 p2531 N67-26681
Pulse distortion due to nonlinear elastic behavior in cadmium sulfide, ultrasonic attenuation inf cadmium sulfide, and thin film vacuum evaporated piezoelectric transducers
[ARL-66-0225] 15 p2781 N67-28337
Piezoelectrically active cadmium sulfide thick films for tuning devices in monolithic integrated circuits
[QR-3] 15 p2682 N67-28971
Evaluation of magnetic-core sensors, microcircuit techniques, electron-coupling techniques, and electro-optic and piezoelectric sensors for automatic checkout system
[SC-CR-66-2053] 17 p3037 N67-30855
Directional response characteristics displayed by thin-walled piezoelectric ceramic tube transducers
[NADC-AE-6709] 19 p3414 N67-32926
Sinusoidal steady state characteristics of multi-electroded three-dimensional piezoelectric ceramic devices
[SC-DC-67-1731] 20 p3612 N67-34490
Piezoresistance and piezo-Hall effect in semiconducting strontium titanium oxide
[NASA-CR-86484] 22 p4124 N67-36716

Ceramic piezoelectric computer storage device
[HDL-TR-1352] 22 p4007 N67-37437
Thumpatron for determining polarization direction of fragile piezoelectric samples
[SC-DR-67-494] 22 p4048 N67-37484
PIEZORESISTIVE DEVICE
Piezoresistive strain gauge accelerometer
[PA-TR-3374] 07 p1082 N67-17669
PIG
SA GUINEA PIG
Immediate and delayed changes in retina and its vascular bed in pigs exposed to intense unfocused light from xenon lamp 16 p2831 N67-29345
Hematologic and biochemical studies after shock wave injuries of miniature swine
[DLR-FB-67-42] 20 p3576 N67-34731
PIGEON
Specific gravity and viscosity of endolymph and perilymph from inner ears of pigeons
[DRML-629] 05 p0655 N67-15129
Neural mechanisms involved in instinctive behavior of pigeons
[AFOSR-67-0097] 12 p2021 N67-23628
Response suppression as function of vacation from punishment in pigeons
[NASA-CR-83909] 13 p2259 N67-25951
Effect of exteroreception on motor reaction of pigeons exposed to brief weightlessness 23 p4194 N67-39104
PIGMENT
SA RUTILE
Microspectrophotometry and psychophysical measurements of color vision pigments in human retinas
[AD-640714] 06 p0797 N67-15357
Synthesis of mediators of sympathetic nervous system and pigmentation in ontogenesis of vertebrates
[NASA-TT-F-10953] 14 p2462 N67-27315
Light scattering in highly reflecting pigmented coatings - silver bromide and particle suspensions and paint films
[NASA-CR-844] 17 p3088 N67-30886
PILOT
SA ASTRONAUT
SA AUTOPILOT
SA JET PILOT
Motor activity criteria for evaluating flight fitness of pilots 02 p0217 N67-11471
Electrocardiographic changes in pilots following glucose intake 02 p0188 N67-11477
Electroencephalography method for medical-flight expert testimony, based on pilot EEGs taken during physical examinations 02 p0202 N67-11610
Speed of recovery from Coriolis stimulation in sickness with relation to pilots and nonpilots
[SAM-TR-66-63] 02 p0212 N67-11884
Physiological assessment of pilots on 18-hour flight in F-4C aircraft from postflight urinalysis
[SAM-TR-66-59] 03 p0340 N67-12492
Protective gear and devices for pilot safety during acceleration of flight, parachute jumps, and ejection 03 p0352 N67-12495
Pilot opinion survey evaluation of moving tape vernier pitch scale attitude director indicator display
[MR-66-15] 06 p0608 N67-15407
Conference on flight mechanics during aerospace instrumentation symposium
[DLR-MITT.-66-23] 17 p2994 N67-30450
Increased emergency illumination of instrument panel to prevent pilot flash blindness at low altitude blast
[IXF-1967-9] 17 p3011 N67-31064
Cesium 137 radioactive body burden in civil pilots
[NYO-3364-32] 19 p3378 N67-33714
Flight instrument improvements to allow pilot to control aircraft to touchdown
[RAE-LIB-TRANS-1214] 20 p3586 N67-35000
Forecast of airline pilot requirements
[AD-654182] 21 p3772 N67-35484
PILOT ERROR
Experimental critique of method of constant stimuli and alternative procedures
[NASA-CR-89283] 23 p4187 N67-38422
Analysis of crew performance in Apollo command module
[NASA-CR-65756] 23 p4198 N67-39249
PILOT PERFORMANCE
SA ASTRONAUT PERFORMANCE
Psychological testing of mental stress in pilot performance
[NAL-TR-105] 01 p0013 N67-10160
Pilot performance during simulated flight test of vertical display system
[NADC-AM-6645] 01 p0025 N67-11035
Psychophysiological aspects of pilot performance in automated control systems 02 p0219 N67-11519
Perception and information processing by pilot under ordinary emergency conditions 02 p0219 N67-11527
Improvement of crew rest facilities on high performance aircraft in civil aviation 02 p0198 N67-11572
Psychophysiology and performance of pilot during instrument flying after inactive period 02 p0206 N67-11638
Pilot tracking performance in human engineering study
[AM-66-19] 02 p0222 N67-11835
Geographic orientation in aircraft pilots - speed control inversion
[TR-751-7] 03 p0351 N67-12361
Pilot behavior in VTOL aircraft
[AGARD-521] 04 p0495 N67-13299
Pilot describing function measurements of multiloop control situations with integrated display 06 p0610 N67-15664
Pilot responses in multiloop control tracking system with and without side tasks 06 p0610 N67-15665
Effects of motion cues on manual tracking ability of pilots 06 p0611 N67-15667
Acceleration stress effects on pilot performance and dynamic response 06 p0611 N67-15668
Spectral analysis of human pilot performing compensatory tracking task 06 p0613 N67-15679
Effect of prior experience on acquiring skill on simulated inertial control task
[AMRL-TR-66-25] 06 p0614 N67-16541
Logic and control circuitry, and temperature tolerances of solid state displays - Psychophysical limits and capabilities of pilots to read displays 07 p1049 N67-16974
Pilot performance impaired by alcohol
[AM-66-29] 07 p1023 N67-17932
Evaluation of runway centerline, high speed exit taxiway and runway remaining lighting systems for Category III flight operations
[FAA-RD-66-6] 07 p1120 N67-17958
Physical and psychophysiological effects of spaceflight on pilot tracking performance under simulated Voskhod II conditions 10 p1566 N67-20395
Lateral-directional handling qualities survey to develop technique for predicting pilot ratings
[NASA-TM-X-59621] 11 p1783 N67-23243
Human pilot dynamic response in single loop systems with compensatory and pursuit displays
[STI-TR-134-4] 12 p2031 N67-23932
Flight simulator and techniques for training pilots to control compensatory task
[UTIAS-TN-106] 12 p2033 N67-24507
Intermittent photic stimulation effect on pilot performance under simulated IFR conditions
[FAA-AM-66-39] 12 p2038 N67-24833
Quantitative evaluation of pilot performance on cockpit displays
[NADC-AM-6671] 12 p2064 N67-24938
Analog simulation to compare pilot performance in using operational X-15 instrument panel, and vertical scale, fixed index instrument display panel
[NASA-TN-D-3967] 12 p2016 N67-25027
Achromatic display of color coded charts used to test geographic orientation of aircraft pilots
[TR-751-8] 13 p2262 N67-25340
Simple stability instrumentation and pilot performance for light aircraft safety during instrumented flight
[NASA-TN-D-3970] 13 p2246 N67-25796
Low frequency vibrations in big helicopters and transmission to pilot
[NASA-TT-F-471] 14 p2467 N67-26599
Pilot performance of landing maneuver in T-33-A jet trainer with restricted fields of view
[NASA-TN-D-4018] 14 p2446 N67-27294
Mathematical models for aircraft carrier landing process involving interaction of ship motions, optical landing system, pilot aircraft combination, air wake, and signal officer
[STI-TR-137-2] 16 p2818 N67-29848
Large jet transport aircraft flight simulation study of piloting difficulties through severe atmospheric disturbances
[ARC-CP-986] 16 p2819 N67-29918
Roll-out, taxiing in low visibility, and role of pilot in instrument landing systems
[RAE-TR-66316] 16 p2819 N67-29925
Geographic orientation in aircraft pilots - flight method of reporting navigation performance
[TR-751-10] 17 p3009 N67-30260
Comparison of flight measured carrier-approach speeds with values predicted by several different criteria for 41 fighter aircraft configurations
[NACA-RM-A57L11] 18 p3192 N67-31729
Pilot performance in air launched missile systems 19 p3383 N67-32815
Changes in piloting performance during four hours of very low altitude flight in helicopters
[RF-1857-3] 19 p3383 N67-32827
Aircraft approach and landing performance aboard aircraft carriers under combat conditions
[AD-654563] 21 p3756 N67-35225
Human factors in aerial reconnaissance and surveillance, helicopter training devices, and pilot performance under stress
[AD-655126] 21 p3772 N67-35742
Flight test of longitudinal short period frequency requirements and pilot induced oscillation tendencies in T-33 aircraft
[CAL-TC-2083-F-1] 22 p3969 N67-36983
Statistical analysis of crew performance data in ground base simulated mission in Apollo command module
[NASA-CR-65757] 23 p4196 N67-39006
Position of pilots hands and feet on cockpit controls during loss of consciousness due to hypoxia 23 p4195 N67-39110
PILOT PLANT
Pilot plant for extraction of cesium from fission products on mixed exchanger column
[EUR-3606.F] 23 p4203 N67-39445
PILOT SELECTION
Selection of fit pilot and astronaut candidates by physical examination procedure 02 p0217 N67-11483
Theoretical and clinical studies on human and animal vestibular apparatus - radiation and space flight effects, functions of otolithic formations, and astronaut selection
[JPRS-42342] 24 p4307 N67-40569
Astronaut selection by test evaluation of vestibular apparatus functional stability 24 p4388 N67-40571
PILOT TRAINING
Physiological and psychological investigations pilot training in flight simulators 02 p0203 N67-11615
Aerospace flight dynamics and pilot training 09 p1291 N67-19419
Methods for controlling negative emotions of pilots during flight
[NASA-TT-F-10006] 12 p2023 N67-24320
Suitability evaluation of part of general vehicular research trainer as test for predicting success in naval aviation training
[AD-651809] 17 p3009 N67-30169
Low altitude navigation methods - effects of map scale and reference point variables, and training on ability of pilots to estimate direction
[TR-67-4] 17 p3100 N67-30245
Criteria and methods for evaluating trainer aircraft effectiveness during training of pilots for fleet fighter and attack type aircraft
[REPT.-2-55100/TR-50392] 17 p3098 N67-30347
Effectiveness of ground trainers in private pilot flight training
[FAA-ADS-67-5] 20 p3582 N67-34227
Simulator capability for operational training of aircraft pilots
[AMRL-TR-67-14] 22 p3976 N67-36861
Canvas of flight training students to determine relationship between motion sickness and anxiety
[NAMI-968] 22 p3969 N67-37005
Feasibility of using aerodynamic equations simplified by either rigid coefficients or least squares approximations in simulator phases of pilot training
[NAVTRADEVCEN-1889-1] 22 p3980 N67-37599
PILOTED AIRCRAFT
Piloting of heavy jet transport aircraft during takeoff
[RAE-LIB-TRANS-1144] 01 p0006 N67-10079
Piloted simulator study of yaw coupling in turning maneuvers of supersonic transport

compared with flight test data on large variable stability jet transport
[NASA-TN-D-2910] 12 p2013 N67-23796
Piloting modes, safety devices, and flight simulation for Mirage III-B 225 variable stability aircraft
[AGARD-537] 16 p2818 N67-29526
Assessment of zero rate of climb speed as low speed limitation for stall-free aircraft
[ARC-CP-931] 22 p3959 N67-36931
PINCH EFFECT
Dynamics, and critical characteristics of voltage and energy of energy source of crossed linear plasma pinch
[LYCEN-6623] 01 p0106 N67-10705
Structure of propagating current sheet in cylindrical pinch discharge in argon
[NASA-CR-80067] 02 p0293 N67-12041
Microwave and X-ray radiation from electrodeless inductive discharge in hydrogen as plasma source 11 p1950 N67-21906
Photographic studies of A Z pinch for plasma acceleration
[FHR-2242-4, VOL. II] 12 p2187 N67-24926
Ionizing shock waves in hydrogen plasma and magnetic fields, and inverse pinch experiments
[REPT.-290-743] 14 p2598 N67-27492
Army research and development activities in electronics, theoretical and applied physics, ballistics, pyrotechnic chemistry, and weapon system technology
[AD-634616] 15 p2806 N67-27971
Self-focusing effect in electron beam neutralized by positive ions
[AD-634634] 15 p2757 N67-27983
Continuous wave traveling wave accelerator development for production of pinched plasma toroids
[REPT.-6126, VOL. I] 17 p3140 N67-30263
Structure of propagating current sheet in large radius cylindrical pinch discharge
[NASA-CR-89377] 23 p4323 N67-38937
Exploding wire, shock waves, and pinch discharge methods in plasma physics
[BMWF-FBK-67-49] 23 p4325 N67-39333
PION
Linear accelerator improvements, and research on nuclear and pion physics, nuclear spectroscopy, and storage rings
[LAL-1159] 01 p0121 N67-10610
Data analysis program for high energy physics particle interaction events - recoil proton polarization in pion-proton elastic scattering
[COO-1428-16] 01 p0126 N67-10719
Total cross section of double charge exchange of 50 to 176 MeV pion mesons in photo emulsions
[JINR-P-2806] 01 p0129 N67-10819
Charge exchange of negative pi mesons stopped on light nuclei
[JINR-P-2780] 01 p0129 N67-10831
Pion meson capture by helium 3, nuclear decay reactions, and pulse spectra of secondary charged particles
[JINR-P-2905] 01 p0129 N67-10845
Charged and neutral pion-pion resonances from pion-proton interactions
[BNL-10460] 01 p0129 N67-10853
Resonance production in KKN final states from pion-proton interactions from exposure to liquid hydrogen bubble chamber
[BNL-10461] 01 p0130 N67-10905
Electron synchrotron data on photoproduction of neutral pions
[LNF-66/37] 02 p0290 N67-11760
Two-nucleon emission after adsorption of stopped negative pions, theory of pion adsorption on light nuclei, lifetime measurement of positive pion, and nucleon-nucleon interactions
[UR-875-126] 03 p0440 N67-13681
Theory of pion absorption on light nuclei 03 p0441 N67-13683
Lifetime measurement of positive pion 03 p0441 N67-13684
Energy, angular, and multiplicity distributions of gamma quanta produced by negative pi meson interactions with xenon nuclei
[JINR-P-2736] 03 p0443 N67-13270
Cascade time of negative pions in gaseous helium-3 measured by using diffusion chamber in magnetic field
[JINR-P-2838] 03 p0444 N67-13281
Observation of radiative decays of resonances with lambda hyperons in propane bubble chamber exposed to high energy negative pions
[JINR-E-2858] 03 p0444 N67-13284
Observation of kaon pair yielding three pion decays forbidden by CP invariance
[JINR-P-2850] 03 p0445 N67-13287
Analysis of strange particle resonant states from negative pion-proton interactions
[UCRL-16788] 04 p0588 N67-14013
Decay of neutral pions into three photons
[JINR-P-2763] 04 p0588 N67-14014
Inelastic negative pion-proton interaction at high energy - four-prong events with protons
[JINR-P-2773] 04 p0588 N67-14015
Recoil proton polarization in elastic pion-proton scattering and phase shift analysis of pion-nucleon scattering
[JINR-E-2860] 04 p0590 N67-14067
Pion photoproduction at 3.0, 4.0, and 5.0 GeV for baryon four momentum transfers
[MIT-2098-265] 04 p0590 N67-14069
Helium 8 production and decay in negative pion capture by carbon and oxygen nuclei using photographic emulsion
[JINR-E-2774] 04 p0591 N67-14068
Quasiclassical model of asymptotic behavior of cross sections obtained in high energy interactions of pions with nucleons 07 p1145 N67-17209
Extrapolating pion-nucleon amplitude by dispersion relation and unitarity condition 07 p1145 N67-17210
Effective mass distributions and cross sections of multi-pion final states from pion proton interactions at 3.2 and 4.2 BeV/c
[UCRL-16881] 07 p1147 N67-17400
Measurement of relative branching ratio in decay modes of kaon-muon-pion interactions
[UCRL-16003] 07 p1153 N67-17592
Production of kaon antikaon pairs in pion-proton interactions
[UCRL-16832] 07 p1153 N67-17594
Pion radiative capture mechanism shown in lithium nuclei experiment
[JINR-P-2901] 08 p1333 N67-18594
Algebraic technique applied to computation for pion-proton scattering
[CONF-660636-1] 08 p1334 N67-18606
Pictures of pion-proton interaction obtained from exposure of bubble chamber
[CEA-R-2948] 10 p1706 N67-20689
Energy spectra and angular correlations of electron and pi-meson particles in K/sub e 3/sup 0/decay
[JINR-P-2855] 10 p1707 N67-20903
Photoproduction of positive pions between 1.2 and 3 GeV
[DESY-66/23] 10 p1710 N67-20952
Low energy pion-pion interaction from particle decay
[UCRL-17068] 10 p1711 N67-20963
Charge parity violation in decay of neutral kaon into pions
[BNL-10606] 10 p1712 N67-20989
Sum rule for four pion coupling constant derived from matrix algebra
[NP-496/PL] 10 p1717 N67-21406
Probability ratios for negative pion-deuterium reactions determined by gamma quanta yields from hydrogen and deuterium gas target
[JINR-P1-2906] 10 p1727 N67-21641
Low energy behavior of 7 equals zero, S-wave, pion-pion scattering phase shift and possible scalar meson nonet 11 p1939 N67-22951
Two-nucleon emission process in negative pion meson absorption
[RIFP-59] 11 p1939 N67-22952
Analysis of di-pion state when I equals J equals O having inverse scattering amplitude 11 p1940 N67-23065
Frascati linear accelerator used to study nuclear structure by means of pions
[LNF-66/57] 11 p1941 N67-23025
Cross sections for double charge exchange of pions by nuclei calculated by Monte Carlo method
[JINR-P2-3004] 11 p1942 N67-23191
Six and seven pion annihilation modes of 2.7 GeV/c antiprotons on protons
[IS-T-115] 11 p1943 N67-23201
Superconvergence relation in pion photoproduction process
[IC/67/6] 11 p1945 N67-23381
Reduction scheme of amplitude in electron pion nucleon interactions
[JINR-P2-3062] 12 p2158 N67-23560
Double pion production without annihilation in antiproton-proton interactions at 2.7 GeV/c
[IS-T-127] 12 p2161 N67-23597
Differential cross section measurement of elastic scattering of positive and negative pions from hydrogen
[NYO-2171-219] 12 p2161 N67-23598
Bubble chamber bombarded with negative pions used to study interactions with at least one visible gamma quantum emitted
[JINR-P1-3060] 12 p2162 N67-23740
Charge exchange of negative pion on bound hydrogen nuclei
[JINR-P4-3072] 12 p2165 N67-23899
Photoproduction of neutral pions for incident photon energies 400 to 900 MeV measured in electron synchrotron
[LNF-66/65] 12 p2165 N67-24000
Positive pion photoproduction with coherent bremsstrahlung
[LNF-66/68] 12 p2165 N67-24001
Pole model for decay of neutrino into three pions
[LNF-67/2] 12 p2165 N67-24002
Axial current algebra tests in pion-nucleon physics
[TH/187] 12 p2168 N67-24381
Sum rule for pion coupling constant resulting from current algebra
[INP-496/PL] 12 p2172 N67-24490
Eta meson cusp effect in pion photoproduction at eta threshold
[LNF-66/67] 13 p2375 N67-25624
Angular and momentum distributions of protons, kaons, and pions from photoproduction of hydrogen at energies up to 5.8 GeV
[DESY-66/34] 13 p2378 N67-25890
Soft photon emission approach to pion-gamma and neutrino-gamma pion decays
[ISS-66/49] 13 p2379 N67-26000
Double charge-exchange cross sections of 50 to 176 MeV pion mesons measured in photoemulsion nuclei
[NASA-CR-84123] 13 p2382 N67-26445
Measurement of positive and negative kaon and pion lifetime ratios
[UR-875-152] 14 p2587 N67-27000
Electron-positron pair production in pion-nucleon interactions
[TH/190] 14 p2588 N67-27131
Sum rule algebra for weak axial production of pions in neutron beta-decay amplitude
[ISS-67/6] 14 p2564 N67-27131
Pion photoproduction from hydrogen near second and third pion-nucleon resonances 14 p2588 N67-27211
Single pion and multi-pion production in pion proton interactions at 1.6 GeV/c
[CEA-R-3026] 14 p2591 N67-27485
Isotopic spin decomposition of amplitudes for kaon pion reaction
[COO-881-98] 14 p2591 N67-27487
Pion photoproduction data below 1.5 GeV - tables and graphs
[CALT-68-108] 14 p2592 N67-27488
Cross section for photoproduction of charged pions in Regge pole model related to vector meson production in pion-nucleon collisions
[TH/191] 14 p2592 N67-27589
Six-prong interactions of 8 GeV/c positive pions in hydrogen
[INR-761/VI/PH] 14 p2593 N67-27681
Composite model of pion use to derive relation between total cross section of pion nucleon scattering 14 p2598 N67-27781
Neutral boson production and decay into neutral pi mesons and gamma quanta
[JINR-E1-3100] 15 p2764 N67-28456
Sigma hyperon-pion final states in kaon-proton interactions
[COO-1195-80] 15 p2765 N67-28466
Polarization parameter in negative pion elastic scattering by protons from 600 to 2200 MeV/c
[UCRL-17263] 15 p2766 N67-28473
Mass distributions of proton meson and neutron pion combinations for 114 cases of neutron proton reactions
[JINR-P1-3146] 15 p2770 N67-28530
Energy spectra of charged pions from high energy neutron-proton collisions measured by multichannel magnetic spectrometer
[LA-TR-66-89] 16 p2941 N67-29270
Positive pion photoproduction at high photon energies and very small angles
[DESY-67/3] 16 p2947 N67-29719
Dynamics of elementary particles and pion-nucleon interaction
[NP-16640] 16 p2947 N67-29755
Kaon-pion system reaction study on negative kaon beam in hydrogen bubble

chamber
[COO-1195-85] 17 p3135 N67-30296
Expansion of 3 pion wave functions and 3 pion decay amplitudes in terms of complete set of orthonormal functions on Dalitz plot
[CTS-HE-67-3] 17 p3138 N67-30513
Pion photoproduction by polarized gamma radiation
[SLAC-PUB-259] 17 p3139 N67-30648
Coherent particle production in collisions of 200 GeV pions with nuclei of photographic emulsions
[REPT.-774/VI/PH] 17 p3135 N67-31160
Kinematical constraints on Regge pole residues for processes with external spins - vector meson production and charged pion photoproduction
[TH/198] 17 p3136 N67-31376
Angular distributions and cross sections of photon and pion products from positron annihilation reactions in electron positron storage ring 18 p3300 N67-31964
Approximate nonlinear integral equation for pion form factor based on minimum electromagnetic interaction hypothesis
[JINR-E92-3224] 19 p3501 N67-32929
Pion-proton and proton-proton forward scattering amplitudes
[BNL-11175] 19 p3505 N67-33435
Pion-proton backward scattering between 1.34 and 2.04 GeV/c
[BNL-11359] 19 p3505 N67-33400
Coherent particle production in collisions of 200 GeV pions with nuclear emulsion
[INR-774/VI/PH] 20 p3694 N67-34446
Photomonoproduction of positively charged pi mesons for incident photon energies between 1.2 and 3 GeV
[NP-16741] 20 p3695 N67-34569
Bubble chamber study of elastic neutrino interactions, elastic production of hyperons, and single pion production
[CERN-67-12] 20 p3696 N67-34621
Current algebra applied to pion yields pi pi gamma decay mode 20 p3697 N67-34746
Superconvergent sum rule for pion photoproduction on lambda hyperon derived in framework of SU/3/ symmetry 20 p3697 N67-34747
Scattering length as function of complex angular momentum and application to I equal O pion-pion S-wave scattering length studies 20 p3698 N67-34830
Low energy behaviors of S-wave pion-pion scattering phase shifts studied in terms of forward dispersion relation 20 p3699 N67-34832
Photoproduction of positive pions
[NP-16737] 20 p3700 N67-34923
Double charge exchange of pions by nuclei in photoemulsion
[JINR-P1-3248] 20 p3701 N67-34942
Calculated cross sections of pi-meson production processes by collisions of neutrino and antineutrino with nucleons
[JINR-P2-3197] 20 p3701 N67-34962
Pion-pion scattering and sum rule for axialvector coupling constant 20 p3702 N67-35041
Galactic secondary electron sources from pion decay and cosmic ray nuclei collision with interstellar material 20 p3723 N67-35060
Algebra of current and deviation from delta I equals 1/2 rule in kaon yields three pions decay
[TH/207] 21 p3901 N67-35895
Capture of stopped negative pion mesons in mixture of helium 3 and nitrogen
[JINR-P1-3255] 21 p3902 N67-35909
Phenomenological analysis of kaon-three pion decay
[TH/208] 21 p3904 N67-36174
Lithium 8 production in capture of slow negative pions by carbon, nitrogen, and oxygen nuclei
[JINR-P1-3305] 21 p3906 N67-36453
Negative pion capture by carbon, photoemulsion, and tetraneutron nuclei
[JINR-P1-3306] 22 p4108 N67-37730
Angular correlation of gamma quanta emitted in capture of stopped negative pions in hydrogen
[JINR-P1-3285] 22 p4110 N67-37917
Correlated proton pair emission during negative pion interaction with xenon nuclei
[INR-787/VI/PH] 22 p4112 N67-37999
Electromagnetic current vertex and axial current divergence examined to determine limitations of pion pole dominance
[AFOSR-67-1652] 23 p4297 N67-38158
Polarization in pion-electron scattering and electromagnetic form factor in pion
[JINR-P2-3238] 23 p4301 N67-38426
Pion-nucleon elastic scattering in backward hemisphere and application of Regge theory to backward angles other than cosine theta
[COO-1112-107] 23 p4302 N67-38525
Differential cross section for elastic scattering of pions by protons between 2.5 and 6.0 GeV/c
[COO-1112-108] 23 p4302 N67-38526
Differences between positive pion-proton and negative pion-proton elastic scattering in diffraction peak region
[COO-1112-103] 23 p4303 N67-38528
Finiteness of radiative corrections to pion beta decay
[NP-16868] 23 p4305 N67-38630
Graphs of scattered particle energies versus scattering angles and center of mass scattering angles versus laboratory scattering angles for nucleon-nucleon and pion-nucleon
[NASA-CR-88976] 23 p4309 N67-38823
Jet analysis of pion-proton interactions
[INR-P-807/VI/PH] 24 p4429 N67-39430
Covariant theory of pion deuteron elastic scattering
[TH/212] 24 p4502 N67-40250
Photoproduction of multipion systems
[DESY-67/17] 24 p4502 N67-40381
Numerical analysis of two pion decay of charged kaon
[TUEP-67-21] 24 p4505 N67-40597

PION BEAM
Measurement of interactions after exposure of liquid hydrogen bubble chamber to separated beam of pion mesons
[UR-875-151] 01 p0130 N67-10907
Two-nucleon emission following absorption of stopped negative pions 03 p0441 N67-12682
Review on pion-proton elastic scattering at high energies
[CERN-66-18] 03 p0446 N67-12306
Biological effectiveness of negative pion beam on mice with abdominal lymphoma 06 p0801 N67-15943
Negative pion proton scattering polarization parameter measurements
[UCRL-17153] 10 p1722 N67-21558
Positive pion deuterium interactions at pion momentum 6 GeV/c
[IS-T-132] 13 p2376 N67-25909
Significant difference in mammalian cell polyploidy induction between plateau and star regions of negative pion beam 14 p2454 N67-26763
Design of flexible mounting facility for pion-muon channel for 600 MeV synchrocyclotron and evaluation of channel performance
[NASA-CR-66410] 16 p2875 N67-30021
Liquid hydrogen focusing Cerenkov counter for charged parity intensity studies on pion beam 17 p3066 N67-30969
Experimental review on negative pion application in radiotherapy
[UCRL-17441] 21 p3907 N67-36630

PIONEER I SPACE PROBE
Interpretation of magnetic measurements on Pioneer I
[NASA-CR-80165] 03 p0389 N67-12929
Interpretation of magnetic measurements aboard Pioneer I spacecraft and geophysical consequences 05 p0762 N67-14874

PIONEER VI SPACE PROBE
Analysis of sinusoidal periodicity in Pioneer VI Doppler tracking data 05 p0672 N67-14432
Gas leak effect on Pioneer VI orbit 05 p0785 N67-14435
Lunar Orbiter, Pioneer space probe, and Apollo backup station - flight project support 05 p0689 N67-14454
Pioneer VI data on plasma instability in solar wind
[NASA-CR-80951] 05 p0757 N67-14885
Nonmagnetic explosive actuated indexing device for Pioneer VI magnetometer experiment 07 p1077 N67-16915
Scientific information transmissions from Pioneer VI and VII space probes
[NASA NEWS RELEASE-67-94] 12 p2212 N67-24635
Ion concentration, ion velocity, and other solar wind characteristics measured simultaneously aboard spacecraft
[NASA-CR-84666] 13 p2400 N67-26420
Measurements of interplanetary magnetic field performed on Pioneer VI satellite
[NASA-TM-X-55815] 16 p2971 N67-29969
Explorer XXVIII and XXXIII and Pioneer VI magnetometric determination of general macrostructure of interplanetary magnetic field in dialunar space
[NASA-TM-X-55942] 18 p3333 N67-31549

PIONEER VII SPACE PROBE
Pioneer VII trajectory dispersions and Deep Space Network initial acquisition 05 p0672 N67-14434
Scientific information transmissions from Pioneer VI and VII space probes
[NASA NEWS RELEASE-67-94] 12 p2212 N67-24635
Pioneer VII observations of geomagnetic tail downstream of solar wind interaction at 900-1050 Earth radii
[NASA-TM-X-55863] 19 p3529 N67-32757

PIONEER SPACE PROBE
Pioneer project support - Doppler tracking data analysis, trajectory dispersions and initial tracking station acquisition, and gas leak effect on orbit 05 p0672 N67-14422
Pioneer VII trajectory dispersions and Deep Space Network initial acquisition 05 p0672 N67-14434
Launching and orbit determinations of Pioneer VII space probe 06 p0964 N67-15907
Nasa programs related to Surveyor, Mariner, Pioneer, Venus probe, and similar projects 12 p2406 N67-25907
Digital system for accurate time sector division of spin stabilized vehicle as used on Pioneer space probes
[NASA-CR-83950] 13 p2409 N67-25967
Sun sensor design and environmental requirements for Advanced Pioneer space probe
[NASA-CR-73086] 14 p2530 N67-26595
Nonmagnetic, explosive-actuated indexing device for magnetometer experiment aboard Pioneer VI and VII spacecrafts
[NASA-TN-D-3914] 14 p2538 N67-27268
Mariner, IMP, Pioneer, and Vela spacecraft direct measurements of physical properties of interplanetary magnetic fields and plasmas
[NASA-TM-X-55830] 17 p3150 N67-30745
One-half rate convolutional encoding with sequential decoding for deep space probe telemetry links with application to Pioneer missions
[NASA-TN-D-4105] 19 p3404 N67-33270
NASA fact sheet on Pioneer spacecraft design, and interplanetary space monitoring
[NASA FACTS, VOL. IV, NO. 3] 22 p4147 N67-38098
Systems engineering aspects of developing Pioneer space probe
[NASA-TM-X-60564] 24 p4540 N67-40428

PIPE
SA TUBE
Vibration transmission of flexible pipe couplings influenced by elements of trim pump system
[MEL-283/66] 01 p0159 N67-10364
Heat pipe capability and temperature measurement experiments
[LA-3565-MS] 06 p1523 N67-15915
Displacements and stresses of thick pipe under bending load 09 p1521 N67-20028
Turbulent heat transfer in thermal entrance of perfectly insulated pipe
[ARL-66-0178] 14 p2630 N67-26494
Proceedings of heat pipe conference
[SC-M-66-623] 14 p2631 N67-26791
Applications and limitations of engineering theory of heat pipes 14 p2631 N67-26792
Heat transfer limits of nickel heat pipes 14 p2631 N67-26793
Maximum heat transfer rate determinations of heat pipes using analytical model 14 p2631 N67-26794
Review of studies on heat pipes and vapor chambers and their application to thermal control of spacecraft 14 p2632 N67-26795
Size defects in reactor-coolant piping required to produce unstable propagating fractures
[BMI-1795] 15 p2764 N67-27817
Development and control of texture in zirconium alloy tubes
[AECL-2698] 20 p3685 N67-35128
Metallographic and X-ray analysis of failure in heat pipe models - leakage testing and wall temperatures of heat pipes for thermionic converters
[NASA-CR-88119] 21 p3764 N67-36552
Performance of heat pipe in earth orbit zero gravity field
[LA-3714] 22 p4165 N67-37580
Operating characteristics of stainless steel

heat pipe, and analytical model for predicting operating limits of capillarity limited heat pipes
[TID-23069] 23 p4167 N67-37896
Cryogenic heat pipe investigations
[AFFDL-TR-66-228] 23 p4363 N67-38592
Vibration transmission characteristics of flexible pipe connections for Dacron and steel lined hoses
[NSRDC-2441] 24 p4456 N67-39386
Positive stop-locking device development for incorporation in flareless fittings
[NAEC-AML-3621] 24 p4456 N67-39628
PIPEFLOW
Convective heat transfer of gas-solids suspensions at high Reynolds number in turbulent pipe flow
[NYO-2930-7] 01 p0165 N67-10672
Equations for describing friction coefficients of unsteady flows in pipes 03 p0349 N67-11234
Design study, material selection, and stress analysis of high-pressure large flow rate flexible connector system
[NASA-CR-80431] 03 p0405 N67-13028
Laws of high velocity turbulent flow in smooth pipe
[NASA-TT-F-10359] 04 p0531 N67-13837
Turbulent pipe-flow frictional pressure drop of very dilute aqueous solutions of polyethylene oxides measured and correlated with polymer molecular weight and concentration 05 p0694 N67-14547
Physical aspects of flow of biological suspensions through tubes 05 p0642 N67-14568
Formulation of motion equation for problem of flow through tubes 05 p0643 N67-14572
Heat transfer crisis and pressure drop data for upward flow of steam-water mixtures in annular and clustered tubular test elements
[EUR-2334.E] 07 p1128 N67-17348
Effect of upstream flow discontinuities on acoustic power radiated by model air jet
[NASA-CR-679] 07 p0988 N67-17360
Turbulence measurements in pipe flow of drag reducing nonnewtonian fluid
[REPT.-0-71000/6R-23] 07 p1068 N67-17987
Asymptotic solutions for problem of forced discontinuous cavitational fluid oscillations in pipeline
[NASA-TT-F-443] 08 p1265 N67-18401
Heat radiation coefficients of liquid in pipe with axisymmetrical temperature field 09 p1540 N67-19494
Influence of inlet conditions on heat exchange in initial length of pipe, and turbulent burning of methane-oxygen mixtures
[FTD-MT-65-558] 10 p1767 N67-20445
Influence of inlet conditions on heat exchange in initial length of pipe during turbulent motion of heated air 10 p1767 N67-20446
Characteristics of confined dense phase flow of granular solids driven by compressed air through plastic pipes
[AD-642845] 10 p1805 N67-20539
Validity of cosine law, developed in gas flow through pipes, proved for case of absence of temperature equilibrium in flow of gases reflected from liquid-oxygen cooled surface
[NASA-TT-F-486] 12 p2308 N67-24614
Flow at entrance of porous cylindrical pipe with suction
[NT-430] 13 p2306 N67-26099
Heat transfer measurements in flow system pipes containing sodium, sodium potassium alloy, lithium, or mercury for reactor cooling
[NASA-TT-F-10776] 14 p2634 N67-27540
Turbulent magnetohydrodynamic flows in prismatic and cylindrical pipes
[NASA-TT-F-482] 15 p2892 N67-28380
Turbulent flow effect on heat transfer during air motion in pipes
[FTD-MT-65-567] 15 p2886 N67-28893
Turbulence-induced heat-transfer fluctuations in pipeflow of water using hot-film wall sensors
[ORNL-TM-1602] 17 p3177 N67-30842
Injection of drag reducing fluid into turbulent pipe flow of Newtonian fluid
[NASA-CR-853] 18 p3256 N67-31795
Drag reducing polyethylene oxide lubricants used in turbulent pipe flow
[AD-651787] 18 p3259 N67-32106
Theory and experiments to determine heat transfer in tubes with rectangular or square profiles carrying hot air flow 18 p3356 N67-32380
Burnout heat flux in boiling water
[EURAEC-1524] 20 p3744 N67-34161
Friction factors and heat transfer coefficients in laminar and transition flow in smooth and rough tubes
[AERE-R-5415] 20 p3834 N67-34347
Qualitative singularities of viscoplastic flow in cylindrical pipe under effect of pressure gradient 21 p3834 N67-36581
Heat transfer coefficients in turbulent flow of liquid drops and gases in round tubes
[BNL-TR-144] 22 p4166 N67-37722
Effects of dissolving gas nuclei in turbulently flowing water in pipe on cavitation and tensile strength
[S-67-1138] 24 p4431 N67-39665
PIPELINE
Radiometric flow velocity measurements on sand, and water in mining pipelines 06 p0986 N67-16317
Vibration analysis of safety and relief valves in 4-inch steam pipeline of sodium components test installation
[NAA-SR-MEMO-11961] 07 p0999 N67-17586
Bellows-free design of secondary sodium piping system in sodium component test facility
[NAA-SR-MEMO-11941] 10 p1680 N67-20991
Gamma flaw inspection of welded joints in gas and petroleum trunk pipelines 10 p1641 N67-21232
Fluid pressure and friction forces in pipeline wall vibration analysis 13 p2369 N67-26387
X-ray indications in gaseous oxygen line longitudinal weld and effect on properties of tubing
[NASA-CR-84497] 14 p2546 N67-27650
Computer program for analyses of three dimensional frameworks and pipeline systems
[TRG-1409/R/] 23 p4066 N67-37314
Static and dynamic instabilities of elastic propellant lines with flowing fluid
[ASRL-TR-134-3] 22 p4134 N67-37552
Expansion joints in piping systems of nuclear reactors
[JAERI-1130] 22 p4095 N67-37876
PIRANI GAUGE
Stability of modified Pirani gauge measurements in presence of corrosive gases
[CEA-R-3655] 10 p1634 N67-21541
PISTON
SA MAGNETIC PISTON
Method for calculating braking force acting on piston of regulator under laminar conditions 03 p0393 N67-12424
Manufacture of pistons for high speed engines using Sintered Aluminum Powder /SAP/
[JPRS-39514] 05 p0713 N67-15171
Pitot pressure and heat transfer measurements in shock tunnel, and free piston shock tube evaluation 06 p0860 N67-15717
Method for computing steady state motion of pneumatic pistons 07 p0995 N67-16870
Reference piston barometer that is nonsealed and accurate, compact, and portable 11 p1877 N67-22031
Transient sound field of sonar with circular pistons
[SR-1] 12 p2154 N67-23832
Comparison of sintered iron pistons with aluminum pistons in hydraulic brake cylinders
[CCL-216] 12 p2110 N67-24888
Strong shock propagation from piston for case of perfect gas
[C-4280-21] 17 p3047 N67-30377
Free piston compression shock tube
[COA-AERO-194] 21 p3826 N67-36038
Design of light gas gun with light piston
[NASA-TT-F-11310] 23 p4233 N67-38929
PISTON ENGINE
Analog computer simulation of equations of motion for diesel free-piston engine model, and application to steam powered air compression
[AD-636644] 01 p0144 N67-10285
Heat exchange of piston with bushing during engine operation with normal load
[FTD-TT-66-74] 11 p1970 N67-23053
Reciprocating hypergolic ignition piston engine space power unit
[NASA-CR-89609] 24 p4523 N67-40132
PISTON THEORY
Gas dynamics calculation for light piston device using helium as propelling medium
[JPRS-39665] 07 p1068 N67-18087
Fluid logic methods applied to conventional piston valves for general automation
[DS] 10 p1612 N67-21123
Theoretical and experimental study of free piston gas compressor system - computer program and hypersonic wind tunnel analyses
[FHR-1837C-14] 17 p3042 N67-30347
PITCH ATTITUDE
SA VARIABLE PITCH PROPELLER
Pilot opinion survey evaluation of moving tape vernier pitch scale attitude director indicator display
[MR-66-15] 06 p0808 N67-15497
Ship-motion data indicating that autocorrelation of roll and pitch can be represented by exponential cosine 19 p3411 N67-33380
PITCH CONTROL
Evaluation of semi-active gravity gradient system - appendixes
[NASA-CR-594] 02 p0284 N67-12098
Interaction effects of control jet exhausting radially from nose of ogive-cylinder body at transonic speeds
[NASA-TN-D-3752] 05 p0630 N67-15218
Three-stage turbine of low reaction to examine effects of reduced motor pitch and improved sealing
[ARC-CP-861] 10 p1551 N67-21280
Flight tests of pitch and roll rate demand system using electric signalling in Avro 707C aircraft
[AGARD-536] 11 p1783 N67-22240
Flight simulator study of pitch maneuver speed margins for variable-sweep wing supersonic transport configuration
[NASA-TN-D-4170] 22 p3961 N67-37014
PITCH CONTROLLER
Environmental testing and static firing of pitch control motor for Apollo spacecraft launch escape system
[NASA-TN-D-4068] 20 p3731 N67-34212
PITCHING MOMENT
Mathematical expressions derived for application of wind tunnel wall corrections to pitching moments caused by tail of aircraft model
[NASA-TN-D-3738] 02 p0172 N67-11814
Force and moment measurements on delta wing-body configurations in supersonic wind tunnel
[ARC-CP-888] 06 p0788 N67-16691
Nose bluntness effects on static and dynamic pitching moment derivatives of slender cones 07 p0988 N67-16979
Low speed wind tunnel measurements of lift, drag, and pitching moment on sweptback wing and symmetrical slender wing body models
[ARC-CP-846] 07 p0989 N67-17721
Measurements of direct pitching moment derivatives for four wing planforms at transonic speeds
[ARC-R+M-3435] 09 p1393 N67-20222
Developed theory of spoilers on airfoils
[ARC-CP-887] 10 p1550 N67-21179
Lift, drag, and pitching moment on compression surface by axisymmetric conical flow field
[RAE-TR-66035] 11 p1777 N67-22199
Axial force, normal force, and pitching moment coefficients of ablating conical Teflon models at Mach number 18
[NASA-TN-D-4022] 14 p2445 N67-27811
Gun tunnel measurements of lift, drag, and pitching moment on 20-degree half-angle right circular cone and on delta wings of triangular and caret cross section
[ARC-CP-908] 16 p2814 N67-29057
Lift and pitching moment characteristics of low aspect ratio wing-body combinations of different stiffnesses at transonic speeds
[NASA-TM-X-343] 18 p3189 N67-32158
Theoretical calculation of aerodynamic lift and moment derivatives for pitching oscillations in incompressible flow - analysis of arrowhead and delta wings
[DLR-FB-67-26] 19 p3364 N67-33433
Normal-force, pitching-moment and axial-force coefficients for axisymmetry models with hammerhead noses at transonic speeds in wind tunnel
[NASA-TM-X-1433] 20 p3563 N67-35113
Ablation effects on pitching moment derivatives of cones in hypersonic flow

[REPT.-0414-4-4-67] 24 p4371 N67-39285
Mass transfer effects on aerodynamic pitching moment of conical bodies supported in hypersonic wind tunnels
[REPT.-0414-3-31-67] 24 p4371 N67-39670
Equation of motion coefficients measured for pitching and heaving destroyer model
[TDCK-48948] 24 p4546 N67-40288
PITOT-STATIC TUBE
Improving accuracy of altimetry systems 07 p1078 N67-16900
Rocket sounding data from upper stratosphere and mesosphere
[NASA-TR-R-263] 21 p3836 N67-35777
Analysis of upper atmospheric pressure measurements from cone cylinder pitot-static probes of Nike-Apache rockets
[SC-RR-251] 22 p4027 N67-37100
PITOT TUBE
Transition boiling heat transfer program
[GEAP-5278] 10 p1773 N67-21636
Qualitative analysis on differential equations describing three-dimensional magnetohydrodynamic flow near stagnation point in presence of high magnetic fields - pitot and Prandtl tube
[TR-41] 13 p2387 N67-26356
Impact pressure of pitot velocity probe in low density flow
[AGARD-525] 16 p2878 N67-29532
Nitrogen condensation effects on pitot and static pressures in hypersonic gun tunnel
[ARC-CP-956] 22 p4023 N67-38383
PITUITARY GLAND
Role of adrenal glands, hypophysis, and cortex, in development of adaptation syndrome in mammals subjected to prolonged conditions of reduced barometric pressure 02 p0200 N67-11588
Functioning changes in central nervous system, pituitary gland, and adrenal cortex of rats due to oxygen deficiency 02 p0203 N67-11611
Adaptive cytochemical responses of hormone producing cells of rat anterior pituitary following exposure to simulated high altitude
[NASA-CR-82668] 08 p1229 N67-19103
PIVOT
Conical pivot bearings for space environment use, minimal torque design criteria 07 p1089 N67-16919
Stability characteristics of gas lubricated tilting-pad journal bearings - pivot design
[AROD-4372-2] 24 p4459 N67-40258
PIVOTED WING
Wing pivot location effect on longitudinal aerodynamic characteristics of variable sweep wing having M planform
[NASA-TM-X-1022] 18 p3188 N67-32145
Aerodynamic characteristics of variable sweep supersonic aircraft with pivoted wind
[NASA-TM-X-745] 18 p3196 N67-32553
Low speed, longitudinal aerodynamic stability characteristics of supersonic aircraft with variable sweep wings and double pivot
[NASA-TM-X-744] 18 p3196 N67-32554
Aerodynamic characteristics of family of wings with variable sweep
[ONERA-TP-272/1965] 21 p3755 N67-36231
PLANCK EQUATION
Inversion problems and limitations of numerical methods for solving Planck equations of atmospheric radiance and absorption 12 p2139 N67-24304
Black body functions - Tabulation of data derived from Plancks radiation law
[RDTR-90] 18 p3357 N67-32476
PLANE
SA FACE
SA HALF-PLANE
SA LAMBDA PLANE
SA SURFACE
Electrostatic focusing of electron sheet beam in symmetric planar structure
[NDL-TR-1324] 02 p0347 N67-11891
Mathematical model for studying general plane disturbances in magnetized plasma
[IPPJ-52] 19 p1740 N67-21730
Critical load for crack propagation due to tension forces in plane weakened by broken-line crack 12 p2226 N67-24525
Mathematical problems of computer-designed computers, and disposition of graph in plane 13 p2347 N67-25723
Mathematical analysis of object and image planes mapped onto one another by photographic process
[HRB-35316-R-3] 18 p3273 N67-32497
Plane strain equations in asymmetric theory of elasticity - boundary condition separation for half-plane 21 p3943 N67-35440
PLANE WAVE
Attenuation of strong plane shock produced in target by impact of thin striker studied by numerical method of characteristics
[REPT.-125-8] 02 p0468 N67-12453
Attenuation of plane wave electromagnetic field by imperfectly conducting prolate spheroidal shell
[SC-R-66-966] 06 p1226 N67-18612
Prototype explosive assembly for large scale plane wave shock experiments on rock specimen in laboratory 09 p1439 N67-19398
Knight shift in lead telluride used to test relativistic augmented plane wave calculations
[TR-4] 10 p1746 N67-20579
Surface currents induced on wedges under plane wave illumination
[AFCRL-66-742] 10 p1607 N67-20680
Theory for weak explosion in homogeneous atmosphere and in isothermal atmosphere in gravitational field
[ORNL-TM-1703] 10 p1695 N67-21066
Reflection coefficients of plane electromagnetic waves from flat layered and inhomogeneous anisotropic plasma 15 p2666 N67-28143
Preliminary calculations on direct transmission of light through plane water surface and return by submerged retroreflector
[NRL-6423] 16 p2938 N67-29610
Augmented plane wave band calculations for copper element
[LA-DC-8593] 16 p2948 N67-29792
Hydrodynamic and Maxwell equations for describing plane wave propagation through compressible inhomogeneous plasma
[AFCRL-67-0299] 20 p3705 N67-34095
Scalar and vector Helmholtz integrals in scattering of plane waves by one-dimensional rough surfaces
[NASA-CR-65669] 20 p3887 N67-34303
Response of elastic cylindrical shell to plane acoustic wave
[SC-TM-67-235] 20 p3742 N67-35098
Plane wave shielding effectiveness of vacuum deposited thin metal films
[ECOM-2798] 21 p3818 N67-35960
Plane wave scattering by spheroids and disks
[AFCRL-67-0360] 22 p4097 N67-38799
Dispersion of plane small amplitude plasma waves 23 p4121 N67-37826
PLANET
SA ALBEDO
SA EARTH
SA JUPITER /PLANET/
SA MARS /PLANET/
SA MERCURY /PLANET/
SA NEPTUNE
SA PLUTO /PLANET/
SA SATURN /PLANET/
SA URANUS
SA VENUS
Description of individual planets and planetary satellites 00 p0065 N67-15496
Photographic observations of minor planets - table 13 p2401 N67-25655
Solar radiation pressure effects on heliocentric orbits in encounters between interplanetary dust and planets 18 p3332 N67-32069
Attenuating brightness methods for photographic astrometric observations of major planets 19 p3594 N67-33195
Aeronautical data on Sun, Moon, and planets 22 p4041 N67-37848
PLANETARY ATMOSPHERE
SA JUPITER ATMOSPHERE
SA MARS ATMOSPHERE
SA VENUS ATMOSPHERE
Flow field computations for blunt bodies in planetary atmosphere 02 p0306 N67-12110
Martian atmosphere and ionosphere electron density and refractivity profiles determined by two frequency beat occultation technique used by Mariner IV space probe 03 p0400 N67-12945
Single and double gas number-density equations for determining temperature-altitude profile, high and low solar activity atmospheric models, and error analysis
[NASA-CR-79625] 03 p0484 N67-13018
Stellar and planetary atmosphere light scattering theory based on probability
[NASA-TT-F-10235] 04 p0581 N67-13793
Scattering functions for Rayleigh atmospheres of arbitrary optical thickness
[R-432-PR] 05 p0704 N67-15019
Photochemistry of planetary gases and planetary aeronomy
[NASA-CR-81362] 06 p0888 N67-16815
Scattering anisotropy effect on optical parameters of Martian atmosphere and surface - photometry 07 p1159 N67-16939
Optical instruments for ultraviolet measurements in planetary atmospheres 07 p1182 N67-17798
Atmosphere of Mercury
[NASA-TM-X-57323] 08 p1360 N67-18273
Limb darkening of planetary atmospheres in thermal infrared
[NASA-TM-X-57350] 08 p1360 N67-18280
Comparison of surface and atmospheric characteristics of Earth and Venus
[NASA-TM-X-57351] 08 p1361 N67-18435
Highlights of space science achievements in 1965
[NASA-SP-136] 08 p1366 N67-18923
Rocket and satellite electron density measurements for radiophysics and planetary ionosphere study 08 p1378 N67-18934
Twilight investigations of planetary atmospheres from space probes
[FTD-MT-65-480] 09 p1510 N67-18543
Experimental and theoretical studies in planetary aeronomy
[NASA-CR-82937] 09 p1442 N67-19029
Theory and numerical procedure for digital computer application of Greenhouse effect for planetary atmosphere of finite depth
[RM-5076-PR] 11 p1978 N67-22562
Estimates and definitions on characteristics of Venus lower atmosphere
[P-3513] 11 p1976 N67-22577
Planetary atmosphere structure determined from entry vehicle onboard measurements of pressure, temperature, and acceleration
[NASA-TN-D-3923] 11 p1972 N67-22302
Scattering of light in planetary atmospheres and diffuse reflection of light by turbid medium 11 p1979 N67-22425
Gaseous breakdown of simulated planetary atmospheres and illustration of Greenhouse effect, thermal radiation from ionized argon, liquid magnetohydrodynamic power conversion 12 p2234 N67-23685
Atmospheric brightness of Mars determined by polarimetric and photometric measurements
[TR-34] 12 p2219 N67-24229
Bibliography and author on Mercury surface, atmosphere, rotation, temperature, and terrain
[NASA-CR-84113] 13 p2405 N67-26454
Geoastrophysics research pertaining to planetary atmospheres and geomagnetic pulsation 13 p2317 N67-26461
Earth atmospheric radiation spectral influences on infrared measurements of planetary atmospheres
[NASA-CR-84157] 14 p2810 N67-26507
Radio and X-ray astronomy research on X-ray polarization, X-ray telescope and planetary atmosphere 14 p2811 N67-26620
Planetary contamination by viable terrestrial microorganisms transported on spacecraft
[AD-648864] 14 p2612 N67-27042
Simulation facility for atmospheric composition, pressure, and daily variations of Mars and other planets
[NASA-TT-F-11062] 14 p2513 N67-27533
Feasibility of using radio sounding techniques to investigate ionospheric properties of planets
[NASA-CR-689] 15 p2703 N67-28368
Aerodynamic lift in future space vehicle design during various flight regimes in atmospheres of earth and planets
[P-3559] 15 p2636 N67-28513
Heat balance, pressurization, and minimum weight design criteria for inflatable structures in near-planetary atmosphere
[NASA-CR-84829] 15 p2901 N67-28759
Method for calculating infrared radiation from planetary atmospheres
[BAWF-RB-W-67-02] 17 p3150 N67-30708
Vibration and thermal radiation effects on filter wedge infrared spectrometer used in spacecraft studies of planetary atmospheres
[NASA-CR-85707] 17 p3070 N67-31388
Invariant imbedding equations for determining vertical stratification of terrestrial and planetary atmospheres on basis of satellite observations

[RM-5229-PR] 18 p3337 N67-32463
Mars probe design and subsystem performance characteristics for investigating Martian atmosphere
[NASA-CR-590] 19 p3532 N67-32719
Inverse problem of radiative transfer as applied to remote measurements of infrared radiation from planetary atmospheres
[NASA-TM-X-55857] 19 p3549 N67-32849
Calculation of total radiation emerging from planetary atmospheres optically thicker than those of earth
[RM-5343-PR] 19 p3532 N67-32966
Martian and Cytherean atmospheric composition determinations using entry probe measurements of ultraviolet and X-ray attenuation
[DAC-60627] 19 p3538 N67-32758
Artificial earth satellite observations of planetary distribution of ozone
[NASA-CR-87182] 19 p3449 N67-33867
Momentum and heat transfer in planetary boundary layer 20 p3634 N67-34856
Spatial and temporal distribution of gradient Richardson number in surface and planetary boundary layers
[ECOM-5123] 21 p3839 N67-35919
Biennial oscillation in zonal wind and temperature in tropical stratosphere - planetary transport processes in upper atmosphere
[MIT-2341-31] 22 p4041 N67-37874
Planetary atmospheres and possibility of life in solar system
[P-3669] 24 p4381 N67-39518
Decision theory biological search strategies and planetary quarantine aspects of Mars exploratory missions
[NASA-CR-89773] 24 p4533 N67-40462
PLANETARY CONSTITUTION
Methods for physical research on planets and satellites 06 p0962 N67-15495
Composition of terrestrial planets determined by densities of selected minerals, rocks, and silicates
[NASA-CR-85855] 17 p3163 N67-31374
PLANETARY ENTRY
Static aerodynamic characteristics of planetary entry configurations at Mach 4.54
[NASA-CR-81647] 07 p0990 N67-18001
Static longitudinal aerodynamic characteristics of high drag planetary entry bodies
[NASA-TN-D-3915] 11 p1780 N67-23295
Heat transfer and temperature distribution of conical porous membrane used as decelerator during planetary entry
[NASA-TN-D-4019] 14 p2634 N67-27612
Planetary entry blackout, instrumentation and data reduction for lunation experiment, spacecraft communications system, and low noise transponder preamplifier 20 p3603 N67-34779
Flight test of disk-gap band parachute deployed at low supersonic speed and low dynamic pressure to obtain performance data on planetary entry parachute configurations
[NASA-TM-X-1451] 21 p3940 N67-35616
Initial balloon design considerations for planetary entry parachute program 23 p4179 N67-39263
PLANETARY ENVIRONMENT
SA MARS ENVIRONMENT
Bibliography on extraterrestrial life, chemical reactions and geological studies related to organisms, and planetary environments 02 p0344 N67-12758
Analytical techniques and calculations in planetary quarantine and spacecraft sterilization
[NASA-CR-80337] 03 p0346 N67-12971
High power continuous wave radar transmitter for use as planetary radar system and as proving ground for equipment NASA space program 04 p0514 N67-13944
Necessity for spacecraft sterilization requirement to prevent planetary environment contamination in detecting extraterrestrial life 05 p0680 N67-14762
Conversion of planetary environment by earth microorganisms to support human life 10 p1539 N67-20430
Theoretical, observational, and laboratory work on planetary environments
[NASA-CR-84461] 14 p2465 N67-27626
Space and planetary biology and associated flight missions - detection of extraterrestrial life, environmental factors affecting Earth organisms, and models relevent to origin of life
[NASA-CR-85772] 17 p3006 N67-31475
Astrogeologic studies - lunar and planetary research
[NASA-CR-86649] 18 p3336 N67-31934
Instrumentation for chemical analysis of planetary environment and extraterrestrial life
[NASA-SP-5063] 22 p3982 N67-36736
PLANETARY EVOLUTION
Stellar and biological evolution related to requirements for life on planets 03 p0342 N67-12729
Experiment design for microbiological analysis of meteorites and detection of life on other planets
[JPRS-23015] 03 p0342 N67-12730
Chemical evolution of planets and other approaches to study of extraterrestrial life 03 p0342 N67-12732
Role of radiation in origin and early development of life, and possibilities of planetary and other extraterrestrial life 03 p0343 N67-12741
Extraterrestrial microbiology, planetary ecology, and photosynthesis on Mars 03 p0344 N67-12743
Thermal evolution of Earth, Mars, and Moon
[NASA-CR-85648] 17 p3164 N67-31396
Planetary evolution and composition of earth atmosphere
[NASA-TM-X-66233] 21 p3834 N67-35336
PLANETARY EXPLORATION
SA MARS PROBE
Low-thrust trajectory requirements for solar system exploration using nuclear electric propulsion
[NASA-CR-79297] 02 p0306 N67-12224
Planetary quarantine mission
[NASA-CR-86201] 03 p0345 N67-12902
Future directions for space research in planetary and lunar exploration, astronomy, geophysics, physics, rockets, satellites, universities, biology, medicine, physiology, and mans role
[PUBL.-1403] 03 p0465 N67-13095
NASA spacecraft sterilization program, and constraints for preventing extraterrestrial life contamination during planetary explorations 05 p0779 N67-14783
Sterilizability of scientific payloads for planetary exploration 05 p0785 N67-14793
Estimates of planetary contamination probabilities due to flight of Venus 3
[NASA-CR-81256] 06 p0968 N67-16512
Scientific payload objectives definition, and systems engineering for automated biological laboratory for exploration of life on Mars
[NASA-CR-81309] 06 p0969 N67-16575
Systems engineering studies for automated biological laboratory for exploration of life on Mars
[NASA-CR-81307] 06 p0973 N67-16577
Plan, scheduling, costs, and interactions of development program for automated biological laboratory for exploration of life on Mars
[NASA-CR-81312] 06 p0973 N67-16578
Annotated bibliography on various means of detecting extraterrestrial life for automated biological laboratory program
[NASA-CR-81311] 06 p0606 N67-16579
Instrumental, chemical, and environmental techniques for detecting extraterrestrial life on Mars - automatic biological laboratory for Mars exploration
[NASA-CR-81308] 06 p0606 N67-16580
Nature and extraction of lunar resources for use in increasing economy of manned lunar and planetary exploration
[NASA-TM-X-55673] 08 p1342 N67-18633
NASA educational booklet on space science, spacecraft, and planetary exploration 11 p1903 N67-23336
National sovereignty, air navigation regulations, and discovery of planetary bodies in relation to international space laws 13 p2429 N67-25234
Legal consequences of explorations to moon and planets, and need for international law 13 p2430 N67-25240
International law, legal liability in outer space, and discovery of planetary bodies 13 p2438 N67-25303
Systems support activities for planetary quarantine mission
[NASA-CR-83829] 13 p2256 N67-25661
Bibliography of lunar and planetary research for 1965
[AFCRL-67-0043] 14 p2612 N67-26674
Planetary quarantine program for spacecraft contamination control
[NASA-CR-85573] 17 p3003 N67-30707
Bibliography on planetary quarantine 18 p3212 N67-32330
Noncontamination requirements for planetary exploration mission derived by sequential decision model
[NASA-CR-87423] 20 p3570 N67-34054
Studies and analyses of space science problems related to NASA lunar and planetary programs
[NASA-CR-87506] 20 p3728 N67-34852
Solar phenomena, planetary and lunar compositions, plasmas, interplanetary particles, satellite probes, animal neurophysiology, engineering structures, and related space activities
[NASA-CR-88283] 21 p3932 N67-36040
Research and technology review in fields of lunar and planetary exploration, physics, astronomy, and bioscience
[NASA-CR-88536] 22 p4144 N67-37123
Round-trip trajectories for exploration of major moons of Jupiter
[NASA-TN-D-4167] 23 p4341 N67-38856
Solar cells and thermoelectric generators for scientific exploration of solar system
[NASA-CR-89744] 24 p4378 N67-40002
PLANETARY GRAVITATION
Third and fifth harmonics effect in power gravitational force decomposition of phase on movement of planetary satellite
[FTD-TT-65-872] 01 p0155 N67-11965
LUNIK X orbit studied to determine lunar gravitational field, taking into account effect of other planets
[NASA-CR-79543] 02 p0303 N67-11779
Accessibility of solar system regions by earth launched spacecraft using Jupiter gravity-assisted trajectories
[NASA-CR-87495] 20 p3726 N67-34851
Differential method of orbit improvement for Vinti spheroidal theory of artificial satellite motion about oblate planets with inclusion of planetary gravitational effects
[NASA-TN-D-4068] 20 p3730 N67-34853
Orbital regression of synchronous satellites due to combined gravitational effects of sun, moon, and oblate earth
[NASA-CR-86355] 21 p3933 N67-36039
PLANETARY-INTERPLANETARY PROGRAM
Space exploration programs and space sciences - Lunar program, Planetary Interplanetary program, and Deep space network program
[NASA-CR-86607] 18 p3335 N67-32357
PLANETARY LANDING
Expandable, terminal decelerators for Mars atmosphere entry
[NASA-CR-79498] 02 p0317 N67-12895
NASA requirements for decontamination and sterilization of planetary landing capsules 05 p0849 N67-14978
Planetary landing spacecraft sterilization program 05 p0852 N67-14979
Power systems related to Mars landing capsule
[NASA-CR-80991] 05 p0838 N67-14824
Propulsive planetary landing capsule control system 06 p0791 N67-17988
Analysis and configuration of control system for Mars propulsive lander
[NASA-CR-82912] 09 p1428 N67-19877
Design and fabrication of instrumented payload test vehicle and three types of radio frequency transparent, omnidirectional impact absorbing, landing systems
[NASA-CR-66301] 10 p1785 N67-21179
Feasibility of parachute entry system for Mars lander
[NASA-CR-88498] 22 p4139 N67-36876
PLANETARY LONGITUDE
Latitude and longitude of Jupiter Red Spot measured from photographs obtained during 1965 and 1966
[NASA-CR-85560] 17 p3163 N67-31376
PLANETARY MAGNETIC FIELD
Interaction of solar plasma with magnetic field of earth
[IPPJ-44/J/] 07 p1165 N67-17511
PLANETARY MASS
Approximate method for satisfying requirements imposed for regularization of earth
[JPRS-39456] 05 p0706 N67-15178
Selenodesy experiment, data compression Mars and Venus mass data, Earth-Moon mass ratio, orbits for three-body problem, and unbraked impact time for lunar landing mission - systems

analyses 12 p2306 N67-23642
Masses of Venus and Moon, and astronomical unit determined by Mariner II radio tracking data
[NASA-CR-84978] 16 p2966 N67-29180
Planetary masses for ephemiris development, and orbit correction theories 20 p3727 N67-34763
PLANETARY MOTION
Relative and absolute proper motions of three open galactic clusters and their environs
[REPT.-74] 15 p2788 N67-27815
Von Zeipel method in general planetary theory
[NASA-CR-87298] 19 p3533 N67-33016
Elimination of short period terms of first order general planetary theory through Von Zeipel method
[NASA-TM-X-55872] 19 p3535 N67-33278
PLANETARY NEBULA
General theory of infrared line emission from planetary nebula
[NASA-CR-80134] 02 p0301 N67-12179
Radio interferometric measurements of flux densities, positions, and angular widths of planetary nebulae
[AD-642165] 06 p0959 N67-15417
Radio emission spectra for optically thin planetary nebulas 17 p3162 N67-31032
Spectroscopy of A and B star of peculiar chemical composition - planetary nebulae - and chemical composition of gaseous nebulae
[AFOSR-67-1065] 19 p3532 N67-32921
Statistical and astrophysical studies of emission-line stars and planetary nebula in southern Milky Way
[AD-658513] 24 p4531 N67-40363
PLANETARY ORBIT
Restricted three-body problem for motion analysis of planetoid orbiting around triangular equilibrium point 07 p1190 N67-17322
Guidance laws for propellant efficiency with optimum thrust program and error analysis for Voyager mission orbit insertion
[NASA-TM-X-53601] 14 p2613 N67-27229
General relativity theory and effects on planetary orbits and interplanetary radar observations - Propagation of electromagnetic waves according to general relativity - Doppler effect
[ESD-TR-66-444] 16 p2966 N67-29138
Digest of advanced planning reports on orbiter missions and flyby flights to outer planets
[NASA-CR-85770] 17 p3160 N67-30917
PLANETARY ORIGIN
Orbits, physical properties, and origin of asteroids 06 p0963 N67-15497
Compilation of research reports in astronomy, geophysics, nucleosynthesis, stellar structure and evolution, solar system origin, and atmospheric dynamics and turbulence
[NASA-TM-X-53345] 07 p1193 N67-17980
Rotational behavior of stars and formation of planetary systems
[NASA-CR-83656] 06 p1368 N67-19114
Cosmogonic theory of Saturnian ring structure origin including effects of Mimas and Janus satellites
[REPT.-67-09] 19 p3535 N67-33418
PLANETARY RADIATION
SA LUNAR RADIATION
Planetary reflection spectroscopy for studying extraterrestrial life
[NASA-CR-80353] 03 p0464 N67-12982
Planetary radiation measurement from satellite in elliptical orbit
[REPT.-66-7] 03 p0458 N67-13053
Equilibrium radiation in air and gas mixtures assumed to represent near planet atmospheres
[NASA-CR-81315] 07 p1206 N67-16722
Infrared balloon astronomy of Venus
[AFCRL-66-616] 09 p1514 N67-26347
Methods of analysing polarization measurements of decameter radiation from Jupiter
[NASA-CR-73974] 13 p2396 N67-26166
Computer program written in Fortran IV for computing orbital variation in incident and reflected solar and planetary emission radiant heat flux on plane surface elements
[NASA-CR-85583] 16 p2966 N67-30165
Geometrical model for calculation of planet reflected solar thermal fluxes
[NASA-CR-84856] 17 p3155 N67-30621
Engineering design studies for planetary radar box and advanced radar and radio telescope research facility 17 p3026 N67-30714
Environmental test data for high resolution nighttime cloud cover radiometer
[NASA-CR-86759] 22 p4047 N67-37382
Solar array design concepts for recording of Martian environmental data during probe
[NASA-CR-89563] 24 p4377 N67-39743
PLANETARY SPACE FLIGHT
SA FLYBY MISSION
Optimum power system configurations for planetary spacecraft probes 06 p0791 N67-15704
Nominal natural environment values for advanced manned planetary space flights to Venus and Mars
[NASA-SP-3016] 12 p2313 N67-25042
Manned orbiting stopover round trips to Venus studied for departure dates between 1975 and 1986
[NASA-TM-X-52311] 14 p2613 N67-27239
Bibliography of publications on bioscience, physical space science, electronics, chemical and electric propulsion, fluid physics, and planetary and interplanetary missions
[NASA-CR-88619] 23 p4139 N67-37069
Return-to-earth trajectories from Mars with Venus swingby for 1971-1999
[NASA-CR-88761] 23 p4141 N67-37396
Space flight missions in astronomy, solar physics, particles and fields, ionospheres and radio physics, planetary atmospheres, planetology, bioscience, and spacecraft applications
[NHB-8030.2A] 23 p4344 N67-38579
PLANETARY SPACECRAFT
SA MARS SPACECRAFT
Study approach to planetary spacecraft designs and missions - spin-stabilized spacecraft design for Jupiter flyby mission in 1972 with 50-lb scientific payload
[NASA-CR-79560] 02 p0305 N67-12044
Spin-stabilized spacecraft design and functional requirements for Jupiter flyby mission in 1972 with 50-lb scientific payload
[NASA-CR-79562] 02 p0313 N67-12045
Evaluation of 3-axis stabilized, 50-lb science payload spacecraft, Jupiter flyby and orbiter missions, flyby missions to planets beyond Jupiter, capsule entry, and cost effectiveness
[NASA-CR-79561] 02 p0313 N67-12046
Planetary probe conical scanning system, signal processing, S-band power amplifier survey, modulation and bit synchronization, antenna temperature, and trajectory perturbations
[NASA-CR-79504] 02 p0236 N67-12047
Sterilization requirements affecting planetary spacecraft design, and known contamination sources 05 p0649 N67-14766
Dry heat sterilization for planetary impacting spacecraft 05 p0651 N67-14776
Engineering problems in sterilization of planetary spacecraft 05 p0660 N67-14780
Design criteria for planetary spacecraft subject to heat sterilization 05 p0765 N67-14792
Manufacturing, assembly, and handling procedures for planetary spacecraft to be heat sterilized 05 p0711 N67-14794
Clean room assembly and sterilization laboratories for experiments on Voyager capsule, components and modules 05 p0690 N67-14795
Special problems in spacecraft sterilization 05 p0690 N67-14796
Feasibility of solar powered electric propulsion spacecraft for deep space missions
[NASA-CR-81703] 07 p1184 N67-18041
Optimum distribution of trajectory correcting impulses in single parameter correction during spacecraft planetary approach 10 p1758 N67-26982
Ethylene oxide sterilization of planetary spacecraft electronic equipment
[NASA-CR-85631] 17 p3027 N67-31149
Tests and analyses to select materials and techniques for thermal insulation of planetary spacecraft
[NASA-CR-88909] 21 p3573 N67-35552
Design, alignment, testing, and specifications of S-band transponder Mark I with 20-cycle bandwidth for planetary spacecraft
[NASA-CR-89060] 23 p4217 N67-38314
PLANETARY SURFACE
SA MARS SURFACE
Topographic information acquisition methods for lunar, planetary, and solar surfaces
[NASA-CR-650] 02 p0260 N67-11961
Planetary physics seminar - polarization, spectrometric, and radio signal techniques for measuring Martian surface and atmospheric parameters 03 p0459 N67-12964
Surface and atmospheric parameter measurements by use of polarization instrumentation aboard Mariner orbiter space probe 03 p0460 N67-12966
Martian surface and atmospheric parameter measurements by means of gamma ray spectrometric instrumentation aboard Voyager mission 03 p0460 N67-12967
Polarimetry signature of terrestrial and planetary materials 04 p0549 N67-13513
Models that assume Mars atmosphere has absorptive rather than scattering properties, and that redness of planet is due to selective absorption 07 p1187 N67-16886
Model for Martian atmosphere and planetary surface assuming atmospheric spectrum with purely scattering properties and surface covered with limonite dust 07 p1187 N67-16889
Polarization studies of radio emission from upper layer and surface covering of planets 07 p1188 N67-16917
Spectrum matching remote sensing technique for molecular vibration emissivity of lunar and planetary surfaces 07 p1077 N67-16966
Planetology studies in 1965 by space probes, ground-based observations, and theoretical studies 08 p1287 N67-19027
Multicolor photographic and visual patrol of atmosphere and surface of Martian northern hemisphere during spring and summer of 1964-1965 apparition
[NASA-CR-83123] 10 p1761 N67-21190
Survey on chemical analytical methods for planetary exobiological probes 12 p2025 N67-24449
Gas chromatography-mass spectrometry system for analysis of organic compounds on moon and planetary surfaces
[NASA-CR-83968] 13 p2271 N67-26662
Neutron and gamma ray die-away experiment for lunar and planetary surface analysis
[NASA-CR-84447] 14 p2614 N67-27434
Interpretation and application of photometric-polarimetric observations of planetary surfaces
[RM-3677] 17 p3165 N67-31429
Energy source and conversion for microorganism metabolism in Mars surface soil
[NASA-CR-87159] 19 p3372 N67-32963
Balanced filters evaluated for performance in X-ray fluorescence analysis of lunar and planetary surface materials
[NASA-CR-87164] 19 p3453 N67-32229
Data acquisition techniques for information on lunar, planetary, and solar topography
[NASA-CR-85008] 20 p3725 N67-34542
Control circuitry designs for wet chemistry experiments in earth orbit or on planetary surface 20 p3643 N67-34772
Adaptability of four lunar orbiter spacecraft configurations to other space related and surface related experiments
[NASA-CR-66446] 21 p3934 N67-35263
Bistatic radar imaging techniques for study of planetary surfaces
[NASA-CR-88284] 21 p3902 N67-36611
Thermal neutron capture gamma ray technique for lunar and planetary surface analysis
[NASA-CR-88485] 22 p4139 N67-36772
Compositional analysis of lunar and planetary surfaces using neutron capture gamma rays
[NASA-CR-89230] 23 p4346 N67-39074
Planetary quarantine, operational support equipment, system interfaces, and implementation of preferred design concept for capsule bus system of Voyager flight capsule
[NASA-CR-89674] 24 p4536 N67-40043
Surface Laboratory preliminary configuration for Voyager mission - space capsule
[NASA-CR-89724] 24 p4539 N67-40445
Operational support equipment and mission dependent equipment for preliminary design of surface laboratory portion of Voyager capsule bus system
[NASA-CR-89725] 24 p4539 N67-40446
Hardware, software, and service interfaces between capsule bus, entry science package,

surface laboratory, and Voyager spacecraft
[NASA-CR-89729] 24 p4539 N67-40450
PLANETARY TEMPERATURE
Model computations of temperature variations and wind circulations in Martian atmosphere
[NASA-CR-85569] 17 p3159 N67-30634
Atmosphere, temperature, and cloud cover of Venus
[NASA-CR-86635] 18 p3335 N67-32308
Estimates of vertical temperature structure, heat balance, solstice circulation, and thermally driven tides on Mars in comparison with like conditions on Earth
[NASA-CR-86912] 18 p3337 N67-32494
PLANETOLOGY
Generalization of development of disturbing function of first order general planetary theory using more than one disturbing planet - equation
[NASA-TM-X-55968] 24 p4529 N67-39923
PLANFORM
SA RECTANGULAR PLANFORM
SA WING PLANFORM
Wing planform designs for supersonic commercial air transport stability 18 p3191 N67-31619
Subsonic and supersonic flutter analysis of tapered swept wing planforms, including effects of density variation and finite wing thickness
[NASA-TN-D-4230] 24 p4372 N67-40150
PLANKTON
Organotin compounds used in plankton growth control
[JPRS-39292] 05 p0658 N67-15169
Analog computer model, and ecological theory of adaptation in relation to biocoenetic processes in esturaine phytoplankton community
[ORNL-3946] 06 p1228 N67-19001
Temperature and respiration effects on metabolic fractionation of carbon isotopes in marine plankton
[NASA-CR-85760] 17 p3005 N67-31060
PLANNET PROGRAM
S DATA ACQUISITION
PLANNING
SA AIRPORT PLANNING
SA MANAGEMENT PLANNING
SA MISSION PLANNING
SA OPERATIONS RESEARCH
Developmental planning for heavy water reactors
[EUR-2966.F] 10 p1678 N67-30892
Critical path technique for automatic control of complex systems design planning 13 p2289 N67-35789
Objectives, resources, organizational structure, services, goals, and specific program plans of Technology Application Center
[NASA-CR-84081] 13 p2441 N67-36385
Long range planning forecast on airport and aircraft needs of civil, military, and commercial aviation
[AD-649338] 15 p2642 N67-38891
National developments, plans, and research programs in weather and climate modification
[NSF-67-9] 17 p3099 N67-31435
Algorithm for simplifying operations in problem of optimum planning of sequence of operations performed by one or two machines 18 p3285 N67-31866
Updated design plan for Satellite Communications Terminal AN/TSC-54
[DOC.-1165-00-4, VOL. 3, APP. K] 18 p3233 N67-32400
Financial planning for supersonic aircraft production
[AD-652314] 18 p3195 N67-32540
Interdisciplinary study of organization, planning, and management of science and technology
[JPRS-42067] 21 p3951 N67-35900
Dynamic programming input-output model of California educational system - correlation of educational variables to economic planning
[NASA-CR-89274] 23 p4369 N67-38941
PLANT /BIOL/
SA ALGAE
SA ANGIOSPERM
SA FUNGUS
SA ROOT
SA TRADESCANTIA
SA TREE
SA VASCULAR SYSTEM
SA VEGETATION
Hormone effects on plant growth in absence of gravity, and effect of weightlessness on growth and orientation of roots and shoots of monocotyledonous seedlings in biosatellite
[NASA-CR-79712] 01 p0017 N67-10896
Refinements in culture techniques, physiology of plant organ orientation to gravity, and actual growth of wheat seedlings in flight hardware of biosatellite 01 p0017 N67-10898
Photosynthesizing plant tissues as nutritious food for gas exchange in space travel
[FD-52] 01 p0019 N67-11059
Biological proton and gamma radiation effects on potato seeds and plants 02 p0178 N67-11403
Ecological conversion cycle of urinary-fecal waste into mineral nutrient for higher plants 02 p0179 N67-11405
Radiation hazards to space plants, and gamma and proton radiation effects on crops 02 p0188 N67-11478
Model for study of higher plants in closed ecological system 02 p0190 N67-11498
Irradiation experiments on tissue and plant cultures using ion accelerators 02 p0197 N67-11563
Conveyer system for plant growth in closed ecological systems 02 p0199 N67-11576
Proton and gamma radiation effects on plant chromosome aberration 02 p0202 N67-11599
Relation of gaseous metabolism of higher plants to concentration of carbon dioxide in air-hydroponics 02 p0202 N67-11602
Field and greenhouse experiments to determine effects of plant height, ground cover, and soil salinity on spectral reflectance of cotton 04 p0489 N67-13491
Mutagenic and genetic effects of alkylating compounds, and ethyleninine on barley seeds exposed to gamma radiation
[JPRS-39158] 04 p0492 N67-13808
Space flight effects on wheat seeds and plants produced from them 05 p0652 N67-14977
Uranium sorption on peat from dilute solutions and reactor waste waters 06 p0823 N67-16349
Light dependent enzymatic processes accompanying fluorescence decay in wheat leaves during photosynthesis, and effects of inhibitors on fluorescence time curve
[FTD-TT-65-1091] 07 p1016 N67-17990
Growth orientation of grain plants under simulated weightlessness conditions
[NASA-CR-75092] 09 p1401 N67-19873
Decreased activity of oxidizing enzymes in tomato after gamma irradiation
[NASA-TT-F-462] 10 p1564 N67-21452
Physiological properties of protoplasm streaming in myxomycete plasmodium and nitella
[RAE-LIB-TRANS-1208] 15 p2650 N67-28706
Increased radiation resistance of potato under anoxia 16 p2826 N67-29211
Molecular biology of nitrogen fixing nodules in common legumes
[NASA-CR-85610] 17 p3003 N67-30777
Wide line nuclear magnetic resonance method for determining oil content in single kernel samples of corn and sunflower seeds
[NLIS-R-500] 21 p3765 N67-35755
Ionizing radiation effects on processes of cellular proliferation, megasporogenesis, and embryo sac development in orchids
[UH-335P8-3] 22 p3974 N67-37895
Biological value of plant proteins in closed life support system 23 p4191 N67-39013
Preliminary analysis of Biosatellite II space flight effects on variety of plant and animal species under weightlessness
[NASA NEWS RELEASE-67-239] 23 p4196 N67-39316
Distribution of dithizone detectable zinc in cells and tissues of Vicia faba during growth
[CNAEM-42] 23 p4196 N67-39320
PLASMA
SA ARGON PLASMA
SA BEAM-PLASMA AMPLIFIER
SA BLOOD PLASMA
SA CESIUM PLASMA
SA COLLISIONLESS PLASMA
SA CORE FLOW
SA COSMIC PLASMA
SA DEUTERIUM PLASMA
SA ELECTRON PLASMA
SA ELECTROSTATIC PLASMA
SA HELIUM PLASMA
SA HIGH TEMPERATURE PLASMA
SA HYDROGEN PLASMA
SA MAGNETOIONIC PLASMA
SA MAGNETOPLASMA
SA NITROGEN PLASMA
SA NONEQUILIBRIUM PLASMA
SA NONUNIFORM PLASMA
SA PLASMA-ELECTROMAGNETIC INTERACTION
SA RAREFIED PLASMA
SA RELATIVISTIC PLASMA
SA ROTATING PLASMA
SA SOLAR PLASMA
SA THERMAL PLASMA
Atomic beams as probe for low density plasmas, and elastic scattering of neutral beams by plasmas
[NYO-2397-2] 01 p0133 N67-10884
Spectrometer stabilization systems for precise measurements of pulse-height spectra
[JINR-P-2707] 01 p0073 N67-10722
Steady state theory and low frequency perturbation leading to wave propagation and instabilities of plasma column in magnetic field
[SU-IPR-76] 01 p0134 N67-10725
Instability properties of periodic plasma, and transient wave propagation in Epstein layers
[SR-5] 01 p0056 N67-11688
Technique for measuring microwave radiation scattering for application to measurement of properties of plasma confined in dipolar magnetic field
[NASA-TM-X-55576] 02 p0202 N67-11338
Theoretical and engineering research on plasma measurement techniques, waveguides, transport properties, delay lines, reentry phenomena, interactions, and instabilities 04 p0594 N67-13681
Plasma phenomena, and fundamental properties in terms of electron density and temperature, and Debye length 04 p0581 N67-13682
Microwave techniques for high speed plasma measurements, and quantitative measurements of plane wave interaction with isotropic and anisotropic plasmas 04 p0594 N67-13683
Applications of transport coefficients in plasma, and related bibliography 04 p0594 N67-13684
Langmuir probe and microwave techniques applied to same plasma 04 p0595 N67-13685
Laboratory simulation of reentry plasma, and methods of alleviating reentry communications blackout phenomenon 04 p0595 N67-13687
Effects of plasma produced by high altitude nuclear explosion on radar wave propagation 04 p0510 N67-13688
Coupled mode and perturbation theories applied to gaseous plasma waveguide problems 04 p0595 N67-13689
Plasma-coated surface as waveguide 04 p0595 N67-13691
Laboratory simulation of geophysical phenomena relating to perturbations induced by satellite motion in magnetized plasma, and solar wind interaction with magnetosphere 04 p0596 N67-13692
Alfven wave propagation in bismuth plasma 04 p0599 N67-13693
Microwave radiation from solid state plasmas 04 p0599 N67-13696
Electromagnetic propagation properties of solid state plasma waveguides, and potential for nonreciprocal devices 04 p0599 N67-13697
Solid state plasma delay lines 04 p0599 N67-13698
Electron interaction in low density plasma beams of electrostatic thrust engines 04 p0605 N67-13699
Difference in circulation times between erythrocytes and plasma 05 p0645 N67-14697
Plasma proteins effect on rheology of blood in microcirculation 05 p0646 N67-14698
Conference papers on ion and plasma studies, and electromagnetic interaction with plasmas and flames
[AGARD-CP-8, VOL. II] 05 p0747 N67-15230
Diagnosis of plasma beam extracted from electron bombardment ion source 05 p0747 N67-15237
Transport properties of plasma determined from electric arc measurements 05 p0748 N67-15238
Reflected circularly polarized electromagnetic waves from anisotropic plasma
[SR-4] 05 p0749 N67-15251

Plasma parameters and operating principles of electric arc plasmatrons [FTD-TT-65-1405] 06 p0943 N67-15342
Microwave radiation receiver for plasma scattering experiments [CLM-P112] 06 p0832 N67-15437
Plasma bremsstrahlung and thermal flow of electrons and ions [NASA-CR-81274] 06 p0944 N67-16516
Comparison of visible and near ultraviolet spectra from low density, arc heated nitrogen plasma, and argon plasma [AEDC-TR-66-139] 07 p1162 N67-16997
Possible dc states of one-dimensional plasma diode [NASA-CR-58200] 07 p1052 N67-17704
Theoretical plasma studies for space physics application [NASA-CR-69939] 07 p1167 N67-17871
Interplanetary gas and solar wind plasma velocities from orientations of ionic comet tails [NASA-CR-81668] 07 p1185 N67-18078
Space charge distribution of electrons and ions in neutral plasma 08 p1346 N67-18319
Plasma studies in electron bombardment ion engine 08 p1254 N67-18332
Radiating energy from antennas immersed in finite plasma [NASA-CR-66296] 08 p1248 N67-18782
Nonlinear theory of low frequency oscillations excited by ion bundle in plasma 09 p1496 N67-20241
Electron cyclotron radiation in plasma-magnetic field boundary layer 09 p1497 N67-20243
Drift mass spectrometer for analyzing ion beam separated from plasma 11 p1952 N67-21914
Calculations on filling magnetic field of small capacity trap with plasma 11 p1956 N67-21944
Goddard Summer Workshop technical papers on information systems, structural dynamics, magnetic fields, plasma studies, atmospheric research, and radiation simulation problems [NASA-TM-X-55742] 11 p2006 N67-22741
Radiation from dipole antenna immersed in half space of uniaxial anisotropic plasma 11 p1822 N67-22752
Electromagnetic properties of drifted semiconductor plasmas - normal modes in infinite medium [TR-1] 12 p2188 N67-23500
Microwave components used in high temperatures to study properties of alkali plasmas [RT/ING/66/6] 12 p2177 N67-23772
Identification of dominant ionic species in cesium plasma diode [LA-DC-8176] 12 p2179 N67-23983
Production of hot plasma in OGRA II by injection of fast hydrogen atoms into magnetic trap 12 p2180 N67-24165
Interaction of high frequency waves and plasma in Delta 2 12 p2181 N67-24170
Injection of plasma blobs into mirror trap with adiabatic plasma compression 12 p2181 N67-24172
Interaction of plasma with magnetic field 12 p2183 N67-24182
Plasma energy losses in toroidal chamber Tokamak TM-2 12 p2184 N67-24167
Fast particles trapped in magnetic field 12 p2184 N67-24189
Relaxation to equilibrium of dilute plasma [AFOSR-67-0395] 12 p2187 N67-24961
Optical interferometric methods applied to plasmas [NP-16554] 14 p2596 N67-27496
Relation between fundamental modes for plasma with temperature gradient in presence and absence of magnetic shear [LGI-67-3] 15 p2773 N67-27804
Self-focusing effect in electron beam neutralized by positive ions [AD-634634] 15 p2757 N67-27982
Moving spacecraft interactions with surrounding plasmas - bibliography with abstracts [NASA-CR-84819] 15 p2791 N67-28766
Electric impedance of waveguide shunt slots in plasma medium [HDL-TR-1342] 15 p2777 N67-28952
High temperature chemistry and physics of gases and plasmas [NP-16583] 16 p2933 N67-29336
Nonlinear second harmonic generation in lossy plasma using method of coupled modes [RADC-TR-67-276] 17 p3143 N67-30616
Characteristics of plasma vortices created by theta pinch accelerator measured by biased double and magnetic probes [RE-264] 17 p3145 N67-31090
Energy-dependent relaxation times and chargecarrier mass - influence on ionization waves in plasmas [RADC-TR-67-223] 18 p3314 N67-32154
Electromagnetic wave propagation of drifted semiconductor plasmas [REPT.-3] 19 p3523 N67-32776
Plasma effect on radiation characteristics of slot and gap apertures located on cylinders and cones using plasma simulation technique [AFCRL-67-0132] 19 p3400 N67-32918
Calculation of plasma fraction emitted as hypersonic jet from laser irradiated pellet [LGI-67-7] 19 p3467 N67-33284
Electromagnetic waves produced by electric dipole in warm, anisotropic, single-fluid, collisionless plasma 19 p3516 N67-33604
Electromagnetic wave propagation in non-Maxwellian nonlinear plasma [M-65-47R] 20 p3709 N67-34652
Finite conductivity and heat transfer effects on magnetohydrostatic equilibrium of thermodynamically ideal plasma 20 p3723 N67-35051
Kinetic equations for charged particles in plasma medium [PIBAL-1007] 22 p4114 N67-36971
Equations describing weakly ionized positive plasma column in gas discharge [NASA-TT-F-10673] 22 p4116 N67-37467
Numerical integration of Poisson equation for computer simulated plasma 22 p4119 N67-37742
Computer simulation of straight cylinder theta pinch 22 p4119 N67-37748
Electric field from electric dipoles in warm, anisotropic single fluid plasmas [TR-EE66-23] 22 p4317 N67-38504

PLASMA ACCELERATION
Mechanics, supersonic and hypersonic flows, shell stability, plasma acceleration, and airfoils [FTD-TT-65-1322] 01 p0112 N67-10041
Variation problems on plasma acceleration in dense flux electromagnetic fields 01 p0132 N67-10043
Capacitor bank for facility used for studying Hall-current acceleration of plasmas - Spectroscopy techniques used to determine state and motion of plasma behind shock wave [AFOSR-66-1858] 01 p0123 N67-10212
Electrodeless plasma acceleration studied in ring discharge for spacecraft propulsion devices [JUL-358-PP] 03 p0449 N67-13044
Plasma acceleration by magnetic piston after free particle model [JUL-336-PP] 03 p0449 N67-13046
Theory and experiments in plasma and particle acceleration, theta pinch, magnetic field, and related physics subjects [JUL-364-PP] 03 p0450 N67-13341
Theory and experiments in plasma acceleration, theta pinch, and related physics subject [JUL-361-PP] 03 p0450 N67-13343
Dipole moment approximation of three-dimensional plasma acceleration through axisymmetric diverging magnetic fields [NASA-TN-D-3782] 06 p0943 N67-15643
Plasma acceleration process studied for cases of weakly ionized gas, and for completely ionized gas 06 p1548 N67-18674
Photographic studies of A Z pinch for plasma acceleration [FHR-2342-4, VOL. II] 12 p2187 N67-24926
Current density distribution in exhaust plume of pulsed plasma accelerator determined by magnetic probing [NASA-CR-83791] 13 p2383 N67-25493
Plasma acceleration in crossed electromagnetic fields [DLR-FB-66-74] 13 p2388 N67-26186
Azimuthal inhomogeneity of plasma in homopolar machine [NASA-TT-F-11110] 18 p3313 N67-31868
Mechanism and dynamics of coaxial plasma acceleration - characteristics of current sheet between plasma and magnetic field [SIT-P199] 18 p3315 N67-32681
Acceleration of plasma by electromagnetic fields 23 p4122 N67-37935
Grid excitation analysis for two component Vlasov plasma 23 p4322 N67-38753

PLASMA ACCELERATOR
SA CYCLOPS PLASMA ACCELERATOR
Plasma accelerators, ion propulsion units, and electric propulsion systems [NASA-TT-F-10346] 01 p0144 N67-10251
Acceleration process in Hall current accelerator device [AFOSR-66-1431] 01 p0122 N67-10276
Wall interaction reduction in magnetic induction plasma accelerator [NASA-CR-54762] 03 p0456 N67-13193
Magnetohydrodynamic generator experiments in seeded hypersonic air flows for attitude control systems, and plasma accelerator for increased kinetic energy in unseeded air flow [R66SD89] 05 p0744 N67-14731
Plasma accelerators and mechanism of production and reflection of plasma jets 05 p0749 N67-15045
Steady state plasma accelerators powered by microwave frequency electric fields 05 p0749 N67-15247
Two-dimensional unsteady flow in traveling wave plasma accelerator studied using small perturbation theory [NASA-CR-81296] 06 p0944 N67-16552
Electron temperatures, density distributions, and shape of current sheets determined in coaxial plasma accelerators [NASA-CR-82950] 09 p1492 N67-19949
Plasma stabilization and engineering experiments performed on Scylla IV device [LA-3396] 10 p1760 N67-21585
Force equilibrium and potential plasma distribution in accelerator with closed circuit Hall current [NASA-TT-F-10675] 13 p2365 N67-25866
Thermonuclear plasma and accelerator technology - limitation on injection, topology of phase space, and stellarator construction problems [COO-1233-44] 15 p2775 N67-28891
Continuous wave traveling wave accelerator development for production of pinched plasma toroids [REPT.-6128, VOL. I] 17 p3140 N67-30263
Electromagnetic plasma acceleration research - studies of various plasma discharges surrounding solenoidal coil excited with current at four megacycles [REPT.-6128, VOL. II] 17 p3140 N67-30267
Repetitively pulsed, xenon propellant, plasma accelerator, and metal vapor propellant injector development [NASA-CR-72271] 17 p3158 N67-30669
Spectroscopic measurements on electrodeless plasma accelerator to estimate radiation energy loss [NP-16994] 19 p3513 N67-32599
Performance testing, diagnostic experiments, and analytical studies of Alkali Plasma Hall Accelerator /ALPHA/ [NASA-CR-72333] 21 p3938 N67-35448
Electrical discharge interaction with self-induced magnetic field in gas flow environment [AVSSD-0068-67-RR] 23 p4315 N67-38675
Electric polarity effect in coaxial plasma accelerators - possible mechanism for behavior of current sheet [NASA-CR-89796] 24 p4588 N67-39779
Optimum length for traveling magnetic wave plasma accelerator that maximizes kinetic efficiency [NASA-TN-D-4288] 24 p4589 N67-40109

PLASMA ARC
SA ARC CHAMBER
Low power magnetoplasmadynamic arc thruster performance [NASA-TM-X-52358] 03 p0456 N67-13093
Spectrographic measurements of plasma properties in direct energy conversion devices and ionized helium arcs 05 p0748 N67-15231
Permanent magnet designed for use with magneto plasma dynamic arc thruster fabricated and tested [NASA-CR-54690] 09 p1488 N67-19936
Vortex stabilized plasma arc used to obtain spectral energy distribution data [NASA-TM-X-56725] 10 p1759 N67-21460
Effects of heat conduction and radiation on electric field energy balance of high pressure helium and argon arcs 11 p1960 N67-21984
Rapid rotation of gas for argon arc stabilization in high pressure chamber 11 p1960 N67-21985
Vortex arc studies, solar flux and spectral measurements, spacecraft coatings, solar

simulation studies, and solar cell radiation effects testing
[NASA-TM-X-55735] 11 p1853 N67-22141
Spectral distribution measurements of inert gas plasmas with vortex stabilized arc for source of solar simulation 11 p1956 N67-22143
Vortex stabilized arc, pressure arc facility, spectral irradiance measurements of light sources, and ultrahigh vacuum system in support of solar simulation testing 11 p1853 N67-22148
Pulsed magnetoplasmadynamic arc facility
[NASA-CR-83891] 13 p2386 N67-25954
Electrical conductivity, radiation source strength, thermal conductivity, and viscosity of argon plasmas at high temperatures deduced from arc data
[TR-29] 14 p2600 N67-27769
Side wall heat transfer and temperature effects of gas flow near cathode in Poiseuille inlet development region
[TR-28] 18 p3314 N67-33260
High current pulsed arc experiments on high temperature dense hydrogen plasma
[NP-16669] 19 p3514 N67-33965
Arc calculation, composition, and transport properties of argon and hydrogen plasma
[FTD-MT-65-544] 19 p3515 N67-33954
Construction and operating modes of low-power plasma arc heaters for low density hypervelocity wind tunnels
[DLR-MITT.-67-10] 20 p3618 N67-34041
Parallel plate and gas injection accelerators, and magnetoplasma dynamic arc simulation
[NASA-CR-88199] 21 p3911 N67-36256
Computerized data reduction techniques for obtaining local electron temperature variations in plasma beams produced by magnetoplasmadynamic accelerators
[NASA-TN-D-4220] 24 p4509 N67-40059

PLASMA ARC METAL SPRAYING

Porous bodies of tantalum, niobium, and aluminum fabricated by plasma arc metal spraying in argon atmosphere for electrode applications
[REPT.-66-C-318] 20 p3649 N67-34698
Techniques and evaluation of particle bombardment for crystal growth welding and bonding
[ECOM-00429-F] 24 p4458 N67-39927

PLASMA ARC WELDING

Destructive and metallographic testing of plasma arc welded titanium alloy joints
[GDC-ERR-AN-953] 14 p2544 N67-27219

PLASMA CHEMISTRY

Plasma chemistry applications to industrial processes, and electric arc plasmatrons
[JPRS-43566] 22 p4120 N67-37791

PLASMA COMPOSITION

Statistical electrodynamics for determining material coefficients with spatial and frequency dispersion in relativistic plasma 05 p0748 N67-15342
Drift mass spectrometer analysis of plasma composition and energy distribution in conical plasma generator 11 p1953 N67-21924
Crossed field ion spectrometer for plasma energy distribution measurements
[CTO-329] 13 p2321 N67-25924

PLASMA CONDUCTIVITY

High frequency conductivity, carrier waves, and acoustic amplification in drifted semiconductor plasmas
[AFCRL-66-567] 02 p0296 N67-12195
Heat conductivity, electrical conductivity, and viscosity calculated for thermic argon and nitrogen plasmas
[DVL-369] 08 p1350 N67-19189
Measuring apparatus to probe plasma conductivity 11 p1900 N67-22766
Free electron behavior, dependence on temperature, and ionospheric radiowave propagation control studied in oxygen plasmas
[AFCRL-67-0181] 17 p3141 N67-30427
Calculations for low density plasma impedance bridge
[SC-RR-67-190] 19 p3519 N67-33717
Kinetic equation for inhomogenious nonisotropic plasma and application to high frequency conductivity
[NASA-CR-88133] 21 p3910 N67-36030

PLASMA CONFINEMENT

Macroscopic and microscopic plasma concepts, disturbances during plasma wave propagation, and techniques for production and confinement of laboratory plasmas
[RAE-TR-66073] 04 p0598 N67-13958
External injection of plasma streams into closed magnetic container in stellarator experiments
[MATT-TRANS-36] 07 p1167 N67-17585
Drift cyclotron instability of plasma with hot ions, plasma confinement in toroidal magnetic field with conducting diaphragm, and flute instability of inhomogeneous plasma
[AEC-TR-6670] 06 p1347 N67-18627
Plasma confinement in toroidal magnetic field and with conducting diaphragm 06 p1348 N67-18629
Nonadiabatic injection of plasma into L-2 stellarator using programmed magnetic field method
[CTO-312] 10 p1725 N67-29757
Mechanical design of baseball coil and plasma trapping chamber
[UCRL-70626] 10 p1726 N67-29900
Superconducting coils for baseball-type minimum-B fields for plasma confinement
[UCRL-70623] 10 p1754 N67-31818
Formation and confinement of plasma from guns and plasma jet deflection in magnetic field 12 p2183 N67-34181
Injection and confinement of plasma in stellarator with multipolar helical field 12 p2184 N67-34190
Confinement of plasma in trap with combined magnetic field
[FTD-MT-65-305] 15 p2777 N67-28941
Programs for relating observed visible light intensity distributions to actual visible light emission within confined plasma
[ORNL-TM-1797] 17 p3143 N67-30045
Superconducting baseball coil for magnetic confinement of hot plasma in controlled-fusion experiments
[UCRL-70380] 19 p3514 N67-33941
Construction and magnetic properties of stellarator for studying cesium, potassium, or lithium confinement
[MATT-530] 20 p3618 N67-34381
Toroidal magnetic field configurations for containing plasma
[CLM-TRANS-12] 22 p4115 N67-37196
Plasma confinement and stability in ring current configurations
[REPT.-67-05] 22 p4115 N67-37346
Improved confinement time as function of plasma column rotation 23 p4318 N67-38729
Confinement time measurement on cesium plasma by beam chopper method 23 p4320 N67-38738

PLASMA CYLINDER

Propagation of large amplitude Alfven waves in laboratory plasma
[NP-16152] 01 p0134 N67-10674
Automated data acquisition and reduction system to obtain absorption and emission coefficients in circular cylindrical plasma column by zonal ring technique
[ARL-66-0110] 05 p0745 N67-15016
Differential equation for resistive instabilities of self-pinched cylindrically symmetric charged particle beam in ohmic plasma channel
[IDA/HQ-66-4868] 06 p0944 N67-16581
Resonance excitation and damping of high frequency waves in plasma cylinder exposed to longitudinal magnetic field 11 p1947 N67-21883
Electromagnetic whistler wave absorption during propagation along plasma cylinder 11 p1947 N67-21884
Diffraction, reflection, and refraction models for microwave beam interaction with cylindrical plasma
[RCA RES. REPT.-7-901-46] 11 p1962 N67-23009
Inhomogeneous sheath effect on surface current excitation of immersed plasma cylinder by electromagnetic and electrokinetic waves
[NASA-CR-83855] 13 p2385 N67-25835
Frequency shift and Q change of microwave cavity caused by lossy dielectrics, plasma spheres, and cylinders - perturbation of plasma volume
[D1-82-0662] 14 p2600 N67-27771
Magnetohydrodynamic waves in inhomogeneous plasma cylinders, computer program for propagation in homogeneous dissipative anisotropic cylinders, and low frequency electron cyclotron waves study
[REPT.-1024.67] 19 p3513 N67-33891
Finite cylindrical antenna in infinite plasma column
[NASA-CR-88202] 21 p3910 N67-35956

PLASMA DECAY

Perpendicular energy component measurement, and plasma decay time during high frequency heating 09 p1494 N67-30223
Separation processes of homogeneous ambiplasma into matter and antimatter
[REPT.-66-18] 11 p1959 N67-23436
Ion and neutral particle densities in crossed field hydrogenous plasma
[ER-23] 16 p2955 N67-29749
Fast ion gauge for determining neutral pressure during plasma formation and decay in 2X machine
[UCID-15105] 20 p3640 N67-34444
Recombination and diffusion in injected hole plasmas
[D1-82-0830] 23 p4327 N67-38111
Density profile, fluctuations, and loss process in plasma produced by radio frequency heating in multipole device 23 p4319 N67-38732
Nanosecond risetime, high power, variable delay double pulser for measuring electron hole plasma decay
[D1-82-0623] 23 p4324 N67-39336

PLASMA DENSITY

Magneto-Kerr effect, plasma density measurement, and other surface phenomena
[ER-21] 01 p0134 N67-10636
Studies and experiments to determine time dependency of plasma density, high frequency electron-phonon interactions in magnetic fields, and operation of stuffed-cusp plasma facility 05 p0744 N67-14630
Determination of magnetized plasma spatial density distribution by using electromagnetic waves 07 p1164 N67-17397
Method for determining electron density distribution in plasma when lacking axisymmetry
[IAE-1153] 07 p1166 N67-17532
Derivation of spectra of turbulence and density fluctuations in plasma from hydrodynamic description
[NASA-CR-81719] 07 p1168 N67-18008
Magnetospheric model of Jupiter showing maximum plasma densities co-rotating with planet
[NASA-TM-X-55704] 08 p1365 N67-18771
Reversed potential for plasma density measurement in hollow cathode arc
[ORNL-4010] 10 p1736 N67-30451
Collisions of plasma puffs with varying densities and velocities in homogeneous magnetic field and in magnetic mirror bottle
[CEA-R-3000] 10 p1737 N67-21064
Electrical conductivity of dense plasma immersed in electric field 11 p1951 N67-21913
Langmuir probe used in nitrogen plasma studies 11 p1960 N67-23785
Use of Langmuir probe for measuring plasma density in magnetic field 14 p2599 N67-27686
Numerical values for admittance of infinite cylindrical antenna in lossy, isotropic, compressible plasma
[NASA-CR-86619] 18 p3228 N67-31519
Low density plasma tunnel status, small angle electron scattering for plasma diagnostics, and time of flight velocity analyser using metastable molecules
[AD-653346] 19 p3515 N67-33068
Technique for measuring relative density and density distribution of magnetically confined plasma using collisional dissociation of energetic molecular ion beam
[REPT.-3] 19 p3520 N67-33361
Technique using collisional dissociation of energetic molecular ion beam to measure relative density of magnetically confined plasma 19 p3520 N67-33362
Method using collisional dissociation of energetic molecular ion beam for measuring relative density distribution of magnetically confined plasma 19 p3520 N67-33363
Dielectric conductors and antennas evaluated for use in 2 mm microwave interferometer with high spatial resolution for measuring plasma density
[JUL-473-PP] 20 p3707 N67-34236
Computer simulation of longitudinal plasma density gradient effects on steady state nonlinear electron beam-plasma interaction 22 p4120 N67-37750
Radiation measurements on cesium plasma column of increasing density 23 p4320 N67-38737
Ion and electron temperature measurements at different densities in barium plasma and cesium barium mixed plasma 23 p4320 N67-38739
Dense plasma focus role in producing intense source of neutrons

[LA-DC-8124] 23 p4324 N67-39202
PLASMA DIAGNOSTICS
Plasma diagnostics by microwave damping and cut-off
[FTI-211/R-065] 16 p2954 N67-29731
Microwave plasma interferometry
[FTI-212/R-066] 16 p2954 N67-29732
Plasma diagnostics by microwave refraction
[FTI-213/R-067] 16 p2954 N67-29733
Plasma diagnostics using microwave interferometer and resonance phase shift techniques
[REPT.-66-33] 16 p2955 N67-29748
Light scattering theory and use as tool for plasma diagnostics
[IPP-1/48] 17 p3145 N67-31056
Spectroscopic methods for diagnostics of low temperature plasma
[FTD-MT-65-539] 19 p3518 N67-33503
Magnetoplasma diagnostics by large angle laser scattering techniques
[ARL-67-0020] 20 p3706 N67-34114
Neutrons from d-d reactions in hot deuterium plasma for plasma diagnostics
[IPP-1/60] 20 p3707 N67-34168
Spectroscopic diagnostics for measuring electron temperature and ion density in 2X mirror machine plasma
[UCID-15107] 20 p3708 N67-34443
Plasma diagnostics based on lasers 22 p4122 N67-37834
Electro-optical devices for recording luminous transient phenomenon and unperturbed magnetic fields in plasma diagnostics
[CEA-R-3237] 23 p4316 N67-38255
Microwave plasma diagnostic technique for use with ion chambers 23 p4317 N67-38285
Plasma diagnostic methods for high temperature plasma research, including infrared maser combined with interferometer to investigate plasma and shock in 30 kilojoule theta pinch
[ARL-67-0062] 24 p4506 N67-39627
Measurement of magnetic fields in plasmas by means of scattered light
[IPP-1/69] 24 p4507 N67-39770
PLASMA DIFFUSION
Inertial effects in diffusion of plasma across magnetic field 01 p0133 N67-10560
Diffusion rate of plasma across magnetic field measured in toroidal, pulsed dc discharge and during afterglow
[SU-IPR-69] 03 p0451 N67-12340
Topology of magnetic field and diffusion of plasma in toroidal traps
[MATT-TRANS-37] 07 p1167 N67-17584
Diffusion of weakly ionized plasma in magnetic field
[NP-16363] 10 p1735 N67-20733
Plasma anomalous diffusion experiments in toroidal octupole magnetic fields
[TID-23454] 10 p1739 N67-21475
Diffusion rate measurements of weakly ionized afterglow plasma transverse to magnetic field
[IPP-2/50] 11 p1963 N67-23078
Plasma diffusion across the magnetic surfaces of a toroidal field
[REPT.-67-12] 19 p3518 N67-33500
Propagation and diffusion of plasma column in magnetic field
[CEA-R-3130] 19 p3520 N67-33960
Numerical analysis of plasma columnar diffusion problem 23 p4317 N67-38283
Theoretical and experimental studies on plasma generation and confinement - stellarator design, power electronics and instrumentation systems, and magnetic field induction methods
[MATT-Q-34] 23 p4318 N67-38725
Diffusion, absorption, and ionization coefficients in ohmically heated plasma 23 p4318 N67-38728
PLASMA DISCHARGE
SA TOROIDAL DISCHARGE
Crowbar and power crowbar switching circuits for high temperature plasma discharge control
[JUL-273-PP] 03 p0378 N67-12650
Microwave interferometer measurements of electron density distribution behind shock fronts and discharge plasmas 05 p0747 N67-15236
Variation of electron density with operating conditions in screen anode discharge 07 p1159 N67-16829
Drift instability of plasma discharge with oscillating electrons
[NP-16310] 07 p1166 N67-17487
Gaseous plasmas at cryogenic temperatures and active discharge plasma studies
[AFCRL-66-753] 09 p1498 N67-20186
Enhanced diffusion of charged particles in discharge plasma with nonconducting walls 11 p1951 N67-21913
Structure and generation of plasma blobs in coaxial injector with improved electrotechnical parameters and vacuum conditions
[UCRL-TRANS-10066] 12 p2176 N67-23552
Diode-iris controlled waveguide slot radiators
[NASA-CR-763] 12 p2067 N67-23718
Modified pressure theory approach used to describe dc discharges in low and medium pressure regimes
[NASA-CR-54685] 15 p2755 N67-28745
Energy loss of fast protons and deuterons traversing argon hollow cathode discharge
[AECL-2669] 16 p2957 N67-30099
Calculation of discharge coil with given distribution of induced electric field
[DLR-FB-67-23] 17 p3141 N67-30473
Shape and motion of electric arc discharge in transverse magnetic field
[GSP/PH/67-3] 19 p3429 N67-32707
Resonance frequency change for cavity charged by plasma with or without static magnetic field
[CEA-R-3123] 23 p4317 N67-38289
Fast discharge condenser for lithium plasma injection into stellarator 23 p4321 N67-38743
PLASMA DISPERSION
Asymptotic behavior of transient signal propagation in lossless, isotropic plasmas
[AFCRL-66-234/II/] 01 p0042 N67-11107
Dispersion of proton whistler phenomena detected by Injun III and Alouette I satellites
[NASA-CR-85506] 17 p3055 N67-30691
Small amplitude low frequency waves in plasma of infinite conductivity under influence of constant external gravitational and magnetic fields
[NASA-CR-86604] 18 p3312 N67-31516
Wave dispersion in cyclotron harmonic resonance regions investigated for Alouette satellite application 19 p3513 N67-32888
Measuring plasma drift velocity and Lorentz polarization using microwave dragging effects
[IPP-2/55] 20 p3709 N67-34688
Propagation and dispersion of hydromagnetic and ion cyclotron waves in plasmas immersed in magnetic fields
[NASA-CR-86535] 23 p4117 N67-37684
Dispersion of plane small amplitude plasma waves 23 p4121 N67-37826
Derivation of equation for vanishing coefficient in nonlinear dispersive plasma problems 23 p4323 N67-38761
PLASMA DYNAMICS
Dynamics, and critical characteristics of voltage and energy of energy source of crossed linear plasma pinch
[LYCEN-6523] 01 p0106 N67-10705
Optical heterodyne system used to measure electron density of plasma
[NASA-CR-79511] 02 p0268 N67-11738
Rarefied gas mechanics, plasma dynamics, blast wave phenomena, energy conversion, aerodynamic noise, subsonics, flight dynamics, materials, high altitude measurements, and molecular beams
[NASA-CR-66242] 03 p0478 N67-13118
Plasma instability, burnout plasma density for high power input, and plasma boundary stabilization by reactive end walls
[ORNL-3989] 03 p0451 N67-12319
Research reports in theoretical physics, plasma dynamics, spectroscopy, radio astronomy, and communication sciences and engineering
[NASA-CR-80695] 05 p0779 N67-14621
Low temperature expansion of Boltzmann equation in determining behavior of complex plasmas 07 p1159 N67-16830
Summaries of experimental studies in plasma dynamics 09 p1491 N67-19405
Mathematical models for computing motion dynamics of linear plasma accelerator
[JUL-196-PP] 10 p1738 N67-21063
Parametrization of Boltzmann-Vlasov solution for analysis of highly ionized plasma dynamics
[JUL-203-PP] 10 p1738 N67-21697
Plasma magnetohydrodynamics
[IAE-1163] 10 p1739 N67-21548
Theoretical analysis of annular plasmas produced by rotating magnetic fields
[CLM-R-65] 10 p1740 N67-21894
Radio frequency energy absorption by dense plasma near ion cyclotron resonance 11 p1947 N67-21865
Coaxial plasma source with variable parameters for obtaining fast plasmoids 11 p1962 N67-21918
Reports of research in general physics, plasma dynamics, and communications
[NASA-CR-83421] 11 p2006 N67-22941
Dynamics of cylindrical plasma shells - extension of results corresponding to axial magnetic field compression to adiabatic plasma compression
[LGI-66-11] 15 p2772 N67-27801
Thin film and semiconductor microelectronics, radar scattering, radome thermal stress, boundary layer phenomena, guided missile parts, turbulent mixing, antenna systems, and plasma dynamics
[NASA-CR-87661] 19 p3537 N67-33361
Variational principle for stationary magnetohydrodynamic equilibria
[MATT-478] 19 p3519 N67-33219
Fluid equations and growths rates for electrostatic instabilities in relativistic electron plasma
[SIT-3785-3] 21 p3912 N67-36621
Fundamental aspects of plasmadynamics for electric propulsion
[ONERA-TP-582/1967/] 23 p4235 N67-38637
Plasma dynamics in Van Allen belts - effect of magnetic field generated by belt particles compared to geomagnetic field
[NASA-CR-89563] 24 p4625 N67-39911
Abstracts of 95 papers presented at 1967 shock tube symposium in Freiburg, Germany
[REPT.-163] 24 p4495 N67-40656
PLASMA ELECTRODE
Properties of steady state argon plasma column in hollow electrode arc
[EUR-3645.F] 03 p0450 N67-12152
Viscous drag model for plasma electrode boundary effect at ionic impact
[NASA-TN-D-3786] 06 p0962 N67-15690
Effects of geometrical and electrical electrode parameters on properties of plasmoids in coaxial gun 11 p1963 N67-21920
Current density established in channel flow of conductive liquid with sectionalized electrodes
[FTD-MT-66-49] 19 p3515 N67-33204
PLASMA-ELECTROMAGNETIC INTERACTION
Equilibrium and stability of toroidal plasma with surface currents
[IPP-6/53] 01 p0133 N67-10466
Parametric coupling between ion and electron waves
[AFCRL-66-558] 01 p0133 N67-10494
Equations for interaction processes between electromagnetic field and weakly ionized magnetoplasma 05 p0748 N67-15243
Wave propagation, plasma probe, and plasma-electromagnetic methods for measuring interplanetary and magnetospheric electron density
[MPI-PAE-EXTRATERR.-19/65] 07 p1167 N67-17504
Mathematical model of magnetic curvature effect on toroidal plasma surface instability
[IC/66/83] 09 p1498 N67-20285
Electron beam-plasma electromagnetic interactions in magnetic field
[TG-231] 10 p1734 N67-20634
Theoretical and experimental studies on plasma physics in U.S.S.R. 1963 11 p1947 N67-21851
Reflection of very high frequency signals from plasma boundary heated by ion cyclotron waves 11 p1947 N67-21852
Resonance excitation and damping of high frequency waves in plasma cylinder exposed to longitudinal magnetic field 11 p1947 N67-21853
Electromagnetic whistler wave absorption during propagation along plasma cylinder 11 p1947 N67-21854
Propagation of ion cyclotron wave in plasma transition region with dispersion and wave absorption 11 p1948 N67-21859
Charged particle interaction with nonequilibrium plasma and conversion of transverse electromagnetic waves into longitudinal waves 11 p1948 N67-21860
Efficiency of plasma waveguide excitation by coaxial waveguide 11 p1948 N67-21861
Distribution of electric field in layer of ionized plasma surrounded by external

monochromatic electric field 11 p1949 N67-21836
Kinetic analysis of electromagnetic wave excitation in magnetoplasma by external currents 11 p1949 N67-21837
Interaction of helix modulated electron beam with plasma in longitudinal magnetic field 11 p1950 N67-21900
Azimuthal radio frequency fields in plasma-electron beam interactions 11 p1950 N67-21903
Quasi-linear approximation of velocity and temperature instabilities in charged particle beam interaction with plasma 11 p1951 N67-21906
Electrical conductivity of dense plasma immersed in electric field 11 p1951 N67-21912
Plasma parameters for transverse and longitudinal motion interaction in transverse magnetic field 11 p1953 N67-21926
Spectrometric analysis of dense plasma interaction with space-modulated magnetic field 11 p1954 N67-21927
Absorption of radio frequency energy by plasmoid penetrating through magnetic mirror surrounded by radio frequency field 11 p1954 N67-21928
Flexible loop model for describing interaction of small plasmoid with external magnetic field 11 p1954 N67-21930
Motion of injected plasma stream in magnetic field of quadrupole lens 11 p1955 N67-21937
Experimental investigation of charged particle motion in magnetic traps of cusped geometry 11 p1955 N67-21940
Determination of polarization electric field in plasmoid moving in combined toroidal and helical magnetic field 11 p1956 N67-21945
Transformation and scattering of electromagnetic waves in nonequilibrium plasma 11 p1957 N67-21954
Spectral characteristics of incoherent scattered electromagnetic waves for plasma probing 11 p1957 N67-21955
Extraordinary transverse wave propagation for plasma measurements 11 p1957 N67-21956
Effects of collision frequency on plasma measurements by longitudinal radio waves 11 p1957 N67-21957
Microwave and spectroscopic analyses of epithermal microwave radiation emitting from theta pinch plasma 11 p1957 N67-21958
Spectroscopic phenomena of plasma-electromagnetic interaction, and ion temperature of plasma resulting from plasmoid collision 11 p1958 N67-21959
Diffraction, reflection, and refraction models for microwave beam interaction with cylindrical plasma [RCA RES. REPT.-7-901-46] 11 p1962 N67-23009
Research studies in solid state physics, applied electromagnetics and plasmas, and information theory and control systems [AD-802370] 12 p2189 N67-23841
Numerical solution and model of one-dimensional unsteady interaction of plasma with magnetic field in traveling wave accelerator [SR-41] 13 p2386 N67-25977
Xenon laser effect on interaction between electron gas and excited atoms in plasma [NASA-CR-84115] 13 p2387 N67-26452
Propagation and dispersion of ion cyclotron waves and harmonic ion cyclotron waves in plasma immersed in magnetic field [NASA-CR-84833] 15 p2776 N67-28838
Collisionless heating and wave amplification through interaction with diamagnetic current [REPT.-6398.3-P] 16 p2954 N67-29673
Q machine studies of equilibrium and stability of potassium plasma with internal electric fields perpendicular to confining magnetic field [UCRL-70115] 16 p2956 N67-29822
Low frequency electromagnetic wave passage through plane-stratified magnetoactive ionospheric plasma [NASA-CR-86634] 18 p3312 N67-31656
Cyclotron harmonic resonance theory for upper ionosphere observation by Alouette satellite sounder [NASA-CR-87058] 19 p3512 N67-32886
Time decay calculations of cyclotron harmonic signal and application to Alouette satellite 19 p3513 N67-32889
Observations, results, and mathematical theory of Alouette satellite cyclotron harmonics resonances 19 p3513 N67-32890
Interactions between moving plasmas and boundaries [NASA-CR-868] 20 p3710 N67-34915
Demodulation of amplitude modulated radio frequency waves in plasma at resonance [NASA-TM-X-55917] 22 p4002 N67-37881
Relativistic nonlinear interaction of cold plasmas with electromagnetic waves described by field equations and equations of motion [IPP-6/58] 22 p4122 N67-37887
Drift instability of inhomogeneous plasma in crossed electric and magnetic fields [IPPCZ-50] 22 p4123 N67-37991
Theoretical and experimental studies on plasma generation and confinement - stellarator design, power electronics and instrumentation systems, and magnetic field induction methods [MATT-Q-24] 23 p4318 N67-38725
Damping of fast hydromagnetic plasma wave by energy absorption mechanisms 23 p4319 N67-38731
Electromagnetic wave scattering from nonuniform cylindrically symmetrical plasma [CEA-R-3133] 23 p4323 N67-38817
Calculation of difference, sum, and harmonic currents due to interacting plasma waves with velocity dependent collisions using Cartesian tensor expansion [ARL-67-0102] 24 p4508 N67-39841
Nonlinear interaction between electroacoustic and transverse electromagnetic waves microwave frequencies [IPP-3/54] 24 p4509 N67-39998

PLASMA ENGINE
Integration of pulsed plasma electric thruster system into satellite payload [FHR-3449] 18 p3314 N67-32536

PLASMA FLOW
Trapping, transport, and decay from transverse shock-produced plasma flow interaction with magnetic field [TID-23144] 01 p0134 N67-10628
Flow of solar plasma on Zond II interplanetary space station [FTD-TT-65-1946] 04 p0699 N67-14329
Variational method for unsteady one-dimensional plasma flow of type V perpendicular to B [AFOSR-66-2454] 05 p0745 N67-15012
Large electric fluctuations caused by plasma flow into dipole magnetic field 07 p1162 N67-16955
Theory of hydrodynamic stability of inhomogeneous plasma fluxes 07 p1164 N67-17305
Excitation of waves in confined plasma by modulated currents 09 p1497 N67-20246
Supersonic flow of inviscid compressible plasmas with finite tensor conductivity in external magnetic field [UTIAS-122] 10 p1740 N67-21736
Electric polarization effects for reflection analysis of plasma stream from magnetic wall 11 p1954 N67-21932
Penetration and reflection of plasmoid from plane and conical metal surfaces in presence of magnetic field 11 p1954 N67-21933
Collision of fast plasma streams in transverse magnetic field with thermalization of motion energy 11 p1955 N67-21936
Motion of injected plasma stream in magnetic field of quadrupole lens 11 p1955 N67-21937
Determination of polarization electric field in plasmoid moving in combined toroidal and helical magnetic field 11 p1956 N67-21945
Plasma magnetohydrodynamic flow, waves, and oscillations, and applied plasma physics to controlled nuclear fusion 11 p1959 N67-22656
Gas dynamic methods for magnetohydrodynamic flow [AFOSR-67-0151] 11 p1963 N67-23120
Flow of strongly rarified plasma around charged body [FTD-HT-66-290] 11 p1963 N67-23142
Radiation and diffraction of electromagnetic waves by moving plasma, reentry vehicle, dielectric slab, or reflecting mirror 12 p2179 N67-23848
Magnetic field effects on shape of interface between plasma flux and dipole cavity [NASA-CR-83885] 13 p2385 N67-25626
Plasma flow in electromagnetic shock tube and compression shock tube [ARC-CP-866] 13 p2386 N67-26156
Magnetohydrodynamic generator development, and design changes in dc electromagnet for improved optical studies of plasma flow [NASA-CR-84109] 13 p2252 N67-26458
Detection of diamagnetic effect of plasma 14 p2599 N67-27602
High speed gas dynamics research - kinetic theory approach to rarified flow calculations, hypersonic transition flow, ionized gas flows, and fluid mechanics [ARL-66-0232] 16 p2878 N67-29456
Nonlinear Boltzmann equation and kinetic theory for hypersonic plasma flows [AFOSR-67-0805] 19 p3512 N67-32883
Ion wave propagation in plasma flow with reference to discharge tubes [LGI-67-4] 19 p3516 N67-33281
Facilities for spectroscopic analysis of plasma flow in magnetic field, and photography of visible spectrum 19 p3517 N67-33389
Deduction of reentry near wake plasma properties for Mercury and Gemini manned orbital spacecraft from radio signal attenuation data [NASA-TN-D-4118] 19 p3517 N67-33443
Neutral air motion coupling with plasma transport in model F-2 layer - atmosphere model [SR-8] 20 p3632 N67-34517
Static pressure gauge for use in high temperature, high pressure plasma flows of short duration [TR-1001/2240-10/-8] 21 p3910 N67-35699
Scale model experiments of plasma flow such as solar wind or ionosphere past unmagnetized body such as moon, comet, meteor, or satellite 22 p4121 N67-37836
Scaling considerations for magnetospheric model experiments 22 p4122 N67-37831
Scale model experiments on interaction of solar wind with magnetosphere 22 p4122 N67-37832
Spectrometric measurements of plasma flow in magnetohydrodynamic shock wave 23 p4323 N67-38782
Stability of Helmholtz plasma flow in discontinuous magnetic field [AFOSR-67-2056] 24 p4506 N67-39554

PLASMA FLUX MEASUREMENT
Energy spectra of solar wind ion fluxes beyond magnetosphere of earth measured from Venera 3 spacecraft [NASA-CR-84093] 13 p2399 N67-26413
Plasma flux measurement and experimental investigation of charged particles and electromagnetic fields in interplanetary space by means of magnetometers and plasma probes 22 p4121 N67-37817

PLASMA FREQUENCY
SA OSCILLATION FREQUENCY
Electron number density tables determined from real height profiles of Alouette I ionospheric data by linear interpolations in plasma frequency 22 p4148 N67-37198
Ten point manual method of reducing ionograms to provide true heights at selected frequencies 24 p4442 N67-39973
Radiation emission intensities of dense thetatron plasma near plasma frequency [IPP-1/65] 24 p4513 N67-40034

PLASMA GENERATION
Plasma production by electron beam injection into magnetic mirror trap field [AEC-TR-6783] 01 p0135 N67-10654
Method of producing uniform plasma in microwave cavity and passing high energy pulsed electron beam from rebatron source through plasma 07 p1160 N67-16841
Electron temperature, particle density, and current distribution of plasma generated with combined axial and transverse ionizing currents [ER-20] 10 p1737 N67-20999
Mechanism of dense plasma generation by enhanced ionization of electron beam 11 p1950 N67-21902
Mechanism of plasma acceleration in coaxial plasma source systems 11 p1953 N67-21931
Structure and generation of plasma blobs in coaxial injector with improved electrotechnical parameters and vacuum conditions [UCRL-TRANS-10066] 12 p2176 N67-23581
Plasma production by electron

temperature variation and Landau damping of ion-acoustic waves
[ORNL-P-2827] 14 p2596 N67-27441
Focused Q-spoiled laser beam for high density plasma production from solid lithium hydride particle
[NYO-3578-5] 14 p2586 N67-27445
Plasma production by high power Q-switched laser, and photon scattering and microwave experiments
[WERL-3472-6] 22 p4116 N67-37501
Theoretical and experimental studies on plasma generation and confinement - stellarator design, power electronics and instrumentation systems, and magnetic field induction methods
[MATT-Q-24] 23 p4318 N67-38725
Contact ionization of potassium and cesium to form plasma in stellarator 23 p4318 N67-38726
Collisionless plasma generation by radio frequency discharge in mirror-geometry magnetic field 23 p4320 N67-38741
Engineering developments for sector-focusing isochronous cyclotron for plasma generation 23 p4323 N67-38778

PLASMA GENERATOR
SA MAGNETOHYDRODYNAMIC GENERATOR
Investigation of Penning ionization gauge discharge and lithium ion emission for plasma synthesis for microwave applications
[ECOM-2740] 06 p0685 N67-15273
Operation and characteristics of hypersonic plasma generator for reentry vehicle
[SC-RR-66-358] 07 p0998 N67-17074
Ion gun, neutralization chamber, differential pumping system, and plasma trapping chamber for vacuum system of Ogra-II
[NP-TR-1396] 07 p1165 N67-17441
Chalice system performance - diagnostics, improvements in bank system, suppression of RF noise, magnetic fields, snowplow model for fast pinch, and collective coordinates for plasmas
[SIT-2582-19] 07 p1166 N67-17529
Time resolved and time integrated measurements of plasma produced by Q-switched laser beam focused on surface of metallic solid
[NOLTR-66-96] 07 p1097 N67-17906
Mass spectrometric characteristics of plasmoid ions in conical plasma generator 11 p1953 N67-21922
Feasibility of conical plasma generator with electrodes, helical return conductor, and pulsed gas inlet 11 p1953 N67-21923
Drift mass spectrometer analysis of plasma composition and energy distribution in conical plasma generator 11 p1953 N67-21924
Plasma generators using electric field-fluid dynamics for energy conversion in spacecraft power supply system
[ARL-66-0187] 13 p3387 N67-26322
Numerical determination of energy and mass transport characteristics of gas flowing axially through constricted arc plasma generator
[NASA-TN-D-4043] 16 p2967 N67-30122
Modified Penning gauge for generating collimated flowing plasma without confining magnetic fields
[GE/EE/67A-3] 17 p3140 N67-30186
Plasma generators in chemical and metallurgical processing
[FTD-MT-65-527] 19 p3463 N67-33655
Engineering aspects of toroidal theta-pinch machine
[LA-DC-8686] 19 p3429 N67-33686
Ion current fluctuation measurements in linear quadrupole plasma generator 23 p4319 N67-38733
Instability measurements on low density plasma in toroidal multipole field 23 p4319 N67-38734
Construction of toroidal quadrupole plasma generating machine 23 p4322 N67-38777
Fluid transpiration arc radiation source for solar simulation
[NASA-CR-69738] 24 p4513 N67-40655

PLASMA GUN
Pulsed coaxial plasma gun accelerators in space thrustor development
[NASA-CR-54710] 01 p0145 N67-10750
Energy and mass spectra of plasmoids in coaxial plasma gun 11 p1952 N67-21919
Effects of generator geometry and electrical parameters on creation and acceleration of fast particles in plasma guns 11 p1953 N67-21925
Formation and confinement of plasma from guns and plasma jet deflection in magnetic field 12 p2183 N67-24181
Time-dependent measurements of spectral line intensities performed on rod plasma gun
[INR-719/XVIII/PP] 15 p2774 N67-28488
Magnetic probe measurements made on plasma generated by rod plasma gun
[INR-720/XVIII/PP] 15 p2774 N67-28489
Impulse capacitor construction for use as basic unit of condenser bank for studying plasma injectors
[INR-710/XVIII/P] 15 p2888 N67-28587
Spectroscopic measurements of ion and electron temperatures and plasma density in rod plasma gun
[INR-717/XVIII/PP] 15 p2774 N67-28588
Spectroscopic electron and ion temperature measurements in rod plasma guns
[INR-718/XVIII/PP] 15 p2775 N67-28589
Grid electrode advantages and space charge concepts in constructing rod magnetoelectric plasma gun
[INR-711/XVIII/PP] 15 p2775 N67-28592
Charged particle motion in electric and magnetic field distributions in rod plasma injector
[INR-712/VII/PP] 15 p2775 N67-28593
Current pulse generator, vacuum system, expansion chamber with gas feeder, air core electromagnet, and control system construction in development of rod plasma gun
[INR-713/XVIII/PP] 15 p2775 N67-28594
Circuits for measurements of current and voltage of rod plasma gun
[INR-714/XVIII/PP] 15 p2775 N67-28595
Rapid picture framing camera determination of luminosity of plasma in rod plasma gun
[INR-715/XVIII/PP] 15 p2776 N67-28596
Measurements of luminous front velocity of plasma generated by rod plasma gun
[INR-716/XVIII/PP] 16 p2954 N67-29727
Ion velocity and electron temperature in hydrogen and air measured in coaxial plasma gun with monochromator
[INR-701/XVIII/PP] 17 p3142 N67-30706

PLASMA HEATING
Theoretical and experimental investigations of high frequency plasma properties
[NASA-TT-F-449] 09 p1494 N67-20221
Energy of charged particles emanating from magnetic trap during high frequency heating 09 p1494 N67-20222
Perpendicular energy component measurement, and plasma decay time during high frequency heating 09 p1494 N67-20223
High frequency energy absorption by plasma in ion cyclotron resonance in strong, high frequency fields 09 p1494 N67-20224
Conditions producing dense plasma in metallic chamber and its high frequency heating 09 p1494 N67-20225
High frequency plasma heating 09 p1494 N67-20226
Ion cyclotron resonance for high frequency heating of plasma column 11 p1948 N67-21886
Collisionless heating of plasma column by external electromagnetic field currents 11 p1948 N67-21887
Structure of collisionless shock wave in plasma immersed in magnetic field 11 p1955 N67-21935
Containment of high temperature plasma obtained by turbulent heating in trap of composite type 12 p2180 N67-24166
Plasma equilibrium in torus with high frequency fields and plasma heating resulting from development of powerful beam of escaping electrons 12 p2182 N67-24175
Plasma heating mechanism by collisionless shock wave 12 p2182 N67-24176
Plasma heating under beam instability conditions 12 p2184 N67-24191
Turbulent heating of plasma by direct current discharge 12 p2185 N67-24193
Heating of plasma electrons by ultrahigh frequency fields in adiabatic trap 12 p2185 N67-24194
Heating of dense plasma in metallic chamber 12 p2185 N67-24196
Proposed program to accumulate dense energetic ion plasma in open-ended magnetic well by injecting fast neutral atoms into target plasma produced by electron-cyclotron resonant heating
[ORNL-4060] 20 p3711 N67-33829
Basic parameters and components of linear multiple pole plasma heating machine 23 p4322 N67-38776
Modified Fokker-Planck equation describing particle distribution in random field for plasma heating applications
[NASA-CR-69623] 24 p4507 N67-39757

PLASMA INSTABILITY
Resistive plasma instabilities in toroidal hydromagnetic systems
[MATT-424] 02 p0292 N67-11716
Ion collision effect on resistive-g instability of plasmas
[CLM-P110] 03 p0447 N67-13329
Instabilities in solid state plasmas, and two stream instabilities in electromagnetic field 04 p0590 N67-13894
Plasma instability with captured particles in toroidal geometry
[IAE-1149] 04 p0597 N67-14077
Plasma instability at anisotropic temperature - electromagnetic interaction 04 p0598 N67-14389
Pioneer VI data on plasma instability in solar wind
[NASA-CR-80661] 05 p0757 N67-14685
Resistive instabilities in toroidal hydrogen plasma 07 p1159 N67-16625
Nuclear fusion studies on plasma radiation and instability, electromagnetic wave probing, interaction of plasmoids with magnetic field barriers, and pyrometric probes
[AEC-TR-6673] 07 p1163 N67-17303
Instability of hot cathode discharge in magnetic field at low pressure 07 p1164 N67-17305
Macroinstabilities and microinstabilities in gaseous plasma
[REPT.-66-14] 08 p1346 N67-18969
Drift cyclotron instability of plasma with hot ions 08 p1347 N67-18828
Flute instability of dilute inhomogeneous plasma in nonuniform electric field 08 p1346 N67-18830
Effect of Coulomb collisions on instability of contrastreaming plasmas - numerical analysis
[NASA-TM-X-57286] 08 p1348 N67-19712
Diffusion perpendicular to magnetic field studied in potassium plasma of nonuniform density with universal instability 09 p1492 N67-19823
Mathematical model of magnetic curvature effect on toroidal plasma surface instability
[IC/66/88] 09 p1498 N67-20235
Turbulent shock model for electromagnetic wave instability in solar wind
[IC/66/86] 09 p1498 N67-20237
Integral equation for plasma instability due to thermal magnetic field shear
[IC/66/24] 09 p1499 N67-20238
Instability oscillations in plasma discharge
[SU-IPR-166] 10 p1735 N67-20618
Design and development of experimental apparatus for plasma instability studies
[ORO-3485-9] 10 p1736 N67-20697
Particle aspect analysis of drift wave instability
[IPPJ-58] 10 p1740 N67-21728
Current layer instability in nonhomogeneously magnetized plasma
[FTD-TT-66-19] 10 p1740 N67-21730
Formulation of magnetic shear effects on plasma instability
[IC/66/98] 10 p1741 N67-21768
Equilibrium and instabilities of high temperature plasmas
[UCRL-70049] 10 p1741 N67-21810
Electromagnetic wave absorption by inhomogeneous plasma in multiple ion gyroresonance 11 p1948 N67-21888
Quasi-linear plasma instability analysis to determine plasma saturation temperature and magnetic field energy 11 p1951 N67-21897
Velocity space instabilities in toroidal geometry
[IC/66/91, REV.] 11 p1951 N67-21898
Particle aspect analyses of electromagnetic and electrostatic instabilities due to anisotropic velocity distributions
[IPPJ-56] 11 p1952 N67-21904
Literature survey on plasma instability - theory, interchange instability, resistive instabilities, and unified approach to resistive and micro-instabilities
[APOSR-66-2705] 12 p2190 N67-23516

Kinetic theory of drift-dissipative plasma instabilities
[MATT-TRANS-31] 12 p2177 N67-23554
Current beam instability development in nonuniform highly ionized collisionless potassium plasma
[UCRL-TRANS-10067] 12 p2177 N67-23561
Construction of Q machine for studying plasma instabilities
[ORO-3405-10] 12 p2177 N67-23774
Microinstabilities due to anisotropic velocity distribution function of particles in homogeneous plasma
[CEA-R-3074] 12 p2179 N67-23895
Higher mode instabilities in Tokamak device 12 p2183 N67-24185
Plasma heating under beam instability conditions 12 p2184 N67-24191
Plasma instability and nuclear fusion
[NASA-CR-83937] 13 p2385 N67-25881
Ionization instability of plasma with hot electrons
[NASA-CR-83932] 13 p2385 N67-25886
Plasma streaming into magnetic field - nonlinear solution for upper hybrid oscillations in slab geometry, instabilities in slab geometry, and quasi-linear boundary value problem
[R-10] 14 p2596 N67-27607
Multiple Coulomb scattering effects on small proton beams
[NASA-CR-84505] 14 p2593 N67-27664
Collisional drift instability in nonisothermal plasmas
[MATT-507] 15 p2773 N67-28303
Microinstabilities in inhomogeneous plasma
[COO-1478-2] 15 p2774 N67-28315
Mathematical model used to investigate mode synchronization phenomena in universal plasma instabilities
[BN-497] 16 p2952 N67-29048
Investigation of plasma instabilities and description of thermal plasma device, or Q machine
[APR-2] 16 p2955 N67-29743
Hydromagnetic, drift and dissipative, trapped particle, and high frequency instabilities in toroidal systems, as well as helical magnetic cells, thermal convection, and diffusion
[CLM-TRANS-11] 17 p3141 N67-30475
Finite amplitude helical instability in solid state electron hole plasmas
[D1-82-0571] 17 p3148 N67-30503
Magnetic shear required to stabilize density gradient drift instabilities of high temperature plasma
[MPI-PAE/PL 3/67] 20 p3709 N67-34743
Gyro-viscosity effect on Rayleigh-Taylor plasma instability
[NASA-TM-X-53906] 21 p3910 N67-35875
Lagrangian computer model analysis of long wave diocotron instability in crossed field electron beam
[NASA-CR-88133] 21 p3902 N67-36036
Nonlinear solution of Vlasov equation by velocity space polynomial expansion for plasma instability study 22 p4119 N67-37746
Drift instability of inhomogeneous plasma in crossed electric and magnetic fields
[IPPCZ-50] 22 p4123 N67-37991
Plasma instabilities due to anisotropic velocity distributions
[ORO-2506-1] 23 p4317 N67-38576
Instability measurements on low density plasma in toroidal multipole field 23 p4319 N67-38734
Propagation velocity measurements on collisional drift wave in alkali plasma 23 p4319 N67-38736
Enhanced radiation from interaction of nonthermal electrons with dense magnetized plasma 23 p4320 N67-38742
Theory and experiments on finite amplitude instabilities in weakly ionized gases and solids
[D1-82-0626] 23 p4336 N67-39336

PLASMA JET
SA ARC JET
Plasma accelerators and mechanism of production and reflection of plasma jets 05 p0749 N67-15245
Ionization calculations of supersonic low temperature plasma jets including kinetics of elementary processes and distribution laws of parameters in jets
[FTD-MT-65-548] 09 p1491 N67-19456
Efficiencies for plasma jet collisions in homogeneous magnetic field 09 p1492 N67-19530
Simulated meteor entry tests in high enthalpy plasma jet to determine meteor ablation and radiation characteristics
[NASA-TN-D-3740] 09 p1543 N67-19881
Bremsstrahlung effect from plasma injection into magnetic trap with cusped fields 11 p1955 N67-21936
Thermal and thrust power efficiencies measured for low pressure hydrogen plasma arc jet
[FR-696-1572] 11 p1970 N67-22566
Chemical and electronic processes in freezing plasma jets
[FTD-MT-65-546] 12 p2178 N67-23823
Plasma jet motion in transverse magnetic field interaction
[NP-TR-1474] 12 p2179 N67-23861
Plasma injection from coaxial gun into magnetic trap with opposite fields
[NASA-TT-F-10840] 14 p2599 N67-27524
Motion of plasma jet across nonuniform transverse magnetic field
[NASA-TT-F-11016] 15 p2773 N67-28330
NASA contributions to use of plasma jet technology in chemical processing
[NASA-CR-813] 16 p2952 N67-29032
Theory on optimum performance of modern plasma jet ejectors
[NRL-6493] 17 p3141 N67-30489
Plasma jet applications in material processing and metallurgical processes
[FTD-MT-65-543] 19 p3463 N67-33056
Characteristics of high frequency plasma jets produced by argon plasma guns and application to refractory dielectric crystal synthesis
[FTD-MT-65-530] 19 p3518 N67-33498
Synthesis of acetylene in plasma jet - electric discharge
[FTD-MT-65-540] 19 p3395 N67-33650
Measurements with gas dynamic probes in supersonic plasma jet
[DLR-FB-66-49] 19 p3519 N67-33737

PLASMA LAYER
Thermal radiation from inhomogeneous plasma layer 07 p1163 N67-17304
Propagation of hydromagnetic waves in ionosphere through inhomogeneous and current carrying regions
[AFCRL-67-0235] 21 p3842 N67-36228

PLASMA OSCILLATION
Steady state theory and low frequency perturbation leading to wave propagation and instabilities of plasma column in magnetic field
[SU-IPR-76] 01 p0134 N67-10725
Oscillations of confined cylindrical plasma with hot electron current
[JINR-P-2783-2] 01 p0134 N67-10780
Ionization waves in semiconductors and gaseous plasmas
[AFCRL-66-557] 02 p0296 N67-12190
Plasma oscillations in solids - nonlinear wave interaction in plasmas, amplification of optical phonons in polar semiconductors, and ionization waves in semiconductors and gaseous plasmas
[AFCRL-66-685] 05 p0752 N67-15274
Experimental and theoretical models investigated in development of low power plasma magnetron with smooth bore
[AFOSR-66-1991] 06 p0943 N67-16458
Nuclear fusion studies on plasma jet collisions, plasma oscillation stability, plasma beam oscillations, and diffusion perpendicular to magnetic field in universal instability
[AEC-TR-6674] 09 p1491 N67-19529
Flute oscillation stability of hot ion plasma in nonuniform magnetic field 09 p1492 N67-19531
Plasma beam oscillations in high frequency electric field 09 p1492 N67-19532
Kinetic theory of electromagnetic waves in confined plasma 09 p1495 N67-20228
Excitation of magnetohydrodynamic wave guide in coaxial line 09 p1495 N67-20231
Energy exchange between high frequency and low frequency oscillations in plasma 09 p1495 N67-20234
Heating, dissipation, and containment of plasma in strong magnetic fluid, under conditions where bunched instabilities excited by escaping electrons develop 09 p1496 N67-20235
Distribution function perturbation expression for establishing fluctuation mechanism of steady plasma fluctuations 09 p1496 N67-20236
Induced scattering of plasma particle oscillations in strong magnetic field 09 p1495 N67-20240
Mathematical model for studying general plane disturbances in magnetized plasma
[IPPJ-52] 10 p1746 N67-21726
Nonlinear oscillating inhomogeneous electron plasma in magnetic field 11 p1949 N67-21892
Effects of electron thermal motion on propagation of longitudinal plasma oscillations 11 p1949 N67-21895
Azimuthal radio frequency fields in plasma-electron beam interactions 11 p1950 N67-21903
Stream velocity and thermal energy variations of plasma oscillation at onset of cyclotron instability 11 p1951 N67-21909
Absolute and convective plasma instabilities and amplification and evanescence criteria 11 p1951 N67-21911
High frequency disturbances in infinite plasma studied by propagator method
[LGI-65-27] 11 p1956 N67-22490
Far infrared spectrophotometer and electron plasma oscillations 11 p1959 N67-22654
Plasma magnetohydrodynamic flow, waves, and oscillations, and applied plasma physics to controlled nuclear fusion 11 p1959 N67-22656
Optical properties of metal, semiconductor, and dielectric thin films - plasma oscillations in silver film
[SAR-14] 14 p2603 N67-27009
Resonant frequencies and damping factors of solid dielectric sphere immersed in warm collisional plasma
[NASA-TN-D-4003] 15 p2773 N67-28300
Plasma turbulence and oscillations 15 p2774 N67-28374
Device for obtaining correlation functions of electric signals in frequency band of 10 to 200 kHz used to study positive turbulent column of helium discharge
[NASA-TT-F-11019] 16 p2952 N67-29011
Lasers and resonant scattering used to determine velocity distribution in plasma
[ARL-66-0234] 16 p2902 N67-29048
Argon plasma oscillations stimulated by high energy pre-bunched electron beam from linear accelerator
[NASA-CR-819] 16 p2956 N67-29060
Landau electrostatic space charge waves in isotropic hot electron plasmas
[ARL-67-0012] 17 p3140 N67-30255
Complex Doppler effect of oscillating electromagnetic source moving uniformly through homogeneous dispersive medium
[NASA-CR-85024] 18 p3305 N67-31835
Incoherent scattering of microwave radiation from enhanced density fluctuations in direct current neon discharge
[R-352] 19 p3514 N67-33061
High frequency oscillations of electron plasma
[FTD-HT-66-494] 19 p3516 N67-33296
Ion viscosity effect on destabilization of sonic oscillations in magnetized plasma
[NP-16768] 21 p3911 N67-36526
Nonlinear large amplitude electrostatic and electromagnetic oscillations in cold plasma
[NASA-CR-86714] 22 p4115 N67-37340
Two stream instability in bismuth, pyrolytic graphite, germanium, and silicon as radiation source in microwave region
[ECOM-03434-F] 22 p4117 N67-37584
Landau damping and mode coupling of plasma oscillations, and plasma turbulence generated by weak beam 22 p4118 N67-37739
Dynamics of electrons following displacements of electron cloud in plasma slab oscillations 22 p4118 N67-37741
Coherent, continuous wave oscillations generated in smooth bore, plasma magnetron
[PM-2] 23 p4316 N67-38250
Nonlinear wave-wave interaction between parallel transverse plasma oscillations
[AD-656736] 24 p4508 N67-39907
Correlation measurements on plasma oscillations in Hall accelerator with axial electric field, radial magnetic field, and argon discharge
[NASA-TM-X-53366] 24 p4511 N67-40222

PLASMA-PARTICLE INTERACTION
Average electron energy losses during diffusion of electron beam in plasmas
[FTD-TT-65-1920] 01 p0136 N67-11142
Measured time-dependent electron velocity in weakly ionized plasma compared with theoretical model using Boltzmann equation 05 p0744 N67-14629
Electron-beam plasma interactions in

cylindrical metallic waveguide 07 p1160 N67-16837
Excitation of longitudinal waves during modulated electron beam interaction with plasma [FTD-HT-66-302] 10 p1735 N67-20696
Diamagnetic metal particle interaction with rapidly changing magnetic field studied for energy conversion devices [DLR-FB-67-36] 20 p3765 N67-34828
PLASMA PERTURBATION
Ion and electron conservation equations used in analysis of instability of linear Hall current accelerator [NASA-CR-676] 04 p0397 N67-14113
Absolute and convective plasma instabilities and amplification and evanescence criteria 11 p1951 N67-21911
Nonlinear mixed frequency generation in anisotropic plasma studied by Maxwell and fluid equations [AFCRL-67-0667] 12 p2186 N67-24494
Ionospheric motion and internal gravity waves [CU-158-67-ONR-266-PHYS.] 17 p3053 N67-30493
Computational methods for reducing plasma field perturbations by ferromagnetic materials 23 p4331 N67-38765
PLASMA PHYSICS
SA CYCLOTRON RESONANCE
SA LIOUVILLE EQUATION
SA MAGNETOHYDRODYNAMICS
SA MAGNETOHYDROSTATICS
SA NUCLEAR PHYSICS
SA THERMODYNAMICS
Conferences on plasma physics and nuclear fusion activities [NP-16154] 01 p0134 N67-10614
Review of microwave plasma applications research [SU-IPR-57] 01 p0135 N67-10022
Integration of differential equations of column of arc with isothermal plasma that is cooled by heat conductivity [FTD-TT-65-1767] 01 p0136 N67-10063
Cumulative listing of reports and publications from Princeton University Plasma Physics Laboratory [MATT-400] 02 p0292 N67-11714
Pulse method for measuring plasma parameters, and simultaneous extraction method for ions and electrons from duoplasmatron 03 p0394 N67-12621
Electron oscillation observed in radio frequency study of Penning plasma discharge 03 p0394 N67-12622
Free electron density in dense plasmas at high pressures, calculated with Thomas-Fermi statistical model [LGI-66-8] 03 p0449 N67-13048
Plasma physics technological developments for ion cyclotron, vacuum system, particle detector, plasma production, helicon device, gas laser, and related topics [AD-489865] 03 p0451 N67-13345
Analysis of satellite data for studies related to ionospheric plasma research [NASA-CR-80741] 04 p0541 N67-13726
Laboratory model of solar wind based on similarity of solar wind interaction with earth B field to continuum flow [AMP-204] 05 p0756 N67-14712
Ion production and reaction in flame gases, and plasma diagnostics - conference [AGARD-CP-8, VOL. I] 06 p0746 N67-15221
Electron bombardment ion source, ion beam, and beam neutralization by electron injection in synthetic plasma beams 06 p0746 N67-15230
Microwave research on electroacoustic amplifiers, optical masers, stimulated Raman effect, acoustic wave optics, semiconductor oscillation, nonuniform plasmas, and ferromagnetic metals [ML-1464] 06 p0949 N67-16325
Acoustic wave amplification, optical maser, tunable laser, acoustic wave optics, nonuniform plasma theory, semiconductor oscillation, and ferromagnetic metal studies in microwave program [ML-1436] 06 p0949 N67-16339
Plasma turbulence in Van Allen belt [NASA-CR-81257] 06 p0958 N67-16511
Plasmas, electromagnetics, fluid dynamics, and ablation studies [PIBMRI-1295.2-66] 07 p1159 N67-16824
Instrumentation for diagnostics in plasma laboratory 07 p1076 N67-16825
Use of plasma physics in studying physical problems from earth interior to other galaxies 07 p1163 N67-17295
Rapid acting microwave interferometer with direct phase reading for plasma diagnostics [FTD-HT-66-272] 07 p1062 N67-17651
Lectures on methods of high speed recording of quickly transpiring processes in nonstationary gas dynamics and in plasma physics studies [JPRS-39697] 07 p1066 N67-18114
Bibliography on spectroscopy of high temperature chemistry and reactions between gases and condensed phases 07 p1083 N67-18184
Important characteristics of magnetosphere plasma [NASA-CR-81759] 08 p1356 N67-18234
Steady state limitations in fully ionized plasma carrying ion and electron currents [REPT.-66-10] 08 p1346 N67-18374
Numerical experiments in plasma physics [MATT-441] 08 p1348 N67-18985
High current pulsed ion beam source 09 p1491 N67-19371
Theoretical and experimental investigations of high frequency plasma properties [NASA-TT-F-449] 09 p1494 N67-20221
Dielectric constant of plasma in direct pinch magnetic field and in direct helical magnetic field 09 p1494 N67-20227
Kinetic theory of surface wave in plasma wave guide 09 p1495 N67-20229
Singularities of electromagnetic field in nonuniform, magnetoactive plasma 09 p1495 N67-20230
Electron scattering technique for plasma diagnosis and Coulomb-Rutherford collion model to describe electron densities [UTIAS-120] 09 p1498 N67-20310
General physics - molecular beams, molecular collisions, microwave spectroscopy, radio astronomy, plasmas, energy conversion, noise in electronic devices, and neutron neutrality [RLE-QPR-82] 10 p1693 N67-20822
Research on plasma sources, compression and Alfven waves, surface microwave reflections, longitudinal wave propagation, lasers, and lunar magnetic field [NP-16321] 10 p1737 N67-21016
Vacuum clamp switch for capacitor bank for high density plasma research [NRL-6418] 10 p1602 N67-21369
Quantum electrodynamics of scattering of radiation from fully ionized, interacting - plasma oscillations, perturbation analysis, quantum field theory, and dielectric constant [UCRL-50148] 10 p1739 N67-21499
Dwell time and reignition of exploding wires, spark gap for exploding wire experiments, shock tube wave velocity enhancement, and photographic method to determine absorption coefficients [BMWF-FBK-66-27] 10 p1739 N67-21536
Nuclear and atomic physics, thermodynamic properties of matter, and radiation and plasma physics [UCRL-14744] 11 p1934 N67-22130
Radiation and plasma physics 11 p1958 N67-22133
Thermoelectric materials engineering, plasma physics, and electrochemistry for direct energy conversion systems [NASA-CR-83330] 11 p1784 N67-22161
Plasma in laminar and turbulent hydrocarbon flames [FTD-MT-65-550] 11 p1906 N67-22442
Plasma physics studies of thermonuclear reactions [FTD-TT-65-1565] 11 p1959 N67-22558
Electron and plasma physics research projects [REPT.-66-03] 11 p1961 N67-22920
Computer experiments with charged particles, charged fluids, and plasmas - classification and bibliography [IPPJ-54] 11 p1961 N67-22942
Plasma computer experiments in three dimensions - code for guiding center fluids [IPPJ-55] 11 p1962 N67-22963
Thermonuclear research projects - scylla, application of holography to plasma diagnostics, plasma guns, and theory [LA-3638] 11 p1963 N67-23222
Bibliography on high temperature chemistry and physics of gases and plasmas - spectroscopy and reactions between gases and condensed phases [REPT.-31] 11 p1816 N67-23443
Research project reports on coder components, infrared atomic spectra, semiconductor and plasma physics, and solid state spectroscopy [NOLC-888] 12 p2154 N67-23761
Plasma physics and controlled nuclear fusion conference papers [AEC-TR-6760] 12 p2159 N67-24161
Accumulation of hot ion plasma in PR-3 12 p2160 N67-24162
Anomalous ion drift into cone of losses 12 p2161 N67-24165
Plasma column equilibrium in Tokamak 5 12 p2162 N67-24182
Joule heating of plasma in toroidal Tokamak 3 12 p2163 N67-24184
Injection and confinement of plasma in stellarator with multipolar helical field 12 p2164 N67-24190
Plasma compression by magnetic field in toroidal device 12 p2165 N67-24192
Electron density distributions in high density plasma [QPR-5] 12 p2165 N67-24272
Nomogram for Saha equation to determine plasma electron density [AD-647747] 12 p2165 N67-24404
Rare-gas magnetohydrodynamic generator - Plasma diagnostics [NASA-CR-54667] 12 p2167 N67-25075
Low-temperature alkali plasmas in strong magnetic fields in terms of collisional drift modes [MATT-523] 13 p2363 N67-25428
University research in materials, plasma, and engineering for direct energy conversion [NASA-CR-83039] 13 p2264 N67-25643
Bibliography of electron and plasma physics - 1966 reports with abstracts [REPT.-66-30] 13 p2364 N67-25699
Axisymmetric surface wave on temperate collisional argon plasma column [AFCRL-66-765] 13 p2365 N67-25749
Compilation of research activities in plasma physics, solid state physics, low temperature physics, low and high energy nuclear physics, and history of science [NUP-67-2] 13 p2380 N67-26159
Nuclear engineering program on reactor physics, neutron physics, and nuclear physics problems 14 p2574 N67-26610
Theoretical and experimental research in solid state physics, nuclear physics, plasma physics, and general physics conducted at Illinois University 14 p2580 N67-26611
Kinetic theory of plasmas based on field particle scattering [R-341] 14 p2585 N67-26875
Computer programmed basic data of plasma physics, and far infrared plasma diagnostics 14 p2596 N67-27092
Technological advancements in nuclear fusion, plasma physics, magnetohydrodynamic flow, and related topics 14 p2598 N67-27094
High energy research, cosmic ray research, nuclear physics, theoretical physics, and plasma physics experiments [UCRL-17323] 14 p2592 N67-27584
Plasma physics research projects 14 p2600 N67-27736
Pulse dispersion in plasmas, longitudinal waves in warm plasmas, and diagnostic applications of electroacoustic resonances [SRRC-CR-66-48] 15 p2774 N67-28225
Electrolytic resistors for microparticle accelerators and their use in plasma physics research [NASA-CR-72689] 15 p2880 N67-28679
Documentation of plasma and theoretical physics with bibliography and indexes [AED-C-03-04] 16 p2954 N67-29702
Velocity distributions associated with bounded quiescent plasmas [LA-DC-8213] 16 p2956 N67-29963
Summer study program lectures and seminars in geophysical fluid dynamics 17 p3182 N67-31413
Bibliography covering 1964-1966 works on high temperature chemistry and physics of gases and plasmas [REPT.-32] 18 p3221 N67-31659
Boundary layer and limiting velocity for rotating plasma [NASA-CR-85975] 18 p3313 N67-31906
Plasma and radio physics, solid state and electronic equipment, communication theory, and atmospheric science [SEL-67-007] 18 p3254 N67-32591
Research summaries of work in plasma physics, quantum electronics, radio science,

solid state electronics, and systems theory
[SEL-67-020] 19 p3497 N67-32749
Decay of magnetic fields, oscillations, stability, and other effects of stars
[AFCRL-67-0195] 19 p3514 N67-33032
Theoretical and experimental research on radiation and plasma physics, hydrodynamics, thermodynamic property of matter, and nuclear structure
[UCRL-50001-66-2] 19 p3498 N67-33206
Ruby lasers to study plasma production 19 p3515 N67-33210
Progress of research projects in electron and plasma physics at Royal Institute of Tech., Stockholm, Sweden
[REPT.-67-04] 19 p3519 N67-33636
Helical instability of positive column in crossed fields and in annular plasma configurations
[NASA-CR-87412] 20 p3707 N67-34306
Single-particle model describing plasma cyclotron echoes
[RLE-TR-458] 20 p3715 N67-34335
Bibliography of works on high temperature physics and chemistry of gases and plasmas published 1964-1966
[REPT.-23] 20 p3584 N67-34593
Theoretical models for examining mechanism governing rapid electric discharge - neutron source by plasma focus
[LA-TR-67-42] 21 p3911 N67-36043
Bibliography on high temperature chemistry and physics of gases and plasmas 21 p3792 N67-36450
Bibliography on various aspects of plasma physics
[AED-C-68-07, PT. I, VOL. II] 21 p3911 N67-36515
Nagoya University Plasma Physics Institute research on ion cyclotron and related topics 21 p3912 N67-36533
Bibliography on experimental and theoretical plasma physics
[AED-C-68-06, PT. I, VOL. II] 21 p3912 N67-36626
Plasma physics experiments with ionization coefficients, glow discharge, radio frequency, and plasma probes 22 p4113 N67-36863
Solid state physics, applied electromagnetics and plasmas, information sciences, and biological engineering research
[AD-656825] 22 p4138 N67-37429
Research in biomedical electronics, information systems, physical, quantum, and plasma electronics, and space, atmospheric, and earth radio sciences
[AFOSR-67-1115] 23 p4017 N67-37447
Theoretical work on plasma physics and magnetic fields, and experiments on producing high temperature plasma, plasma acceleration, and diagnostics
[JUL-494-PP] 22 p4117 N67-37704
European space research on laser-produced plasmas, and application to plasma physics and spectroscopy
[ESRO-SN-69] 22 p4118 N67-37715
Plasma physics, Vlasov theory, astrophysics, magnetohydrodynamics, many-body problem, and computer simulation - conference
[NASA-SP-153] 23 p4118 N67-37737
Noise measurements in computer simulated rod model of plasma 22 p4118 N67-37742
Computer simulations of magnetichydrodynamic plasma devices 23 p4119 N67-37747
Conference on space and laboratory plasmas
[ESRO-SP-20] 22 p4121 N67-37816
Plasma measurements in interplanetary space 23 p4121 N67-37819
Construction and testing of enclosed high voltage spark gaps and crowbar devices for low inductive condenser banks used in plasma physics experiments
[BMWF-FBK-67-36] 22 p4018 N67-37914
Inductive pulsed generator for high energy plasma physics experiments
[BMWF-FBK-67-35] 22 p4101 N67-37977
Kinetics of helium plasma growth and decay 23 p4316 N67-38281
Kinetic theory and statistical mechanics of reacting plasma and recombination theory for plasma with inhomogeneous ionization in columns 23 p4317 N67-38282
Microwave photon interaction with superconducting tunneling currents - plasma physics, semiconductors, and solid state spectroscopy
[NOLC-715] 23 p4330 N67-38560
Exploding wire, shock waves, and pinch discharge methods in plasma physics
[BMWF-FBK-67-49] 23 p4325 N67-39232
Digital computer program for computing ion saturation currents from uniform density plasma, particle trajectories, and plasma surface shape
[MATT-551] 24 p4507 N67-39674
Ion-ion and ion-electron collision effects on relaxation of anisotropic plasma in theta pinch
[IPP-1/67] 24 p4512 N67-40392
PLASMA PINCH
SA PINCH EFFECT
SA THETA PINCH
Cusp-shaped plasma production by fast magnetic compression
[JUL-338-PP] 03 p0449 N67-13047
Equilibrium and stability of toroidal plasma screw pinch
[REPT.-66-32] 04 p0596 N67-14004
Fast high voltage Z-preionization of megajoule theta pinch
[CLM-R-62] 06 p1350 N67-19212
Continuum radiation of theta pinch plasma measured for investigation of electron heating
[JUL-413-PP] 10 p1737 N67-21059
Resonant particle kinetic energy transfer to induced electric field perturbations with application to geomagnetic tail - plasma pinch
[D1-82-0589] 13 p2362 N67-26344
Dynamics of plasma envelope of noncylindrical Z-pinch up to instant of implosion
[CLM-TRANS-8] 15 p2776 N67-28846
Dynamic behavior of collisionless theta pinch plasma with respect to anomalous energy dissipation
[IPP-1/61] 20 p3706 N67-34167
Interferometric refraction measurements on high temperature theta-pinch hydrogen plasma
[JUL-493-PP] 20 p3711 N67-35225
Adjustment of stellarator magnetic system
[MATT-TRANS-39] 22 p4101 N67-37976
PLASMA POWER SOURCE
Plasma power source, large amplitude Alfven waves, compression waves, and microwave reflection and propagation
[PR-12] 16 p2955 N67-29750
PLASMA PROBE
SA LANGMUIR PROBE
SA MICROWAVE PLASMA PROBE
Electrodeless instruments employing magnetic or electromagnetic fields for plasma flow probing
[AGARDOGRAPH-96] 02 p0280 N67-11941
Limiting processes with numerical results for differential equation governing field around spherical plasma probes
[ARL-66-0113] 06 p0943 N67-15859
Theoretical calculations of currents, particle trajectories, and domain shapes of planar and spherical electrostatic plasma probes
[NASA-CR-704] 06 p0979 N67-16671
Plasma effects around bodies in nozzle of hypersonic shock tunnel 07 p1161 N67-16855
Polarized pyrometric probe operation and measurement of plasma particle energy 07 p1184 N67-17389
Wave propagation, plasma probe, and plasma-electromagnetic methods for measuring interplanetary and magnetospheric electron density
[MPI-PAE-EXTRATERR.-19/65] 07 p1167 N67-17804
Summaries of experimental studies in plasma dynamics 09 p1491 N67-19405
Gas discharge sources of ions and atoms with glowing cathode
[FTD-HT-66-316] 10 p1734 N67-20670
Theoretical and experimental studies on plasma physics in U.S.S.R. 1963 11 p1947 N67-21881
Spectral characteristics of incoherent scattered electromagnetic waves for plasma probing 11 p1957 N67-21955
Extraordinary transverse wave propagation for plasma measurements 11 p1957 N67-21956
Effects of collision frequency on plasma measurements by longitudinal radio waves 11 p1957 N67-21957
Plasma diagnostic techniques and microwave plasma diagnostics utilizing electromagnetic radiation
[MIT-1842-36] 11 p1969 N67-22546
Plasma resonance probe to determine some properties of plasma environment 11 p1966 N67-22704
Measuring apparatus to probe plasma conductivity 11 p1969 N67-22706
Particle injection, tuft and vane probes, directional probes, and glow discharge density probes for nozzle flow visualization
[NASA-CR-83976] 13 p2309 N67-26148
Development of high resolution piezoelectric pressure probes for plasma diagnostics
[NASA-TT-F-10955] 14 p2529 N67-27570
Electric field measurements in magnetosphere with electric probes
[ESRO-SN-23] 15 p2767 N67-27924
Potassium atomic beam probe for measuring electron density in plasmas
[CLM-R-68] 15 p2714 N67-28048
Plasma physics experiments with ionization coefficients, glow discharge, radio frequency, and plasma probes 22 p4113 N67-36863
Proposed experiment on effects of contact potentials on electric field measurements in ionosphere by double probe systems 22 p4122 N67-37822
Characterization of reentry plasmas in hypersonic Hotshot wind tunnels - importance of nonequilibrium effects and triple probe for determining electron density and temperature
[ONERA-TP-488/1967/] 23 p4324 N67-39124
Moderate energy electron beam used to probe plasma created by laser beam impinging on graphite target
[AVSSD-0244-67-RR] 24 p4461 N67-39488
Positive ion collection by highly negative spherical electrostatic probe in collision dominated plasma
[NASA-CR-89747] 24 p4446 N67-40127
Radio frequency and dc plasma probe research
[NASA-CR-89781] 24 p4511 N67-40390
PLASMA PROPULSION
Electron cyclotron plasma thrustor for orbit corrective missions 05 p0756 N67-18246
Electrodeless plasma propulsion system with conical discharge coil investigated by photomultiplier display
[DVL-579] 06 p1349 N67-19072
Conference paper abstracts on ion engines, plasma power generation, and electric propulsion
[AFOSR-67-0894] 16 p2962 N67-29800
PLASMA RADIATION
Wave-plasma interactions during reentry in low layers of atmosphere
[TP-364/1966/] 02 p0292 N67-11869
Power density of bremsstrahlung radiation from fully ionized plasma and development of tractable form for inelastic collision integrals in Boltzmann equations
[REPT.-37] 04 p0596 N67-13776
Radiation condition for unbounded anisotropic dispersive magnetoplasma
[RR-502] 06 p0943 N67-16178
Ray-optical approach to class of boundary value problems involving compressible plasmas 07 p1161 N67-16840
Production of recombination continua in spark discharge for absolute intensity measurement in vacuum ultraviolet
[JUL-368-PP] 07 p1167 N67-17005
Models that treat events associated with quasi-stellar objects as plasma phenomena
[NASA-CR-82503] 06 p1367 N67-19077
Plasma studies dealing with statistical theory of radiation, bremsstrahlung and conductivity, and generation of second harmonics by spatial inhomogeneities of charge distribution
[AD-644368] 09 p1491 N67-19080
Interaction between ultrahigh frequency radiation and turbulent plasma 12 p2161 N67-24171
Plasma radiation by surface roughness of silver foils
[D1-82-0581] 13 p2367 N67-26313
Motions of low density crossed field electron beams studied on computer in plasma radiation shielding investigation
[NASA-CR-84403] 14 p2597 N67-27903
Plasma radiation shield concept and applications to space vehicles
[NASA-CR-84420] 14 p2600 N67-27760
Bremsstrahlung in plasmas with high electron densities
[ARL-66-0239] 16 p2962 N67-29804
Lyman alpha, Lyman beta, and hydrogen alpha spectral line shapes for hydrogen atom in presence of magnetic field in plasma

[CEA-R-3161] 19 p3518 N67-33516
High power plasma radiation source developed for operation at 150 kW and 1600 A in radiative heating system
[NASA-CR-73133] 23 p4165 N67-37618
High temperature plasma spectroscopy - laboratory experiments related to ultraviolet and X-ray astronomy 23 p4121 N67-37827
Dense plasma focus role in producing intense source of neutrons
[LA-DC-8124] 23 p4324 N67-39202
PLASMA RESONANCE
Electron temperature and wave resonance effects in plasma waveguides
[NASA-CR-84419] 14 p2597 N67-27378
Alouette I plasma resonance data analysis, cyclotron harmonic resonant frequencies, and resonant excitation region
[NASA-TM-X-55816] 16 p2956 N67-29992
Resonance probe as tool for diagnosing plasmas - resonator geometry, ion sheath, and plasma approximation
[CEA-R-2945] 19 p3515 N67-33227
Self-broadening of cesium resonance lines and scattering of cesium resonance radiation
[AD-657864] 24 p4586 N67-39648
Excitation of electrostatic ion cyclotron waves in low density plasma - resonance curves for atomic and molecular hydrogen ions
[IPPJ-58] 24 p4509 N67-40003
PLASMA ROCKET
Plasma rocket engine used in Mars probe
[FTD-TT-65-1886] 01 p0146 N67-11092
PLASMA SHEATH
Hollow cathode electron beam discharge for penetrating plasma sheath around reentry vehicle
[NASA-CR-660] 02 p0292 N67-11954
Plasma sheath surrounding models in hotshot wind tunnels
[TP-376/1966/] 03 p0447 N67-12857
Radiation of magnetic line source excited cylinder through axially slotted plasma sheath
[NASA-CR-677] 05 p0743 N67-14459
Evaluation of integration constants and minimum velocity for electrons and ions entering sheath regime in plasma sheath studies 07 p1159 N67-16831
Admittance of wedge excited coaxial antenna with plasma sheath
[NASA-CR-66265] 07 p1041 N67-17989
Excitation of surface currents on plasma-immersed cylinder by electromagnetic and electrokinetic waves - vacuum and inhomogeneous sheath models
[NASA-CR-81737] 07 p1168 N67-18101
Bibliography of technical reports on plasma sheath phenomena and communications blackout during vehicle atmospheric reentry
[NASA-CR-66250] 08 p1251 N67-19139
Antennas and waves in plasma
[NASA-CR-82529] 08 p1251 N67-19206
Harmonic generation using varactor capabilities of plasma sheath
[TR-EE66-23] 11 p1900 N67-23700
Research on plasma sheaths and boundary layers around stagnation point electrodes
[NASA-CR-83977] 13 p2386 N67-25189
Radar cross section decrease of Apollo command module due to reentry plasma sheath effects
[NASA-TM-X-55824] 16 p2976 N67-30150
Antenna breakdown in presence of plasma sheath and effects of forced convection
[TR-135] 17 p3023 N67-30488
Effect of plasma compressibility and sheath upon scattering cross section of electromagnetic waves from infinite perfectly conducting cylinder
[NASA-CR-86631] 18 p3313 N67-31813
Plasma sheath inhomogeneity and nonuniform effects on antenna radiation patterns and input impedance
[AFCRL-67-0300] 20 p3599 N67-34046
Admittance of infinite cylindrical antenna in lossy plasma with axis parallel to static magnetic field
[NASA-CR-87498] 20 p3601 N67-34407
Weakly ionized gas flow through parallel plate, continuum, electrostatic probe - boundary layer solution, and plasma sheath equations
[AEDC-TR-67-71] 21 p3949 N67-35536
Microwave radiation interaction with hypersonic air plasmas
[AFCRL-67-0201] 22 p4113 N67-36880
Experimental and theoretical data on plasma sheath surrounding hemisphere cone models in short arc wind tunnels 22 p4116 N67-37530
Numerical solutions to steady state plasma sheath problems 22 p4119 N67-37744
Electron attaching additives research for modification of reentry plasmas and improvement of microwave communication
[AFCRL-67-0214] 22 p4001 N67-37808
Plasma sheet model with two-dimensional motion and emitted radiation 23 p4322 N67-38754
Laboratory simulation of reentry plasma sheaths using glow discharge for communications studies
[TR-1001/2230-10/-6] 24 p4507 N67-39778
Efficiency of water vapor in removing electrons from ionized gases measured in shock tubes
[NOLTR-67-79] 24 p4432 N67-40071
PLASMA SLAB
Guided surface waves supported by layers of lossy compressible plasma slab
[S-5158-3] 05 p0745 N67-15050
Transition radiation in parallel plate waveguide 07 p1161 N67-16844
Nonlinear coupling between slow and fast waves in waveguide partially filled with plasma slab
[SR-13] 12 p2178 N67-23838
Plasma streaming into magnetic field - nonlinear solution for upper hybrid oscillations in slab geometry, instabilities in slab geometry, and quasi-linear boundary value problem
[R-10] 14 p2596 N67-27007
Dynamics of electrons following displacements of electron cloud in plasma slab oscillations 22 p4118 N67-37741
Input admittance of rectangular waveguide antenna radiating into inhomogenous lossy plasma slab and dielectric constant variations
[NASA-TN-D-4197] 23 p4211 N67-38091
Guided electromagnetic wave propagation along periodic structures and plasma slabs
[LU/EE/67/05] 24 p4404 N67-39567
PLASMA SOUND WAVE
Excitation and damping of drift waves in stable regime of highly ionized plasma
[NASA-CR-80375] 02 p0448 N67-12995
Experiments and calculations to determine ion-acoustic and sound wave amplification in plasmas 05 p0743 N67-14627
Plasma sound wave as simple diagnostic tool
[ORNL-4089] 23 p4318 N67-38627
Sound waves for pressure stabilization in stellarator 23 p4322 N67-38752
PLASMA SPECTRUM
Impulse mass spectrometer for studying high velocity phenomena in low pressure gases and nonstationary plasma
[FTD-TT-65-859] 01 p0075 N67-11062
Rostoker particle theorem for multispecies plasma in framework of Klimontovich formalism 02 p0293 N67-12130
Collision processes between particles in gaseous discharge plasma measured by mass spectrometry
[AD-640562] 06 p0943 N67-16441
Spectroscopic phenomena of plasma-electromagnetic interaction, and ion temperature of plasma resulting from plasmoid collision 11 p1956 N67-21959
Spectroscopic plasma diagnostics involving studies of ionized gases and phenomena ocurring under thermal equilibrium conditions
[NP-16443] 12 p2178 N67-23778
Material entry into plasma and excitation of spectra under effect of laser radiation 13 p2387 N67-26438
Transition probabilities, excitation cross sections, and neon glow studies for plasmas 17 p3143 N67-31017
Radiation transfer in spectral lines, and applications to plasma kinetics and diagnostics
[FTD-MT-65-531] 18 p3257 N67-32685
Detection and analysis of neutral charged particles, and application to study of hot plasmas
[CEA-R-3129] 19 p3320 N67-33975
PLASMA SPRAYING
SA FLAME SPRAYING
Deposition of protective coatings of carbides of titanium, zirconium, and niobium and of aluminum nitride on graphite 18 p3290 N67-32290
PLASMA STABILITY
Stability of dense plasma confined by rotating magnetic field which is parallel to the surface
[LRP-25/66] 01 p0134 N67-10630
Stability of uniform two-dimensional electrical current field in conducting radiating gases
[ARL-66-0106] 02 p0293 N67-12186
Stable and unstable behavior of preheated hydrogen plasma in linear and cusp theta pinches 03 p0448 N67-13043
Plasma equilibrium in confined toroidal magnetic field configurations
[IAE-1151] 04 p0597 N67-14078
Research on plasma stability, beam interactions, and electric breakdown of gas by laser
[EUR-CEA-FC-322] 04 p0598 N67-14307
Calculations and experiments to determine ion wave instability in steady state discharge, laser breakdown in plasma, and microwave scattering from standing plasma waves 05 p0743 N67-14628
Interaction between low energy cesium ion beam and thermal cesium plasma
[NASA-CR-81340] 06 p0944 N67-16818
Influence of transverse currents on equilibrium of toroidal plasma in presence of conducting walls
[IAE-1152] 07 p1166 N67-17394
Valid kinetic equation for both stable and unstable plasmas
[NASA-TM-X-57293] 08 p1247 N67-18422
Bohr-van Leeuwen theorem applied to interior region of magnetically confined plasmas to determine stability
[NASA-TN-D-3869] 11 p1961 N67-22963
Electrostatic stability of plasmas of finite length
[CEA-R-3089] 12 p2176 N67-23552
Plasma stability in magnetic mirror machine with stabilizing rods 12 p2180 N67-24163
Plasma stability in relation to minimum B configurations 13 p2180 N67-24164
Plasma stability condition and macroscopic effects in toroidal discharges 12 p2181 N67-24187
Dynamic stabilization of plasma column 12 p2182 N67-24174
Oscillations and stability of plasma located in external high frequency electric field 12 p2182 N67-24178
Equations and boundary conditions for determining electrostatic stability of plasmas of finite length
[EUR-CEA-FC-392] 19 p3519 N67-33645
Magnetohydrodynamics energy principle used to examine stability of linear bumpy theta pinch
[IPP-6/57] 20 p3706 N67-34128
Anomalous plasma transport in simulant plasma of Q device
[SRRC-CR-67-15] 22 p4114 N67-36976
Electron energy loss in afterglow plasmas, plasma transport and stability and electromagnetic wave propagation through magnetoplasmas
[NASA-CR-906] 23 p4316 N67-38142
Ion saturation current frequency for stabilization of stellarator plasma 23 p4319 N67-38730
Ion saturation current for shear stabilization of potassium plasma 23 p4320 N67-38735
Equilibrium and stability of collisionless plasma in general magnetic field geometry 23 p4322 N67-38750
PLASMA TEMPERATURE
Possible errors due to lack of spatial resolution in spectroscopically determined temperatures in plasmas
[NASA-TN-D-3737] 03 p0447 N67-12726
Dynamic thermocouple for measurement of plasmas in 3000 to 4000 deg temperature range
[FTD-MT-65-528] 09 p1492 N67-19750
Determination of plasma temperature and density distribution by refraction and damping of beam 09 p1495 N67-20233
Temperature measurement and internal flow heat transfer analysis for partially ionized argon
[SU-347-11] 10 p1735 N67-20682
Thermal insulation efficiency of plasma - kinetic energy
[IAE-1154] 10 p1736 N67-20918
Temperature limit as measure of plasma confinement for study of magnetic bottles at low plasma temperature
[REPT.-66-19] 10 p1741 N67-21796
Quasi-linear plasma instability analysis to

determine plasma saturation temperature and magnetic field energy 11 p1951 N67-21907
Spectroscopic method for measuring electron temperature of plasma [PH-41] 16 p2957 N67-35040
Computer program for calculating composition of uranium plasma as function of plasma-temperature and pressure [NASA-CR-85363] 16 p2957 N67-35043
Spectroscopic methods to measure ion and electron temperatures of thermally thin plasma in local thermal equilibrium, spectral distribution of zirconium lamp, and vortex stabilized arc 18 p3315 N67-32596
Twelve channel Doppler profile spectrophotometer for plasma scattered laser light [AWRE-O-42/67] 20 p3638 N67-34178
Measurement of ion temperature in barium plasma [MATT-461] 23 p4325 N67-39234
Electron density and temperature distributions in recombining cesium-seeded low density argon plasma - shock wave structure [NASA-CR-89743] 24 p4510 N67-40186
PLASMA THEORY
Wentzel, Kramers, Brillouin approximation in complex plane and applications to plasma theory [IC/66/45] 04 p0597 N67-14079
Nuclear fusion, ionization of energetic hydrogen atoms, turbulent plasma theory and related topics [AEC-TR-6669] 07 p1165 N67-17385
Multiparticle effect of turbulent plasma theory 07 p1165 N67-17387
Mathematical models for nonlinear mode interactions in bounded plasmas [BN-473] 16 p2955 N67-29742
Electron density profile and magneto-Kerr effect at collisional plasma boundary [ER.22] 16 p2955 N67-29751
Multifluid theory and fundamental equations for radiation magnetogasdynamics [ISAS-408, VOL. 32, NO. 1] 17 p3146 N67-31392
Equations for electrostatic stability of plasmas of finite length [CEA-R-3156] 19 p3517 N67-33468
Computer methods and microscopic plasma theory 23 p4118 N67-37738
Kinetic equation for single-particle electron distribution for plasma in magnetic field [ARL-67-1150] 24 p4508 N67-39852
PLASMA TURBULENCE
Derivation of spectra of turbulence and density fluctuations in plasma from hydrodynamic description [NASA-CR-81719] 07 p1168 N67-18088
Statistical averaging procedure in problems of plasma turbulence involving Vlasov equation [NASA-CR-82524] 08 p1349 N67-19050
Energy loss or gain per unit time by charged particle interacting with turbulent plasma 09 p1496 N67-20237
Plasma wave interaction expressed in terms of wave-particle resonance due to particle motion in turbulent electric and magnetic fields [IC/66/82] 10 p1741 N67-21787
Hierarchial equations for weak turbulence in homogeneous plasma [MATT-496] 14 p2397 N67-27244
Plasma turbulence and oscillations 15 p2774 N67-28374
Entropy defined for weak plasma turbulence in terms of probability introduced in functional space spanned by instantaneous solutions of Vlasov equation [IPPJ-57] 16 p2957 N67-30112
Oscillation frequency leading to turbulence during electron beam interaction with magnetoplasma [IPP-2/61] 20 p3706 N67-34166
Strong turbulence of inhomogeneous weakly ionized nonisothermal plasma in crossed electric and magnetic fields [IPPCZ-48] 21 p3911 N67-36046
Landau damping and mode coupling of plasma oscillations, and plasma turbulence generated by weak beam 23 p4118 N67-37739
Statistical mechanics of particle acceleration in turbulent plasma [NASA-TT-F-10480] 24 p4511 N67-40199
PLASMA WAVE
Nonlinear interaction between plasma waves on low pressure mercury vapor discharge surrounded by cylindrical waveguide [SR-7] 01 p0132 N67-10287
Ionospheric E region irregularities produced by nonlinear coupling of unstable plasma waves [NASA-CR-79928] 02 p0256 N67-11856
Acoustic apparatus for study of acoustic wave pressure-disturbance propagation in plasma [NASA-CR-79287] 02 p0293 N67-12223
Nonlinear waves in plasmas and disk-like galaxies [NASA-CR-80486] 03 p0449 N67-13127
Equations for dispersion relations of magnetoactive finite temperature plasma [NASA-CR-80914] 05 p0744 N67-14817
Microwave-plasma wave coupling, wave propagation and nonlinear waves in plasmas, electron and gas densities, and indium antimonide instability [RADC-TR-66-569] 05 p0745 N67-14990
Mariner II magnetometer data analyzed to determine effects from Alfven or acoustic plasma waves 06 p0957 N67-15739
Analysis of ionized plasmas in which electron temperature exceeds ion temperature [NASA-CR-81287] 06 p0944 N67-16520
Surface wave guiding and radiating systems - perturbation theory, ferroelectrics at microwave frequencies, magnetoplasmaguides, warm plasma wave propagation, and correlation radiometry [SR-95] 07 p1162 N67-17001
Nonquasistatic plasma surface wave propagation along unmagnetized plasma column 07 p1163 N67-17009
Wave propagation along homogeneous isotropic warm plasma columns 07 p1163 N67-17010
Penning ionization gauge apparatus to investigate Bernstein plasma waves by scattered microwave detection 07 p1163 N67-17012
Waves in inhomogeneous plasma of cylindrical geometry [EUR-2725.F] 07 p1164 N67-17350
Impedance of biconical and cylindrical dipoles in warm isotropic plasma [NASA-CR-82373] 08 p1350 N67-19044
Computer programs for calculating equilibrium states in reflected shock plasmas [NASA-CR-82931] 09 p1493 N67-19934
Theory of magnetohydrodynamic wave scattering at end of wave guide 09 p1495 N67-20222
Nonlinear processes in uniform and one component plasma 09 p1496 N67-20239
Positron beam for linear acceleration of electrons and wave excitation in limited plasma [FTD-HT-66-175] 10 p1697 N67-20485
Excitation of waves in limited plasma by modulated stream 10 p1734 N67-20487
Hydrodynamic system of equations for decay mode analysis of waves in plasmaguide 11 p1951 N67-21910
Nonlinear plasma wave interaction 12 p2182 N67-24179
Interaction of longitudinal, surface, and transverse waves on plasma boundary [NASA-TT-F-10620] 12 p2187 N67-25027
Wave propagation and diffraction, wave theory in plasmas, open resonators, boundary value problems, and thermal radiation and scattering 13 p2383 N67-25202
Nonlinear drift wave propagation in plasma [NASA-CR-86678] 18 p3314 N67-32132
Dielectric tensor elements derived for study of wave dispersion near cyclotron harmonics for Alouette satellite 19 p3513 N67-32887
Dispersion relations for low frequency waves in quiescent cesium magnetoplasma [ARL-67-0065] 20 p3705 N67-33999
Electron concentration and number of electron collisions with air molecules after shock wave and interferometric methods of measuring density field of gas flows in shock tunnel [FTD-MT-65-552] 20 p3709 N67-34653
Electron concentration and number of electron collisions with air molecules after shock wave 20 p3709 N67-34654
Collisionless absorption and emission of electromagnetic waves by hot bounded plasma [AFOSR-67-1122] 21 p3909 N67-35676
Landau damping in relativistic plasma [NASA-CR-88269] 21 p3910 N67-36035
Interaction between longitudinal and transverse waves of infinite homogeneous isotropic collisionless plasma [AD-654525] 21 p3911 N67-36444
Dispersion of plane small amplitude plasma waves 22 p4121 N67-37836
Nonlinear wave propagation in collisionless plasma in uniform magnetic field [NASA-CR-77919] 23 p4123 N67-38029
Linear and nonlinear theory of grid excitation of low frequency plasma waves [NASA-CR-89281] 23 p4325 N67-39236
Operation of ion cyclotron wave generation apparatus in radio frequency self-sustained mode [NASA-TM-X-52365] 24 p4510 N67-40139
PLASMAGUIDE
Perturbation theory applied to homogeneous magnetoplasmaguide 07 p1162 N67-17008
Apparatus for measuring ion cyclotron resonance at difference frequency - nonlinear phenomena in plasma waveguide 09 p1497 N67-20242
Nonlinear electromagnetic wave propagation in plasma waveguide immersed in strong magnetic field 11 p1948 N67-21892
Hydrodynamic system of equations for decay mode analysis of waves in plasmaguide 11 p1951 N67-21910
Matching transitions between waveguides and Lecher wires in microwave region [IPP-3/53] 20 p3710 N67-34837
Helmholtz equations used in study of propagation at microwave frequencies in waveguides filled with warm plasma [SR-16] 24 p4509 N67-40012
PLASMATRON
SA DUOPLASMATRON
Plasma parameters and operating principles of electric arc plasmatrons [FTD-TT-65-1405] 06 p0942 N67-15343
Induction coupled plasmatron design [INR-738/XVIII/PP] 11 p1856 N67-21914
Plasma synthesis of acetylene and peculiarities of electric arc burning in plasmatrons [FTD-MT-65-532] 12 p2178 N67-23626
Plasma chemistry applications to industrial processes, and electric arc plasmatrons [JPRS-42366] 22 p4120 N67-37791
PLASMOID
Fast plasmoid interaction with magnetic field barriers 07 p1164 N67-17300
Theoretical and experimental studies on plasma physics in U.S.S.R. 1963 11 p1947 N67-21881
Drift mass spectrometric analysis of button-type plasma source 11 p1952 N67-21916
Effects of pickup and screening on energy measurement of plasmoid with thermocouple probe 11 p1952 N67-21917
Coaxial plasma source with variable parameters for obtaining fast plasmoids 11 p1952 N67-21918
Energy and mass spectra of plasmoids in coaxial plasma gun 11 p1952 N67-21919
Effects of geometrical and electrical electrode parameters on properties of plasmoids in coaxial gun 11 p1953 N67-21920
Mass spectrometric characteristics of plasmoid ions in conical plasma generator 11 p1953 N67-21921
Fast neutral hydrogen beam probe of dense plasmoid modes in longitudinal magnetic field 11 p1954 N67-21922
Acceleration of plasmoids in waveguides by superhigh-frequency electromagnetic wave [NASA-CR-83830] 13 p2384 N67-25670
Diamagnetic plasma injection into magnetic cusp [REPT.-66-34] 16 p2956 N67-29817
PLASMON
Nonlinear wave-wave interaction between parallel transverse plasma oscillations [AD-656736] 24 p4508 N67-39907
PLASTIC
SA REINFORCED PLASTIC
Dynamic stress waves in viscoelastic plastic bodies 05 p0770 N67-14827
Bibliography, subject and author indexes, and code description of technical conference papers on plastics [PLASTEC-27] 06 p0900 N67-16470
Radiation polymerization of monomeric systems into strong plastics [Y-1562] 08 p1298 N67-18870
Fluidic devices from acrylic material by

special casting process 10 p1575 N67-21162
Wear of plastics in room temperature water
[AECL-2533] 10 p1661 N67-21212
Stable organosilicon polymer from chrysotile reaction with hydrochloric acid and chlorotrimethylsilane
[TR-5] 15 p2730 N67-28188
Embrittlement of reactor vessel steels through plastic fatigue
[EURAEC-1790] 19 p3473 N67-33836
Vibration loading on polymer materials
[FTD-HT-67-197] 24 p4547 N67-40471
PLASTIC AIRCRAFT CONSTRUCTION
Characterization and process control of low density composites for aerospace applications 08 p1295 N67-19440
PLASTIC ANISOTROPY
Ionic crystal dislocation studies covering growth, plastic anisotropy, geometry, structure, and internal stresses
[G-T-R-65-15] 17 p3148 N67-30029
Plastic anisotropy information determined and applied to studying texture strengthening in titanium alloys
[BNWL-SA-902] 20 p3455 N67-34170
PLASTIC COATING
Polymeric coating application to metal surfaces of ships and railroad cars
[FTD-TT-65-1078] 01 p0079 N67-11090
Identification of volatile photodegradation products of plastic coatings by infrared spectroscopy
[R-460] 03 p0414 N67-12493
Photodegradation effect on attenuated total reflectance spectra of organic coatings
[R-479] 09 p1464 N67-19541
Flexible epoxy resins and coatings with improved weathering properties
[AD-645706] 11 p1964 N67-23164
Plastic adhesive layer process for creating surface roughness on dielectric materials prior to metallic coating
[FTD-HT-66-681] 13 p2368 N67-25972
High speed coating process for producing foamed high density polyethylene insulated fine gauge conductors for use in exchange cables
[AD-646543] 14 p2543 N67-26784
Water vapor permeation effect on capacitance and conductance of plastic insulated underground telephone cables
[AD-646538] 14 p2487 N67-26606
Low temperature cure coating systems for external surfaces of naval aircraft
[AD-651906] 19 p3476 N67-33937
Methods for rapidly determining aircraft paint coating resistance to oxidation and photochemical degradation
[AD-654743] 21 p3974 N67-35796
Simultaneous extrusion of polyethylene and polyvinyl chloride coatings on electric conductors
[AD-656365] 23 p4075 N67-36691
Surface effects in polymer film photodegradation
[NRL-6563] 24 p4394 N67-39565
PLASTIC DEFORMATION
SA CRYSTAL STRUCTURE DEFECT
Plastic deformation mechanisms in dispersion hardened alloys
[UCRL-16663] 01 p0065 N67-10700
Plastic deformation resistance of titanium alloys
[FTD-TT-65-1067] 01 p0067 N67-10661
Dependence of plastic deformatioon in metal on supersonic velocity
[FTD-TT-65-1077] 01 p0068 N67-11089
Use of high frequency film camera to study plastic deformation of metals at explosive burdens
[FTD-HT-66-43] 01 p0076 N67-11163
Activation energy of creep and mechanism of plastic deformation in titanium alloys 02 p0275 N67-11794
Plastic deformation during cold rolling of high strength titanium alloy strips 02 p0284 N67-11797
Method and computer program to calculate plastic stress-strain distributions in long, hollow circular composite cylinders
[GEMP-418] 02 p0471 N67-12323
Thermoelectric force during plastic deformation 04 p0598 N67-13539
Plastic tensile and compressive deformation of metals under cyclic thermal loading 04 p0617 N67-13707
Rheology studies on polymer chemistry, plastic deformation, stress relaxation, and similar topics
[NASA-CR-80835] 05 p0777 N67-14462
Plastic deformation and imperfections in crystals 05 p0780 N67-14467
Elastic stresses in adhesives and plastic deformation in metal strips during peeling 05 p0789 N67-14585
Description of plastically deformed body in continuum theory
Rheology 05 p0770 N67-14521
Deformation and discharge theories compared by traction and torsion tests on metal tubes and wires, and verification of reciprocal theorem 05 p0770 N67-14528
Plastic deformation in metal working and forming problems 06 p0884 N67-15907
Plastic buckling of axially compressed eccentrically stiffened cylinders
[NASA-TN-D-3769] 06 p0975 N67-15662
Mechanical properties, plastic deformation, and tensile creep rate in carbon and graphite 06 p0898 N67-15713
Method for studying plastic strain propagation under dynamic loading 08 p1374 N67-18204
High strain hardening of SAP/aluminum oxide alloy, and plastic deformation mechanism
[AEC-TR-6808] 08 p1385 N67-18477
Elastic-plastic deformation theories and elastic solutions method for solving problem of stress concentration around circular hole in spherical shell 09 p1525 N67-20051
Critical stresses and deformation pattern after buckling for flexible rectangular plates of nonlinearly elastic materials 09 p1534 N67-20118
Cold drawing plastic yield phenomenon in high polymers
[C+OM-25] 09 p1465 N67-20182
X-ray and microstructure studies of single crystal recrystallization of pure metals after annealing and weak and strong deformations
[FTD-HT-66-179] 10 p1651 N67-20601
Residual strains and displacements within plastic zone ahead of crack in steel sheets
[SSC-179] 10 p1706 N67-21230
Neutron irradiation effect on plastic deformation in niobium single crystals
[ORNL-TM-1583] 10 p1752 N67-21467
Effect of loading conditions of failure of low alloy hull steel 12 p2230 N67-25833
Plastic deformation effects on refractory titanium carbide, zirconium carbide, titanium boride, and molybdenum silicate
[NASA-TT-F-10775] 13 p2338 N67-25830
Thermal electromotive force change during plastic deformation 13 p2421 N67-26429
Plastic deformation of aluminum during thermal cycling
[INR-700/XIV/PS] 14 p2556 N67-27695
Tensile tests in liquid helium and role of twinning in plastic deformation of zirconium
[ORO-3263-3] 15 p2735 N67-28487
Elastic plastic response of aircraft and missile beam and plate type structures and cylindrical shells to blast and impulse loads
[AB-7] 15 p2800 N67-28548
Plastic deformation in ordered solid solutions and effects on physical properties
[REPT.-3] 15 p2736 N67-28554
Review of early stage plastic deformation in metals
[AD-649166] 15 p2736 N67-28569
Plastic deformation at room temperature of single crystals and textured polycrystals of magnesium and magnesium alloys with thorium and lithium
[REPT.-07164-1-T] 16 p2905 N67-29985
Measurement of early stages of plastic deformation using capacitance gauge techniques
[AD-651500] 17 p3179 N67-30942
Theory and equations for deflections of dynamically loaded, simply supported circular plates
[REPT.-37] 17 p3179 N67-30436
Plastic deformation of aluminum nickel and iron alloys on thermal cycling
[INR-768/XIV/PS] 17 p3000 N67-31083
Modifications of simple descriptions of yielding at crack tips
[NASA-CR-66400] 17 p3175 N67-31476
Continuous isotropic medium considered in plastic deformation theory 18 p3348 N67-31650
Plastic deformation in metal 18 p3330 N67-31665
Thermomechanical treatment of steel - combined high temperature plastic deformation and quench hardening - austenite
[AERE-TRANS-1971] 20 p3634 N67-34647
Structural energy theory for metal fatigue - plastic deformation, destruction, and fusion 20 p3685 N67-34733
Rate sensitive plastic deformation and superplasticity in lead-tin alloys
[REPT.-66-C-270] 20 p3600 N67-34925
Mean stress and hardness effect on magnetization induced from cyclic deformation in quenched and tempered steel 20 p3661 N67-35131
Electron microscopic study of precipitation hardening and plastic deformation of maraging steel
[UCRL-17236] 21 p3808 N67-35633
Physical properties of titanium metallurgy - phase transformation and hardness effects, alloy compositions and lattice structures, creep and temperature resistance, and manufacturing
[FTD-HT-66-354] 22 p4062 N67-37121
Oxidation kinetics of heated titanium alloys prior to plastic deformation 22 p4065 N67-37128
Relaxation stability of titanium alloy at various temperatures and stresses 22 p4067 N67-37151
Effects of plastic deformation and subsequent cooling on mechanical properties of titanium alloys 22 p4068 N67-37158
Strain hardening and strain-rate sensitivity effects on permanent deformation of impulsively loaded rigid-plastic beams
[ARPA-E46] 23 p4355 N67-38151
Bending process and calculation of plastic deformations during unloading 23 p4360 N67-38188
Dynamic stability of longitudinally corrugated cylindrical shells, and digital computer solution of antisymmetric deformation of conical shell
[FTD-TT-66-31] 23 p4362 N67-39974
Solution of problem of antisymmetric deformation of conical shell of linearly variable thickness on 21M fast electronic computer 23 p4362 N67-39976
Interface friction between tool and workpiece materials under plastic deformation conditions
[IITRI-B6063-6] 24 p4456 N67-39821
Dynamic response of plastic deformation wave interaction with elastic material junction
[AFOSR-67-1440] 24 p4546 N67-40363
PLASTIC FILM
Techniques for fabrication of thin film polycrystalline cadmium sulfide solar cells on plastic and metal foil substrates
[RAE-LIB-TRANS-1163] 04 p0494 N67-14940
Salt spray tests conducted to determine corrosion resistance of submarine magnesium signal coated with plastic film
[NOLTR-66-110] 06 p0845 N67-15382
Sealing of plastic film by electronic welding to aid in control of alpha contamination in plutonium manufacturing facility
[ISO-SA-23] 10 p1639 N67-20990
Colored plastic films for gamma dosimetry in megarad dose range
[USNRDL-TR-1097] 11 p1983 N67-22721
Thin film replica technique for obtaining high quality electron micrographs of craters in metal substrates formed by microscopic hypervelocity particle impact
[NASA-CR-766] 11 p1994 N67-22997
Permeability of thin macromolecular plastic films and foils to gases, vapors, and liquids
[REPT.-1966-16] 12 p2041 N67-23366
Uniaxial creep of plastic adhesives in free film form measured when dead loaded in tension
[FPL-0157] 15 p2731 N67-28159
Use of polyvinyl chloride film for electron beam dosimetry
[RISO-141] 15 p2731 N67-28441
Polyimide plastic film smoke hood for protection of jet transport passengers against smoke and toxic gases during evacuation
[AM-67-4] 22 p3975 N67-38727
Graft polymerization of comonomers
[TID-22829] 22 p3998 N67-37996
PLASTIC FLOW
Derivation of equations for plastic flow in cylinder subjected to external pressure
[NOLTR-66-99] 01 p0150 N67-10966
Motion and continuity equations for shock wave propagation in plastic medium 04 p0601 N67-13708

Army research and development activities in electronics, theoretical and applied physics, ballistics, pyrotechnic chemistry, and weapon system technology
[AD-634616] 15 p2806 N67-27971
Hydrodynamic elastoplastic theory for shock wave effects on metal strength
[AD-634630] 15 p2798 N67-27960
Review and potential application of plastic flow theory to polymeric solids, creep, collective dislocation, and precipitation hardening
[AD-651153] 16 p2977 N67-29069
Plastic flow rates in nylon interpreted in terms of dislocation motion
[AD-656878] 16 p2914 N67-29062
Mechanics and plastic flow of sheet metal forming 23 p4652 N67-36995
One-dimensional elastic-plastic flow calculations for aluminum
[LA-3678] 23 p4674 N67-37949
Micro-dynamical description of plastic flow in solids
[COO-1198-445] 22 p4158 N67-37948
Iterative analysis procedure for tracing load-deflection characteristics of frameworks loaded through elastic range to plastic collapse stage
[AD-658534] 24 p4546 N67-40210

PLASTIC MATERIAL
Properties of plastic materials and relation to semiconductor device failure modes 01 p0069 N67-10128
Applications of heat-insulation honeycomb plastic
[FTD-HT-66-248] 01 p0091 N67-11170
Structural reinforced plastic materials at cryogenic temperatures
[NASA-CR-80061] 02 p0317 N67-12051
Numerical solutions to equations representing stresses in elastic-plastic half-space due to superseismic step load
[TR-4] 03 p0469 N67-12680
Fracture phenomena in plastics cutting - chip types, deformation of material, magnitude, and direction of cutting forces during cutting, and rheological effects on cutting mechanism 05 p0710 N67-14522
Microparticle and fiber reinforcement of epoxy resins
[NRL-6463] 05 p0725 N67-14723
Glass fiber laminates as high strength electric insulating materials - binders for filler impregnation, and processing of laminar plastics
[FTD-MT-64-279] 06 p0896 N67-15402
High voltage strength of polyurethane plastic foams for encapsulant applications 06 p0897 N67-15722
Low melting metal alloys for casting and transfer molding of hollow plastic spheres
[PA-TR-3390] 06 p0907 N67-16423
Photoelasto-plastic method for studying stress distributions in vicinity of simulated crack
[NASA-CR-655] 06 p0978 N67-16463
Infrared spectra of plastics and elastomers after nuclear irradiation
[ORO-2416-1] 07 p1106 N67-17301
Fabrication and properties of high strength irradiated wood-plastic materials
[SGAE-CH-30/1966] 07 p1107 N67-17943
Plastics in ammunition, plastics development in ships, applications of plastics for aerospace use, and development of low density composites for aerospace application
[PLASTEC-13] 08 p1295 N67-18436
Plastics for ammunition applications 08 p1295 N67-18437
Potential use of reinforced plastics and plastic foams as structural materials for Naval ships 08 p1295 N67-18438
Air Force applications of plastic materials 08 p1295 N67-18439
Heat shield plastics for high speed aircraft transparencies
[D-MAT-136] 09 p1485 N67-19967
Motion analysis of momentless spherical shell made of rigid plastic material 09 p1523 N67-20035
Directory of scientific government personnel in plastics
[PLASTEC-5B] 09 p1547 N67-20244
Thermal and mechanical properties of cellular plastic materials
[RAE-TN-CPM-54] 11 p1903 N67-22701
Surface modification effects on composite materials - chemical bonding between glass and plastic in glass reinforced plastics
[NASA-CR-83420] 11 p1812 N67-22875
Packaging of fuel elements and radioactive wastes in plastic bags by remote welding and in metal containers by argon arc welding, electromagnetic closing, and cold pressure welding
[JUL-349-RW] 11 p1936 N67-23044
Swelling and hardness data of PVC, neoprene, and hypalon cable sleeves after immersion tests in diesel oil
[TDCK-46585] 11 p1891 N67-23090
Glossary of terms relating to plastics, adhesives, and elastomers
[PLASTEC-14] 12 p2123 N67-23620
Strength of metallic and plastic cylindrical shells reinforced by filament wound high strength materials
[FTD-MT-65-154] 12 p2230 N67-24773
Serratia marcescens cells used to study survival and viability in plastic materials and diatomaceous earth
[NASA-CR-84214] 13 p2253 N67-23229
Controllable deformations of incompressible simple materials
[AM-66-17] 13 p2415 N67-25445
Creep analysis of orthotropic glass plastic 13 p2344 N67-26426
Rigid/perfectly plastic structure subjected to independent loadings
[DOMIIT-1-24] 14 p2634 N67-26678
Process for vacuum forming thin sheets of plastic material into control and display panel mockups
[AMRL-TR-66-176] 14 p2542 N67-26963
Review and annotated bibliography on plastics encapsulation of electronic parts and circuits
[PLASTEC-29] 14 p2506 N67-27161
Generalized Maxwell equation applied to theoretical processing of experiments on short range direct and reverse creep of glass plastics 14 p2556 N67-27722
Theory for crack propagation in ideal elastic plastic material
[AECL-2947] 15 p2797 N67-27897
Thickness measuring device based on radioactive sources for automatic gauging of films and sheets during production
[NP-TR-1477] 15 p2799 N67-27906
Granular, foam, honeycomb, concrete and other elastoplastic and plastic-elastic for reducing blast loads on buried protective structures
[AD-634691] 15 p2797 N67-27969
Computer program for calculating behavior of elastic and plastic structures by finite element approach
[KAPL-M-6562] 16 p2978 N67-29261
Polymeric materials for spacecraft application tested after curing and thermal vacuum exposure for weight loss and mechanical properties
[NASA-CR-85261] 16 p2917 N67-30076
Electron spin resonance methods used to study radiation effects and basic processes in plastic materials and polymers
[JPRS-41116] 18 p3230 N67-31506
Diffusion theory of adhesion and application to bonding plasticized elastomers 18 p3231 N67-31669
Foamed-in-place, solid urethane system as cushioning material for ship-to-shore transfer
[NAEC-AML-2598] 19 p3476 N67-32915
Plastics, elastomers, polymeric coatings, adhesives, and sealants in military applications
[PLASTEC NOTE-16] 20 p3663 N67-34250
Oceanographic effects on plastic engineering materials
[NAEC-AML-2628] 22 p4075 N67-36974
Injection molding process for press parts of plastic materials
[UCRL-13280] 23 p4257 N67-38390
Foamed nonrigid plastic use as seal of sleeve-type penetrations into cells maintained under negative pressures in radioactive processing
[ORNL-TM-1838] 23 p4270 N67-39090
Fabrication and testing of dovetail plastic honeycomb structures for landing shock absorbers
[NASA-CR-89646] 24 p4459 N67-40281

PLASTIC MEMORY
Prototype erectable communications satellite of spherical design using plastic memory effect
[NASA-CR-893] 22 p4079 N67-37573

PLASTIC PROPELLANT
Burning rate catalysts in ammonium perchlorate propellants, and surfactants with high metal contents
[ERDE-15/M/65] 11 p1949 N67-22785

PLASTICITY
SA ELASTOPLASTICITY
SA VISCOPLASTICITY
Torsion test rig for microplasticity measurements from room temperature to 400 deg C
[ONERA-TN-100] 01 p0071 N67-10040
Mathematical analysis of plane plastic deformation of ideal soil
[CRREL-RR-87] 01 p0068 N67-10427
Experimental and analytical methods for analysis of plastic wave propagation in rods and bars
[EMRL-TR-1607] 01 p0181 N67-10994
Effect of gas saturated layers on strength and plastic properties of titanium alloys 02 p0272 N67-11777
Microplasticity experiments, metallurgical investigations, and fork optimization for design of gyroscope or accelerator cover design
[NASA-CR-80059] 02 p0317 N67-12049
Deformation processing of anisotropic metals - superplasticity in aluminum-copper, zirconium, titanium, and magnesium alloys, and in electroplated lead and tin composites
[AD-639314] 03 p0409 N67-12673
Tensile deformation in aluminum-copper eutectic alloy - superplasticity 03 p0409 N67-12674
Isothermal tension testing of titanium and zirconium alloys for examining superplasticity property 03 p0410 N67-12675
Tension testing of electroplated lead and tin composites - microstructural grain size effect on superplasticity 03 p0410 N67-12676
Superplasticity in pellet and ingot extrusions of magnesium alloy - strain rate relation to temperature, tensile elongation, and sensitivity index 03 p0410 N67-12677
Problems in propagation of elastic-plastic waves in shafts of finite length with different boundary conditions, and dependence of tension on deformation
[FTD-TT-65-1830] 05 p0773 N67-15057
Transformation kinetics, microplasticity, and aging of martensite in iron-31 nickel
[AD-641428] 06 p0893 N67-15975
Stress-strain relations for materials and load deflection relations for structural elements
[NONR-562/20//49] 06 p0976 N67-16369
Effect of lattice defects produced by fast neutrons on plasticity of copper single crystals 07 p1092 N67-16770
Plasticity and strength of tungsten during short time tests 07 p1100 N67-17352
Plasticity and stress relationships in structural resistance tests 08 p1276 N67-18679
Shell and plate theory conference with emphasis on stability and nonlinear problems, plasticity, thermoelasticity, creep, and structural dynamics and mechanics
[NASA-TT-F-341] 09 p1530 N67-20021
Thermodynamic development of elastic-plastic continua for nonpolar media
[AM-66-10] 10 p1764 N67-20043
Energy method used to analyse elastic-plastic deformation of thin shells
[FTD-TT-65-1823] 10 p1765 N67-20718
Matrix displacement method applied to plane elastoplastic problems 11 p1990 N67-22821
Matrix analysis of creep and plasticity problems 11 p1990 N67-22822
Experimental determination of plastic constraint ahead of sharp crack under plane strain conditions
[SSC-180] 13 p2322 N67-24097
Plasticity and fracture of ceramics
[AD-647625] 13 p2126 N67-24690
Connection between flow and loading surfaces in general theory of plasticity 13 p2421 N67-25421
Limit analysis of plasticity applied to strength evaluation of fiber reinforced composites
[NASA-CR-84489] 14 p2627 N67-27481
Survey of research on behavior of ideal rigid plastic structures under dynamic load 14 p2629 N67-27782
Nonlinear constitutive equations for viscoelastic-plastic continua and explicit restrictions derived from thermodynamics
[AM-67-2] 15 p2805 N67-28006
Computer programs for calculating failure loads of aerospace structures using discrete element methods
[NASA-CR-66264] 17 p3173 N67-30768
Limit analysis of rotationally symmetric shells through nonlinear programming

[DOMIIT-1-31] 19 p3347 N67-33179
Alloying of molybdenum welds with rhenium to increase plastic properties 19 p3473 N67-33568
Rate sensitive plastic deformation and superplasticity in lead-tin alloys [REPT.-66-C-270] 20 p3660 N67-34935
Quantitative phase analysis of titanium effect on boron steel plasticity 20 p3681 N67-35079
Dependence of stress rupture and superplasticity on structure in Co-W alloys [NASA-CR-89651] 24 p4469 N67-40235
PLASTICIZER
Influence of plasticizer added to pure cold setting epoxy polymer studied by testing copolymers in creep and relaxation at various temperatures 06 p0734 N67-14548
Preparation of methyl cellulose by nitration with 96-percent nitric acid dissolved in methylene chloride and in 96-percent nitric acid without solvent [PA-TR-3476] 23 p4301 N67-38367
Gelatin film formulas, and effects of gelatins, plasticizers, and film thicknesses on gas transmission [NASA-CR-89746] 24 p4386 N67-40294
PLASTISOL
Fabrication techniques and physical properties criteria for gum rubber and polyvinyl plastisol bags used in isotatic pressing of powdered materials [Y-1574] 18 p2853 N67-29859
PLASTOMETER
Capillary plastometer especially designed for use with slurries [JAERI-1117] 24 p4474 N67-40485
PLATE
SA ANISOTROPIC PLATE
SA ANNULAR PLATE
SA CANTILEVER PLATE
SA CIRCULAR PLATE
SA DISK
SA ELASTIC PLATE
SA END PLATE
SA FLAT PLATE
SA GOLD PLATE
SA METAL PLATE
SA ORTHOTROPIC PLATE
SA PARALLEL PLATE
SA PERFORATED PLATE
SA POROUS PLATE
SA RECTANGULAR PLATE
SA REINFORCED PLATE
SA SANDWICH PLATE
SA SHEET
SA THIN PLATE
Double-cantilever displacement gauge for use in plane-strain crack-toughness tests of through-cracked plate specimens [NASA-TN-D-3734] 01 p0073 N67-10749
Karman-Pohlhausen integral method for solving problem of unsteady laminar thermal boundary layer for viscous fluid flow over semi-infinite 02 p0234 N67-11231
Splitter plate effectiveness in reducing transverse oscillations of finite circular cylinder in turbulent flow [USL-759] 07 p1063 N67-16800
Modified hypersensitization procedure for Eastman Kodak I-Z spectroscopic plates [NASA-CR-81658] 07 p1097 N67-17067
Probability methods and mathematical statistics for theory of plates and shells 09 p1521 N67-20023
Local value measurement of surface friction on plane plate washed by supersonic flow in presence of intensive heat transfer between flow and wall [TIL/T-5434] 09 p1437 N67-20017
Parametric self-induced vibration of finite length plate in plane supersonic flow 12 p2229 N67-34143
Limiting equilibrium of plates weakened by series of aligned rectilinear cracks formed by tensile stress 12 p2234 N67-34504
Stability of infinite plate weakened by hole with sharp notches 12 p2235 N67-34514
Stability of wedge shaped plate in supersonic flow 12 p2246 N67-34428
Flight test evaluation of splitter plate in base drag reduction at subsonic speeds [NASA-TM-X-1376] 14 p3443 N67-36558
Plates and shells under external loading and elevated temperatures - nonlinear analysis of shells, stress and displacement in reinforced circular cylindrical shells, and creep [PIBAL-923] 15 p2300 N67-29614
Wind tunnel studies of supersonic gas flow past cylindrical protuberance of plate [TG-230-T515] 16 p2813 N67-29407
Welding methods for cladding of steel plates and shells with stainless steel tape [EURAEC-1692] 16 p2910 N67-29825
Computation formulas for friction on permeable plate in turbulent gas flow 16 p2880 N67-30050
Warm working to improve toughness of armor plate [MRL-566-F] 16 p2877 N67-29879
Impact tests on hemispherical shell models of deep submergence structures and plate /brittle/ specimens protected by viscoelastic material [DTMB-2314] 20 p3736 N67-34175
Stress solution for infinite plate under equal biaxial stress and containing two circular holes of unequal radii [TID-25783] 23 p4156 N67-37948
Control system for plate movement of photometer television microscope [UUIP-544] 24 p4482 N67-40185
PLATE THEORY
Armor plate stress waves and penetration mechanics [AROD-5843-7] 01 p0115 N67-10682
Numerical solutions of Navier-Stokes equations for different problems in flow of viscous fluid and derivation of refined plate theory [FTD-TT-65-1963] 04 p0825 N67-13396
Derivation of refined theory of plates 04 p0817 N67-13396
Studies in neural network stability and transition matrixes, impalement techniques for myoelectric fiber studies in cats, and method for lens fabrication by square plate deformation 06 p0649 N67-14636
Duality of problems of stretching and of bending plates [NASA-CR-766] 06 p0975 N67-15671
Rigorous analysis using complex eigenfunctions for three-dimensional stress state in infinite plate with hole [NASA-TT-F-10451] 06 p0976 N67-15692
Lagrange variational equation for elastic equilibrium applied to problems of dynamic stability of plates in gas flow 08 p1377 N67-18716
Equilibrium stability of orthotropic rectangular plates [NASA-CR-82595] 08 p1379 N67-19284
Shell and plate theory conference with emphasis on stability and nonlinear problems, plasticity, thermoelasticity, creep, and structural dynamics and mechanics [NASA-TT-F-341] 09 p1520 N67-20021
Nonlinear elastic problems of stress concentration near holes in plates 09 p1521 N67-20024
Structural analyses for bending and vibration modes of plate systems 09 p1521 N67-20027
Stress concentration in bent thin isotropic plate having hole of arbitrary shape 09 p1523 N67-20029
Reissner-type equations for linear stress distribution determination through plate thickness 09 p1522 N67-20031
Nonlinear boundary value solution for stressed and strained state of flexible shells and plates 09 p1522 N67-20026
Digital computer computation for problems involving smooth and ribbed plates and shells, either stressed or not stressed by holes 09 p1527 N67-20027
Reciprocal theorem used to determine Green function for plate of variable thickness, rectangular in plan 09 p1526 N67-20070
Small parameter method used for calculating periodic vibrations of flexible shallow shells and plates 09 p1529 N67-20072
Vibrations, deflections, and equilibrium conditions of plate lying on elastic foundation, allowing for mass of moving load 09 p1529 N67-20067
Algorithm for rigorous allowance of compressibility influence on bending of elastoplastic plates 09 p1531 N67-20082
Micropolar and director plate theories [AM-66-12] 09 p1529 N67-20530
Approximate method for analyzing vibrations of stiffened plates and shells [U-238-168] 11 p1965 N67-22618
Stress concentration around curvilinear holes in plates and shell, conformal mapping and other procedures for mathematical problems, and dynamic problems in bodies weakened by holes 12 p2223 N67-34502
Stress concentration determination by equations of applied theory for plate bending 12 p2226 N67-34511
Plate theories for study of stress concentration around holes in rectangular plates during bending 12 p2227 N67-34527
Reinforced rings and stress concentration reduction near holes of various type plates 12 p2228 N67-34534
Critical fracture load model for plate with crack [NASA-TT-F-10366] 13 p3417 N67-35813
Calculation of Bechmanns number for harmonic overtones of thickness-twist vibrations of rotated-Y-cut quartz plates [TR-4] 13 p3418 N67-35130
Aerodynamic flutter vibrations of thermally compressed plate in supersonic gas flow 13 p3430 N67-35285
Dynamic response of circular plates to transverse loading [AFOSR-67-0565] 15 p2708 N67-28098
Exact solutions for minimum volume design of axisymmetric plates [AROD-4581-7-E] 16 p2780 N67-29049
Crack propagation theories [NASA-CR-901] 22 p4259 N67-38868
Numerical analysis of triangular elements which satisfy equilibrium conditions between adjacent elements in plate bending problems [RAE-TR-67110] 24 p4544 N67-39981
PLATELET
Influence of thrombocyte aggregation on renal circulation in cats [AD-636054] 04 p0498 N67-13098
Physiological activities of large-nucleus multifunctional cells and blood platelets 06 p0601 N67-15944
Drop smasher for rapidly quenching liquid metal into thin platelets [LA-3884] 10 p1769 N67-29701
Crystal morphology and growth mechanism of iron oxide blade-like platelets on iron [TR-2] 13 p3238 N67-35402
Biological specialization in megakaryocytes and platelets 14 p3456 N67-36794
Severe hypoxia influence on human erythropoietin 14 p3456 N67-36796
Thymus and recirculating lymphocyte pool 14 p3457 N67-36797
Ferromagnetic domain studies in near perfect single crystal platelets and whiskers of nickel and nickel alloy [AFCRL-67-0107] 16 p2909 N67-29825
PLATFORM
SA FLYING PLATFORM
SA INERTIAL PLATFORM
SA STABILIZED PLATFORM
Limitations on inertial sensor testing produced by test platform vibrations [NASA-TN-D-3683] 01 p0071 N67-10526
Design, development, and performance of Mariner IV scan platform and actuator 07 p1186 N67-16914
Geological development of antarctica platform 11 p1967 N67-22943
Planetary entry parachute testing using balloon as launching platform 23 p4172 N67-38268
PLATING
S ELECTROPLATING
S FINISH
S FLAME SPRAYING
S NICKEL PLATING
PLATINUM
High temperature research on cobalt vapor pressure and chemical activities of cobalt and platinum in cobalt-platinum alloys [GAM/MC/68R-8] 01 p0068 N67-11187
Effectiveness of electrolysis and solvents in removing vinyl paint from platinum anodes [PR-1] 05 p0713 N67-15979
Reversed-phase chromatography with tributyl phosphate used to separate carrier-free gold from platinum target 06 p0634 N67-16366
Gamma radiation effects on electron work function of platinum plate as function of oxygen pressure 06 p0949 N67-15951
Voltage measurements of oxygen/peroxide couple on bright platinum for evaluating possible use as fuel cell at deep sea ambient conditions [MEL-TM-447/66] 06 p0829 N67-15471
Measurements of thermal conductivity and electric resistivity of platinum from 373 to 1273 deg K [AFOSR-66-2464] 07 p1173 N67-17102
Burning-in bright platinum coatings on glass [TIL/T-5714] 09 p1455 N67-20016

Preparation of platinum-free laser glass
[SATR-4] 19 p1636 N67-20508
Measurement of half-life of 53 keV energy level in platinum
[AE-288] 19 p1731 N67-21789
Cathodic behavior of oxygen-peroxide system on platinum
[MEL-TM-8/67] 11 p1814 N67-23138
Electrochemical and optical investigations of anodic oxygen film on platinum electrode 16 p2853 N67-29964
Plating parameters for depositing adherent electroplate of platinum directly on Hastelloy C capsules
[NUMEC-3731-4-5-4] 19 p3487 N67-32908
Radiolysis of water effect on electrochemical corrosion of platinum and steel
[EURAEC-1784] 19 p3488 N67-33014
Adsorption of intermediates on platinized platinum electrodes during steady state oxidation of methanol, formic acid, and formaldehyde
[REPT.-66-C-427] 20 p3590 N67-34196
Scattering of molecular gas beams from platinum and tantalum surfaces
[F910439-7] 20 p3691 N67-34346
Effects of neutron irradiation on Mossbauer effect of gold in platinum lattice 21 p3913 N67-35364
Tertiary phosphine complexes of platinum and palladium
[AFOSR-67-1434] 21 p3782 N67-35765
Reaction kinetic analysis of lattice point imperfection recovery on cold-drawn platinum wire 21 p3925 N67-36662
Electrodeposition of thick coatings of platinum and palladium of refractory metals from aqueous electrolyte
[BM-RI-7015] 22 p3981 N67-36704
Electrokinetic equations for platinum-potassium iodide solution interface
[DRL-A-250] 22 p3986 N67-37276
Surface roughness and surface oxidation affecting radiant properties of platinum and stainless steel
[REPT.-6-77-67-27] 22 p4073 N67-37706
Neutron resonances in platinum, silver, and thulium nuclei of spin 1/2 determined by capture and transmission experiments
[CEA-R-3077] 23 p4299 N67-38288
Planar transistors with good electric properties prepared with heat treated platinum contacts 23 p4223 N67-38488

PLATINUM ALLOY
Platinum alloy thermocouple composition changes due to neutron bombardment in thermal reactors
[EUR-3156.E] 11 p1926 N67-25095
Diffusion and kinetic control of hydrogen discharge from acid electrolytes on platinum and platinum alloys
[TR-21] 14 p2475 N67-26738

PLATINUM BLACK
Factors controlling catalytic activity of platinum black toward anodic oxidation of saturated hydrocarbons
[AD-648727] 14 p2476 N67-26974

PLATINUM COMPOUND
Nuclear magnetic resonance spectral analyses of platinum compounds with tertiary phosphines
[AFOSR-67-0417] 12 p2047 N67-24816

PLOTTER
SA X-Y PLOTTER
Control arrangement for input or output operation digital plotter incorporated into Mercury computer system
[RAE-TR-66305] 10 p1589 N67-21762
Computer program for plotting antenna radiation amplitude and phase patterns 15 p2869 N67-29724
Fortran program for drawing crystal structure illustrations with mechanical plotter
[ORNL-3794] 16 p2900 N67-29804
Fortran program for drawing isometric-type projections of curved lines or data points with digital incremental plotter
[ORNL-4137] 24 p4413 N67-39696

PLOTTING
Device for plotting perspective of points according to coordinates in space 03 p0393 N67-13430
Effect of plotting parameter k on light scattering results
[PIBAL-913] 10 p1696 N67-21729
Plotting of distributions of kinematic quantities in bubble chamber experiments
[DESY-66/29] 12 p2146 N67-23786
MMPLOT - Calcomp plot routine for MIMIC programs
[NASA-CR-83804] 13 p2291 N67-25946
Computer program for plotting biomedical data
[ORNL-TM-1693, PT. IV] 14 p2503 N67-27238
Fortran computer program for plotting three-dimensional perspective of two-dimensional arrays
[NASA-CR-85790] 17 p3033 N67-31219
Distribution plots of electrical parameters as means of investigating potential reliability of integrated circuits 18 p3247 N67-31602
Computer plotting of cloud information from Tiros-type weather satellites
[JPRS-41294] 18 p3290 N67-31861
Plotting of 1.2 MD 0.7 steel transformation curves for austenization temperatures fo 900 and 1100 C
[EURAEC-1687] 23 p4267 N67-39046
Teletype transmission of plotted intelligence data 24 p4407 N67-39827

PLOTTING INSTRUMENT
Autocode graph plotting system - Autograph computer program
[RAE-TR-66238] 04 p0567 N67-14190
Czechoslovakian survey of photogrammetric plotting instruments
[ERDL-T-1878-66] 09 p1448 N67-19680
Terrain profile recorder image point transfer instrument
[AD-649839] 16 p2894 N67-29444
Fortran computer program developed for plotting projections on three-dimensional surfaces
[TR-1001/2230-46/-9] 24 p4413 N67-39695

PLOW
S SNOWPLOW

PLOWSHARE PROGRAM
Oceanographic nuclear instrumentation, seawater desalinization, radiation preservation of seafood, and Plowshare Project 21 p3836 N67-35551

PLUG
Plug-in techniques for computer storage, evaluation, and registration of measurement data 05 p0679 N67-14683
Neutron and gamma ray attenuation in cylindrical duct filled by helical plug with adjustable number of turns
[AE-261] 10 p1715 N67-21151
Solid state plug in circuits as instrument building blocks
[DP-1079] 14 p2530 N67-26540
Technological developments with ultrahigh temperature reactor experiment facility
[LA-3605] 16 p2934 N67-29862

PLUG NOZZLE
Off-design performance characteristics of two isentropic plug nozzles designed for pressure ratio of 16.5
[NASA-TN-D-3852] 08 p1255 N67-18964

PLUM BROOK REACTOR
Fast neutron beam irradiation facility in Plum Brook Reactor
[NASA-TM-X-1574] 13 p2262 N67-25854
Recirculating gas cooled test loop facility for Plum Brook reactor
[NASA-TM-X-1593] 16 p2928 N67-29168
Comparison of calculated and measured fast-neutron fluxes emerging from HB-6 beamhole of Plum Brook reactor
[NASA-TM-X-1418] 18 p3294 N67-32335
Irradiation system for cryogenic temperature experiments in Plum Brook Reactor 18 p3297 N67-32412
In-pile irradiation capsule positioning mechanism for Plum Brook reactor 18 p3300 N67-32433
In-core vertical adjustable facility for capsule irradiations in Plum Brook reactor 18 p3300 N67-32434
Power and fuel depletion calculations for noninstrumented capsules in Plum Brook reactor 18 p3302 N67-32445

PLUME
SA JET PLUME
Digital computer program for rocket nozzle and exhaust plum flow field analysis by characteristic method
[NASA-CR-81143] 05 p0681 N67-15253
Retrorocket exhaust plume interaction with Martian environment
[RM-354] 12 p2209 N67-24199
Carbon radiant heat transfer from plume mixing region to base of rocket vehicle
[NASA-CR-85835] 17 p3152 N67-31152

PLUTO /PLANET/
Flyby and orbiter missions to Saturn, Uranus, Neptune, and Pluto using nuclear electric low thrust stage and Saturn-Centaur launch vehicles
[NASA-CR-80846] 04 p0614 N67-14253

PLUTONIUM
Aerosol characteristics produced from burning sodium and plutonium
[LA-3491] 01 p0105 N67-10531
Measurements in plutonium L X-ray emission spectrum using electron probe microanalyzer
[CEA-R-2921] 01 p0126 N67-10690
Plutonium subcritical experiment program
[GEAP-5148] 01 p0111 N67-10812
Prototype of heavy water moderated plutonium enriched power reactor
[AEET-239] 02 p0288 N67-11902
Fission product spectra of slightly irradiated uranium and plutonium obtained by lithium-drifted germanium detector
[AE-241] 02 p0286 N67-11989
Rate and extent of plutonium reaction in natural sea water and in sea water solutions containing added salts - radioactive contamination
[USNRDL-TR-1050] 03 p0357 N67-12643
Potentiometric titration of cerium and manganese following separation from plutonium and cobalt ternary and quaternary alloys
[LA-3402] 03 p0411 N67-12861
Coulometric determination of carbon in plutonium and in uranium-molybdenum alloys
[CEA-R-2968] 03 p0383 N67-13334
Plutonium determination by isotopic dilution, and application to study of irradiated fuels
[EUR-2614.F, VOL. 1] 04 p0490 N67-13468
Plutonium determination by isotopic dilution in irradiated fuels - chemical treatment
[EUR-2614.F, VOL. 2] 04 p0490 N67-13469
Solubility of molybdenum in liquid plutonium
[LA-3522] 04 p0505 N67-14003
Plutonium, and radioactive isotopes as energy sources 06 p0909 N67-15525
Anomalous pattern of scattering cross sections of neutrons at small angles on uranium and plutonium 06 p0925 N67-15598
Plutonium recycling - neutron study on plutonium in thermal neutron reactors
[EUR-2853.F] 07 p1126 N67-17118
Methods for burnup determinations in irradiated uranium carbide fuel specimens by measuring uranium 235 depletion, fission products, plutonium, and neutron flux
[EUR-3123.E] 07 p1127 N67-17141
Liquid plutonium reactor fuel development
[LA-DC-7581] 07 p1133 N67-17580
Growth of large grains of alpha single crystals of plutonium by isothermal transformation technique
[NUMEC-3439-23] 07 p1102 N67-17579
Isostatically pressed magnesium oxide stirrers for electrorefining plutonium metal
[RFP-825] 07 p1093 N67-17729
Chemical analysis of plutonium silicides and plutonium silicon carbides
[AERE-R-5280] 07 p1031 N67-17999
Self-diffusion coefficients of uranium and plutonium measured in uranium oxide at 2400 deg C
[GEAP-4877] 08 p1311 N67-18583
Irradiation of liquid plutonium fuels in thermal reactor
[LA-3557] 08 p1311 N67-18868
Water radiolysis effects on electrochemical potential of steel and plutonium
[EURAEC-1702] 08 p1311 N67-19001
Comparison of several methods for determining plutonium 240 resonance absorption in heterogeneous systems
[EUR-3151.E] 08 p1312 N67-19720
Capture and fission cross sections of plutonium 240 08 p1341 N67-19852
Spectrophotometric determination of trace amounts of uranium in high purity plutonium metal after anion exchange separation in hydrochloric acid
[LA-3551] 08 p1339 N67-19065
Physical concepts, comparisons, and description of plutonium, uranium, thorium assembly reactivity code /PLUTHARCO/
[EUR-3141.E] 08 p1322 N67-19179
Alpha scintillation monitor for continuous air sampling of plutonium-handling areas
[RFP-815] 08 p1294 N67-19236
Ceramic fuel researches dealing with thermal diffusivity of fuel plates, steichiometric gradients in oxide fuels, thermal expansion of Pu fuels, phase studies, and induction

heating 08 p1334 N67-19321
Irradiation performance of fast reactor ceramic fuels, and plutonium redistribution during irradiation of UN-PuN fuel 08 p1334 N67-19322
Operating performance measurements of plutonium fuel reactor - Saxon project [EURAEC-1713] 09 p1480 N67-20151
Solubility of vanadium in liquid plutonium [LA-3594] 10 p1568 N67-20405
Determination of iron in plutonium using chemical extraction and spectrophotometric methods [CEA-R-2969] 10 p1571 N67-20736
Updated sixteen group Hansen Roach structure library for Zr, Be, Pu 239 cross sections and SNAP reactor application [NAA-SR-MEMO-11907] 10 p1705 N67-20853
Syntheses of isotopes 254, 253, and 252 by plutonium bombardment with oxygen ions [JINR-P-2839] 10 p1706 N67-20873
Tables of isotopic composition of plutonium in gas cooled and moderated reactors [AECL-2631] 10 p1678 N67-20891
Plutonium as fuel in nuclear reactors [EURAEC-1666] 10 p1680 N67-21013
Improved method avoiding wall adsorption in alpha radiation counting of plutonium isotopes with liquid scintillators [JUL-127-PC] 10 p1576 N67-21217
Analytical method for determining iron in high-purity plutonium [PG-700/W/] 10 p1583 N67-21827
Data for health physics considerations of plutonium and americium [RFP-795] 11 p1789 N67-22303
Possible hazard due to restricted release of plutonium [RFP-799] 11 p1920 N67-22304
Microgram quantities of silicon measured spectrophotometrically as silicomolybdic acid complex following distillation separation from plutonium and other elements [LA-3559] 11 p1899 N67-22384
Heterogeneous equilibrium between americium and plutonium in liquid metal-molten salt systems [LA-3562] 11 p1810 N67-23457
Growth of plutonium single crystals [NUMEC-3428-26] 11 p1815 N67-23320
Dissolution of plutonium-bearing residues in nitric acid-calcium fluoride solvent system [RFP-776] 12 p2040 N67-23746
Metallographic and Laue X-ray diffraction studies of strain in large grains of alpha plutonium 12 p2119 N67-24285
Critical mass, fission ratios, and reactivity coefficients for computing nuclear parameters of fast plutonium and uranium assemblies [BNWL-347] 13 p2362 N67-25935
Influence of development and installation of fast breeder reactors on future role of plutonium [RM-5148-PR] 14 p2574 N67-26712
Sealed tube dissolution method applied to refractory plutonium containing materials [LA-3554] 14 p2476 N67-26828
Technology and economics of plutonium fuel element fabrication [EUR-2967.F] 14 p2577 N67-27327
Policy, criteria, and outlook of First Target Program for European Atomic Energy Community - uranium and thorium supplies, economic markets for electric and nuclear energy [EUR-3773.E] 14 p2579 N67-27551
Improved Kjeldahl method for determining nitrogen in plutonium mononitride and uranium nitrides [AERE-R-5329] 14 p2484 N67-27622
Plutonium behavior pertaining to assay in aqueous and organic solutions, third phase formation and plutonium recovery, polymerization and redox reactions, and ion exchange purification [AEET-265] 15 p2657 N67-28220
Vaporization kinetics of thorium, uranium, americium, plutonium, and curium - possible atomic reactor fuels [NASA-TT-F-10008] 15 p2657 N67-28234
Use of plutonium as reactor fuel [QR-10] 15 p2748 N67-28456
Neutron fission cross sections of plutonium 239 and plutonium 240 [KFK-450] 15 p2766 N67-28481
Release rates and median mass diameter for ignited and oxidized bulk metallic plutonium pieces [BNWL-337] 15 p2805 N67-28599
Interactions and fission product distributions of irradiated plutonium fuels with sodium [LA-3607] 16 p2823 N67-29794
Dosimetry technology - thermoluminescent, neutron, solid state particle, and plutonium detectors, criticality incident alarms, and gamma radiation and small chamber exposure rate instruments [BNWL-339] 17 p3002 N67-30675
Detection system for monitoring plutonium penetration through tantalum capsules by counting alpha particles with silicon surface barrier detectors [LA-3654] 17 p3134 N67-31038
Safety analysis on plutonium recycle experiment in experimental boiling water reactor [ANL-6841] 17 p3111 N67-31041
Neutron spectra in presence of plutonium determined from activation ratios of detector foils having cross sections with different energy dependence [RT/FI/66/28] 17 p3112 N67-31089
Physical properties of plutonium uranium zirconium ternary system reactor fuel [MLM-1346] 18 p3293 N67-31717
Uranium-plutonium mononitride fuel for fast reactor application 18 p3295 N67-31902
Ceramic-coated uranium nitride and plutonium-base particle fuels for general use 18 p3296 N67-31904
Ceramic coated plutonium base particle fuels and graphite coatings on fuel particles 18 p3295 N67-32357
Irradiation of liquid plutonium fuels in thermal reactor [LA-DC-7753] 18 p3301 N67-32441
Release of fission products from plutonium fuels and concentration of uranium, plutonium, and hazardous isotopes [LA-3650-MS] 19 p3487 N67-32865
Growth of single crystals of plutonium under variety of experimental conditions [NUMEC-3428-29] 19 p3489 N67-32914
Allotropic transformations in plutonium determined by metallography, dilatometry, thermal analysis, resistivity measurements, and hot stage microscopy [CEA-R-3062] 19 p3471 N67-32238
Long-term plutonium value change effects on fuel cycle costs of plutonium fuelled power reactors [SGAE-RT-10/1967] 19 p3490 N67-32331
Catalytic effect of copper, chromium, manganese, iron, nickel, arsenic, cerium, and sulfate ions on oxidation of plutonium III by chlorine in hydrochloric acid solution [AEET-275] 19 p3394 N67-33515
Use of plutonium as fuel in nuclear reactors [EURAEC-1774] 19 p3494 N67-33861
Metallographic preparation and decontamination of plutonium containing samples for electron probe microanalysis [AERE-M-1889] 20 p3663 N67-34090
Comparison of resonance absorption theory used in GYMEA and PEAS codes with exact solutions for resonances in thorium 232, uranium 235, and plutonium 240 [AAEC/TM383] 20 p3672 N67-34277
Effective resonance integral and Doppler coefficient of uranium 238, thorium 232, and plutonium 240 using code complex LUBRA [AAEC/E168] 20 p3683 N67-34683
Independent yields in thermal fission of uranium 235, plutonium 239, plutonium 241, and uranium 233 [AERE-R-5488] 20 p3697 N67-34699
Release, distribution, and removal of fission products in sodium coolant systems and advanced plutonium fuels [LA-3686-MS] 20 p3683 N67-34696
Stabilized hypostoichiometric uranium-plutonium monocarbide fuel pellets and stainless steel pellets comparison [WCAP-3791-3] 20 p3684 N67-35117
Uptake of plutonium in different valence states by urania gels in nitric acid solution [BAW-3714-1] 20 p3697 N67-35127
Cross sections and resonance parameters for U-235, U-233, Pu-239, and Pu-241 [NAA-SR-11900, VOL. V] 20 p3685 N67-35227
Coprecipitation of plutonium with lanthanum oxalate from mixed solutions of nitric and oxalic acids 21 p3776 N67-35495
Coprecipitation of plutonium with lanthanum oxalate from mixed solutions of nitric acid and ammonium oxalate 21 p3776 N67-35496
Adsorption of cesium, plutonium, and protactinium from mixed solutions 21 p3779 N67-35515
Nuclear thermohydromechanical coupled calculation for direct substitution of plutonium in commercial boiling water reactor [JAERI-1123] 21 p3808 N67-36047
Short and long term criteria for plutonium fueled fast reactor systems [KFK-569] 21 p3869 N67-36289
Self-irradiation effects in lattice of cerium alloy containing 15 atomic percent plutonium 21 p3871 N67-36354
Neutron spectrum resonance in erbium nitrate solution - neutron spectra in uranium and plutonium lattices [GA-7063] 21 p3793 N67-36536
Equipment and techniques for preparing thin plutonium films for transmission electron microscopy [RFP-890] 22 p4051 N67-37111
Threading and assembly of soft delta-stabilized plutonium parts [LA-3703] 22 p4054 N67-37445
Fuel cycle cost implications of liquid plutonium reactor fuel [LA-3655] 22 p4094 N67-37869
Plutonium single crystal growth [NUMEC-3428-32] 23 p4306 N67-38971
Fabrication of ceramic cells from aluminum and magnesium oxides for plutonium electrorefining [LA-3707] 24 p4457 N67-39861
Physical, economic, and safety analyses on use of plutonium in water cooled reactors [EUR-3479.I] 24 p4498 N67-40034

PLUTONIUM ALLOY

X-ray method for measuring percent alpha in delta stabilized plutonium alloys [RFP-706] 01 p0064 N67-10622
Chemical analysis of zone refined plutonium gallium alloy rods, and growth of delta stabilized plutonium single crystals [NUMEC-3428-31] 05 p0719 N67-14698
Density measurements and chemical analyses to determine delta phase stability of plutonium-gallium alloys [LA-DC-7934] 07 p1100 N67-17432
X-ray fluorescence spectrometric determination of thulium in plutonium-thulium alloys [LA-3549] 08 p1239 N67-19064
Transmission electron microscopic analysis of dislocations in gallium-plutonium alloys [RFP-807] 10 p1638 N67-21009
Surface preparation, indenting load, and gallium content effects on microhardness of plutonium-gallium alloys 12 p2118 N67-24282
Nondestructive X-ray diffraction method for quantitatively measuring percent alpha in delta stabilized plutonium alloys 12 p2118 N67-24283
Bright field grain structure etch for delta phase stabilized plutonium alloys 12 p2119 N67-24284
Chill casting procedure and dash pot stirring unit used to prepare plutonium thulium alloy on multikilogram scale [LA-3621] 12 p2120 N67-24590
Physical properties, mechanical grinding, electrolytic and mechanical polishing, and etching of plutonium and plutonium alloys [GA-7127] 16 p2904 N67-29688
Irradiation capsule for examining fission product distribution between plutonium fuel and sodium in reactor environment [LA-DC-7772] 18 p3298 N67-32423
Phase equilibria and physical properties of plutonium alloy reactor fuels [MLM-1338] 20 p3636 N67-34293
Thermoconductivity, corrosion behavior, phase fields, eutectic points, and other properties of uranium plutonium carbon titanium alloys [CEA-R-3201] 21 p3868 N67-35635
Phase equilibria in solid solution series of ternary plutonium iron manganese system [MLM-1347] 24 p4491 N67-39869
Spectrophotometric measurement of low rhenium concentrations as furil dioximate after separation from plutonium rhenium alloy [LA-3711] 24 p4397 N67-39905
High temperature environmental corrosion testing of liquid plutonium alloy fuels [LA-3631] 24 p4469 N67-40322

PLUTONIUM COMPOUND

Neutronics characteristics of fast reactors using uranium and plutonium fuels [BNWL-283] 01 p0110 N67-10849

Reactor materials and components, ceramic and cermet fuels, uranium-plutonium nitride fuels, smoke photometer, and corrosion resistance of materials in fuel recovery process
[BMI-1774] 02 p0285 N67-11709
Reactor materials and components, ceramic and cermet fuels, uranium-plutonium mononitride fuels, smoke photometer, coated particle fuels, and corrosion in fuel recovery process
[BMI-1771] 02 p0285 N67-11710
Neutron poisoned ion exchange column for purifying plutonium nitrate solutions
[RFP-782] 11 p1809 N67-22383
Gravimetric determination of free uncombined carbon in plutonium carbide
[LA-3603] 11 p1810 N67-22385
Transpiration method for measuring vapor pressures of liquid gold and plutonium compounds
[AERE-R-5352] 15 p2714 N67-28841
Spectrochemical analysis of impurities in plutonium and plutonium compounds
[CEA-R-3051] 17 p3015 N67-30668
Uranium plutonium nitride fuel materials for liquid metal fast breeder reactors 18 p3294 N67-32355
Uranium carbide-plutonium carbide for sodium cooled fast reactors
[BMI-1799] 19 p3490 N67-33412
Powder metallurgy of sintered uranium plutonium carbides
[LA-DC-8675] 22 p4055 N67-37688
Hypersonic reentry response of microspheres of plutonium dioxide fuel
[SC-CR-67-2573] 23 p4365 N67-38921
Thermodynamic properties and volatility measurements of plutonium carbides
[LA-DC-8012] 23 p4385 N67-39079
Preparation of plutonium nitride as possible nuclear fuel
[AERE-R-5441] 24 p4402 N67-40505

PLUTONIUM OXIDE
Oxidation and chlorination of uranium oxide and plutonium oxide
[ORNL-3977] 01 p0031 N67-10732
Thermal decomposition of plutonium peroxide
[CONF-660806-12] 01 p0031 N67-10772
Denitration of high nitrate plutonia sols by baking
[ORNL-TM-1556] 01 p0033 N67-10832
Effects of sintering atmospheres and temperatures on composition of pellets of plutonium dioxide powder prepared from oxalate and peroxide methods
[LA-3493] 04 p0500 N67-13626
Uranium oxide and plutonium oxide fuel element clusters for high power density core of plutonium recycle test reactor
[BNWL-221] 04 p0578 N67-14056
Plutonium and fission product redistribution in fast reactor mixed-oxide fuel operation
[GEAP-4466] 05 p0735 N67-14685
Calculated production of curium 242 by high flux irradiation of plutonium oxide-aluminum target
[DP-1046] 07 p1126 N67-17075
Fabrication of uranium oxide-plutonium oxide vibratory compacted fuel rods
[EURAEC-1304] 08 p1320 N67-18960
Sol-gel preparation of lanthanum oxide microspheres, and characterization of sols and gels of lanthanide hydroxides, thoria, urania, and plutonia
[ORNL-TM-1592] 10 p1573 N67-20909
Thermodynamic properties of plutonium oxides
[LA-DC-8266] 11 p2001 N67-22211
Out of pile evaluation of tungsten rhenium thermocouple systems for use in measuring plutonium oxide and uranium oxide fuel temperatures
[GEAP-5166] 12 p2098 N67-23567
Autoradiography method for differentiating plutonium dioxide from uranium dioxide in irradiated mechanically mixed oxide fuels
[AFCRL-66-747, PT. I] 12 p2149 N67-24249
Fabrication cost effects on plutonium dioxide uranium dioxide fuel element design parameters and model for cost estimates
[BNWL-131E] 14 p2574 N67-26824
Phase relations in beryllium-oxide plutonium-oxide uranium-oxide pseudo ternary system
[BNWL-350] 14 p2579 N67-27595
Irradiation behavior of vibrationally compacted uranium oxide-plutonium oxide fuel elements under power reactor conditions
[BNWL-366] 15 p2792 N67-31702
Uranium oxide-plutonium oxide fuel pellets for irradiation testing 18 p2294 N67-31906
Uranium dioxide plutonium dioxide fuel elements for gas cooled fast reactor irradiation experiment 18 p2295 N67-32358
Preparation of uranium-plutonium mixed oxides for fast reactor application using gel addition process
[BAW-3714-2] 19 p3391 N67-33235
Plutonium-uranium mixed oxide fuel pellet for experimental fast oxide reactor
[GEAP-5285] 19 p3494 N67-33845
Spectrographic analysis of impurities in plutonium dioxide separated from impurities by adsorption chromatography
[AAEC/TM376] 20 p3591 N67-34227
Irradiation properties of high energy rate pneumatically impacted uranium oxide and plutonium oxide reactor fuels
[BNWL-356] 20 p3683 N67-34784
Fabrication of uranium dioxide plutonium dioxide and thorium dioxide plutonium dioxide fuel elements
[AECL-2675] 21 p3889 N67-36185
Phase relations, production, and characteristics of substoichiometric oxide fuels - uranium oxide and uranium plutonium oxide
[KFK-543] 21 p3892 N67-36594
Improving uptake of plutonium on uranium oxide gel spheres, decreasing attrition and losses of gel spheres, and determining plutonium distribution in contacted gel and fired oxide spheres
[BAW-3714-3] 22 p3988 N67-37486
Chlorine fluorides for reprocessing Zircaloy clad uranium oxide and plutonium oxide nuclear fuels
[ANL-TRANS-478] 22 p3989 N67-37571
Low temperature adsorption of oxygen on sintered plutonium dioxide surface
[RFP-915] 22 p3989 N67-37839
Irradiation behavior of uranium oxide-plutonium oxide and thorium oxide-plutonium oxide fuel assemblies
[AECL-2674] 22 p4094 N67-37875
Dynamic behavior during reentry of plutonium dioxide microspheres
[SC-CR-67-3635] 22 p4167 N67-37920
Nondestructive testing of plutonium dioxide and uranium dioxide fast reactor fuels
[NUMEC-3524-27] 22 p4095 N67-37939
Preliminary calculations for water-moderated lattices of uranium dioxide-4 wt. percent plutonium dioxide fuel rods
[BNWL-CC-1205] 23 p4287 N67-38652
Maximum exposure temperature and time of exposure effects on plutonium oxide properties
[RFP-927] 23 p4206 N67-38706

PLUTONIUM RECYCLE TEST REACTOR /PRTR/
Uranium oxide and plutonium oxide fuel element clusters for high power density core of plutonium recycle test reactor
[BNWL-221] 04 p0578 N67-14056
Combined failure of pressure tube and defected fuel element in plutonium recycle test reactor
[BNWL-272] 04 p0580 N67-14131
Confinement systems tests on iodine removal from airstream performed during deactivation of 100-F plutonium production reactor
[DUN-SA-15] 07 p1135 N67-17692
Irradiation behavior of uranium oxide and plutonium oxide fuels in plutonium recycle test reactor
[BNWL-SA-791] 08 p1311 N67-18591
Ceramic fuel research studies, Plutonium Recycle Test Reactor /PRTR/ fuel element performance and fabrication, and materials joining and fiber reinforcement in advanced fuel concepts
[BNWL-269] 08 p1324 N67-19330
Plutonium Recycle Test Reactor fuel element performance and fabrication, on mash-spot resistance welding for Transient Reactor Test capsules 08 p1324 N67-19333
Plutonium recycle test reactor fuel element quality control system
[BNWL-349] 16 p2932 N67-29768
Irradiation tests to determine possibility of molten fuel impinging cladding through crack formation during plutonium recycle test reactor shutdown or operation 18 p2296 N67-32419
Aqueous decladding and dissolution of plutonium-aluminum alloy recycle test reactor fuels
[BNWL-204] 19 p3491 N67-33488

PLUTONIUM 238
Radioactive fallout determinations, radiation effects, and concentrations of cesium 137, strontium 90, and plutonium 238 in atmosphere
[HASL-172] 04 p0490 N67-13858
Mathematical model to optimize plutonium 238 production by fuel recycle 05 p0735 N67-14823
Parameters in production of plutonium 238 from irradiation of neptunium 237 in thermal reactors 05 p0735 N67-14824
Neutron multiplication values for plutonium 238 dioxide storage capsule submerged in water, and in air medium
[MLM-1340] 06 p0828 N67-16390
Measurement of plutonium 239 plus plutonium 240 activity by isotopic dilution with plutonium 238 and alpha spectrometry with silicon radiation detectors 07 p1127 N67-17150
Need for plutonium 238 and curium 244 cross section data 08 p1317 N67-18857
Production of plutonium 238 by continuous irradiation and chemical processing of neptunium 237
[ORNL-4023] 12 p2042 N67-24180
Half-life of radioactive elements, plutonium 238 valence instability, thorium 229 recovery, uranyl nitrate hydrolysis, and radium 223 decay
[MLM-1342] 13 p2371 N67-25422
Separation of 234 uranium from 238 plutonium
[AERE-R-5350] 17 p3015 N67-30417
Neutron total and absorption cross sections of plutonium 238
[IN-1028] 20 p3704 N67-35200
Neutron multiplication of high isotopic plutonium 238 dioxide in sealed calorimeter pressure containers
[MLM-1395] 21 p3793 N67-36844
Brayton cycle radioisotope heat source design
[NASA-CR-72151] 22 p4089 N67-38713

PLUTONIUM 239
Fission and radiative capture cross sections of plutonium 239 measured by time of flight method using fast pulse reactor
[JINR-P-2713] 01 p0127 N67-10782
Ternary fission of plutonium 239 in spin resonance region 03 p0432 N67-12544
Ratio of capture to fission cross sections of uranium 235 and plutonium 239
[AECL-2618] 03 p0441 N67-12856
Proton spectra of transition states at saddle point of fissioning plutonium 239 and plutonium 240 nuclei
[LA-DC-7878] 05 p0741 N67-14694
Measurement of plutonium 239 plus plutonium 240 activity by isotopic dilution with plutonium 238 and alpha spectrometry with silicon radiation detectors 07 p1127 N67-17150
Fission fragment angular distributions in neutron fission of plutonium 239, uranium 233, and uranium 235
[LA-TR-66-41] 07 p1148 N67-17413
Elastic and inelastic neutron scattering, U 235 and Pu 239 reactions, target neutron spectrum and angular distributions, gamma ray ratios, and radiative capture research 08 p1329 N67-18347
Angular anisotropy of photofission and parity of plutonium-239 ground state
[LA-TR-66-46] 08 p1334 N67-18813
Critical evaluation of fast fission cross sections of uranium 235, uranium 238, plutonium 239, and plutonium 240 08 p1317 N67-18846
Measurements and calculations of Doppler effect on uranium 238, uranium 235, and plutonium 239 reactions with neutrons 08 p1341 N67-18855
Fission cross section of plutonium 239 measured by time of flight using neutrons from underground nuclear explosion 08 p1341 N67-18859
Analytical fits to absorption and fission neutron cross sections of uranium 233, uranium 235, plutonium 239, and plutonium 241 08 p1341 N67-18860
Energy sensitive, average, cross section ratios for fast neutron spectra at center of bare and natural uranium-reflected spheres of Pu-239, U-233, and U-235

[LA-DC-7851] 10 p1732 N67-21787
Triple-loop technique of atomic-beam magnetic resonance used to determine magnetic moment of plutonium 239
[UCRL-16999] 12 p2163 N67-23755
Neutron energy detection in yield of high kinetic fission fragments from uranium 233, uranium 235, and plutonium 239
[IN-1033] 12 p2169 N67-24573
High flux isotope reactor target development, and production of gram quantities of heavier transuranium elements by neutron captures in plutonium 239
13 p2355 N67-25349
Critical dimensions of systems containing uranium 235, plutonium 239, uranium 233, and concepts of nuclear safety
[ORNL-P-2741] 13 p2359 N67-25535
Summary and evaluation of plutonium 239 cross section data for nuclear data file
[GEAP-5272] 13 p2361 N67-25904
Representation of resonance cross section of uranium 238 and plutonium 239 in calculations of fast and intermediate reactors
[BNL-TR-119] 16 p2934 N67-29836
Accurate nuclear fuel burnup analysis of capsule of plutonium 239
[GEAP-5482] 19 p3469 N67-33240
Alpha-decay products of bombarding uranium-233, uranium-235, and plutonium-239 with neon-22, neon-20, and oxygen-16 ions
[JINR-E7-3261] 19 p3506 N67-33695
Materials buckling and integral spectrum measurements in beryllium oxide moderated plutonium 239 aluminum alloy fueled subcritical assemblies - fission rates
[AAEC/E177] 20 p3679 N67-34214
Self-shielded cross sections of thorium 232, uranium 238 and 235, and plutonium 239 for representing correct values in multigroup analysis of reactors
[AEET-272] 20 p3703 N67-35107
Fission counter for measuring neutron capture to fission ratio in plutonium 239
[AEEW-R-514] 21 p3900 N67-35846
Calculated critical radii of plutonium 239 and uranium 233 with various spherical reflectors
[RFP-936] 22 p4092 N67-37495

PLUTONIUM 241
Fission neutron cross section measurements of plutonium 241 determined from nuclear explosion 08 p1341 N67-18853
Analytical fits to absorption and fission neutron cross sections of uranium 233, uranium 235, plutonium 239, and plutonium 241 08 p1341 N67-18860
Fission cross section of plutonium 241 from 0.01 ev to 0.5 ev
[IN-1012] 08 p1343 N67-18887
Scattering cross section data for high plutonium isotopes
[IA-1094] 12 p2163 N67-23782
Neutron emission in fast neutron fission of plutonium 241, neutron resonance radiative capture cross sections of shell nuclei, and neutron angular distribution calculations
[EANDC/OR/-44/L/] 12 p2170 N67-24677
Neutron cross sections of plutonium 241 below 1 keV
[AEEW-M-714] 17 p3105 N67-30300

PNEUMATIC CIRCUIT
Apparatus used in constructing pneumatic switching circuits 07 p0994 N67-16864
Development status of hydraulic pneumatic circuit, gas accumulators, and extrusion chamber assembly
[AMRA-CR-66-04/2] 12 p2169 N67-24745
Pneumatic extrusion process applied to hydraulic pneumatic circuit, gas accumulators, and extrusion chamber assembly
[AMRA-CR-66-04/3] 12 p2169 N67-24746
Pneumatic circuit joining research reactor channel with spectrometry laboratory and with activation station for short irradiations
[INR-757/XI/R] 14 p2514 N67-27697
Gaseous state law used in pneumatic computer computation of pressure capacitance 15 p2673 N67-28157

PNEUMATIC CONTROL
Flueric position servo for rocket engine pneumatic control drum actuator
[NASA-CR-72129] 06 p0637 N67-14925
Pneumatic ratio controllers without mechanical dividers 07 p0994 N67-16865
Jet force action on vane in pneumatic and hydraulic control elements of nozzle-vane type 07 p0995 N67-16871
Hydraulic axisymmetric focused-jet amplifier for pneumatic digital control
[NASA-TM-X-53554] 11 p1788 N67-23323
Integral valve and ram type electro-pneumatic actuator using onboard hydrogen supply for gimballing nozzle installation in J-2 rocket engine
[NASA-CR-54634] 13 p2252 N67-26133
Optimal design of pneumatic amplifier control jet to obtain maximum logic gain of amplifier connected into logic circuit
[B2] 19 p3197 N67-31855
Test program for relief valve used to prevent over pressurization in pneumatic control systems
[NASA-CR-66118] 21 p3861 N67-36136

PNEUMATIC EQUIPMENT
High speed fluidic logic circuitry for pneumatic stepping motor
[NASA-TM-X-52250] 02 p0175 N67-11223
Development tests of pneumatic input fluidic servovalve breadboard model
[NASA-CR-72102] 03 p0235 N67-13186
Review of Soviet developments in pneumatic devices - automatic control equipment, flow regulation, analog computers, manometers, control circuits, and valves
[ATD-68-197] 07 p0994 N67-16861
Method for calculation of self-oscillations in pneumatic regulators 07 p0994 N67-16862
Influence of variations in membrane curvature and effective surface on operation of pneumatic regulators constructed on force compensation principle 07 p0995 N67-16866
Methods for computing static characteristics of pneumatic relay 07 p0995 N67-16867
Static characteristic improvement of pneumatic relay by installation of flow restrictors of constant pressure drop 07 p0995 N67-16868
Time characteristic calculations for pneumatic flow chambers 07 p0995 N67-16869
Method for computing steady state motion of pneumatic pistons 07 p0995 N67-16870
Polarized relay vibration control block for pneumatic drives 07 p0995 N67-16873
Block schematics for pneumatic multiplier-divider and square-root extractor 07 p0995 N67-16874
Operation and application of electropneumatic transducers 07 p0996 N67-16876
Basic components and operation of pneumatic analog computer 07 p0996 N67-16877
Operating principles and design of pneumatic differential transmitters 07 p0996 N67-16878
Design and operation of pneumatic extremum regulator 07 p0996 N67-16879
Pneumatic extremum controller design aspects 07 p0996 N67-16882
Operating characteristics of pneumatic jet elements 07 p0996 N67-16883
Pneumatic tape reader for standard 5 or 8 hole punched paper tape 10 p1606 N67-21101
Inputs and outputs of digital pneumatic jet components for adaptation to standardized pressure range 10 p1609 N67-21110
Pneumatic digital optimizing device designed for controlling processes with large time constants 10 p1610 N67-21116
Spring controlled pneumatic switching units applied to switching of sequence of machine operations and interlocking of machine controls
[J2] 10 p1557 N67-21123
Pneumatic equipment for powder density measurement
[K-1664] 12 p2162 N67-24564
Explosive release for use in Saturn IB ground support pneumatic system
[NASA-CR-54610] 12 p2331 N67-26281
Pneumatic rotary servomotor for gimbal actuators
[NASA-CR-54483] 14 p2449 N67-27502
Pneumatic memory cell with pressure to shift conversion for discrete signal transmission
[FTD-HT-67-13] 15 p2673 N67-28195
Pressure distribution curves applicable to pneumatic tires
[NASA-CR-754] 16 p2977 N67-29926
Operational and environmental tests of pneumatic cylinder for Apollo spacecraft escape tower control
[NASA-CR-85254] 16 p2980 N67-30070
Strength of single layer bellows used in certain pneumatic devices with large pressure drops 19 p3371 N67-32681
Silicon oxide dust control during stoneworking with pneumatic tools, using pneumatic devices and masks 20 p3651 N67-35110
Environmental and operational testing of pneumatic filter
[NASA-CR-54754] 21 p3864 N67-36001
Function and environmental testing of pressure switch
[NASA-CR-66023] 22 p4012 N67-37016
Environmental and function testing of globe gas valve used in pneumatic supply system of Saturn IB ground support equipment
[NASA-CR-66230] 22 p4053 N67-37022
Environmental and function testing of pneumatic filter
[NASA-CR-66315] 22 p4053 N67-37025
Fore-and-aft stiffness characteristics of pneumatic tires
[NASA-CR-900] 22 p4257 N67-38534
Pneumatic gas gun for low stress level impact studies
[SCL-DR-67-48] 23 p4300 N67-39184
Test results for valve used in pneumatic supply system of Launch Complex 34
[NASA-CR-66067] 24 p4459 N67-40219

PNEUMOGRAPHY
Modifications to prevent freezing at arctic temperatures of instrument to measure energy expended by man over long periods 03 p0252 N67-13449
Impedance pneumograph capable of quantitative measurement of respiratory volumes
[NADC-MR-6622] 07 p1022 N67-17900

POCKET MOUSE
Body temperature regulatory mechanism and extreme environment response of pocket mouse
[NASA-CR-58173] 02 p0215 N67-12209

POHLHAUSEN SOLUTION
S LAMINAR BOUNDARY LAYER
S VELOCITY DISTRIBUTION
S VISCOUS FLOW

POINCARE PROBLEM
Poincares method for three-body problem applied to lunar orbital motion 05 p0789 N67-14414
Quantum numbers in little groups of Poincare group
[JINR-E2-2963] 10 p1729 N67-21671
Infinite component wave equation for one particle wave function
[NUP-A-67-9] 20 p3700 N67-34819

POINT
S CRITICAL POINT
S FIXED POINT
S FREEZING POINT
S LATTICE POINT
S MELTING POINT
S SINGULARITY /MATH/
S STAGNATION POINT
S TRANSITION POINT
S YIELD POINT

POINT DEFECT
Point deffects in quenched gold-palladium alloys
[AD-639056] 01 p0026 N67-10029
Point defects in pure iron studied by means of electric resistivity
[CEA-R-2985] 04 p0661 N67-13981
Kinetic approaches to describe point defect clustering phenomena 07 p1170 N67-16736
Energy calculations for clusters of point defects in metals 07 p1170 N67-16741
Conference on small point defects, observation by electron microscopy, nature in irradiated metals and nonmetals, and effect on mechanical properties of metals
[AERE-R-5269, VOL. 2] 07 p1172 N67-16751
Electron microscopic observations of point defect agglomerations in copper 07 p1172 N67-16755
Field-ion microscopic studies of small defect clusters in irradiated iridium and tungsten 07 p1173 N67-16757
Electron microscopic studies on effect of irradiation temperature on cluster formation in neutron irradiated copper 07 p1173 N67-16758
Electron microscopic studies of defect clusters in xenon ion bombarded aluminum and nickel 07 p1173 N67-16760
Formation of radiation defect clusters in iron during post irradiation heating 07 p1121 N67-16764

Electron irradiation hardening and interstitial dislocation interaction in aluminum single crystals 07 p1008 N67-16769
Effect of impurities on recovery stages of electrical resistivity in nickel bombarded by electrons at low temperatures [AI-TRANS-230] 10 p1696 N67-20732
Point defects in cerium, gadolinium, and lanthanum dihydrides 21 p3785 N67-36318
Equilibria, point defect nature, and kinetics in rare earth systems with divalent or trivalent oxides 21 p3787 N67-36327
Properties of titanium dioxide and other inorganic salts, and ordering of point defects in high temperature oxides [NYO-2561-7] 22 p4127 N67-37233
Computer analysis of mass action equations used to calculate expected pressure dependence for formation of point defects in binary compounds [SRL-TR-500-C] 24 p4394 N67-39496

POINT ERROR
Computer program requirements for solving quadratic equation with floating point coefficients [CS-74] 24 p4480 N67-39837
Pointing error measurements for antenna automatic steering system at Scandinavian satellite tracking station 24 p4410 N67-40476
Computation method for determining topocentric data using orbital information in NASA Space Bulletin 24 p4411 N67-40526

POINT IMPACT
Schroedinger equation for system of one dimensional particles with point interaction 12 p2139 N67-23704

POINT MATCHING METHOD
Resolving time, jitter breadth, and efficiency determination for coincidence circuit by point matching method [INR-703/III/PL] 03 p0379 N67-13294
Automatic point guidance system for analysis of bubble chamber film 17 p3067 N67-31063
Point matching technique for stress and deflection analysis on fibrous composite material under external load [AFML-TR-67-151] 23 p4156 N67-37394

POINT SOURCE
Ray-optical electromagnetic fields of point source in bounded anisotropic media 07 p1034 N67-16846
Sensitivity of scintillation survey meter to gamma radiation point source [HASL-177] 07 p1076 N67-17078
Generalized Kirchhoff law in acoustic energy calculation for moving point source of sound [NASA-TM-X-59396] 08 p1327 N67-18658
Time dependent neutron transport from point isotropic source at altitude of 80,000 feet [DASA-1830-I] 14 p2523 N67-26971
Time dependent neutron transport from point isotropic source at altitude of 50,000-ft using Monte Carlo transport code [DASA-1830-III] 14 p2527 N67-27466
Three-dimensional distribution of scattered gamma radiation from point unidirectional source 17 p3137 N67-31368
High altitude balloon magnetic-core digitized spark chamber detector system for determining point sources of cosmic gamma radiation [NASA-TM-X-55831] 17 p3164 N67-31421

POINT-TO-POINT COMMUNICATION
Conference nets of operational voice communications subsystem 06 p0840 N67-15929
Reliability analyses of global point-to-point communications system network for supporting manned and unmanned space missions [NASA-TM-X-60565] 24 p4416 N67-40497

POISEUILLE FLOW
Necklace-like formations in Poiseuille flow of suspension of spheres 05 p0642 N67-14570
Axially symmetric periodic disturbances effects on stability of Poiseuille flow in cylindrical tubes with elastic dissipative walls [NYU-AA-66-62] 16 p2890 N67-29649
Side wall heat transfer and temperature effects of gas flow near cathode in Poiseuille inlet development region [TR-29] 18 p3314 N67-32260

POISON
SA TOXICITY
Electron attachment characteristics used in detection of poisonous gases in atmospheric air [REPT.-266] 06 p0820 N67-16152
Prepoison isotope cross section uncertainties and SNAP-10A flight test reactor control 06 p1315 N67-18796
Solid state rapid timing sequencer for obtaining toxic gas samples from rapid fire weapons and fast burning rocket engines [USAARU-67-4] 09 p1451 N67-20363

POISONING
SA CARBON TETRACHLORIDE POISONING
SA HYDROCARBON POISONING
SA OXYGEN TOXICITY
Neutron poisoned ion exchange column for purifying plutonium nitrate solutions [RFP-783] 11 p1809 N67-22383

POISSON DISTRIBUTION
Secondary electron emission statistics of nickel and iron determined and compared with Poisson distribution [TIL/T-5706] 09 p1504 N67-20315
Efficiency of two estimators for Poisson distribution [TR-519] 16 p2944 N67-29967
Controlled random pulse generator for converting stationary Poisson flow into nonstationary linearly dependent flow 21 p3821 N67-35815
Poisson approximation to binomial for relating percentiles of beta and chi squared distributions [SC-DC-67-1788] 23 p4276 N67-38805

POISSON EQUATION
Mathematical models for determining photoelectron density of lunar atmosphere - Poisson equation [NASA-CR-80428] 03 p0465 N67-13112
Time periodic solutions of transport and Poisson equations for layer-like field inhomogeneities propagating through crystal [TR-14] 05 p0751 N67-14947
Time dependent solutions of transport and Poisson equations for layerlike field inhomogeneities [TR-13] 06 p0945 N67-15356
Numerical integration of Poisson equation in circular domain [MATT-538] 20 p3710 N67-34977
Numerical integration of Poisson equation for computer simulated plasma 22 p4119 N67-37743
Numerical investigation of higher order methods for solving elliptic partial differential equations [NOLTR-67-51] 23 p4272 N67-38123
Discrete analogs for mixed boundary value problems of Poisson and Laplace equations using finite difference methods [BN-506] 23 p4274 N67-38544

POISSON PROCESS
Theoretical study of random process derived from Poisson process by division [CEA-R-2907] 01 p0117 N67-10773
Discrete compound Poisson processes and tables of geometric Poisson distribution [RM-4831-PR] 01 p0096 N67-10952
Queue theory with Poisson input and general service times, treated as branching process [AD-640483] 06 p1301 N67-18004
Distribution of waiting times in bivariate Poisson exponential process [D1-82-0573] 11 p1906 N67-22393
Bivariate Markov process for investigating Poisson arrivals at single channel queue [TR-17] 18 p3284 N67-31517
False alarm probability of quadrature clipper correlator for Poisson noise process [NEL-1458] 22 p3997 N67-37048
Optimal strategies for controlling one-dimensional Poisson production process under costly surveillance [M124] 22 p4082 N67-37056

POISSON RATIO
S AIRYS STRESS FUNCTION

POLAND
Design, capacity, function, and programming for Polish ZAM digital computers [JPRS-39669] 02 p0241 N67-12088
Polish articles on neutron activation analysis, trace elements, reactor technology, and nuclear physics and chemistry [AEC-TR-4919] 06 p0821 N67-16231
Pressurized electrostatic accelerator for Polish studies on physics of atomic nuclei 06 p0862 N67-16322
Percent concentration of strontium 90 in human bones in Poland 06 p0904 N67-16275
Absorption cross section measurements of several elements in nuclear reactor using pile oscillator method 06 p0912 N67-16281
Operation of reactor in Poland from 1961 to 1962 06 p0912 N67-16282
Self-focusing optical beam research in Poland and Russia [ATD-67-28] 22 p4098 N67-37200

POLAR AURORA
Diurnal and annual variations in atmospheric electric field intensity during polar aurorae 04 p0544 N67-14236
Dynamo theory relating polar aurora glow and irregular polar corona geomagnetic pulsations [NASA-CR-82156] 08 p1377 N67-18916
Behavior of radiation belts and anomalous absorption of cosmic radio noise in zone of polar aurora during magnetic storms [FTD-HT-66-304] 13 p2291 N67-23934
Vibrational levels of nitrogen band system of polar aurora observed at different latitudes 15 p2696 N67-27930
Nike-Apache sounding of energy spectra and angular distributions of electrons in polar aurora [REPT.-663] 20 p3626 N67-34018
Dynamical model of auroral zone morphology for describing polar and polar cap aurora phenomena 20 p3627 N67-34148
Geomagnetic and radio data for polar upper atmosphere conditions 20 p3629 N67-34230
Polar substorm model on auroral effects, algebra of fermi-dirac operators applied to many-body problems, and dynamitron accelerator as thermal neutron source 20 p3634 N67-34777
Correlation of ULF radiation with polar aurorae, and ULF propagation in ionosphere 23 p4239 N67-38223

POLAR CAP
Onset patterns of polar cap atmosphere due to enhanced ionization caused by penetrating solar cosmic ray particles [NASA-TM-X-55637] 05 p0757 N67-15155
Daily indices of ionospheric blackout incidence in polar cap and in auroral zone for years 1957 through 1965 [NASA-TM-X-55635] 05 p0705 N67-15158
Geomagnetic time and latitude distribution of magnetic disturbance at auroral and polar cap latitudes [NASA-TM-X-55649] 08 p1277 N67-18709
Spatial distribution of sporadic E layer in polar cap 16 p2887 N67-29671
Extraterrestrial particles in Greenland polar ice 18 p3334 N67-32081

POLAR CAP ABSORPTION
Time history analysis for polar cap absorption of solar flare in July, 1966 [NASA-TM-X-55720] 09 p1442 N67-19867
Balloon and riometer observations of polar cap absorption midday recovery [NASA-CR-84369] 15 p2696 N67-28001
Polar cap absorptions and associated solar cycle variations in high energy particle emission of sun throughout nineteenth solar cycle [NASA-TM-X-55612] 16 p2889 N67-30020
Polar cap absorption anomalies associated with large solar flares 19 p3439 N67-33829

POLAR COORDINATE
Latitude variations and polar motion studies during International Geophysical Year 15 p2700 N67-28073
Earth pole coordinates from provisional data of latitude observations made during International Geophysical Year 15 p2701 N67-28073
Equations of motion of body under influence of earth gravity and atmospheric drag using radar polar coordinates [ESD-TR-67-276] 19 p3288 N67-33703

POLAR GAS
Thermal conductivities of ordinary and deuterated gaseous hydrogen fluoride and their equimolar mixture [NASA-TN-D-4056] 17 p3129 N67-30483

POLAR IONOSPHERE BEACON
S BEACON SATELLITE

POLAR METEOROLOGY
Ultraviolet polar nephelometer and extinction meter for measurement of atmospheric extinction [R-5-66-I] 01 p0102 N67-10653
Apparent statistical correlation between Arctic heat budget and zonal circulation [NASA-CR-81689] 07 p1118 N67-18694
Atmospheric research - radiation measurements, sea ice physics, atmospheric chemistry, ocean boundary layer, wind-blown snow, and tundra lakes 10 p1618 N67-20454

Derivation of stratospheric density statistics from rocket soundings in polar region 12 p2133 N67-23486
POLAR NAVIGATION
Summary of international scientific cooperation in Antarctic 20 p3631 N67-34372
Soviet polar exploration in Antarctica [JPRS-41701] 20 p3632 N67-34494
POLAR ORBIT
Geomagnetically trapped radiation, solar cosmic rays, and galactic cosmic rays encountered by low altitude, polar orbiting satellite [AFCRL-66-540] 05 p0757 N67-14996
Design, launching, and polar orbit of OGO-D, and its instrumentation and observational data [NASA NEWS RELEASE-67-167] 18 p3340 N67-31707
Particle measurement by ESRO satellite in highly eccentric polar orbit for investigation of neutral points in magnetosphere [ESRO-SN-30] 19 p3445 N67-33535
Low energy protons and electrons precipitated at high latitudes measured using low altitude oriented polar orbiting satellites 20 p3720 N67-34151
Charged particle measurement by ESRO satellite in highly eccentric polar orbit in magnetosphere 20 p3721 N67-34154
Initial errors expected in satellite polar orbit after injection by ELDO A-S launch vehicle and velocity correction estimation [DTA-50-4644, APPEND. V] 21 p3884 N67-35739
Altitude and velocity errors in placing spin stabilized apogee stage ELDO satellite into polar orbit [DTA-50-4644, APPEND. I] 21 p3935 N67-35913
POLAR REGION
Nutritional aspects of polar physiology 03 p0339 N67-12446
VLF emissions on 8 kc/s recorded simultaneously along chain of station in N-S direction to study latitude variation of polar VLF [AFCRL-66-634] 05 p0704 N67-15059
Wind duct studies of blowing and drifting snow in polar regions [R-488] 09 p1472 N67-19560
Polar propagation of high frequency radio signals [REPT.-67-166] 12 p2053 N67-24409
Geophysical data related to polar ionospheric activity [NASA-CR-84491] 14 p2528 N67-27646
High latitude graphical and tabular geophysical data of ionospheric activity [NASA-CR-84494] 14 p2528 N67-27648
Magnetic disturbance in drift region of station North Pole 8 [T-468-R] 15 p2764 N67-28622
Polar region studies in geomagnetism and aeronomy [JPRS-40573] 16 p2887 N67-29569
Health physics aspects of supersonic transport passengers exposed to cosmic radiation [ORNL-P-2597] 16 p2835 N67-29818
Synoptic meteorological study of high latitude field of polar disturbances [NASA-CR-85243] 16 p2889 N67-30002
Polar hydrological front in Greenland and Norwegian seas [TRANS-343] 17 p3057 N67-31498
Compacted-snow runways constructed in polar region from contaminated snow [R-533] 20 p3618 N67-34293
Soviet research on Antarctic region, and summary of international scientific cooperation [JPRS-41396] 20 p3631 N67-34370
Arctic heat budget and atmospheric circulation conference [RM-5223-NSF] 20 p3673 N67-34841
Influence of climate on polar ice cover, and of ice cover on climate 20 p3673 N67-34842
Historical evidence of ocean level change in relation to polar albedo 20 p3634 N67-34849
Polar ocean energy budget analysis of possible radiation changes 20 p3674 N67-34855
Heat balance over polar regions obtained by Nimbus II radiation measurements [NASA-TM-X-55954] 22 p4345 N67-36789
Ionization in polar latitudes based on topside soundings by Alouette I at high geomagnetic latitudes 24 p4439 N67-39615
POLARIMETER
Highly sensitive, photoelectric spectropolarimeter for measuring dispersion of optical activity in biopolymers [TT-66-62179] 01 p0074 N67-10964
Polarimeter and ASI-4 camera design studies to increase polarized light measurement precision [FTD-TT-65-1005] 01 p0075 N67-11067
Photoelectric polarimeter for measuring skylight polarization characteristics in visible spectrum [NASA-CR-80192] 03 p0398 N67-13935
Vibration effect, and optical activity in infrared region [REPT.-3731] 10 p1696 N67-21747
Polarimeter-brightness meter for measuring optical properties of sea water 11 p1879 N67-22362
Microwave polarimeter for radio emission measurements during 12 November 1966 solar eclipse 13 p2318 N67-25148
Technical characteristics of radio telescope polarimeter for 4.28 cm solar radiation observation 13 p2318 N67-25149
Electronic phase analyzer for high speed stellar polarimeter 17 p3061 N67-30697
Neutron polarimeter for thermal neutron separation [EUR-3291.E] 20 p3643 N67-34974
Experimental investigation to determine relationships between polarization and surface structure of rhyolytic pumice [RM-370J] 21 p3840 N67-36062
Design and operational parameters of solid state polarimeter for sounding rocket measurements on ionospheric radio absorption [SR-296/E/] 24 p4451 N67-39685
POLARIMETRY
Polarimetry signature of terrestrial and planetary materials 04 p0548 N67-13513
Spectrophotometric study of Nova Herculis, polarimetric observations of mu Cepheus, polarization of cold supergiants, Everhart comet studies, and brightness distribution measurement 06 p0967 N67-16161
Polarimetric observations of mu Cepheus - tables 06 p0967 N67-16163
Discrepancy between Mars atmospheric pressure data from spectroscopic measurements and from photometric and polarimetric observations 07 p1188 N67-16811
Polychromatic polarimetry of light in twilight and day sky at zenith 07 p1069 N67-16818
Atmospheric brightness of Mars determined by polarimetric and photometric measurements [TR-34] 12 p2210 N67-24229
Methods of analyzing polarization measurements of decameter radiation from Jupiter [NASA-CR-73974] 13 p2398 N67-26166
Resolution of some O-alkyl hydrogen methylphosphonothioates with dextrorotatory and levorotatory alpha phenylethylamine [REPT.-1966-23] 13 p2273 N67-26302
Interpretation and application of photometric-polarimetric observations of planetary surfaces [RM-367J] 17 p3165 N67-31429
Polarimetry of limonite surface as function of wavelength and particle size [RM-371J] 21 p3931 N67-36001
POLARIS MISSILE
Polaris missile handling and loading analysis of standard equipment with and without shock absorbers and of Yo-Yo device 18 p3350 N67-31701
POLARISCOPE
S SENARMONT POLARISCOPE
POLARIZABILITY
Review of theory on total absorption and scattering of photons by nuclei - electric polarizability of atomic nuclei, elastic photon scattering, and optical anisotropy of nuclei 06 p0930 N67-15626
Symmetry relations for electromagnetic particle polarizabilities [JINR-P-2894] 10 p1726 N67-21625
Polarizability, polymer chemistry, and relation to perturbation theory [REPT.-3739] 10 p1663 N67-21758
Excitation theory compared to polarizability theory for determining optical properties of dimers made up of two identical molecules having only one excited level when separate [CEA-R-3278] 19 p3388 N67-33031
POLARIZATION
SA CIRCULAR POLARIZATION
SA DEPOLARIZER
SA DIELECTRIC POLARIZATION
SA ELECTROLYTIC POLARIZATION
SA FERROMAGNETISM
SA MAGNETIC DOMAIN
SA OPTICAL POLARIZATION
SA PYROELECTRICITY
Nonnegativity of polarization matrix of density [REPT.-394] 01 p0124 N67-10667
Particle physics research [MPG-66-6] 01 p0125 N67-10669
Proton polarization from carbon 12/helium 3 proton/nitrogen 14 reaction [JINR-P-2725] 01 p0126 N67-10778
Cyclotron and bevatron experiments to measure polarization parameter in proton-proton scattering [UCRL-16868] 01 p0131 N67-10919
Anodic polarization behavior of titanium and titanium alloys in sulfuric acid solutions [GAM/MC-66B-5] 02 p0227 N67-11661
Polarization effects in inelastic scattering of gamma rays 03 p0439 N67-13393
Polarization method for analyzing twilight phenomena [NASA-CR-80158] 03 p0389 N67-12911
Interpretations of multiple polarization radar data concerning terrain phenomena 04 p0506 N67-13512
Cross polarization effects in paraboloidal antennas [TR-36] 04 p0510 N67-13735
Transit time measurements on electric polarization of kilovolt neutrons scattered by lead 04 p0565 N67-13994
Microwave antenna studies of polarization control and its effect on radome boresight error [REPT.-1904-7] 06 p0631 N67-15944
Polarization of neutrons in stripping reaction on carbon analyzed by elastic scattering 06 p0922 N67-15576
Radiative capture, inelastic scattering, and polarization in reactions of nucleons with nuclei described by optical model 06 p0923 N67-15584
Angular distribution and linear polarization to determine E2/M1 amplitude mixing ratios in aluminum 27 and silicon 29 06 p0926 N67-15602
Polarization and absorption effects on Fraunhofer diffraction patterns of corner reflector 06 p0917 N67-16020
Variability of degree of polarization correlated with stellar brightness variations 06 p0967 N67-16164
Displacement and polarization in stellar dynamical systems 07 p1190 N67-17260
Effect of reflecting surfaces on polarization state of light beam 07 p1096 N67-17275
Radar equipment for polarization studies of clouds and precipitation [FTD-MT-65-302] 07 p1036 N67-17760
Cross polarization technique for radar exploration of surface properties of rough targets such as moon [NASA-CR-83491] 08 p1248 N67-18974
Electrochemistry of metal corrosion resistance and polarization in chloride solutions 08 p1243 N67-19047
Hugoniot data from shock induced polarization experiments with gamma irradiated polyethylene [BRL-TN-1626] 10 p1693 N67-20636
Lepton polarization in production of excited neutron by neutrinos [IS-T-96] 10 p1709 N67-20736
Circulatory polarized nonlinear electromagnetic waves [AM-66-11] 10 p1695 N67-21711
Modification of effective particle-hole interaction by core polarization [AD-645243] 10 p1731 N67-21731
Electric polarization effects for reflection analysis of plasma stream from magnetic wall 11 p1954 N67-21982
Determination of polarization electric field in plasmoid moving in combined toroidal and helical magnetic field 11 p1956 N67-21985
Elimination of instrumental polarization influence in measurement of astronomical source polarization 11 p1939 N67-22060
Polarization effects in Coulomb scattering of 4 MeV neutrons by copper, lead, and uranium nuclei [ANL-TRANS-371] 11 p1944 N67-22236
Polarization characteristics of high purity

Ni-high Fe-Cr-Ni alloys in sulfuric acid solutions
[COO-1219-46] 12 p2115 N67-33595
Polarized hydrogen target for proton scattering experiments
[AERE-R-5328] 12 p2162 N67-33750
Monoenergetic bremsstralung with linear polarization close to 100 percent from thin crystal targets
[DESY-66/37] 12 p2190 N67-33900
Resonance fluorescence theory, polarization measurements of solar spectral line, and photoelectric recording photometer 12 p2201 N67-34323
Forbidden photoionization and electron spin polarization
[NASA-TM-X-55543] 12 p2170 N67-34640
Electromagnetic meson-baryon polarizability in Quark model
[JINR-P2-3073] 13 p2173 N67-34694
Nuclear physics technological developments
[PAECL/NP-5] 13 p2374 N67-25593
Polarization of protons and elastic scattering studies with Van de Graaff accelerator
[ORO-2973-25] 13 p2374 N67-25619
Spontaneous polarization of tartaric acid and triglycerine sulfate by thermal depolarization current method
[NASA-CR-84162] 14 p2601 N67-28502
Radio and X-ray astronomy research on X-ray polarization, X-ray telescope and planetary atmosphere 14 p2611 N67-28620
Depolarization of Rayleigh scattering components in liquids 14 p2548 N67-26706
Simplified theory of optical maser in external static magnetic field using tensor operator expansion of density matrix needed in calculating macroscopic polarization
[SR-3] 14 p2548 N67-26752
Polarization parameter in negative pion elastic scattering by protons from 600 to 2300 MeV/c
[UCRL-17363] 15 p2766 N67-28473
Measurement of negative sigma hyperon polarization in reaction pion, proton-sigma hyperon, kaon
[UCRL-17151] 15 p2766 N67-28480
Air-flow polarization study of zinc-air depolarized batteries
[ECOM-01614-5] 15 p2645 N67-28631
Experimental application of polarized proton targets
[JINR-P2-3217] 16 p2945 N67-29688
Spin magnetic effect on polarization of electron-atom impact radiation
[NASA-TM-X-55817] 16 p2951 N67-29993
Polarization measurements of proton beam obtained by scattering beryllium target inside synchrocyclotron
[JINR-P1-3189] 17 p3123 N67-30233
Optical analyses of atmosphere
[AFCRL-67-0191] 17 p3053 N67-30499
Polarized elastic fast neutron scattering off carbon 12 in low energy range
[AE-282] 17 p3128 N67-30520
Equipment for polarization of thermal and resonance neutrons
[UJV-1562] 17 p3062 N67-30904
High energy photon polarization measurement by coherent pair production in diamond crystal 17 p3133 N67-30991
Polarization effects on nuclear structure
[INP-536/PL] 17 p3136 N67-31133
Polarized electron source operating on atomic source of lithium 6 18 p3269 N67-31914
Reflection and polarization properties of silicon carbide and aluminum oxide powders
[R67SD29] 19 p3436 N67-32705
Finite geometry and polarized multiple scattering corrections of experimental fast neutron polarization data by Monte Carlo methods
[AE-294] 20 p3677 N67-34003
Theoretical curves for induced polarization method used in mineral prospecting
[T-476-R] 20 p3636 N67-35121
Thumpatron for determining polarization direction of fragile piezoelectric samples
[SC-DR-67-494] 22 p4048 N67-37484
Polarization of indium nuclei in ferromagnets and nuclear magnetic resonance of polarized cobalt in iron
[UCRL-17536] 22 p3990 N67-37689
Polarization in pion-electron scattering and electromagnetic form factor in pion
[JINR-P2-3338] 23 p4301 N67-38436
Core polarization effects in mass 15 and mass 17
[PUC-937-263] 23 p4307 N67-38673
Neutron diffusion in polarizing media 23 p4311 N67-38966
Ultrahigh velocity molecular beam apparatus with mass spectrometric detector designed to measure dipole moments and polarizabilities
[AFOSR-67-1971] 24 p4453 N67-40176
POLARIZATION CHARACTERISTICS
Anodic polarization behavior of cobalt-chromium alloys in sulfuric acid solutions
[GAM/MC-68B-6] 02 p0228 N67-11931
Orbital angular momentum of polarized sigma-positive decay
[COO-881-76] 03 p0444 N67-13279
Angular distribution and electric polarization coefficients of neutrons scattered by lead
[JINR-P-2764] 04 p0590 N67-14652
Polarization studies of radio emission from upper layer and surface covering of planets 07 p1188 N67-16817
Rate equations and shell model developed for dynamic proton polarization and relaxation
[UCB-34P20-T-1] 10 p1699 N67-20756
Negative pion proton scattering polarization parameter measurements
[UCRL-17153] 10 p1722 N67-21558
Polarization characteristics of cosmic positive mu-mesons at sea level, based on decay positrons 12 p2157 N67-33511
Control and measurement of antenna polarization
[NRL-MR-1734] 13 p2057 N67-34999
Polarization features of light reflected by soil, sand, and water under different conditions of illumination
[SR-2] 15 p2702 N67-28248
Compton effect apparatus for measuring gamma-gamma linear polarization correlations
[BMWF-FBK-66-37] 15 p2713 N67-28540
Polarization parameter in elastic proton proton scattering from 0.75 to 2.84 GeV
[TR-37] 16 p2844 N67-29624
Calculations of momentum and energy relaxation of electrons in polar semiconductor in strong magnetic field
[SR-18] 20 p3713 N67-34402
Boresight calculations and mutual coupling considerations in polarization control effort to reduce boresight error in radar tracking systems
[REPT.-2187-1] 21 p3796 N67-35602
Polarization and phase characteristics of radio waves propagating through lower ionosphere
[NRL-6532] 21 p3797 N67-35704
Investigation of cross-polarized radar on volcanic rocks
[NASA-CR-88001] 21 p3845 N67-36566
Variation of polarization and current density with time and temperature for constricted hysteresis loops of barium titanate
[NEL-1455] 22 p4129 N67-37541
Polarization curve of silver anode in ammoniacal electrolyte - Effective electrolytic surface area of sintered silver electrodes - Ultrasonic vibration effects on oxidation of electrode
[NASA-CR-89556] 24 p4396 N67-39833
POLARIZATION CHART
Tabulated maximum polarization values of lunar geologic units mapped on basis of observations from earth 18 p3328 N67-31949
POLARIZED LIGHT
SA KERR EFFECT
Polarimeter and ASI-4 camera design studies to increase polarized light measurement precision
[FTD-TT-65-1095] 01 p0075 N67-11087
Surface and atmospheric parameter measurements by use of polarization instrumentation aboard Mariner orbiter space probe 03 p0460 N67-13666
Scattering properties of dull dielectric surface in polarized light
[NASA-TM-X-59178] 03 p0430 N67-13024
Thread-shaped deformation of vitreous humor studied in polarized light 05 p0648 N67-14602
Polychromatic polarimetry of light in twilight and day sky at zenith 07 p1069 N67-16816
Senarmont polariscope applied to analysis of optical maser light 07 p1096 N67-17278
Maxwell electromagnetic equations for determining basic relationships of polarized light reflection from metallic absorbing surfaces
[UCRL-11813] 12 p2155 N67-34554
Polarization of infrared light emitted by sea calculated in geometrical optics approximation
[RM-360] 13 p2370 N67-26354
Photogeneration of charge carriers in anthracene with polarized light to ascertain dependence on absorption coefficient
[AD-653403] 19 p3521 N67-32738
Atmospheric aerosol measurement using polarized laser light scattering and Rayleigh and Mie scattering functions
[UTEC-MD-67-034] 20 p3653 N67-34297
Polarization of luminescence and properties of molecular structures
[TT-67-62217] 21 p3915 N67-35675
Reflection of polarized light from film covered surfaces
[UCRL-17128] 23 p4293 N67-38298
Far ultraviolet polarization analyzer for rocket measurement of resonantly scattered sunlight
[NASA-TM-X-55948] 23 p4252 N67-38685
Radiance and polarization of multiple scattered light from haze and clouds calculated from Stokes vectors by Monte Carlo method
[NASA-CR-89284] 23 p4296 N67-38969
Procedures for use of ellipsometer for measuring corrosion and corrosion inhibition in thin films - light polarization
[RIA-67-1859] 24 p4449 N67-39841
Design and performance of gain compensated airborne photopolarimeter for skylight polarization measurements
[APCRL-67-0396] 24 p4450 N67-39706
POLARIZED RADIATION
Polarized emissivity of smooth oceanic surface in microwave region, with and without ice sheets
[DAC-59055] 04 p0539 N67-13561
Combination scattering of gamma rays by nuclei used to investigate tensor polarizability of nuclei 06 p0932 N67-15639
Polarized stimulated radiation of glass activated by neodymium
[FTD-HT-66-311] 11 p1894 N67-23172
Two and three nucleon systems obtained using polarized targets and beams
[SLAC-PUB-256] 13 p2374 N67-25608
Possible polarization of X-ray bremsstrahlung in solar flares and cosmic radiation
[NASA-CR-84123] 13 p2400 N67-26444
Inelastic scattering of 40-MeV polarized protons
[ORNL-TM-1753] 15 p2763 N67-28421
Pion photoproduction by polarized gamma radiation
[SLAC-PUB-359] 17 p3129 N67-30648
Operational problems of high energy polarized proton targets 17 p3133 N67-30904
Nuclear reaction studies using polarized helium 3 targets and beams and asymmetry measurements for proton elastic scattering by polarized helium 3
[ORO-1316-23] 19 p3510 N67-33841
A/theta/ asymmetry measurements of elastic proton-proton scattering due to totally polarized beam
[JINR-E01-3194] 19 p3511 N67-33921
Field studies of Oregon vegetation and its relation to polarization radar imagery
[NASA-CR-88210] 21 p3849 N67-36024
Hyperfine interaction in rare earth metals and compounds from polarized neutrons 21 p3921 N67-36365
Quasi-monochromatic polarized photon beam obtained from Compton scattering of gas laser light on high energy electrons circulating in Adone storage ring
[LNF-67/48] 24 p4502 N67-40332
POLAROGRAPHY
Polarographic study of cadmium, lead, and mercury in anhydrous acetic acid
[CEA-R-2903] 03 p0360 N67-13230
Polarographic determination of cerebral and cardiac oxygenation dynamics during acceleration 04 p0485 N67-13439
Techniques for studying irreversible electrode processes - pulse polarography, square-wave polarography, and high level Faradaic rectification
[JUL-127-CA] 10 p1576 N67-21214
Radioisotopes used in polarography to study electrode reactions
[COO-256-65] 15 p2689 N67-28496
Polarographic determination of uranium oxide composition
[CEA-R-3186] 19 p3392 N67-33404

Preparation and chemical properties of potassium, strontium, and barium ferrates - differential thermal analysis, polarography, and infrared spectra of ferrate compounds
[CEA-R-2895] 19 p3394 N67-33519
Polarographic method for determining cadmium in cadmium-tin alloys
[EUR-3494.E] 20 p3589 N67-34159
Complex-chemical and polarographic investigation to characterize technetium, and comparison with rhenium
[JUL-465-RC] 20 p3589 N67-34165
POLE
SA MAGNETIC DIPOLE
SA REGGE POLE
Alternating gradient pole tips mounted on yoke structure of full scale prototype magnet sector of 10 to 50 Mev separated orbit cyclotron
[ORNL-P-3001] 21 p3826 N67-36050
POLET I SATELLITE
Equatorial and horizontal coordinates for Sputnik 1960 Epsilon, Cosmos XI, XVII, XXV, XXVI, XXVIII, Polet I and II, and Elektron I for April 1964 16 p2970 N67-29947
Horizontal coordinates for Sputnik 1960 Epsilon, Cosmos XVII, XXV, XXVI, XXXI, Polet I and II, and Elektron I for June 1964 16 p2970 N67-29949
Equatorial coordinates for Sputnik 1960 Epsilon, Cosmos XVII, XXV, XXVI, XXXI, Polet I and II, and Elektron I for June 1964 16 p2970 N67-29949
POLISHED METAL
Direct stress cumulative loading fatigue tests of notched mild steel and polished aluminum alloy
[NEL-204] 04 p0559 N67-13772
Electrochemical measurements of film growth on polished heated niobium exposed to sulfuric acid and potassium sulfate
[ORNL-TM-1883] 21 p3785 N67-36294
POLISHING
SA ELECTROLYTIC POLISHING
Bonding of optically polished surfaces
[AFCRL-66-649] 10 p1637 N67-20643
Design details on custom polishing table for large metallography laboratory 12 p2982 N67-34253
Semiautomatic preparation of specimens for transmission electron microscopy
[ORNL-4066] 14 p2532 N67-26835
Method of treating optical components with deep concave aspheric surfaces
[JPRS-43002] 24 p4495 N67-39577
POLLUTION
SA AIR POLLUTION
Air cleaning filters and systems for reactor control and environmental safety, contamination prevention, aerosol exhaust, and fission product confinement and containment
[CONF-660904, VOL. 1] 23 p4287 N67-38880
POLONIUM
Vacuum distillation process and related equipment for large scale separation of polonium 210 from irradiated bismuth 05 p0666 N67-14837
Weak alpha and electron capture decay in polonium 206 and polonium 209
[MLM-1251] 09 p1489 N67-19853
Fast neutron activation of rock boreholes using polonium-beryllium sources 10 p1624 N67-21302
Polonium 210 alpha radiation for automatically controlling elementary composition of ore concentrates 10 p1578 N67-21317
Polonium sorption on Teflon 21 p3778 N67-35511
Polonium-210 half-life determination, polonium fluorine neutron sources, uranium-234 separation and purification, neutron activation analysis and nuclear magnetic resonance
[MLM-1388] 22 p3989 N67-37617
POLYAMIDE
SA NYLON
Thermostabilization of polyamide fiber by grafting n-formyl amidoacrylic acid to fibers and treating with copper or calcium acetate
[FTD-HT-66-89] 10 p1660 N67-20622
Polyamide diphenolic acid wash paint primers
[CCL-238] 17 p3015 N67-30652
Synthesis of phosphorus containing polyesters and polyamides of aliphatic series 18 p3222 N67-31817
Polyarimide physical properties and chemical structure correlations
[NASA-TT-F-11158] 19 p3393 N67-32497
Infrared and gas chromatographic studies of magnet wires coated with cured and thermal aged polyimide and Formvar resin enamels
[MEL-146/67] 24 p4197 N67-39043
POLYATOMIC GAS
Chemical kinetics of electron recombination in diatomic and polyatomic gases dissipating into vacuum 17 p3128 N67-30504
POLYATOMIC MOLECULE
Energy levels of polyatomic molecules, and infrared and microwave spectra
[AFCRL-66-490, PT. I] 10 p1578 N67-21373
Electronic spectra of polyatomic molecules - benzene absorption in second electronic state, first excited state lifetime of sulfur dioxide, and absorption spectrum of carbon suboxide
[AD-644998] 12 p3037 N67-23520
High resolution infrared spectrometer for analyzing energy levels of polyatomic molecules
[AFCRL-66-490, PT. II] 13 p3218 N67-25179
Theoretical studies in infrared and ultraviolet radiation of polyatomic molecules
[8678D19] 17 p3139 N67-31431
Number of isomers for polynuclear coordination compounds determined by application of symmetry concepts
[TR-54] 21 p3774 N67-35342
Mass spectrometric detection of nitric oxide dimers and other polyatomic molecules
[AD-655454] 22 p3982 N67-36852
Computer methodology for calculating the unimolecular reactions of excited polyatomic molecule ions
[ARL-67-0114] 24 p4396 N67-39727
POLYBENZIMIDAZOLE
Polybenzimidazole structural adhesives for bonding stainless steel, beryllium alloys, and titanium alloys
[AFML-TR-65-428] 10 p1664 N67-21848
Synthesis and properties of polybenzimidazopyrrolone
[NASA-TT-F-10985] 14 p2483 N67-27526
POLYBUTADIENE
Energy transfer processes in photochemistry and radiation chemistry - triplet-triplet transfer in polybutadiene
[AFML-TR-66-292] 01 p0035 N67-11190
Quick curing sterilizable elastomer prepared from carboxyl terminated polybutadiene and imine curative 02 p0279 N67-12125
Dynamic-mechanical properties of sterilizable polybutadiene elastomer after high temperature exposure 06 p0697 N67-15723
Outgassing rate measurements on stored composite fuels of polybutadiene acrylic acid and polyurethane binders
[NASA-TN-D-3790] 06 p0951 N67-15959
Initial ignition of solid propellants, using ammonium perchlorate as oxidizer and polysulfide and polybutadiene as fuels
[TIL/T-5669] 09 p1544 N67-20318
POLYCARBONATE
Hot die and molding techniques for production of polycarbonate molds
[UCRL-13287] 21 p3863 N67-36396
Injection molding process for press parts of plastic materials
[UCRL-13290] 23 p4257 N67-38399
POLYCRYSTAL
Temperature dependence of internal friction, elastic modulus, and shear modulus in powdered beryllium alloy, hardened steel alloy, boron, and polycrystalline structures
[JPRS-37960] 01 p0081 N67-10081
Averaging and calculating effective elastic modulus to determine internal friction in polycrystals 01 p0081 N67-10086
Mechanical behavior of polycrystalline nonmetallics at elevated temperature
[NASA-CR-80162] 03 p0453 N67-12926
Dielectric properties of polycrystalline barium titanate ceramic materials for microelectronic applications
[NASA-CR-66235] 06 p0950 N67-18566
Relationships between temperature and yield point, strain hardening coefficient, and grain size of polycrystalline zirconium
[ITRI-578P27-39] 07 p1102 N67-17573
Frequency dependence of magnetization of polycrystalline holmium near ferromagnetic ordering temperature
[IS-T-100] 07 p1178 N67-17578
Thin-film polycrystalline field effect triode
[REPT.-8] 09 p1425 N67-19821
Single and polycrystal low magnetic saturation garnet development
[SJ-230-0066-6] 09 p1563 N67-20280
Inelastic neutron scattering and dispersion in polycrystals and liquids
[JUL-413-NP] 10 p1715 N67-21067
Friction and wear of plastic-bonded and polycrystalline explosive materials
[UCRL-50134] 11 p1903 N67-22318
Work functions of monocrystalline and polycrystalline rhenium
[UCRL-16662] 12 p2186 N67-23550
Fracture mechanisms in polycrystalline nonmetallic materials
[IITRI-B0057-12] 12 p2123 N67-23601
Twinning and low temperature mechanical properties of polycrystalline niobium, molybdenum, and niobium molybdenum alloys
[AD-646682] 12 p2121 N67-24756
Sound velocity measurements on specimens of polycrystalline forsterite, single crystal spinel, and obsidian
[AD-646782] 12 p2996 N67-24821
Thermal conductivity of single and polycrystals of silicon, lanthanides, and some irradiated specimens 13 p3269 N67-25349
Hot pressing magnesium oxide into transparent polycrystal
[AVSSD-0168-67-RR] 15 p2729 N67-29978
Characterization of defects, polycrystals, and polymer materials on basis of structure and composition
[MAB-229-M] 17 p3084 N67-30363
Characterization of polycrystalline materials 17 p3147 N67-30368
Surface electric properties of oxidized clean single crystal and polycrystalline chromium films
[TM-592] 17 p3036 N67-30525
Temperature and gamma radiation effects on electric breakdown of polycrystalline alpha phase aluminum oxide ceramic insulators used in nuclear thermionic reactors
[NASA-CR-85774] 17 p3086 N67-30824
Three-input NAND gate circuit design in thin film polycrystalline field effect triode study
[REPT.-3] 18 p3251 N67-32480
Synthesis, microstructure, and characterization of polycrystalline refractory aluminum and magnesium oxides
[AVSSD-0211-67-RR] 20 p3863 N67-34096
Raman spectra of polycrystalline carbon dioxide and nitrogen oxide in lattice region at several temperatures
[TR-24] 21 p3914 N67-35535
Heat capacity of polycrystalline scandium from 1 to 23 deg Kelvin 21 p3789 N67-36389
Recrystallization effect on sliding friction of metals in single-crystal polycrystaline form
[NASA-TN-D-4143] 21 p3862 N67-36391
Role of diffusion in creep and stress rupture in polycrystalline solids
[SU-DMS-67-35] 22 p4265 N67-38825
Neutron diffraction study of antiferromagnetism of polycrystalline uranium antimony and uranium bismuth coordination compounds
[INR-P-796/II/PS] 24 p4514 N67-39429
Absorption spectra of single crystal and polycrystalline thorium dioxide
[BNWL-457] 24 p4516 N67-39008
Multiple elastic scattering of thermal neutrons by polycrystalline lead
[ARE-M-1911] 24 p4305 N67-40499
POLYDOP
S POLYSTATION DOPPLER /POLYDOP/ TRACKING SYSTEM
POLYESTER
Method of producing phosphorus containing polyesters
[FTD-HT-66-95] 12 p2125 N67-24775
Rheological properties of nonsaturated styrene polyester copolymers, and temperature and reticulation effects
[NT-106/1967/] 16 p2916 N67-29666
Synthesis of phosphorus containing polyesters and polyamides of aliphatic series 18 p3222 N67-31817
POLYESTER RESIN
Retardation effect of water on gelation and polymerization of unsaturated polyester resin
[RAE-TR-66191] 04 p0567 N67-14236
Tracing of capillaries in glass fiber reinforced polyester resins by radiochemical and electrical methods
[RAE-LIB-TRANS-1180] 07 p1167 N67-17922

Friction and wear effects of carbon fiber reinforced polyester resin
[RAE-TR-66347] 09 p1466 N67-36331
Volume resistivity, Barcol hardness, and acetone extraction measurements of cast polyesters in advanced stages of curing reaction
[RAE-TR-66361] 09 p1412 N67-36334
Binding energies of polyester resins used in pyrotechnic formulations as function of polymerization time before and after pressing
[RDTR-51] 10 p1662 N67-21358
Polyol determination in alkyd and polyester resins by gas liquid chromatography
[CCL-214] 11 p1811 N67-22699
Comparative measurement of torsional modulus and logarithmic decrement of mechanical damping for assessing heat resistance of reinforced and nonreinforced polyester resins
[RAE-LIB-TRANS-1234] 20 p3865 N67-34616

POLYETHYLENE
Ultraviolet spectroscopy of electron irradiated polyethylene
[COO-1088-21] 01 p0034 N67-10647
High molecular compounds - double bond polymers containing pyridine rings, polymer film electric conductivity, and polymerization of quinoline, 4-chloropyridine, and aromatic compounds
[FTD-TT-65-757] 02 p0234 N67-11273
Conductivity of polymer tetracyanoethylene films on various metal substrates 02 p0234 N67-11275
Applicability of third degree functional polynomial for constitutive equation in creep analysis of nonlinear viscoelastic polymer
[AROD-4547-13] 02 p0314 N67-11317
Cosmic radiation measurements at 200 to 400 km altitudes on polyethylene 02 p0179 N67-11408
Thin polyethylene and polypropylene film extrusion
[NASA-CR-72051] 04 p0555 N67-13782
Crystal orientation in irradiated polyethylene
[NYO-3003-29] 04 p0566 N67-13993
Temperature dependence of viscous and elastic properties of low density polyethylene melt 05 p0734 N67-14546
Turbulent pipe-flow frictional pressure drop of very dilute aqueous solutions of polyethylene oxides measured and correlated with polymer molecular weight and concentration 05 p0694 N67-14547
Elasticity of low density polyethylene - evaluation of crystal and noncrystal orientation from X-ray diffraction and birefringence 05 p0734 N67-14549
Dynamic, viscoelastic properties of molten polyethylene with fillers 05 p0734 N67-14551
Thermal degradation of polyethylene
[FTD-TT-65-1691] 05 p0669 N67-15302
Development program for separator and modified polyethylene separator material for silver-zinc battery, and program for development of sealed heat sterilizable batteries 06 p1232 N67-18312
Polyethylene double differential inelastic scattering cross sections for epithermal neutrons 06 p1314 N67-18790
Hugoniot data from shock induced polarization experiments with gamma irradiated polyethylene
[BRL-TN-1638] 10 p1660 N67-30656
Polyethylene production by cobalt 60 radiation
[BNL-10591] 10 p1561 N67-21006
Neutron scattering in stretch-oriented polyethylene 10 p1713 N67-21038
Experimental determination of neutron inelastic scattering in polyethylene 10 p1713 N67-21039
Polyethylene crystallinity determined by infrared spectra, and relation of vinyl end group in radiation crosslinking
[NASA-CR-83548] 11 p1966 N67-23275
Heat sterilizable battery separator material prepared from low-density polyethylene film
[NASA-CR-83811] 13 p2343 N67-25679
Polyethylene cross-linkage density determination
[AD-644531] 14 p2559 N67-36797
Underwater degradation and applied voltage effects on polyethylene insulated wire
[AD-644545] 14 p2559 N67-36801
Flat polyethylene films as wind protection for balance meter 14 p2535 N67-37114
Temperature coefficient of cross linking and effects in irradiation of polyethylene
[COO-1088-28] 15 p2730 N67-37910
Gravimetric sampling method based on small polyethylene ampoule as pycnometer for determining absolute cobalt 60 concentrations of solutions
[ACEL-2879] 17 p3020 N67-31407
Resistance of polyethylene structures to nitrogen tetroxide degradation
[NASA-CR-85912] 17 p3067 N67-31418
Drag reducing polyethylene oxide lubricants used in turbulent pipe flow
[AD-651767] 18 p3259 N67-32108
Thermal radiation properties of polyethylene, mylar, and other polymer thin film balloon fabrics
[C-62944] 21 p3873 N67-35482
Simultaneous extrusion of polyethylene and polyvinyl chloride coatings on electric conductors
[AD-656205] 22 p4075 N67-36801
Irradiated polyethylene for electric cable insulation
[AD-656261] 22 p4076 N67-37179
Radiation chemistry of polypropylene oxide and various high polymers
[COO-1088-27] 22 p3993 N67-37908
Insulation for transformer, pothead, and coaxial cable in low radio frequency system 23 p4295 N67-38773
High energy proton shielding properties of lead, polyethylene, titanium hydride and aluminum 23 p4311 N67-38975
Creep characteristics of polyethylene balloon film 23 p4271 N67-39264
Neoprene and polyethylene balloon film failures 23 p4271 N67-39265
Polyethylene balloon ascent failures at/or near tropopause 23 p4271 N67-39274

POLYETHYLENE TEREPHTHALATE
SA DACRON
Polyethylene terephthalate as cryogenic liner material - mechanical relaxation, morphology, and infrared studies of solvent induced crystallization
[NASA-CR-80922] 06 p0898 N67-16087
Mechanical relaxation in polyethylene terephthalate at 4 to 90 deg K - effects of crystallinity and orientation on relaxation spectra 06 p0898 N67-16088
Morphology of polyethylene terephthalate studied, emphasizing morphology of glass and effect of strain induced crystallization of polymer 06 p0896 N67-16089
Effects of acetone and toluene solvents and dip time on crystallinity of polyethylene terephthalate and mylar samples 06 p0899 N67-16090
Morphology of strain-induced crystallization of polyethylene terephthalate
[NASA-CR-80195] 21 p3874 N67-35794
Mechanical properties of polyethylene terephthalate at cryogenic temperatures
[NASA-CR-86270] 21 p3874 N67-35896
Fatigue tests on pressurized flexible thin membranes of polyethylene terephthalate for high energy physics apparatus
[RHEL/R-140] 21 p3876 N67-36488
Effects of stretch temperature, heat set time, and heat set temperature on cryogenic mechanical properties of polyethylene terephthalate film
[NASA-TM-X-52351] 22 p4077 N67-37235
Gas chromatograph apparatus for preparing ultrahigh molecular weight polyethylene terephthalate from solid state commercial grade material
[NASA-TM-X-52349] 22 p3990 N67-37677

POLYHEDRON
Problem of determining hidden edges of computer drawn convex polyhedra
[NASA-CR-80131] 02 p0281 N67-12170
Structural design concepts involving transformation of polyhedra and columns for lunar application
[NASA-CR-70408] 07 p1303 N67-17777
Survey of paths or circuits on convex polytopes
[D1-82-0579] 11 p1909 N67-23045
Electromagnetic scattering of regular polyhedra
[AFCRL-67-0307] 22 p4097 N67-36778
Space polygoniometry as basis for intercontinental geodetic connection consisting of three-dimensional polyhedron
[JPRS-43027] 24 p4447 N67-40286

POLYMER
SA BORON POLYMER
SA COORDINATION POLYMER
SA COPOLYMER
SA METALLOSILOXANE POLYMER
SA NITROGEN POLYMER
SA ORGANOMETALLIC POLYMER
SA PHOSPHORUS POLYMER
SA VINYL POLYMER
Interrelationships between physical properties of organic and inorganic polymers
[TIL/T-5420] 01 p0069 N67-10066
Design and development of photopolymer printer processor to make positive transparencies from aerial roll film
[ECOM-2721] 01 p0073 N67-10450
Spacecraft environmental and decontamination tests on polymers
[NASA-CR-79414] 01 p0090 N67-10760
Highly sensitive, photoelectric spectropolarimeter for measuring dispersion of optical activity in biopolymers
[TT-66-62179] 01 p0074 N67-10964
Mechanochemical energy conversion
[AFOSR-66-1475] 01 p0035 N67-11040
Polymeric coating application to metal surfaces of ships and railroad cars
[FTD-TT-65-1878] 01 p0079 N67-11090
Dynamic optical properties of polymeric solids
[AROD-4051-13] 01 p0142 N67-11161
Magnetic properties of polymers containing ferrocene
[FTD-65-2043] 01 p0143 N67-11158
Polymers with metal particle additives
[FTD-HT-66-342] 01 p0092 N67-11173
Wear and friction of various polymer laminates in liquid nitrogen and in liquid hydrogen
[NASA-TN-D-3706] 02 p0278 N67-11346
Physiological changes in animals in sealed chamber in which vapors enter atmosphere due to organic polymer destruction by heat 02 p0184 N67-11443
Automated ethylene oxide decontamination apparatus for polymeric products 02 p0248 N67-12128
Synthesis of linear, double-chain ladder polymers from substituted tetraphosphonitriles
[NASA-CR-79273] 02 p0230 N67-12361
Polymer structure determined by Moiseo method 03 p0356 N67-12381
Effects of thermal sterilization on polymeric products used on Ranger and Mariner spacecraft
[NASA-CR-80434] 03 p0415 N67-13099
Pursuit problem and differential game theory, angular and spectral distribution of atmospheric infrared radiation, and research on heat resistant polymers 04 p0624 N67-13386
Research on synthesis, modification, and properties of heat resistant polymers of polyimide, polyoxazole, and polyoxadiazole 04 p0499 N67-13389
Temperature limitations of polymeric dielectrics
[RAE-TR-66203] 04 p0567 N67-14181
Deformation process and structure of crystalline polymers 05 p0720 N67-14464
Nonnewtonian intrinsic viscosity of polymer solutions 05 p0720 N67-14469
Capillary flow measurements, and some fundamental aspects of polymer extrusion 05 p0778 N67-14470
Viscoelastic behavior of crystalline polymers 05 p0720 N67-14471
Normal stress measurements on polymer solutions 05 p0692 N67-14472
Stress relaxation in high polymers and metals 05 p0767 N67-14477
Viscoelastic relaxation in liquids and polymers 05 p0693 N67-14479
Dependence of entanglement chain length on polymer composition of linear, amorphous polymers - Rheology 05 p0721 N67-14507
Shear dependence of viscosity for concentrated polymer systems related to polymer molecular weight distribution 05 p0721 N67-14508
Rheology conference - continuum theory, stress and strain distribution analysis, polymer fluids and solids, testing techniques, and dispersions
[NASA-CR-80887] 05 p0778 N67-14521
Nonnewtonian mathematical model and plotting method for analyzing variable head viscometer data obtained on pseudo-plastic polymer solutions - Rheology 05 p0693 N67-14525
Melt-flow instability of extruded polymers - failure criterion and equations of state, and linearized stability analysis in Newtonian fluid, power-law fluid, and elastic

fluids 05 p0723 N67-14534
Stress-strain-time relations in filamentous high polymeric materials - Rheology 05 p0723 N67-14537
Rheology of polymer melts - Viscoelastic parameters and their influence on flow under static conditions 05 p0723 N67-14539
Measurement of second normal stress difference in polymer solutions based on flow in annulus 05 p0723 N67-14542
Rapid shearing characteristics of polymers dissolved in mineral oil - Rheology 05 p0723 N67-14543
Spatial distribution of stresses in shearing motion in polymer fluids 05 p0894 N67-14545
Test program to evaluate polymers for use in sterilized Voyager landing capsule 05 p0725 N67-14784
Fluid concentrated dispersion of water-soluble polymer capable of reducing friction of water under turbulent conditions [AD-639985] 05 p0896 N67-15040
Aging of carboxyl-terminated prepolymers after reacting with polyepoxides and polyaziridines 06 p0818 N67-15734
Polymer sterilization research 06 p0800 N67-15735
Ionic forces in polymers - properties of polyphosphates in glass transition region [TR-13] 06 p0831 N67-15849
Environmental testing of polymeric materials for spacecraft hardware [NASA-CR-81377] 06 p0888 N67-16895
Polymers for spacecraft hardware screened with apparatus determining volatile condensable material [NASA-CR-81381] 06 p0863 N67-16896
Synthesis and characterization of polymeric systems for space vehicle protective coatings 07 p1024 N67-16857
Design concept of variable viscosity, variable stiffness dampers, using polymeric materials at temperatures in region of glass transition point 07 p1190 N67-16923
Polymer coiling effect on turbulent drag reduction [DTMB-2] 07 p1067 N67-17759
Turbulence measurements in pipe flow of drag reducing nonnewtonian fluid [REPT.-0-71000/8R-22] 07 p1068 N67-17857
Polymer separator materials for heat sterilizable battery [NASA-CR-81610] 07 p1107 N67-17975
Synthesis of fluoropolymers for elastomeric bladders for containment of nitrogen tetroxide and hydrazine fuels [NASA-CR-81645] 07 p1107 N67-18000
Thermal conductivity studies of high polymers [NASA-CR-81782] 07 p1106 N67-18125
Decomposition characteristics of char-forming phenol formaldehyde polymer used for ablative composites [NASA-TN-D-3810] 07 p1106 N67-18143
Nuclear magnetic resonance study for determining structure of nitroso rubber 08 p1234 N67-18229
Polymer injection into turbulent flow around circular cylinder and resulting drag reduction 08 p1264 N67-18554
Synthesis and evaluation of aromatic polyheterocyclics for use in rocket and missile components [AD-643043] 09 p1465 N67-19619
Polymers prepared for structural adhesive systems used in contact with liquid oxygen [NASA-CR-82923] 09 p1465 N67-19996
Range and energy loss for ions tabulated from charged particle tracks in polymers [NASA-CR-83033] 09 p1490 N67-20193
Glass temperatures of polymers having alkyl side chains [RAE-TR-66293] 09 p1412 N67-20327
Synthetic polymers, silicate materials, metallic powders and cermets, alloys, and semiconductors for engineering applications [FTD-HT-66-289] 10 p1660 N67-20641
Longitudinal one-dimensional turbulence spectra behind towed grid in aqueous high polymer solutions [NOTS-TP-4225] 10 p1607 N67-20687
Temperature distribution and limitations of polymeric materials and fibers [RAE-TN-CPM-58] 10 p1661 N67-21188
Polybutene-1 spherulite deformation, and changes in local strain, thickness, and birefringence [ONR-TR-87] 10 p1661 N67-21342
Small angle X-ray scattering patterns of polyoxymethylene fibers 11 p1902 N67-22226
Radiation effects on tensile strength and elongation of polyoxymethylene fibers 11 p1902 N67-22228
Thermal and mechanical properties of cellular plastic materials [RAE-TN-CPM-54] 11 p1903 N67-22701
Thermal properties of structural reinforced plastics [RAE-TN-CPM-48] 11 p1903 N67-22702
Thermostability and high temperature mechanical properties of polymer materials [RAE-TN-CPM-34] 11 p1904 N67-22716
Thermal properties of polymers used as protective films and paints [RAE-TN-CPM-51] 11 p1904 N67-22717
Temperature limitations of transparent polymeric materials used in aircraft canopies, windows, and windshields [RAE-TN-CPM-53] 11 p1904 N67-22782
Thermogravimetric analysis of ablating polymers to determine kinetic parameters describing mass loss due to thermal degradation [NASA-TN-D-3919] 11 p2001 N67-22296
Masers, radiation detectors, ferroelectric and antiferroelectric compounds, polymers, space biology and medicine, radiobiology and oceanography 11 p1894 N67-23449
High temperature polyimide film and adhesive materials for spacecraft electrical equipment [NASA-TM-X-53523] 12 p2125 N67-24630
Combustion behavior of thermoplastic polymer spheres burning in quiescent air atmospheres [PB66-1/U/] 12 p2237 N67-24709
Mechanism of interaction of ethylene oxide and polymeric and inorganic compounds [NASA-CR-83816] 12 p2269 N67-25674
Optical method to determine nature and distribution of stresses in glass and polymer film near polymer-glass interface 13 p2344 N67-26392
Thermal life ratings of polymers used in electric cable and wire insulation [AD-646543] 14 p2560 N67-26804
Synthesis of linear double chain ladder polymers from substituted tetraphosphonitriles [NASA-CR-84471] 14 p2483 N67-27505
Multiple transitions in polymer and copolymer systems [NASA-CR-84427] 14 p2561 N67-27706
Noise measurements of water flow, with and without polymer additives, in two-dimensional variable angle diffuser, for flow noise reduction [AD-648068] 15 p2690 N67-28089
Compatibility of polymeric films with liquid oxygen [NASA-CR-72134] 15 p2732 N67-28735
Physical behavior, reaction mechanisms, and reaction rates involved in pyrolysis of charring ablation-type polymers under radiation only, one-dimensional heating [NASA-CR-84866] 15 p2732 N67-28777
Abstracts on window and heat shield materials, intermetallic compounds, electrochemical power supply systems, low density polymers, and polymers containing atomically dispersed metals [ATD-66-113] 16 p2852 N67-29847
Relationship between chemical structure of high polymers and glass transition temperature [RAE-LIB-TRANS-1206] 17 p3085 N67-30523
Pulse excitation method using arc lamp for determining nanosecond fluorescent lifetimes of rubrene and perylene [GE/EE/67A-8] 17 p3037 N67-30671
Compression loading of bonded polymer fillers 17 p3085 N67-30686
Thermophysical properties and synthesis of aromatic polymers from boron fluoride bis-diazonium diphenyl 18 p3123 N67-31018
Test program for polymeric products with spacecraft applications [NASA-CR-85414] 18 p3183 N67-32396
Polymers and glass transition temperatures [AFML-TR-65-231, PT. 3] 18 p3227 N67-32657
Drag reduction by dilute polymer solutions in turbulent flow [NRL-6542] 19 p3432 N67-33299
Crystal growth, anisotropy, and nuclear magnetic resonance of high molecular polymers [FTD-MT-65-537] 19 p3477 N67-33481
Electron microscopy and X-ray analysis indicating that initial molecular structure of crystalline polyacrylonitrile does not change with thermal treatment 19 p3477 N67-33482
Anisotropy of nuclear magnetic resonance spectra of oriented polymers 19 p3477 N67-33484
Synthesis of high molecular weight thermostable polymers 19 p3896 N67-33485
Sterilizable polymer compounds for embedment or conformal coating [NASA-TM-X-55710] 19 p3477 N67-33869
Stress-strain distribution in elastomers, and chemical and physical properties of prepolymers, rigid urethane foam, and thermoplastic rubbers for composite solid propellant binders 20 p3065 N67-34789
Numerical analysis procedure for screw extrusion of polymer melt [SP/TN/8] 20 p3867 N67-35308
Potential reinforcing capabilities of colloidal asbestos fibrils in polymeric structures [NASA-CR-893] 21 p3875 N67-36014
Experimental and theoretical methods of studying macromolecule elasticity in polymer chains [JPRS-42380] 21 p3784 N67-36157
Fracture characteristics of transparent polymers by effect of powerful light pulses at different temperatures 21 p3876 N67-36438
Electron spectra of azo-aromatics in polymer matrices [TR-4] 22 p3981 N67-36689
Energetics of ion transport in presence of polymeric compounds altering rheological properties of water [TR-30] 22 p3985 N67-37032
Tunneling between metal and silicon separated by thin polymer film insulator [NASA-CR-88716] 22 p4127 N67-37239
Pyrolysis of high polymers subjected to rapid heating - mass loss, differential thermal analysis, and material gas flow [NASA-TT-F-11238] 22 p4079 N67-37731
Fractographic analysis of fatigue striations on surface of linear polymer [TR-47] 22 p4349 N67-38409
Electron donor acceptor complexes - haloquinone complex absorption in polymer matrices [TR-5] 23 p4203 N67-38538
Track registration technique in polymer charged particle detectors based on restricted energy loss rate concept [USNRDL-TR-67-89] 24 p4499 N67-39451
Shear stability of polymer-thickened hydraulic fluids under several gas atmospheres and at pressures greater than atmospheric [RIA-67-1954] 24 p4471 N67-39497
Glass transition temperature measurement - telomer preparation and reactions [NASA-CR-89836] 24 p4521 N67-40145
Vibration loading on polymer materials [FTD-HT-67-197] 24 p4547 N67-40471

POLYMER CHEMISTRY

Synthesis of heat resistant azine polymers [NASA-CR-79593] 01 p0022 N67-10701
Synthesis and thermogravimetric analysis of heat resistant polymers [NASA-CR-79592] 01 p0022 N67-10702
Stabilization of polytrifluorochloroethylene during processing [FTD-TT-65-1821] 01 p0091 N67-11082
Synthesis of conjugated double bond polymer containing pyridine rings 02 p0234 N67-11274
Synthesis of linear, double-chain, ladder polymers from substituted tetraphosphonitriles [NASA-CR-79290] 02 p0230 N67-12222
Synthesis of ferrocene-nitrogen-containing polymers with conjugated bonds [NASA-TM-X-59134] 02 p0230 N67-12389
Synthesis of linear, double chain ladder polymers from substituted tetraphosphonitriles [NASA-CR-80722] 04 p0501 N67-13670
Saturated hydrocarbon polymeric binder materials prepared for advanced solid propellant and hybrid solid grain [NASA-CR-89718] 04 p0602 N67-13674
Rheology studies on polymer chemistry, plastic deformation, stress relaxation, and similar topics [NASA-CR-80685] 05 p0777 N67-14482
Synthesis of linear, double chain, ladder polymers from substituted tetraphosphonitriles [NASA-CR-81137] 05 p0648 N67-15859
Molecular structure effect on thermal stability and other physical characteristics of polyaryloxysilanes and related monomeric

compounds
[NASA-TM-X-53536] 06 p0819 N67-18049
Effect of epoxy resin and curing agent structure on ablative properties
[NOLTR-66-124] 06 p0899 N67-16156
Radiation-induced cationic polymerization studied emphasizing kinetic aspects
[ORO-2966-21] 07 p1036 N67-17428
Reactions of N-vinylcarbazole with anionic initiator 06 p1234 N67-18330
Sterilizable potting compounds and conformal coatings for space applications
[NASA-CR-82464] 08 p1340 N67-19158
Thermal stability of oxadiazoles
[RAE-TR-66331] 09 p1413 N67-20354
Polarizability, polymer chemistry, and relation to perturbation theory
[REPT.-3739] 10 p1563 N67-21758
Color and structure changes investigated during mixing of aqueous polyvinylmethylether solutions with mineral acids
[REPT.-3793] 10 p1581 N67-21778
Anionic unipolymerization of cyclohexadiene with alkali metal aromatic complexes
[REPT.-3742] 11 p1803 N67-23099
Chemical properties of sulfocationites with equal ion exchange capacities compared in experiments on different polymer bases 11 p1802 N67-22156
Network density of filled composites, nitroso compound reactions with hydrocarbons, cryogenic bladder bag materials, thermoplastic rubbers as binders, and other polymer research studies 12 p2123 N67-23654
Experimental study of grid turbulence in dilute high polymer solutions
[AD-640148] 12 p2060 N67-23867
Thermal diffusivity and conductivity of polymers and variation in temperature and structure
[NT-154] 13 p2344 N67-26205
Air Force sponsored research in polymer chemistry 14 p2479 N67-27168
Synthesis and properties of polybenzimidazopyrrolone
[NASA-TT-F-10985] 14 p2483 N67-27526
Products and methods of polymer syntheses
[NASA-TT-F-10962] 14 p2484 N67-27689
Literature survey of carborane-containing polymers with bibliography
[SCL-DR-67-11] 15 p2731 N67-28479
Mechanism and cause of nitrogen tetroxide attack on polymeric elastomer materials
[NASA-CR-84844] 15 p2863 N67-28628
Polymer chemistry research for applications in propulsion systems 16 p2914 N67-29152
Constitutive equations from molecular network theories for polymer solutions
[MRC-TSR-700] 17 p3064 N67-30361
Characterization of defects, polycrystals, and polymer materials on basis of structure and composition
[MAB-229-M] 17 p3064 N67-30363
Characterization of polymer materials 17 p3064 N67-30369
Nitrogen-phosphorus polymer chemistry
[AFML-TR-64-417, PT. II] 17 p3015 N67-30661
Development and testing of vinyl polymer separator materials for sterilized silver-zinc secondary battery
[NASA-CR-84863] 17 p2906 N67-30918
Preparation of cross-linkable linear high molecular weight polyaryloxysilanes
[NASA-CR-85830] 17 p3030 N67-31379
Electron spin resonance methods used to study radiation effects and basic processes in plastic materials and polymers
[JPRS-41116] 18 p3220 N67-31508
Stability of polybenzimidazoles, polyoxadiazoles, polypyromellitimide, polyamides, and polyethers and attempted stabilization by additives or incorporation of heteroatoms into backbone 18 p3262 N67-31676
Preparation of biocides, physiologically active materials, and polymers as alloimplant or radiation-protective materials, and correlation of chemical structure with biological activity 18 p3221 N67-31677
Synthesis of phosphorus containing polyesters and polyamides of aliphatic series and aromatic polymers from boron fluoride bis-diazonium diphenyl
[FTD-HT-66-116] 18 p3222 N67-31816
Synthetic heterochain polymers containing heteroatoms as oxygen, nitrogen, and sulfur
[JPRS-41632] 18 p3283 N67-32470
Gel permeation chromatography studies of molecular weights and molecular weight distribution of poly/isobutyl methacrylate/
[PA-TR-3511] 19 p3287 N67-32859
Synthesis of polymers containing ferrocene nitrogen with system of conjugated bonds
[FTD-HT-66-416] 19 p3296 N67-32690
Thermal degradation of polymers with aryl rings in chain studied in oxygen by weight loss method
[RAE-TR-66359] 20 p3664 N67-34414
Annotated bibliography on radiation graft copolymerization
[PA-TR-3567] 21 p3774 N67-35377
Survey on applications of shock waves including use in polymer chemistry 21 p3775 N67-35426
Saturated hydrocarbon polymeric binder for solid propellants - ethylene-neohexene copolymer chain functional groups
[NASA-CR-86918] 21 p3925 N67-35842
Synthesis, characterization, and evaluation of organic and semiorganic heat resistant polymer coatings
[NASA-CR-86757] 22 p4077 N67-37306
Dichroism and birefringence of polymers containing polyene segments
[ONR-TR-91] 23 p4369 N67-38113
Chemical kinetics of papain and chymotypsin derivatives with respect to pH activity profiles and local gradient effects of enzyme and substrate
[AFOSR-67-2025] 24 p4381 N67-39484
Surface effects in polymer film photodegradation
[NRL-6563] 24 p4394 N67-39565
Rhodium-containing catalysts used in polymerization studies for high strength chemical-resistant elastomers for temperature extremes
[REPT.-68-12-CM] 24 p4395 N67-39639
Amorphous propylene polymerized with titanium tetrachloride and aluminum triethyl to determine association
[DISS-3892] 24 p4396 N67-39692
Selection and testing of polymeric products for spacecraft applications
[NASA-CR-86557] 24 p4474 N67-40270

POLYMER PHYSICS

Polymers studied for relationship between cohesive forces, refractive indices, and glass transition temperature data
[RAE-TR-66185] 04 p0567 N67-14117
Continuum mechanics, stress-strain distributions, and polymer physics - rheology conference
[NASA-CR-80686] 05 p0778 N67-14482
Transition from laminar to turbulent flow as function of concentration for aqueous solutions of polyacrylic acid 05 p0693 N67-14513
Multiple glass transitions, heat capacities, and equation of state properties of polymer systems
[NASA-CR-81240] 06 p0898 N67-15681
Crystalline structure of spherulites examined for calculation of mechanical properties of polymer
[ONR-TR-88] 10 p1662 N67-21439
Microstructure of drawn polymer single crystals studied by electron microscopy
[AFML-TR-67-6] 12 p2126 N67-24859
Nuclear magnetic resonance applied to polymer crystallinity measurements
[INP-551/PL] 24 p4516 N67-39912

POLYMERIZATION

High molecular compounds - double bond polymers containing pyridine rings, polymer film electric conductivity, and polymerization of quinoline, 4-chloropyridine, and aromatic compounds
[FTD-TT-65-757] 02 p0234 N67-11273
Polymerization of quinoline complexed with zinc chloride 02 p0234 N67-11276
Inhibiting and inductive substances in polymerization kinetics of 4-chloropyridine 02 p0234 N67-11277
Kinetic scheme for autocatalytic polymerization using reversibility of chain growth reaction 02 p0234 N67-11278
Reactions of carboxyl and amino terminated prepolymers with polyepoxides, and thermal sterilization of prepolymers 02 p0239 N67-12134
Polymerization and polymer properties as related to wood-plastic combinations and advantages of radiation processing 04 p0564 N67-12364
Retardation effect of water on gelation and polymerization of unsaturated polyester resin
[RAE-TR-66191] 04 p0567 N67-14286
Radiochemical technique using 14-C labelled diethyl ether to study solvent chain transfer reaction during tetrahydrofuran polymerization by phosphorus pentafluoride
[ERDE-4/M/66] 06 p0830 N67-16076
Models for asymmetric induction in synthetic and natural polymers
[AFOSR-66-2571] 06 p0828 N67-16255
Synthesis and characterization of organic spiro polymers obtained by acid-catalyzed condensation of pentaerythritol with diketone
[NOLTR-66-120] 06 p0829 N67-16491
Polymerization of acid chlorides with epoxides 06 p1233 N67-18325
Radiation polymerization of monomeric systems into strong plastics
[Y-1562] 06 p1296 N67-18976
Ethylene polymerization flow experiment
[BNL-10730] 10 p1572 N67-20798
Binding energies of polyester resins used in pyrotechnic formulations as function of polymerization time before and after pressing
[RDTR-51] 10 p1662 N67-21336
Dose measurements of beta beams, radiation effects on electric conductivity, radiation induced polymerizations, and other aspects of radiation research on polymers
[AEC-TR-6806] 11 p1804 N67-22223
Small angle X-ray scattering of polyoxymethylene obtained by radiation-induced polymerization of trioxane and formaldehyde 11 p1902 N67-22227
Catalytic graft copolymerizations of vinyl monomers on polyvinyl chloride 11 p1902 N67-22230
Oxygen effect on radiation-induced graft copolymerization of styrene on cotton 11 p1903 N67-22231
Radiation-induced ionic polymerization of styrene in solution at low temperature 11 p1804 N67-22232
Polymerization of isobutene and copolymerization of isobutene with styrene at low temperature 11 p1904 N67-22233
Radiation-induced polymerization of styrene in extremely dry system at room temperature 11 p1905 N67-22234
Radiation-induced polymerization of styrene in extremely dry system in methylene chloride and toluene solutions at room temperature 11 p1905 N67-22235
Radiation-induced solid state polymerization of 3,3-bis/chloromethyl/oxetane 11 p1905 N67-22237
Electron spin resonance study of radiation-induced 3,3-bis/chloromethyl/oxetane polymerization 11 p1905 N67-22238
Electron spin resonance investigation of solid phase polymerization of N-vinyl carbazole initiated by electron acceptors 11 p1906 N67-22241
Polymerization of troxane, tetraoxane, and N-vinyl carbazole in chlorine and sulfur dioxide electron acceptors 11 p1906 N67-22242
Polymerization of cyclic ethers in presence of maleic anhydride by radiation and by benzoyl peroxide 11 p1906 N67-22243
Cationic polymerization of isobutyl vinyl ether and N-vinyl carbazole initiated by catalysts derived from ethereal maleic anhydride 11 p1906 N67-22244
Polymerization of N-vinyl carbazole by maleic anhydride as electron acceptor 11 p1907 N67-22245
Synthesis and polymerization of trioxane derivatives obtained by cotrimerization of formaldehyde and acetaldehyde 11 p1907 N67-22246
Solid state polymerization by ionizing radiation
[NYO-1715-16] 12 p2040 N67-23759
Plutonium behavior pertaining to assay in aqueous and organic solutions, third phase formation and plutonium recovery, polymerization and redox reactions, and ion exchange purification
[AEET-365] 15 p2857 N67-28239
Prestressing during resin polymerization for increased strength of one-dimensional laminate
[ONERA-TN-104/1967/] 16 p2916 N67-29941
Polymerization and copolymerization of tetracyanoethylene under effect of polymers with conjugated systems - organic semiconductors

[FTD-HT-66-739] 19 p3387 N67-33880
Radiation induced polymerization of vinyl monomers impregnated in wood
[ORO-2945-8] 20 p3666 N67-35038
Gamma radiation induced ionic polymerization of vinyl monomers
[BNL-11344] 21 p3782 N67-35843
Preparation of carboranes containing fluorovinyl side chains for temperature resistant elastomers
[RIA-67-1422] 22 p3901 N67-37852
Intermittent cobalt 60 gamma irradiation to find mean lifetime of growing chains for radiation induced emulsion polymerization
[BMWF-FBK-67-21] 22 p3992 N67-37933
Radio induced polymerization of absorbed molecular layer on solid surface
[COO-1506-1] 22 p3993 N67-37942
Graft polymerization of comonomers
[TID-23839] 22 p3993 N67-37995
Preparation and polymerization of alkenyl substituted imides and epoxy derivatives in structure-property study of thermosetting resin systems
[SC-RR-67-316] 23 p4204 N67-38940
High temperature stable carborane adhesives
[NASA-CR-65734] 24 p4479 N67-39393
Equilibrium polymerization of cyclic acetals derived from formaldehyde and alcohol
[RAE-LIB-TRANS-1241] 24 p4398 N67-40118
POLYMETHYL METHACRYLATE
Selection and evaluation of satellite thermal control surfaces - electrolytically deposited matt gold surface and black and white polymethyl methacrylate paints
[RAE-TR-66121] 09 p0468 N67-12340
Stress craze development into cracks and fractures of polymethyl methacrylate bars
05 p0770 N67-14506
Viscosity measurements of photodegradation of polymethyl methacrylate in solution under irradiation
[NRL-6423] 05 p0736 N67-15096
Polymethyl methacrylate elongation effects on second moments of nuclear magnetic resonance spectrum
[FTD-TT-65-2007] 09 p1410 N67-19847
Photodegradation of high polymers in solution - additives effect on photolysis of polymethyl methacrylate
[NRL-6514] 16 p2848 N67-29598
Preparation of platinum free silver halide electrodes with nonmetallic polymethyl methacrylate body
[NASA-TT-F-11065] 17 p3037 N67-30863
Structure analysis on stereo-regular isomers of polymethyl methacrylate in solution to determine molecular shape and conformation
18 p3221 N67-31659
POLYMORPHISM
Pleiotropy and stabilizing selection in genetic polymorphism 06 p0603 N67-15955
Shear strength, polymorphism, and mechanical behavior of olivine, enstatite, diopside, labradorite, and pyrope garnet
[AFCRL-66-543] 10 p1616 N67-20460
Computer simulation in population genetics, and polymorphism theory 14 p2458 N67-28775
Thermodynamic properties of forsterite and serpentine
[BM-RI-6962] 18 p3279 N67-31801
POLYNOMIAL
SA HERMITIAN POLYNOMIAL
SA JACOBI POLYNOMIAL
SA LEGENDRE POLYNOMIAL
Role of spline functions in numerical analysis and variation diminishing approximation methods
[MRC-TSR-633] 01 p0094 N67-10409
Sums and differences of Butterworth polynomials for approximating transfer functions of electrical networks
[AFCRL-66-234] 02 p0200 N67-11300
Root locus asymptotes for sum of two polynomials of same degree
[NASA-CR-79764] 02 p0281 N67-12076
Least squares method used in linearizing roots of polynomial and to derive approximations 05 p0738 N67-14637
Determination of artificial earth satellite orbit from measured data taken over long time interval 05 p0762 N67-14863
Third order iterative factorization technique for polynomials
[NASA-CR-81148] 06 p0731 N67-15396
Primitive polynomials of high degree - combinatorial communications 06 p0634 N67-15755
Polynomial codes for polyphase signals
[REPT.-1-65] 07 p1039 N67-17007
Numerical analyses for series of polynomials in three-body problems
[NASA-CR-81795] 08 p1259 N67-18201
Routine for fitting smooth curve to ordered set of points using normalized cubic polynomials for numerically controlled machine tools
[Y-1400, REV. 1] 08 p1298 N67-18277
Computer methods for finding resultant system of polynomials over finite field
[ORNL-4008] 08 p1300 N67-18777
Theoretical analysis of first order polynomial predictor for data compression
[NASA-TN-D-3866] 08 p1348 N67-18950
Theorems concerning clusters of roots of polynomial and its derivative
[MRC-639] 09 p1470 N67-19633
IBM 704 Fortran computer program for analyzing RLC circuits and solving of polynomials and linear equations
[USL-751] 10 p1807 N67-20607
Computer methods and programming, and polynomial root-finding 11 p1829 N67-22008
Method for calculating polynomials of best approximation
[SEG-TR-66-32] 12 p2130 N67-24013
Generalization of orthogonal polynomial concept to obtain refined Szego theorem and analogs 12 p2131 N67-24134
Biorthogonal angular polynomial expansions of directional flux in linear Boltzmann transport equation
[LA-3617] 12 p2169 N67-24549
Minimum length algorithm for computation of polynomial values 13 p2348 N67-25728
Computer method to determine simultaneously complex roots of polynomials 14 p2563 N67-26665
Least squares method of determining polynomial for deriving relation between probability characteristics of prediction error and measurement error 15 p2733 N67-28130
Approximation by polynomials of analytic functions on domains with smooth boundaries
[MRC-TSR-712] 15 p2734 N67-28274
Contour, grid, polynomial, statistical, and analog representations of multivariate functions, and applications to topographic modeling
[RM-4636-PR] 15 p2738 N67-28896
Traub construction of globally convergent iteration functions for solving polynomial equations by approximation method
[TTR-11] 17 p3088 N67-30192
Differential equation method used to derive results for interpolation at extremal points for polynomials, linear combinations of Chebyshev system, splines, and monosplines
[MRC-TSR-731] 17 p3089 N67-30215
Algebraic rational and context-free power series in noncommuting variables as solutions of certain polynomials systems
[TR-25] 19 p3479 N67-32923
Steepest descent method examined and tested using example of zero positions of complex polynomials
[JUL-445-MA] 20 p3606 N67-34163
Refined finite element analysis of linear and nonlinear two-dimensional structures using polynomial expansion
[SESM-66-22] 20 p3737 N67-34268
Mathematical concept of cyclic codes for correcting uniform error packets 20 p3602 N67-34539
Polynomial representations in class of three-valued logics 20 p3617 N67-35295
Polynomial representation of Boolean functions and their minimization 21 p3822 N67-35822
Algorithm for solution of polynomials with real or complex coefficients
[CS-71] 22 p4061 N67-36829
Classification of map surfaces based on structure of polynomial and Fourier coefficient matrices
[AD-655445] 22 p4064 N67-36931
Estimation of absolute values of Horner sum, using Chebyshev polynomials as maximizing polynomials
[NASA-CR-80701] 22 p4063 N67-37388
Data enhancement by data compression using polynomial fitting
[NASA-CR-80703] 22 p4063 N67-37399
Nonlinear solution of Vlasov equation by velocity space polynomial expansion for plasma instability study 22 p4119 N67-37746
Polynomial curve fit by least squares method
[RFP-968] 23 p4273 N67-38794
Equation for vanishing coefficient in differential problem as Hamiltonian system 23 p4323 N67-38782
Complimentary polynomials in lossless ladder network
[AFCRL-67-0376] 23 p4230 N67-38867
Measured virtual heights of reflection at series of frequencies used to calculate real heights at those frequencies by overlapping polynomial analysis of ionograms 24 p4441 N67-39949
Theorem application to companion matrix of polynomial
[NASA-CR-85879] 24 p4483 N67-40494
POLYPHENYL
Microdetermination of carbon and hydrogen in hydrogenated polyphenyls and terphenyl isomers
[AECL-2234] 04 p0506 N67-14856
Synthesis of ring polyphenyls, and Grignard reagent preparation from substance containing two or three bromine atoms
[ARL-66-0144] 06 p0621 N67-16319
Forced convective nonboiling, subcooled boiling, and subcooled burnout heat transfer and pressure drop of polyphenyl reactor coolants
[EUR-3129.E] 07 p1128 N67-17533
Thermal decomposition of high boiling residue from in-pile radiopyrolysis of OM-2 compared with that of pure m-terphenyl
[EUR-3158.E] 08 p1240 N67-19184
Hydrogenated biphenyls synthesized for use as reference compounds in identification of radiolysis products obtained from benzene and diphenyl - phenylcyclohexenes
[EUR-3160.F] 08 p1241 N67-19192
Kinetics of thermal decomposition of ortho, meta and para terphenyl in presence of Attapulgus clay
[EUR-3281.E] 14 p2489 N67-27259
Kinetics of postpyrolysis of preirradiated terphenyls
[EUR-3287.E] 14 p2489 N67-27259
Analytical processes for determining polyphenyls and some of their organic or inorganic impurities
[EUR-3466.D] 20 p3590 N67-34269
Thermal degradation of polyphenylene and perfluoropolyphenylene sulphides
[RAE-TR-66060] 20 p3594 N67-34466
POLYPHENYL ETHER
Biphenyl and biphenyl ether working fluids to be used in organic Rankine cycle power conversion system for space operation
[SAN-651-1] 07 p0990 N67-17456
Lubricant leakage rate through noncontact slinger pump and screw seal assembly to simulated space vacuum environment
[NASA-TN-D-3843] 07 p1002 N67-17806
Thermostability of high temperature fluids and fluid intermixtures at 750 deg F - polyphenyl ether and phenyl methyl polysiloxane
[RIA-TR-67-1165] 21 p3945 N67-35594
Temperature limitations of polyphenyl ethers, esters, and hydrocarbon base lubricants in small bore ball bearings
[NASA-TN-D-4146] 21 p3838 N67-35751
POLYPROPYLENE
Application and properties of dyeable polypropylene fiber
[AD-637675] 02 p0279 N67-12262
Process of extracting polyacrylonitrile fibers and modification of polypropylene fibers, tissues, and textures by using acrylonitrile
[FID-TT-65-1897] 04 p0666 N67-12281
Modification of polypropylene fibers, tissues, and textures by using acrylonitrile 04 p0666 N67-12282
Thin polyethylene and polypropylene film extrusion
[NASA-CR-73061] 04 p0655 N67-12782
Radiation chemistry of polypropylene oxide and various high polymers
[COO-1063-27] 22 p3948 N67-37908
POLYSACCHARIDE
Fructose metabolism by Hydrogenomonas eutropha, auxotrophic mutants which produce polysaccharides, and large batch culture apparatus
[NASA-CR-79823] 01 p0019 N67-11189
Neutral and acidic polysaccharide effects on natural resistance of mice to bacteria
[NASA-CR-80277] 03 p0347 N67-13610

POLYSTATION DOPPLER /POLYDOP/ TRACKING SYSTEM
Numerical method for rocket trajectory determination from multistation Doppler tracking data
[REPT.-67-K3] 20 p3690 N67-34215

POLYSTYRENE
Ignition of polyisobutene, polyurethane, polystyrene, and polymethyl methacrylate by oxygen gas and perchloric acid vapor
[RPE-TR-66/8] 04 p0602 N67-14265
Flow birefringence measurements on polystyrenes in viscous solvent with varied concentrations and shear rates 05 p0720 N67-14502
Diffusion broadening in inelastic scattering of monochromatic light off cyclohexane polystyrene, near critical point for mixing 06 p0917 N67-16018
Electron energy dissipation in polystyrene and carbon for well-collimated electron beams generated from Van de Graaff accelerator 11 p1901 N67-32234
Creep behavior of polystyrene bead foam under axial compression
[UCRL-50125] 11 p1903 N67-32234
Radiation effects on mica, Mylar, and polystyrene dielectrics
[REPT.-7] 11 p1841 N67-32360
Specific impact and compression strength data on compositions of polystyrene foam for use as substrate for solar energy collector mirror surface 15 p2644 N67-38165
Lightweight portable polystyrene foamcore shelter design and cold weather testing for adequacy and potential use in arctic environment
[AAL-TR-66-14] 19 p3429 N67-33915
Configurational enthalpy of polystyrene calculated from heat of combustion measurements of atactic and isotactic polystyrene
[REPT.-66-C-391] 20 p3744 N67-34297
Radiation effects on mica and polystyrene capacitor conductivity
[REPT.-9] 20 p3611 N67-34305
Determining activation energies of microcreep in polymeric filaments from force-elongation data
[AFML-TR-67-66] 21 p3858 N67-35734

POLYTETRAFLUOROETHYLENE
SA TEFLON
Relative wear of low and high temperature self lubricating polytetrafluoroethylene cage materials tested in ball bearings operating at high speeds at various temperatures
[NASA-TM-X-52252] 06 p0696 N67-16042
Preparation of thin foils for electron microscopy by rotating polytetrafluoroethylene holder
[MEL-34/67] 12 p2111 N67-24907

POLYURETHANE
SA SYNTHETIC RESIN
Polyurethane laminate systems
[NAEC-AML-2492] 02 p0278 N67-11235
Qualification testing of polyurethane elastomeric material for Saturn IB and Saturn V launch vehicles
[NASA-TM-X-57908] 02 p0279 N67-12229
Qualification tests on polyurethane elastomeric compound for electric equipment component
[NASA-TM-X-59137] 02 p0279 N67-12265
Performance evaluation tests on encapsulating polyurethane elastomeric compound, type III
[NASA-TM-X-59136] 02 p0279 N67-12266
Performance evaluation tests on encapsulating polyurethane elastometric compound, type III
[NASA-TM-X-59135] 02 p0279 N67-12267
Castable polyurethane and thin film forming conformal coating materials compared and evaluated for use as environmental protective coating
[NASA-TM-X-59160] 03 p0415 N67-13110
Ignition of polyisobutene, polyurethane, polystyrene, and polymethyl methacrylate by oxygen gas and perchloric acid vapor
[RPE-TR-66/8] 04 p0602 N67-14265
Effect of size and amount of NaCl filler on mechanical properties of polyurethane rubber 05 p0722 N67-14535
Calorimetric and thermomechanical measurements for identification of temperature transition regions in various rubbery polyurethanes
[NASA-CR-81749] 07 p1108 N67-16093
Sorption and diffusion of water in rubbery polyurethane
[NASA-CR-81891] 07 p1108 N67-18188
Improved polyurethane and epoxy resins for use as adhesives at cryogenic temperatures
[NASA-CR-82862] 08 p1296 N67-19161
Volumetric determination of free isocyanate in urethane coating resins
[CCL-219] 11 p1815 N67-23361
Performance optimization of polyurethane adhesive
[NASA-CR-84518] 14 p2561 N67-27680
Polyurethane resins for structural laminate systems possessing simultaneous high thermal and mechanical properties
[NAEC-AML-2593] 15 p2656 N67-28334
Evaluation of fibrous materials in cryogenic structural polyurethane adhesive used for bonding Saturn S-IVB tank assembly attachments
[NASA-CR-85121] 16 p2915 N67-29886
Tensile and shear tests of lap shear specimen bonded with iridite adhesive
[NASA-CR-85233] 16 p2916 N67-30009
Structural adhesive systems for use with liquid oxygen - preparation of fluorinated polyurethanes
[NASA-CR-87156] 19 p3476 N67-33272
Influence of surface active materials on development of morphological structures of polyurethanes 19 p3477 N67-33482
Relaxation properties of polyester based polyurethane under small deformations superposed on large deformations
[PIBAL-937] 24 p4471 N67-39442

POLYURETHANE FOAM
High voltage strength of polyurethane plastic foams for encapsulant applications 06 p0897 N67-15722
Health and safety precautions, materials, procedures, and quality assurance controls to be used in encapsulating high voltage electrical assemblies in polyurethane foam
[NASA-CR-72696] 12 p2127 N67-25069
Design guide for use of polyurethane foam as encapsulant for high voltage devices in space environment
[NASA-CR-72999] 12 p2127 N67-25077
Polyurethane foam application to shock isolation of large silo based missiles 13 p2413 N67-25171
Stiffness, damping, and creep properties of polyurethane foam and effects of temperature and humidity
[ARC-CP-905] 13 p2344 N67-26153
Dielectric polyurethane foam materials tested for high voltage insulation in space environment
[NASA-CR-72100] 14 p2560 N67-27228
Stress-strain distribution in elastomers, and chemical and physical properties of prepolymers, rigid urethane foam, and thermoplastic rubbers for composite solid propellant binders 20 p3665 N67-34789
Tests on bird impact resistance of polyurethane foam used for aircraft structure protection
[CM4-S-17-2] 20 p3666 N67-34886
Dielectric strength of rigid urethane foam for electronic packaging in space application
[NASA-CR-87986] 21 p3873 N67-35367
Structural applications and physical properties of rigid urethane foam system
[BDX-613-95] 23 p4270 N67-38571
Preparation and physical properties of rigid ferrocene-urethane foam
[SC-DC-67-1831] 23 p4270 N67-38833

POLYVINYL ALCOHOL
Diminution in friction of turbulent flow of aqueous polyvinyl alcohol and glycerine solutions 08 p1269 N67-19168

POLYVINYL CHLORIDE
Shift of mechanical and dielectric relaxation maxima of polyvinyl chloride over wide range of frequency, temperature, and pressure, and extension of Eyring theory 05 p0723 N67-14541
Neoprene and PVC ship cable sleeve samples tested to determine physical and mechanical properties when exposed to diesel oil
[TDCK-46567] 07 p1107 N67-17945
Automatic control of powder flow rate studied using polyvinylchloride 10 p1648 N67-21779
Heat shrinkage of acrylonitrile grafted polyvinyl chloride fiber 11 p1902 N67-32229
Catalytic graft copolymerizations of vinyl monomers on polyvinyl chloride 11 p1902 N67-32230
Use of polyvinyl chloride film for electron beam dosimetry
[RISO-141] 15 p2721 N67-28441
Polyvinyl chloride replica technique for high burnup reactor fuels 17 p3104 N67-30179
Studies and tests to standardize light-duty PVC pressurized suits, blouses, air hoses, and connecting fittings
[AHSB/RP/-R-76] 22 p3976 N67-36780
Simultaneous extrusion of polyethylene and polyvinyl chloride coatings on electric conductors
[AD-656205] 22 p4075 N67-36681
Diffusion oven for accelerated aging of polyvinyl chloride compounds
[AD-656202] 22 p4019 N67-37003
Improvements in polyvinyl chloride polymers to decrease toxicity effects 23 p4191 N67-39015
Electric conductivity measurements and temperature frequency characteristics of dielectric losses and permeability in polyvinyl chloride plasticized resins 24 p4473 N67-40074

POLYVINYL PYRROLIDINE
Measurement of quantity of blood in lungs using iodine-125 polyvinyl pyrrolidine
[FPRC/1241] 12 p2026 N67-24589

PONTRYAGIN PRINCIPLE
SA REVERSE TIME
Determining optimum atmospheric reentry trajectories using Pontryagin maximum principle
[NASA-CR-80842] 04 p0613 N67-14201
Pontryagin maximum principle for deriving minimax conditions to solve information processing problem 05 p0670 N67-14357
Hamiltonian equations for describing variation in dynamic variables in place of Pontryagin equations - control and operations theory 12 p2069 N67-24262
Pontryagin maximum principle relationship to basic mathematical programming theorems - control of dynamic system 12 p2070 N67-24263
Determining fuel-optimum ascent trajectories in vacuum - classical calculus of variations, Pontryagin maximum principle, dynamic programming, and gradient method
[NASA-TT-F-10745] 14 p2611 N67-26827
Conference presentations on applied mathematics in optimum thrust programming, extremization problems, and orbital calculations
[DLR-MITT.-65-18] 17 p3157 N67-30381
Pontryagin maximum principle used to calculate optimum ascent trajectory and circular earth orbit for two-stage spacecraft in vacuum 17 p3158 N67-30382
Mathematical demonstration of optimal control and application to thrust programming using maximum principle 17 p3158 N67-30383
Preparation and solution of optimization problems using Pontryagin maximum principle by means of analog computer 17 p3000 N67-30385
Pontryagin maximum principle and optimal control
[MDC-TR-66-118] 17 p3040 N67-30483
Dynamic programming and Pontryagin maximum principle
[NASA-CR-838] 17 p3096 N67-31480
Free differentiable actions on homotopy seven spheres
[AROD-2056-18-M] 19 p3480 N67-33139
Deduction of Pontryagins principle
[ELDO-TM-103] 23 p4274 N67-39437
Extension of Pontryagin maximum principle and application of matrix minimum principle in solving simple optimal linear regulator problem
[NASA-CR-89428] 24 p4478 N67-39574
Control system optimization and extension of Pontryagin maximum principle
[REPT.-3] 24 p4424 N67-40189

POPULATION
Evolution processes, and genetic selection in and out of populations 07 p1004 N67-16713
Ranking and selection from k fixed populations - decision theory
[AD-639715] 07 p1114 N67-17986
Selection from multivariate normal populations
[NASA-CR-81722] 07 p1115 N67-18011
Sociological implications of human population explosion and technological and food production
[NASA-CR-82102] 08 p1388 N67-18621
Sociological implications of explosive increase in human population 08 p1383 N67-18622

Relationship of aerospace industry to city development and population growth 11 p2992 N67-23262
Sequential estimation method for change statistics of birth and death insurance volume
[DISS-3826] 17 p3092 N67-30756
Concepts and techniques of spatial data systems for urban and transportation planning
[NASA-CR-85616] 17 p3033 N67-31145
Central limit effect for samples from 24 populations and correlation with population moments
[AMRL-TR-66-242] 19 p3380 N67-32870
Selection procedures based on covariance matrices of multivariate normal populations 24 p4476 N67-39468
POPULATION INVERSION
Evaluation of characteristics of monopulse quantum generator connected to interferometer in relation to population inversion, pumping power, and mirror reflectivity
[FTD-TT-65-2001] 05 p0739 N67-15060
Population inversion by adiabatic expansion of molecular gaseous mixtures
[ATD-66-115] 06 p0869 N67-16467
Analysis of model of inverse population produced by inelastic collisions of thermal plasma with cold gas atoms
[JPRS-42891] 23 p4324 N67-39644
POROSITY
SA BOUNDARY LAYER CONTROL
SA FLUID INJECTION
SA GAS INJECTION
Sources and causes of porosity in titanium arc welds
[AMRA-TR-66-06] 01 p0078 N67-10418
Automatic welding of stainless steel with consumable electrode in vertical plane and influence of hydrogen, nitrogen, oxygen, and air on formation of pores in titanium alloy welds
[FTD-MT-65-151] 04 p0554 N67-13392
Influence of hydrogen, nitrogen, oxygen, and air on formation of pores in titanium alloy welds 04 p0554 N67-13394
Radiometric techniques for quantitative evaluation of rock porosities 10 p1623 N67-21292
Industrial method for determining porosity of carbonate deposits by neutron-gamma ray logging 10 p1624 N67-21293
Plate porosity, and high surface areas of batteries
[NRL-6448] 12 p3617 N67-25972
Water vapor adsorption effect on whetlerite protection against chemical warfare agents - effect of whetlerite hydrophilic sites and pore structure on water vapor adsorption
[REPT.-1966-23] 13 p3255 N67-25577
Feasibility study of using getters and hydrogen removers for hydrogen porosity reduction in arc welding aluminum alloy plates
[NASA-CR-84156] 14 p3541 N67-26508
Porosity control in manufacture of pressurized water reactor seed fuel wafers 17 p3104 N67-30179
Aerodynamic research program on space and launch vehicle development 17 p2991 N67-30579
POROUS MATERIAL
Permeability measurements of porous graphites measured from room temperature to 1000 deg F in gaseous nitrogen and helium
[NASA-CR-66212] 01 p0089 N67-10251
Pore size variation effect on rate of radiolytic corrosion of graphite by carbon dioxide
[TRG-1006/C/] 04 p0574 N67-13560
Horizontal infiltration of liquids into porous solids 04 p0541 N67-13745
Theoretical basis for using energy dissipation pattern to predict ground water potential distribution in heterogeneous porous media 04 p0542 N67-13748
Equations describing simultaneous flow of two immiscible fluid phases in heterogeneous porous media 04 p0530 N67-13749
Cellular metallic materials 05 p0718 N67-14811
Cesium ion and neutral emission from pure and alloyed porous metal ionizers measured as function of noncosine angular distribution
[NASA-CR-72248] 06 p0895 N67-16572
Biochemical stabilization of aqueous solutions of urine by unsaturated flow through columns of sand ripened with settled municipal sewage
[NASA-CR-81071] 07 p1017 N67-18131
Fuel cell using circulating liquid electrolyte and water removal by transpiration through porous electrodes
[NASA-CR-72178] 09 p1396 N67-19918
Infrared spectroscopy of ammonia sorption on highly dehydroxylated, deuterated, and fluoridated porous glass surfaces
[TR-4] 12 p3843 N67-24002
Basic equations developed for small motions superposed on large static deformations in porous media
[AM-66-18] 12 p3230 N67-24702
Dehydration of porous glass surfaces in vacuum at constant temperature
[TR-5] 12 p3128 N67-24923
Infrared spectroscopic observations on role of surface boron as adsorption center for sorption of water by porous glass
[TR-6] 14 p3477 N67-27076
Development of porous disk impeller for quiet centrifugal pump
[MEL-231/66] 15 p3716 N67-28200
Comparison of porous ionizer materials for cesium contact-ionization thrustors
[NASA-TN-D-3997] 15 p3725 N67-28298
Equation for describing heat conduction in moist porous media
[CRREL-RR-212] 19 p3549 N67-32788
Ultrasonic energy effects on fluid flow in porous media
[BM-RI-6978] 19 p3432 N67-32351
Behavior of cesium surface ionization on porous tungsten
[NASA-CR-72180] 19 p3434 N67-32701
Porous bodies of tantalum, niobium, and aluminum fabricated by plasma arc metal spraying in argon atmosphere for electrode applications
[REPT.-66-C-318] 20 p3649 N67-34678
Material evaluation and performance study for fabrication of porous air bearings
[ER-14386] 22 p4063 N67-36838
Combustion experiments of aluminum with oxygen in porous-plug configuration
[ME-RT-67007] 23 p4163 N67-37365
Capillary and bed of spheres model to calculate flow rate of gas through porous media
[CEA-BIB-91] 23 p4295 N67-38388
POROUS PLATE
Fabrication of porous plate filters 06 p0883 N67-15503
Diagram for temperature distribution on porous plate exposed to uniform blast of homogeneous gas
[NASA-TT-F-10069] 14 p3633 N67-27311
POROUS WALL
Velocity distribution of turbulent flow in vicinity of porous wall with homogeneous blowing and sucking
[AVA-FB-66-08] 08 p1369 N67-19163
Heat and mass transfer during water evaporation through porous wall
[FTD-HT-66-307] 10 p1708 N67-20457
Heat and mass transfer during water evaporation through porous wall 10 p1708 N67-20458
Critical assessment of published calculations for heat and mass transfer during water evaporation through porous wall 10 p1708 N67-20459
Heat transfer and temperature distribution of conical porous membrane used as decelerator during planetary entry
[NASA-TN-D-4019] 14 p3634 N67-27612
Laminar flow of fluid near harmonically oscillating porous infinite plane
[TN-1] 20 p3622 N67-34029
PORPHYRIN
SA CHLOROPHYLL
SA HEMOGLOBIN
Electronic absorption spectra and stability of uniform phthalocyanine and porophyrine complexes
[T-1365-66] 04 p0502 N67-13737
Geometry and electronic structure of biologically significant molecules as observed by natural and magnetic optical activity - protein conformation, chlorophyll, and porphyrins
[UCRL-17200] 19 p3273 N67-32065
Electromagnetic activity of porphyrin derivatives as possible model compounds for studying structure-property and structure-reactivity relationships
[AD-653842] 20 p3590 N67-34211
PORPOISE
S DOLPHIN
PORTABILITY
Design, fabrication, and field testing of basic electronic package for portable multipurpose radiation detector
[DP-969] 02 p0250 N67-11711
Reference piston barometer that is nonsealed and accurate, compact, and portable 11 p1877 N67-23081
Portable instrument design for measuring radioactive contamination in foodstuffs after nuclear accident
[EUR-3295.F] 20 p3638 N67-34690
POSITION
S SOLAR POSITION
POSITION ERROR
Geographic orientation in aircraft pilots - speed control inversion
[TR-751-7] 03 p0351 N67-12361
Error analysis for helicopter navigation in metropolitan area
[RD-66-46] 03 p0421 N67-12954
Effects of geodetic measurement errors on trajectory data
[RE-S-66-1] 06 p0843 N67-16410
Optimum distribution of trajectory correcting impulses in single parameter correction during spacecraft planetary approach 10 p1758 N67-20982
Geometrical error in beta-gamma coincidence measurements on decay rates of radioactive nuclides
[JUL-237-CA] 11 p1877 N67-22136
Errors in position determinations in navigating with high altitude satellites
[ESD-TR-67-80] 14 p3571 N67-26966
Least square fitting of position, velocity, and acceleration flight data by polynomial arc smoothing for trajectory accuracy
[AD-634638] 15 p3703 N67-27986
Tracking station location uncertainties studied for effect on root-mean-square errors in spacecraft position and velocity
[NASA-TM-X-53904] 15 p3679 N67-28747
Rigorous error bounds on position and velocity for satellite orbits with eccentricity of less than one 16 p3968 N67-29876
Maximum possible error in position in least squares elliptical orbit
[NASA-TM-X-53830] 16 p3972 N67-30145
Error analysis of hyperbolic navigation system using synchronous high altitude satellites
[TN-1967-18] 17 p3186 N67-30671
Position error analysis and precision restitution for clock trajectory
[TN-111/1967/] 23 p4140 N67-37397
ATS-1 VHF channels for aircraft position fixing, and digital computer model for position error analysis of satellite navigation systems
[NASA-CR-88871] 23 p4089 N67-38002
Satellite position and velocity perturbations due to errors at injection
[MDC-TR-67-78] 23 p4343 N67-38252
Error analysis in clock trajectography
[ONERA-TN-111/1967/] 23 p4194 N67-38452
POSITION INDICATOR
SA ALTIMETER
SA BEACON
SA SEXTANT
SA SPACECRAFT POSITION INDICATOR
Absolute position digital indicator developed for three-dimensional automatic neutron diffractometer for solid state studies 03 p0394 N67-12630
Flight test evaluations of vertical flight contact analog pictorial display system conducted in UH-1 helicopters
[D233-420-005] 06 p0780 N67-16461
Computer program for satellite position display - computer description, modes of display operation, and operator and nonoperated selected interrupts
[NRL-6446] 10 p1695 N67-21972
Fluidic digital displacement indicator 11 p1797 N67-22600
Source location problem and least squares solution for ray theoretical models
[TR66-63] 11 p1890 N67-23184
Mounting angle of VJ remote indicator effect on operator performance
[TR-166-1-41] 12 p3221 N67-23923
Double Purkinje two dimensional tracking of eye position for optometer design
[NASA-CR-73003] 14 p3530 N67-26588
Photogrammetric methods applied to calculation of target position and attitude relative to missile
[WRE-TN-TRD-23] 16 p3897 N67-29939

Probability of locating submarine within stated distance on basis of two-dimensional sensors
[SP-2757/000/00] 17 p3056 N67-32256
Performance test results on position indicator
[NASA-CR-85296] 17 p3073 N67-31066
Geosynchronous satellite transponder for providing two-way voice and data communication between aircraft and ground control facilities, and position location
[NASA-TM-X-55862] 19 p3403 N67-33190
Electroluminescent display used as position indicator and control system in submarine
[C7-2191/301] 24 p4418 N67-39784
POSITION SERVO
Hybrid servo-positioning system and experimental facility for computer controlled manipulator - digital-to-analog converter, RC active filter, and phase switching servoamplifier
[NASA-CR-80851] 04 p0524 N67-14256
Fluoric position servo for rocket engine pneumatic control drum actuator
[NASA-CR-73129] 05 p0637 N67-14925
Electromechanical remote position sensor for setting timer
[SC-TM-65-289] 10 p1630 N67-30904
POSITIONING
Visual satellite observations and tracking data - West Germany
[NASA-TT-F-9408] 01 p0151 N67-10194
Astronomical tables for use in aircraft navigation and positioning 01 p0103 N67-10478
Space vehicle position determination 05 p0763 N67-14879
Selective access laser display beam positioner
[RADC-TR-66-447] 05 p0716 N67-15227
Contrast formation mechanisms in high voltage electron microscopes, specimen positioning, and signal generation in thick specimen by electron beam 19 p3457 N67-33793
Geometric and dynamic methods to determine observation station positions 21 p3800 N67-35970
Precise positioning and in-flight deployment of instrumentation canisters along balloon-borne train 23 p4256 N67-39277
POSITIONING EQUIPMENT
Manual control of remote manipulators examined by analog simulation
[AMRL-TR-66-31] 01 p0022 N67-10404
Magnetic coils for continuous use and coil positioning and transporter dolly
[NASA-CR-82158] 06 p1327 N67-18788
Post processor that produces command tapes for numerically controlled positioning machines
[E-1675] 06 p1255 N67-19060
Selective access laser display beam positioner
[RADC-TR-66-617] 12 p2113 N67-24904
Celestial navigation methods using satellite range and location data for determining position of observer
[NRL-MR-1750] 14 p2571 N67-26614
Automatic electrode loader and positioner for emission spectrographs
[Y-1569] 14 p2540 N67-27586
Magnetic balance systems for optical model position sensors, automatic injection and retrieval system, and for roll torque system
[ARL-66-0200] 15 p2687 N67-28186
Design objectives, mechanical and electrical designs, and test results of gimbal position converter for ground support data processing
[NASA-CR-84830] 15 p2681 N67-28790
Dynamic wind tunnel tests of F-80 aircraft model
[AFFDL-TR-66-153, PT. I] 17 p3056 N67-30259
Electrical system design of positioning equipment used in fan-beam navigation satellite
[NASA-CR-85902] 17 p3102 N67-31456
In-pile irradiation capsule positioning mechanism for Plum Brook reactor 18 p3300 N67-32433
In-core vertical adjustable facility for capsule irradiations in Plum Brook reactor 18 p3300 N67-32434
Flux positioning capsule for vertical thimbles of CP-5 reactor 18 p3300 N67-32435
Solenoid stepper motor for positioning Surveyor antenna/solar cell panel 21 p3763 N67-36206
Control system for digital positioning mechanical shaft
[RISO-143] 23 p4259 N67-38918
Selective access laser display beam positioner with microsecond response and random deflection
[RADC-TR-67-361] 24 p4462 N67-39737
POSITIVE FEEDBACK
S REGENERATION
POSITRON
Focusing system for positron beams
[SAL-5] 10 p1604 N67-21604
International Symposium on Electron and Positron Storage Rings
[LNF-66/55] 11 p1856 N67-22898
Positron emitter spectra computation based on Fermi theory of beta decay
[USNRDL-TR-1101] 11 p1945 N67-23370
Polarization characteristics of cosmic positive mu-mesons at sea level, based on decay positrons 12 p2157 N67-23511
Positron acceleration in Frascati 450 MeV linear accelerator 12 p2080 N67-24126
Designs for high energy electron-positron storage rings
[SLAC-PUB-240] 12 p2171 N67-24680
Angular distribution and outflow of photons and positrons during foil bombardment by fast electrons
[NASA-TT-F-10933] 14 p2592 N67-27561
Monte Carlo study on limits of tests of quantum electrodynamics with electron-positron colliding beams 16 p2961 N67-30100
Photon, positron, and electron spectra in tagged proton beam
[CALT-68-128] 20 p3700 N67-34928
Electron radial wave function for positron beta decays
[KFK-559] 23 p4308 N67-38718
Energy dependence of form factor in positive kaon decay to positron, pion, and neutrino
[PPAD-621F] 23 p4313 N67-39153
POSITRON ANNIHILATION
Electron momentum distribution in silicon and germanium by positron annihilation
[COO-1297-7] 01 p0141 N67-10918
Modified adiabatic scattering function applied to positron annihilation in helium
[NASA-TM-X-55574] 02 p0239 N67-11356
Tabulated values of total cross sections for annihilation processes, and differential cross sections for bremsstrahlung processes for fixed photon scattering angle and positron energy
[SLAC-67] 06 p1343 N67-18894
Angular correlation curves of positron annihilation in rare earth single crystals
[IS-T-113] 12 p2193 N67-24662
International symposium on electron and positron storage rings - positron annihilation into bosons
[LNF-66/56] 18 p3309 N67-31961
Apparatus for obtaining positron electron annihilation in two bosons 18 p3309 N67-31962
Mass spectrometer for measuring single bosons produced in positron electron collisions 18 p3309 N67-31963
Angular distributions and cross sections of photon and pion products from positron annihilation reactions in electron positron storage ring 18 p3309 N67-31964
Angular correlation of positron annihilation radiation from cerium hydride measured as function hydrogen over cerium ratio
[SC-CR-67-2573] 20 p3693 N67-34425
Positron annihilation in rare earth single crystals 21 p3921 N67-36364
POSITRONIUM
Investigation of positronium and annihilation in particle physics and nuclear decay experiments
[AROD-3347-7] 02 p0291 N67-12200
Sixth order corrections to positronium ground state level disintegration
[JINR-P2-2949] 10 p1720 N67-21521
Brief surveys on problems of quantum chemistry, positronium and muonium properties, luminescence applications, and shock wave effects in detonation systems and other processes
[JPRS-41117] 21 p3775 N67-35421
Positronium and muonium formation and potential use in studying velocities of hydrogen reactions 21 p3775 N67-35423
POSTFLIGHT
Preflight and postflight clinical and physiological observations of Voskhod manned spacecraft crew members 10 p1559 N67-20397
Centaur AC-8 postflight guidance and control analysis
[NASA-CR-83536] 11 p1918 N67-22382
Postflight analysis of AC-8 Atlas Centaur vehicle with Surveyor payload model
[NASA-TM-X-1343] 12 p2218 N67-23845
POSTURE
SA ORTHOSTATIC TOLERANCE
Postural behavior in Rhesus monkey analyzed during electrically elicited movement
[TR-66-1] 11 p1791 N67-22535
Posture effect on distribution of ventilation and perfusion within lung measured with xenon 133
[FPRC/1238] 13 p2256 N67-25600
Effects of posture, breathing pressure, and immersion in water on lung volumes and intrapulmonary pressures
[AMRL-TR-66-201] 22 p3973 N67-37804
Water immersion and body position effect on perception of gravitational vertical
[NADC-MR-6709] 24 p4383 N67-39702
POTABLE WATER
Use of ionic silver to preserve taste and sanitary hygienic qualities of drinking water for space flights 02 p0195 N67-11547
Water recovery system for accumulation, storage, and release of potable water for consumption
[NASA-CR-83956] 15 p2643 N67-28605
Aromatic o-diamines used in chemical analyses to determine selenium in sources of potable water 20 p3595 N67-34748
POTASSIUM
SA LIQUID POTASSIUM
Expansion and flow characteristics of initially saturated sodium, potassium, and cesium vapors
[NASA-TN-D-3743] 02 p0249 N67-11229
Materials for potassium lubricated journal bearing and shaft applications in space system turbogenerators
[NASA-CR-72028] 02 p0263 N67-11349
Potassium corrosion test loop for refractory alloys evaluated after 5000-hour test operation
[NASA-CR-72042] 02 p0245 N67-12098
Lithium-boiling potassium Rankine cycle heat transfer data for application to spacecraft propulsion systems 02 p0326 N67-12117
Materials for potassium lubricated journal bearings
[NASA-CR-72041] 05 p0713 N67-15215
Potassium multiple-tube test condenser design study
[NASA-CR-72137] 06 p0723 N67-16055
Free convection of sodium-potassium eutectic in enclosed space between two vertical plates with uniform heat flux
[NAA-SR-12094] 06 p1382 N67-18838
Properties of simple atoms and ions - atomic helium, rubidium, lithium, barium, and potassium transitions
[NASA-CR-82462] 06 p1345 N67-19072
Diffusion perpendicular to magnetic field studied in potassium plasma of nonuniform density with universal instability 09 p1492 N67-19533
Solubility parameters for niobium and zirconium in lithium and potassium, and calcium solubility in eutectic sodium potassium alloy 09 p1406 N67-19696
Corrosion mechanisms in niobium oxygen potassium system 09 p1458 N67-19698
Potassium purification process for removing metallic contaminants 09 p1408 N67-19699
Corrosion resistance of Nb and Ta tubing alloys to boiling K 09 p1459 N67-19901
Molybdenum alloy /TZM/ capsule experiments with boiling-refluxing potassium to determine mass transfer parameters 09 p1459 N67-19902
Potassium corrosion studies - refluxing K tests of Nb-containing alloys, refluxing K stress corrosion tests with D-43 alloy, and K compatibility tests 09 p1459 N67-19903
Test program to determine behavior of advanced refractory metal alloys in boiling potassium 09 p1459 N67-19904
SNAP-10A FSM-4 performance analysis - sodium potassium loading and thermal reference test
[NAA-SR-MEMO-10446] 10 p1630 N67-20898
Eutectic sodium potassium and OS-124 considered as coolant fluids for SNAP-8 third loop - optimum loop operating parameters

[NASA-CR-72313] 11 p1922 N67-22845
Shielding material evaluation for resistance to sodium potassium fires in air and nitrogen
[NASA-TM-X-1365] 11 p1900 N67-22334
Current beam instability development in nonuniform highly ionized collisionless potassium plasma
[UCRL-TRANS-10667] 12 p2177 N67-23561
Determinations of potassium vapor condensate drop sizes for thermodynamic expansion processes
[TID-23287] 12 p2234 N67-23765
Forced circulation loops with boiling potassium and compatibility of six high temperature brazing alloys with boiling K in medium power reactor 13 p2355 N67-25570
Solubility limit of potassium and cesium in liquid lithium
[NASA-CR-53870] 13 p2270 N67-25622
Local heat transfer and static pressure data for mercury condensing single tube heat exchangers cooled by sodium potassium
[NASA-TN-D-3998] 14 p2515 N67-26552
Effects of magnetic shear on oscillations and diffusion in thermally ionized potassium plasma
[MATT-523] 14 p2596 N67-26995
Thermal and fluid dynamic performance of potassium during condensation inside sodium-potassium cooled tube
[NASA-TN-D-4030] 15 p2904 N67-28296
Potassium atomic beam probe for measuring electron density in plasmas
[CLM-R-68] 15 p2714 N67-28835
Erosion characteristics of blade of supersonic potassium turbine
[SAN-595-2] 16 p2822 N67-29069
Q machine studies of equilibrium and stability of potassium plasma with internal electric fields perpendicular to confining magnetic field
[UCRL-70115] 16 p2956 N67-29833
Release of potassium from muscles under effect of muscle relaxants
[REPT.-4-4-67] 18 p3201 N67-31636
Potassium reduction in vacuum furnaces with inside heaters and corresponding temperature and vacuum regimes 18 p3255 N67-31895
Potassium production by vapor condensation in vacuum furnace 18 p3223 N67-31896
Density, viscosity, surface tension, electrical resistivity, thermoconductivity, enthalpy, specific heat, and vapor pressure thermophysical properties of potassium
[NASA-TN-D-3130] 18 p3279 N67-31919
Fluid design for three-stage potassium vapor test turbine
[NASA-CR-72349] 18 p3300 N67-32562
Heat transfer and fluid flow during forced convection vaporization of high temperature potassium
[NASA-CR-843] 19 p3551 N67-33147
Nuclear energy levels of potassium-37
[AD-654156] 19 p3506 N67-33502
Three-stage potassium vapor axial flow turbine design
[NASA-CR-72350] 20 p3569 N67-34659
Cesium-137 and potassium determination in milk
[BARC-278] 20 p3576 N67-34711
Condensing heat transfer coefficients and two-phase pressure change measurement for forced convection condensation of potassium in vertical downflow inside single tubes
[NASA-CR-851] 20 p3748 N67-35660
Void fraction measurements in two-phase flow of sodium potassium and argon
[EUR-3486.F] 20 p3749 N67-35279
Computed thermodynamic property data for potassium from melting point to 2100 Kelvin
[NASA-TN-D-4165] 21 p3947 N67-35776
Ultrasonic attenuation at low temperatures in potassium and gold
[TR-27] 21 p3916 N67-35671
Thermodynamic and transport properties of potassium for alkali metals evaluation program
[AGN-8194, VOL. 2] 21 p3951 N67-36502
Supersaturation and condensation shock during flow of potassium vapor
[NASA-TT-F-11182] 22 p4023 N67-36878
Optical potential for potassium-methyl iodide system
[MIT-49-P] 22 p3966 N67-37386
Heat transfer with boiling potassium on stainless steel surface containing reentrant cavities
[ORNL-P-3063] 22 p4186 N67-37861
Direct condensing and indirect radiators for nuclear potassium Rankine systems
[NASA-CR-72316] 23 p4182 N67-38494
Ion saturation current for shear stabilization of potassium plasma 23 p4320 N67-38725
Spin of 2750-keV level in potassium 37 established at 5/2 /plus/
[AD-657091] 24 p4500 N67-39092
Steady state performance of multitube, centrally finned, potassium condensing radiator
[NASA-TN-D-4227] 24 p4551 N67-40146
POTASSIUM ALLOY
Liquid Metal Fast Breeder Reactor /LMFBR/ coolant system development
[NAA-SR-12416] 22 p4056 N67-37960
Viscosity of liquid sodium-potassium alloys, and dilatometer density measurements of liquid metallic sodium and potassium, and sodium-potassium alloy
[JPRS-42035] 23 p4268 N67-39234
Viscosity of liquid sodium-potassium alloys 23 p4268 N67-39235
Dilatometer density measurements of liquid metallic sodium and potassium, and sodium and potassium alloy 23 p4268 N67-39236
POTASSIUM BROMIDE
Backward and forward photoemission quantum yields from evaporated KBr films measured as function of film thickness
[NASA-CR-80149] 03 p0455 N67-12975
Polar flux contour maps for velocity and angular distributions of potassium bromide from crossed beam reactions K plus HBr and K plus DBr
[COO-1238-22] 22 p4105 N67-37274
POTASSIUM CHLORIDE
Oscillator strength of lead ion in potassium chloride single crystals
[TR-9] 05 p0751 N67-14759
Ionic crystal theory, and quantum mechanical approach to model for potassium chloride crystals 12 p2189 N67-23787
Freezing points of ternary alloys derived from uranium chloride-potassium chloride mixture
[LA-3579-MS] 12 p2044 N67-24571
Grain boundary migration in potassium chloride bicrystals
[ANL-7222] 12 p2192 N67-24574
Detonation characteristics of granular ammonium perchlorate and potassium chloride, and shock initiation in granular ammonium perchlorate
[AFOSR-67-0413] 13 p2424 N67-25623
Creep analysis of polycrystalline sodium chloride in high temperature environment, and stress creep of sodium chloride-potassium chloride samples
[NASA-CR-84108] 13 p2345 N67-26459
Electrical conductivity of aqueous potassium chloride under hydrostatic pressure
[TR-27] 14 p2478 N67-26872
Molecular beam electric resonance spectra of lithium fluoride, sodium fluoride, and potassium chloride
[UCRL-17019] 15 p2659 N67-29410
Crystal F center growth by simultaneous irradiation with X-rays and light
[COO-525-23] 16 p2900 N67-29788
Electron spectra of single crystal sodium chloride and potassium chloride
[NASA-CR-82300] 21 p3916 N67-35976
Electrochemical reduction of chlorine on pyrolytic carbon in molten lithium chloride-potassium chloride
[NASA-TN-D-4175] 21 p3784 N67-35982
Electric conductivity of potassium chloride water alcohol solutions under hydrostatic pressure
[TR-28] 21 p3793 N67-36585
Electron paramagnetic resonance in color centers and hyperfine structure of potassium chloride crystals
[FTD-HT-66-424] 24 p4519 N67-40470
POTASSIUM COMPOUND
Electrocaloric effect in single crystal of potassium di-hydrogen arsenate
[NASA-CR-79706] 01 p0140 N67-10891
Electron paramagnetic resonance spectra of impurity ions in doped ferroelectric potassium-tantalate crystals
[AFCRL-66-303] 02 p0294 N67-11280
Equilibrium of carbonate-bicarbonate electrolyte in presence of potassium formate 03 p0357 N67-12437
Optical and infrared spectroscopic studies of single crystal fluoride perovskites and potassium compounds to determine transmission spectra and ferroelectricity 05 p0750 N67-14425
Fine structure in absorption spectra of manganese potassium fluoride and manganese rubidium fluoride
[TR-4] 05 p0752 N67-15017
Critical magnetic scattering experiments on simple ionic antiferromagnet potassium manganese trifluoride compound
[BNL-9815] 10 p1753 N67-21598
Hydrogen-oxygen regenerative fuel cell - single cell tests, membrane fabrication, matrix screening test, and potassium titanate analytical tests
[NASA-CR-84147] 14 p2448 N67-26517
Cobalt 60 radiation effects on kinetics of thermal decomposition of potassium permanganate
[NASA-TT-F-481] 14 p2474 N67-26598
Gallium arsenide, gallium phosphide, and potassium tantalate niobate crystals for electro-optic light modulator
[NASA-TN-D-3775] 14 p2506 N67-27272
Reorientation frequencies of ferroelectric dipoles near paramagnetic center in neutron irradiated potassium arsenate
[NIJS-R-495] 15 p2782 N67-28652
Improvement in growth and reproducibility of single crystal potassium tantalate niobate and electooptical evaluation for use in laser technology
[QPR-1] 15 p2783 N67-28902
Characterization of potassium tantalate-niobate crystals by electrooptic measurements 18 p3216 N67-31794
Crystal structure of dipotassium tetranitroethide determined by single crystal X-ray diffraction techniques
[NASA-CR-86900] 18 p3234 N67-32276
Argon activation analysis with application to rock dating using potassium-argon method
[CEA-R-3100] 19 p3444 N67-32467
Hydrogen-oxygen electrolytic regenerative fuel cells with potassium titanate and Teflon matrix structures
[NASA-CR-86303] 21 p3763 N67-36065
Heats of formation of lithium, sodium, and potassium fluoborates
[R-162/SR.2] 24 p4399 N67-39434
Potassium tantalate niobate crystal perovskites as electro-optically active material
[SRCR-67-12] 24 p4517 N67-39946
X-ray irradiation effects on potassium chloride crystals containing potassium hydrosulfite impurities
[AD-657804] 24 p4399 N67-40244
POTASSIUM HYDROXIDE
Irradiation effects of high energy protons studied on silver-cadmium and nickel-cadmium cells containing battery electrodes and potassium hydroxide electrolytes
[NASA-CR-79635] 02 p0178 N67-11722
Density and vapor pressure measurements for and gas solubility and oxygen and hydrogen diffusivities in potassium hydroxide solutions
[NASA-CR-80876] 03 p0359 N67-12904
Design of absorption towers for dissolving oxygen and hydrogen in aqueous potassium hydroxide 11 p1785 N67-22168
Hydrox fuel cell tests with circulating potassium hydroxide and electrode development
[NASA-CR-72304] 22 p3965 N67-37253
POTASSIUM IODIDE
F-center formation by fundamental absorption of potassium iodide
[REPT.-545] 09 p1501 N67-19787
Tracer studies on reaction kinetics between chlorine dioxide and potassium iodide, and data handling in oxygen 18 tracer research
[ORO-3858-18] 14 p2482 N67-27445
Electrokinetic equations for platinum-potassium iodide solution interface
[DRL-A-339] 22 p3986 N67-37275
POTASSIUM NITRATE
Pendulum apparatus and method for testing combustion properties of black gunpowder
[TDCK-46451] 07 p1181 N67-18971
Test equipment for determining composition and properties of Dutch black gunpowder for purpose of standardization
[TDCK-46449] 07 p1181 N67-18975
Physical and mechanical properties of Dutch black gunpowder evaluated to establish military specifications

[TDCK-46450] 07 p1181 N67-18180
Differential capacity of electrical double layer at silver iodide aqueous potassium nitrate solution interface
[IS-T-145] 19 p3289 N67-33699
POTASSIUM PERCHLORATE
Combustion of mixtures containing potassium perchlorate oxidizer and metal fuels in vacuum
[ATD-66-76] 06 p1380 N67-18215
Evaluation of photoflash formulations containing hafnium and potassium perchlorate with barium nitrate, calcium sulfate, and magnesium alloys strontium and barium as additives
[PA-TR-3382] 11 p1814 N67-23107
POTASSIUM PHOSPHATE
Consistency criterion for ferroelectric free energy cluster expansion - convergence of series tested for deuterated potasium biphosphate model Hamiltonian
[NIJS-R-490] 21 p3780 N67-35593
Laser Raman scattering measurements of crystals
[AD-658342] 24 p4513 N67-39425
POTASSIUM SILICATE
Heats of formation of lithium sulfate, potassium-aluminum silicates, and lithium-aluminum silicates
[BM-RI-6873] 02 p0229 N67-12029
Solar absorptance and emittance of candidate zinc oxides/silicone and zinc oxide/potassium silicate coatings measured at room temperature for application to space radiators
[NASA-CR-72009] 05 p0736 N67-14914
Zinc oxide-potassium silicate thermal coating tested under various vacuum, temperature, solar electromagnetic, and proton environments to determine their effects on solar absorptance
[NASA-CR-73028] 05 p0774 N67-14922
Evaluation of aluminum silicate - potassium silicate, and zinc oxide - potassium silicate emissive coatings for spacecraft radiators
[NASA-CR-72161] 09 p1543 N67-19671
POTASSIUM 40
Surface-delta interaction and potassium 40
03 p0435 N67-12566
POTENTIAL
S CONTACT POTENTIAL
S COULOMB POTENTIAL
S ELECTRIC POTENTIAL
S GEOPOTENTIAL
S GRAVITATIONAL POTENTIAL
S IONIZATION POTENTIAL
S MORSE POTENTIAL
S MYOELECTRIC POTENTIAL
S NUCLEON POTENTIAL
S VELOCITY POTENTIAL
S YUKAWA POTENTIAL
POTENTIAL COLLECTOR
Rectangular complex potential to describe elastic scattering of protons on helium 4
06 p0927 N67-15606
POTENTIAL ENERGY
SA FROUDE NUMBER
Optical parameters for deuterons
06 p0937 N67-16270
Modified potential energy mass representations for frequency prediction
11 p1969 N67-22813
Lower bounds for some potential energy curves of hydrogen and helium
[AD-645800] 11 p1942 N67-23163
Semi-empirical potential energy curves for interaction of two hydrogen atoms calculated using approximate wave function
[NASA-CR-84152] 14 p2583 N67-26512
Rejection to infinity in three-body problem when total energy is negative
16 p2968 N67-29374
Nuclear forces and binding energy, and single particle potential energies of excited states
[INR-778/VII/PL] 17 p3131 N67-30608
Theoretical analysis of slope energy curve entering continuum
19 p3582 N67-32949
First-order WKBJ integrals for eigenenergies of diatomic molecules with Lennard-Jones /12,6/ or exponential /alpha,6/ interatomic potentials
[DI-82-0617] 20 p3690 N67-34051
Crossed molecular beam scattering method for obtaining intermolecular potential energies - scattering of lithium atoms
[GDC-DBE-67-017] 24 p4502 N67-40259
POTENTIAL FIELD
Mossbauer effect study of crystal field potential in intermetallic compounds of thulium
[IS-T-104] 12 p2190 N67-23899
POTENTIAL FLOW
SA CARTAN SPACE
Flutter analysis of flat rectangular panels based on three-dimensional supersonic unsteady potential - flow
[NASA-TR-R-256] 06 p0788 N67-16675
Sample pattern in four-dimensional space for determining oil infiltration in soil - mathematical models of axially symmetrical potential flows
[NR-155A] 17 p3049 N67-31452
Unsteady two-dimensional potential flow for two lifting bodies
[DAC-33552] 21 p3753 N67-35565
POTENTIAL GRADIENT
Reasons for yearly variation of atmospheric electric field potential gradient
04 p0544 N67-14225
Current and potential distributions in cylindrical geometries of fuel cells
11 p1785 N67-22170
Tests of dielectric strength of large air gaps to determine minimum clearances for high voltage overhead transmission lines and substations
11 p1835 N67-22184
Comparisons of estimates for average wind velocities, maximum wind gusts, and gradient wind
23 p4278 N67-38538
POTENTIAL PROBLEM
Static electricity build-up on helicopter, and means of discharging
[RAE-TR-66152] 20 p3568 N67-35174
POTENTIAL THEORY
Approximation of harmonic function by linear combination for estimating electrostatic capacity of solid cube
[MRC-TSR-645] 01 p0093 N67-10296
Geometric discontinuities in elastic solids
[TR-3] 01 p0161 N67-11036
Three-body systems through factorable potentials
03 p0435 N67-12565
Zero order potential and Hamilton-Jacobi equation as basis for spheroidal method of satellite motion theory
03 p0465 N67-13157
Classical statistical mechanics of hard-core potential
[AD-636830] 04 p0582 N67-13909
Solution for tandem cascade flow by exact conformal transformation of first blade and use of singularities for second blade
[RR-56] 05 p0695 N67-14972
Potential theory and boundary value problem in relation to heat potential
[FTD-TT-65-1686] 05 p0777 N67-15303
Multi-particle collision theory applied to study of direct nuclear reactions
[PUC-937-227] 07 p1149 N67-17458
Completeness condition and asymptotical behavior of wave function shown equivalent to nonrelativistic dispersion relations in potential scattering theory
[JINR-P-2869] 08 p1333 N67-18600
Pseudoharmonic potential theory of crystal lattice vibrations
[AD-640944] 09 p1500 N67-19656
Modification of effective particle-hole interaction by core polarization
[AD-645242] 10 p1731 N67-21731
Flow of strongly rarified plasma around charged body
[FTD-HT-66-290] 11 p1963 N67-22142
Generalized potential for inelastic scattering, and unified theory of nuclear reactions
[NASA-TN-D-4000] 14 p2584 N67-26554
Variation method for solving potential equation in steady magnetogasdynamics
[SR-39] 14 p2595 N67-26878
Necessary and sufficient condition for lower semicontinuous function to be hyperharmonic
[MRC-TSR-696] 15 p2735 N67-28506
Phase shift calculations for real and realistic potentials
[AECD/TP/15] 15 p2767 N67-28525
Equivalent potential method for relativistic scattering
[UCRL-17311] 15 p2767 N67-28527
Euler potentials and geomagnetic drift shells
[NASA-TM-X-55632] 17 p3057 N67-31239
Approximation method, and potential theory to study class C potentials
[TH/200] 17 p3138 N67-31566
Potential lower bound analysis for one-dimensional gas pressure as function of temperature and chemical reaction
[UCD-CNL-76] 21 p3834 N67-36650
POTENTIOMETER
Production engineering measure for subminiature transistor type potentiometers
[QPR-20] 01 p1165 N67-10998
Production engineering measure for subminiature, transistor type potentiometer
[AD-643778] 07 p1063 N67-17720
Thermistor mount for dc potentiometer insertion loss test set
06 p1245 N67-15340
Magnetic mirror field control in Astron facility
[UCRL-70035] 10 p1722 N67-21889
Digital attenuator system consisting of simple multiplying digital-to-analog converter used to replace coefficient-setting potentiometers in analog/hybrid computers
[NASA-CR-87287] 19 p3412 N67-33008
Aircraft instrument reliability and accuracy of gyroscopic potentiometers
[FTD-MT-65-301] 23 p4048 N67-37300
Potentiostat stabilization for operation with electrolysis cells
[UCID-15151] 22 p4018 N67-37778
POTENTIOMETRY
SA ELECTRIC CURRENT
Potentiometric titration of cerium and manganese following separation from plutonium and cobalt ternary and quaternary alloys
[LA-3403] 03 p0411 N67-12561
Literature review of conditioning treatments for electrodes used in potentiometric analysis, with reference to uranium titrations
[EUR-3118.F] 03 p0359 N67-13091
Potentiometric assay method for determination of uranium metal
[PG-720] 09 p1411 N67-20211
Potentiometric determination of fluoride with lanthanum nitrate and its application to micro-determination of fluorine in organic compounds
[RAE-TR-66340] 12 p2042 N67-24033
POTTING COMPOUND
Sterilizable potting compounds and conformal coatings for space applications
[NASA-CR-83464] 08 p1240 N67-19188
Encapsulating foam improvement and quality control of potting plastic
[APL-TG-817] 13 p2344 N67-26230
POWDER
Hydrophobized powder fillers for polyether and epoxy resins
[FTD-HT-66-78] 01 p0091 N67-11184
Standard X-ray diffraction powder patterns for 103 substances
[NBS-MONOGRAPH-25, SECT. 4] 03 p0359 N67-13126
Flow-no flow criterion in gravity flow of powders in converging channels - Rheology
05 p0694 N67-14819
Integrated intensity of scattered neutrons in diffraction structure studies on powdered crystal
06 p0937 N67-16254
Automatic control of powder flow rate studied using polyvinylchloride
10 p1648 N67-21779
Graphs of functions of interplanar spacings for 5184 inorganic X-ray powder diffraction patterns
[UCRL-50115] 11 p1809 N67-22238
Specific surface of powders determined by electron microscopic methods
12 p2104 N67-23511
Pneumatic equipment for powder density measurement
[K-1684] 12 p2102 N67-24564
Air permeability and elutriation methods for determining specific surface of dry chemical fire extinguishing powders
[NRL-6499] 12 p2045 N67-24726
Apparatus for measuring mid-infrared spectral emission from cold powders in vacuum
[NASA-CR-84158] 14 p2520 N67-26596
Reflection and polarization properties of silicon carbide and aluminum oxide powders
[R67SD39] 19 p3436 N67-32705
Superparamagnetic behavior of powders of ferromagnetic films at liquid helium temperatures
[AFOSR-67-2002] 24 p4514 N67-39513
POWDER METALLURGY
SA SINTERING
Metallocomplex catalysis and carbonato-bicarbonate equilibrium
[JPRS-38687] 03 p0356 N67-12435
Oxidation risks during uranium dioxide sintering and characterization of excess oxygen
[CEA-R-3003] 03 p0361 N67-13362

Creep-rupture properties of wrought powder metallurgy W, thermochemically deposited W, and several W-base alloys [ORNL-3902] 04 p0559 N67-13654
Powder metallurgy used for production of uranium monocarbide pellets [Y-1510] 06 p0014 N67-16525
Synthetic polymers, silicate materials, metallic powders and cermets, alloys, and semiconductors for engineering applications [FTD-HT-66-269] 10 p1666 N67-20661
Powder metallurgy processes for conversion of metal shavings into soft magnetic material [FTD-HT-66-330] 10 p1654 N67-21430
Manufacturing methods and economic advantages of powder metallurgy [FTD-HT-66-641] 10 p1658 N67-21845
Powder metallurgy process and potential applications [AD-645456] 12 p2105 N67-23517
Metallurgy research in high temperature carbides, powder techniques, furnace equipment, spin casting, thorium, uranium, and tungsten alloys [USBM-RC-1249] 12 p2107 N67-23953
Density, hardness, and thermal conductivity evaluated in production of uranium oxycarbide and oxycarbonitride specimens by powder techniques 12 p2117 N67-23957
Mechanical and physical properties of tungsten-rhenium alloys prepared by powder techniques for extrusion drawing 12 p2107 N67-23958
Mechanical and electric properties of molybdenum and molybdenum alloys - pressing and sintering properties of molybdenum powder - diffusion of molybdenum powder onto steel alloy surfaces [FTD-TT-65-835] 12 p2117 N67-23972
Favorable pressing and sintering properties of molybdenum acquired during processing treatment of molybdenum powder raw material 12 p2117 N67-23974
Solid state diffusion of powdered molybdenum onto carbon steel - protective coating 12 p2117 N67-23975
Resonant beam and ultrasonic methods for evaluation of sintered powder steel compacts [SA-TR19-1521] 12 p2111 N67-24987
Cladding and temperature effects on extrudability and mechanical properties studied with powder metallurgy tungsten [NASA-TN-D-3941] 14 p2556 N67-27226
Powder metallurgical fabrication of small diameter tungsten alloy tubing [COO-1518-4] 14 p2545 N67-27330
Hydrostatic pressing and induction sintering for production of billets from metal powders [NASA-TT-F-10945] 15 p2724 N67-28282
Structural cermet materials [NASA-TT-F-11013] 15 p2727 N67-28741
Casting, powder metallurgy, chemical vapor deposition, and electroforming techniques for making stainless steel shapes [NASA-TM-X-53577] 16 p2907 N67-29437
Vibratory compaction of metal and ceramic powders - bibliography [AERE-BIB-153] 16 p2912 N67-29934
Fabrication and mechanical properties of sintered zirconium yttrium oxide dispersions - morphology and powder metallurgy [AECL-2633] 16 p2913 N67-30118
Permanent magnet properties of yttrium-cobalt powders 21 p3922 N67-36375
Powder metallurgy methods for sintering carbides [NASA-TT-F-10425] 21 p3863 N67-36561
Molecular spectroscopy and powder metallurgy experimental research accompanied by theoretical research in wave functions and atomic properties [AFCRL-67-0306] 22 p3987 N67-37380
Powder metallurgy of sintered uranium plutonium carbides [LA-DC-8675] 22 p4055 N67-37688
Slip-casting of samarium and neodymium oxides [BNWL-437] 22 p4056 N67-37718
Amalgamation process for preparation of magnetic intermetallic yttrium cobalt powder [SR-1] 24 p4467 N67-39022

POWDERED ALUMINUM

Manufacture and microstructure of dispersion strengthened aluminum products containing aluminum oxide [RISO-113] 02 p0413 N67-13289
Cold compaction and sintering of powdered aluminum and aluminum base alloys 05 p0718 N67-14814

POWDERED METAL

Impurity effects on sinterability in nuclear-grade beryllium oxide powders [AAEC-TM-311] 01 p0090 N67-10089
High temperature vacuum dilatometric investigation of linear expansion coefficient of metallic titanium and sintering kinetics of compressed titanium powder 02 p0271 N67-11774
Catalytic properties of powdered metal phthalocyanine systems 03 p0556 N67-12436
Pressing metal shells from high strength beryllium powder [SCL-DC-66-57] 04 p0556 N67-14024
Flares with various combinations of sodium nitrate and metal powders evaluated for luminous intensity and burning rate at high altitudes [PA-TR-2360] 06 p0820 N67-16137
Wet and dry blending nickel-aluminum oxide submicron powders for dispersion-strengthened alloys [NASA-TN-D-3834] 07 p1102 N67-17625
Effect of milling upon microstructure of uranium dioxide powder [TRG-1261/S/] 07 p1136 N67-17953
Ignition temperatures of powdered metals in simulated Mars and Venus atmospheres [NASA-CR-82878] 09 p1544 N67-20169
Desensitization process for zirconium powder used in primers [T66-24-4] 11 p1811 N67-22668
Coextrusion of aluminum cladded ceramic and metallic powder core rods [INR-728/XIV/R] 11 p1923 N67-22912
Physical properties of cermet products obtained by sintering powdered iron under impact loads [NASA-TT-F-10660] 12 p2123 N67-25029
Compressive-creep deformation modes of thorium oxide, densification kinetics of sintering powder compacts for metal oxides, and mathematical model describing sintering 13 p2342 N67-25348
Sputtering effects from solar wind on lunar surface investigated by ion bombardment of metal powder [NASA-CR-83823] 13 p2401 N67-25662
Metallurgical evaluation of beryllium powdered metal, and electron microscope studies of agglomerate particle sizes [NASA-CR-84116] 13 p2274 N67-26451
Chemical and X-ray phase determinations of relationship of microhardness and microbrittleness of powdered refractory compounds with electron structure [NASA-TT-F-10935] 14 p2557 N67-27310
Vibratory compaction of metal and ceramic powders - bibliography [AERE-BIB-153] 16 p2912 N67-29934
Shock contraction of silicon oxide powders in converging cylindrical wave, and effects of compression [NASA-CR-85239] 16 p2916 N67-30014
Packing defects in nickel powders, and displacement lines in electrolytic and carbonyl nickel [JPRS-41504] 17 p3060 N67-31123
Preparation and evaluation of alloy powders having nominal composition of 60 Ni-20 Co-10 Mo-10W and containing dispersions of thoria, yttria, alumina, magnesia, and lanthana [NASA-CR-85780] 17 p3060 N67-31129
Dispersion-strengthened chromium alloys and powder cleaning process [NASA-CR-85907] 17 p3072 N67-31180
Feasibility study of oxygen/hydrogen powdered metal ignition [NASA-CR-86773] 18 p3219 N67-31967
X-ray powder data of T phase alloys composed of aluminum and magnesium with silver, copper, or zinc [ARL/MET-56] 20 p3657 N67-34643
High pressure consolidation of vacuum encapsulated tungsten compacts [UCRL-13298] 22 p4979 N67-37897
Mass spectrometric methods for trace analysis of insulating solids in powder form [AFCRL-67-0451] 23 p4200 N67-38699

POWER

S ENERGY
S FLUID POWER
S FORCE
S NUCLEAR POWER
S RESOLVING POWER
S SOLAR POWER SYSTEM
S STOPPING POWER
S THERMAL POWER
S THRUST POWER

POWER CONVERSION

SA ELECTRIC POWER CONVERSION
SA NUCLEAR POWER CONVERSION
SA TURBOELECTRIC CONVERSION
Chemical and nuclear power, reactor heat sources, and power conversion - space power system technology [NASA-SP-131] 01 p0007 N67-10261
Liquid-metal magnetohydrodynamic power conversion system without rotating parts 02 p0176 N67-12118
Steady state operating and dynamic response characteristics of simulated three-loop Rankine cycle space power conversion system of SNAP-8 type [NASA-CR-625] 03 p0324 N67-12757
Biphenyl and biphenyl ether working fluids to be used in organic Rankine cycle power conversion system for space operation [SAN-651-1] 07 p0999 N67-17429
Reactor power systems design requirements for manned Earth orbital applications [NASA-CR-66254] 07 p1122 N67-17530
Nonrotating Rankine cycle for liquid metal magnetohydrodynamic power conversion 08 p1354 N67-18321
Circuit considerations for dc to dc conversion in high frequency range [NASA-TM-X-55467] 08 p1323 N67-18765
Test facility, program, instrumentation, and data acquisition system for evaluating power conversion loops for organic Rankine cycle [SAN-650-2] 10 p1556 N67-20749
Organic Rankine cycle power conversion system [SAN-651-8] 10 p1558 N67-21611
Mercury Rankine Program integrated system test - data correlation [NAA-SR-11945, VOL. II] 11 p1927 N67-23448
Gaseous breakdown of simulated planetary atmospheres and illustration of Greenhouse effect, thermal radiation from ionized argon, liquid magnetohydrodynamic power conversion 12 p2234 N67-23655
SNAP-8 power conversion system development, and test facilities [NASA-CR-72190] 12 p2151 N67-24629
Organic Rankine cycle power conversion system for long term duration in space environment [SAN-650-3] 13 p2348 N67-25556
Binary gas breakdown potentials, MHD power conversion, lithium-boiling potassium test loop, and plasma studies in ion engine 16 p2962 N67-29123
Production engineering of high voltage oscillator [AD-649012] 16 p2969 N67-29546
Rankine cycle power conversion system for use in space environment [SAN-651-16] 16 p2923 N67-29611
Breadboard models of power conditioners used for converting output of solar cell array into voltage and current requirements of electron bombardment, cesium-ion thruster [NASA-CR-54672] 17 p2999 N67-31240
Power conditioner for control of mercury ion electric thruster engine [NASA-CR-72112] 17 p2989 N67-31941
Program summary for Manned mission photovoltaic power system - integrated power system and power system module [NASA-CR-85456] 18 p3199 N67-33522
Coupling analysis, computer analysis of power converter, and beam stability computer calculation for cyclotron-synchronous wave amplifier [MD-66-625] 19 p3414 N67-33897
Cyclotron-synchronous wave rf to dc power conversion - design of Pierce-type electron gun and 3 GHz Cuccia cavity [UTEC-MD-67-006] 19 p3417 N67-33677
Cyclotron microwave power converter [EC-4] 20 p3610 N67-34050
Comparative characteristics of solar furnace power regulators 21 p3709 N67-35475
Power conversion potential of superconducting transformers [LNF-67/52] 24 p4530 N67-40548

POWER DENSITY

Power density of bremsstrahlung radiation from fully ionized plasma and development of tractable form for inelastic collision integrals in Boltzmann equations [REPT.-37] 04 p0536 N67-13774

Nuclear technology progress in power density, radiation shielding, nuclear reactor core, IBM 7040 computer program, and related topics
[IDO-17191] 04 p0576 N67-13984
Boltzmann equation approach to transport phenomena and density expansion of transport coefficient
[TR-9] 10 p1614 N67-21341
Power distribution and initial reactivity calculations for mobile nuclear power plant reactor
[ORNL-TM-1654] 13 p2356 N67-25507
Power density effects on characteristics of laser beam interaction with solid materials
[BRL-MR-1791] 13 p2333 N67-25975
Optimization of magnetohydrodynamic generator parameters in magnetohydrodynamic reactor system - coolant temperature, gas pressure, power density, and electric conductivity
[AERE-R-5020] 15 p2776 N67-28858
Power disturbances close to hydrodynamic instability in boiling reactor natural circulation two-phase flow
[AE-285] 22 p4115 N67-37076
Statistical reduction of satellite effective radio cross section of reflected radio signal power measurements made on Echo I passive satellite
[NASA-CR-89589] 24 p4407 N67-39954
Ohmic power dissipation and energy storage in radio frequency heated low pressure helium plasma
[NASA-TN-D-4206] 24 p4511 N67-40223

POWER EFFICIENCY

Lightweight aircraft electric power supply system using changeover contactors
[RAE-TR-66291] 07 p1000 N67-17854
Power distribution of high temperature gas cooled reactor initial core
[GAMD-6651] 10 p1687 N67-21547
High power gas laser research - optimization of power and efficiency of carbon dioxide molecular system in flowing gas and sealed lasers
[S-940] 19 p3466 N67-32363
High-efficiency VHF transistor CW RF power amplifiers for portable radio equipment
[ECOM-2636] 22 p4011 N67-36910
Composition and power characteristics of solid rocket propellants
[FTD-MT-65-504] 22 p4130 N67-37226
Effect of air cooling blades and wheels on efficiency of gas turbine 23 p4236 N67-39180
Efficiency evaluation of radial-axial turbine with low blade heights and large clearances 23 p4236 N67-39186

POWER GAIN

Receiving power increase of orthogonal distribution, field resolution antenna 05 p0670 N67-14366
Increasing pulse repetition rate of transmitter to meet system gain requirements for partial ionospheric reflection sounder 05 p0701 N67-14651
Electric field, radiation resistance, and power gain of slow wave antennas
[USL-783] 12 p2052 N67-24373
Wideband grounded-grid amplifier design and tuning for multistage synchrocyclotron machines
[CERN-66-35] 13 p2293 N67-25660

POWER GENERATOR

Spacecraft propulsion, and nuclear-electric power supply for space travel
[NASA-TT-F-8-8807] 01 p0104 N67-10129
Parametric analysis of radioisotope thermionic generators
[NASA-TM-X-1312] 02 p0284 N67-11326
Power systems related to Mars landing capsule
[NASA-CR-80001] 05 p0638 N67-14931
Energy conversion studies involving gas heater, power generation channel, and dc electromagnet 09 p1430 N67-19407
Power, burner, excitation, and components testing of magnetohydrodynamic generator used for production of high energy electrical impulses
[AD-641019] 10 p1556 N67-26593
Reliability of redundant electrical generating system configurations for use in SNAP-2 and SNAP-8
[NASA-CR-72300] 11 p1786 N67-23854
Feasibility of rotating boiler for high performance Rankine cycle power generator
[NASA-TM-X-52281] 11 p1788 N67-23313
Cavity resonance, power generator, and experimental results of RCA 7835, with factor of initial operating parameters of FTH 515 12 p2076 N67-24069
Bonding study to determine optimum length of thermoelectric arms in thermoelectric power generator
[AD-647812] 12 p2018 N67-24495
Advanced solar energy cesium vapor thermionic converter and generator
[NASA-CR-83800] 13 p2346 N67-25484
Industrial applications for radioisotope power generators - conference review with bibliography
[NP-18437] 13 p2360 N67-25560
Operation of large inert gas magnetohydrodynamic power generator
[NASA-CR-83900] 13 p2350 N67-25942
Components and operation of inductive power supply for 100-inch Hotshot wind tunnel
[AEDC-TR-66-260] 15 p2644 N67-28507
SNAP-8 electrical generating system performance
[NASA-CR-72254] 16 p2928 N67-29172
Effect of aerosol properties on power input and load characteristics of open and closed cycle electrogasdynamic generators
[REPT.-66-50980] 17 p2997 N67-30670
Saturn launch vehicle power integrated circuits and static inverter 18 p3246 N67-31597
Electrohydrodynamic generation of charged particle beams 19 p3518 N67-33007
Fibrous insulation for radioisotope power systems
[ALO-3633-4] 19 p3474 N67-33867
Use of radioisotopic generators as electric power sources
[JPRS-42391] 21 p3893 N67-36638
High temperature thermal insulation development for radioisotope power systems
[ALO-3634-5] 22 p4096 N67-38012
Survey of size, weight, and cost of primary power sources in terrestrial low power reactor program
[ORNL-4136] 23 p4386 N67-38639
Computer program for parallel operation of power generator in feedback control system 23 p4226 N67-38775
Electrical and thermal properties of high tension electrical power generator for space technology
[CEA-R-3158] 23 p4184 N67-39304

POWER-LIMITED VEHICLE

Gradient method application to numerical study of limited-power transfers between near-coplanar circular orbits - comparison with linearized solution
[ONERA-TN-112/1967/] 18 p3337 N67-32577

POWER LIMITER

System performance of phase coherent receivers preceded by bandpass limiters
[NASA-CR-88523] 22 p3996 N67-37072
Broadband ferromagnetic power limiters and expanders as duplexing elements for microwave systems
[ECOM-02128-4] 24 p4418 N67-39638

POWER PLANT

SA BY-PASS ENGINE
SA NUCLEAR POWER PLANT
Potassium vapor Rankine cycle turbogenerator power system 01 p0105 N67-10269
Iron, nickel, and cobalt based heat resisting alloys for aircraft and power plant structural materials 02 p0268 N67-11344
Stability and control of space in-pile thermionic reactor power plant 06 p0912 N67-15727
High temperature gas cooled advanced converter reactor power plants
[GA-7149] 08 p1309 N67-18480
Feasibility of 500 watt liquid hydrocarbon and air fuel cell power plant
[PWA-2905] 09 p1394 N67-19451
Gaseous coolant to transport waste heat from fission-electric cell reactor to space power plant radiator
[NASA-CR-82939] 09 p1480 N67-19877
Approximation methods used in design of thin walled shells for hydroelectric power plant arch dams 09 p1536 N67-20140
Status and trends in high voltage transmission lines 11 p1834 N67-22182
Distribution equipment for high voltage thermal power plants 11 p1836 N67-22203
High voltage switching equipment for large hydroelectric plants 11 p1836 N67-22204
Hydroelectric power plant installations and equipment 11 p1854 N67-22207
Feasibility studies of space radiators using vapor chamber fins 14 p2831 N67-26795
Efficiency improvement of magnetohydrodynamic power plant
[RAE-LIB-TRANS-1195] 15 p2773 N67-27900
Thermodynamic analysis of power plant cycles with two-phase systems 18 p3199 N67-32388
Requirements of optimum diffusers for power plant inlets
[NASA-TT-F-11160] 19 p3529 N67-33462
Radiological control of refueling of pressurized water reactor shippingport atomic power station with core 2 and modifications on other reactor systems to accommodate new core characteristics
[WAPD-298] 19 p3496 N67-33922
Literature survey on corrosive effects of liquid and vapor cesium on structural materials, and compatibility of cesium as working fluid for Rankine cycle space power plant
[NASA-CR-87504] 20 p3660 N67-34828
Aerodynamic investigation for gas-turbine exhaust tower for West Burton power station
[NPL-AERO-1187] 20 p3631 N67-34999
Axial flow turbine compressor for Brayton-cycle space power plant
[NASA-CR-900] 21 p3759 N67-35445
Hydraulic pumps for water flow control in power plant reservoir 21 p3840 N67-35973
Survey of optimum dual purpose desalting plants as function of product ratio using alternate steam supplies
[ORNL-TM-1659] 23 p4234 N67-39230
Central generating plant to supply 400 Hz electrical power for operation of ground equipment
[TAC-OA-TM-131] 24 p4378 N67-39942

POWER REACTOR

SA BOILING WATER REACTOR
SA LOS ALAMOS MOLTEN PLUTONIUM REACTOR /LAMPRE/
Numerical technique for calculating power versus reactivity frequency response function of power reactor with application to high flux isotope reactor
[ORNL-TM-1471] 01 p0108 N67-10684
Components of reactor-powered alkali metal-vapor turbogenerator space power system
[NASA-TM-X-52249] 02 p0174 N67-11222
Dynamics and statics physics experiments with Agesta power reactor
[AE-244] 02 p0286 N67-11875
Prototype of heavy water moderated plutonium enriched power reactor
[AEET-239] 02 p0286 N67-11902
Nuclear power reactor coolants
[JPRS-38717] 02 p0287 N67-12011
Chemical engineering research, power reactor fuel processing, separation of macromolecular substances, transuranium and waste processing, thorium fuel cycle studies, and sol-gel research
[ORNL-3958] 03 p0426 N67-12873
Improved forced convection heat transfer performance with boundary layer turbulence promoters for steam and gas cooled power reactors
[GEAP-5115] 03 p0475 N67-13275
Fission product production data tabulated as function of fuel exposure for specific reactor conditions
[BNWL-244] 03 p0428 N67-13324
Catalog of nuclear reactors designed for research and testing and power production and breeding
[ANL-7228] 04 p0577 N67-14005
Pseudo random neutron source excitation to measure power reactor impulse response
[GEAP-5145] 04 p0577 N67-14020
Conference on large scale production and applications of radioisotopes in power reactors
[DP-1066, VOL. II] 05 p0725 N67-14821
Production and indifference pricing of transuranium isotopes produced by simulated power reactors 05 p0735 N67-14823
Management of americium in power reactor fuels to optimize production of alpha emitting isotopes 05 p0736 N67-14826
Isotopic composition of promethium in spent power reactor fuels 05 p0736 N67-14829
Conference papers on radioactive isotopes, power reactors, nuclear propulsion, radiation therapy, and related topics
[DP-1066, VOL. I] 06 p0909 N67-15525
Production of radioisotopes in power reactors 06 p0909 N67-15530
Large scale processing and source preparation of neutron produced

isotopes 06 p0910 N67-15532
Atomic Energy Commission isotopic power applications 06 p0911 N67-15546
Transient radiation effects on power reactor thermocouples determined at various levels of nuclear radiation
[NASA-CR-81333] 06 p0915 N67-16632
Local transfer functions measured with neutron detector in experimental power reactor to determine kinematic parameters 07 p1124 N67-17656
Computer model predicting transient behavior of coupled cores of boiling water superheat reactor power plant 07 p1126 N67-17071
Hydrogenation regeneration unit for decomposed gas-oil coolant of electric power reactor
[IAE-1066] 07 p1130 N67-17430
Fortran II coded IBM 704 computer program for optimization of organic cooled heavy water moderated power reactor
[DP-1007] 07 p1134 N67-17687
Future neutron cross section needs for nuclear power industry 08 p1318 N67-18864
Standard method for calculating fuel requirements of nuclear power reactors and reactor systems
[SGAE-RE-5/1966] 08 p1322 N67-19200
Compressible fluid model for study of neutron density fluctuations induced by hydraulic noise in power reactor 09 p1475 N67-19442
Batch shear-leach process for recovering fissile and fertile materials from spent power reactor fuels 09 p1476 N67-19512
Corrosion effects of boiling potassium and liquid sodium-potassium on refractory metal alloy tubing of power reactor 09 p1480 N67-19610
Neutron cross section data in 100 eV to 100 keV energy range for large fast power reactor users
[GEAP-4472] 10 p1689 N67-21692
Metal-fueled fast power breeder reactor
[ANL-7001] 10 p1690 N67-21792
Axial power monitoring of production reactor with on-line computer
[DPSPU-66-30-2] 10 p1589 N67-21834
Nuclear, systems, and components analyses of Piqua nuclear power facility reactor during operations
[NAA-SR-11995] 11 p1921 N67-22389
Energy deposition rates in Zircaloy-2 and graphite in NRX reactor
[AECL-3633] 11 p1782 N67-22992
Prestressed concrete pressure vessels evaluated for use in power reactors
[JUL-350-VW] 11 p1928 N67-23097
Dynamic property, reactivity, power distribution, and fine structure measurements of Agesta reactor
[AE-244] 12 p2147 N67-23901
Dynamic measurements of Agesta reactor 12 p2148 N67-23902
Reactivity, power distribution, and fine structure measurements in Agesta reactor 12 p2148 N67-23903
Thorium utilization studies dealing with fuel characterization, fuel testing during radiation, and fabrication processes for fuel protopes used in power reactors 13 p2356 N67-25373
Equipment at Agesta Nuclear Power station in Sweden
[AE-269] 13 p2363 N67-26463
Detection and repair of failures in stainless steel dryer-preheater piper and heaters of power reactor
[PRWRA-102] 14 p2579 N67-27500
Calculation program for dynamics and stability of sodium-cooled fast power reactors
[KFK-465] 15 p2748 N67-28308
Metallurgy of fuel elements for power and research reactors, and of steels for pressure vessels
[RISO-139] 15 p2747 N67-28345
High frequency transfer function measurements for coupled fast power reactors
[LA-DC-8299] 15 p2749 N67-28477
Bibliography on structural design of power reactors
[BNWL-336] 16 p2931 N67-29711
Statistical theory for deriving expression for dynamic model for spectral density of noise for power and stationary reactors
[ANL-TRANS-415] 16 p2934 N67-29828
Engineering development of boron concentration meter for determining boron concentration in coolant of closed cycle, water moderated and cooled power reactor
[WCAP-2690-2] 16 p2934 N67-29834
Combustion cycle in power reactors
[CNEA-183] 16 p2935 N67-29946
Reactor technological developments in pressurized water reactor and power reactor research facility
[WAPD-BT-20] 17 p3103 N67-30170
Calculated and actual control rod withdrawal transients at Shippingport Atomic Power Station 17 p3103 N67-30171
Linear analysis of xenon induced spatial power oscillations in reactor core
[KAPL-M-6596] 17 p3105 N67-30317
Comparisons of cost, performance, and confidence estimates between fast flux test facility alternate and interim reference reactors
[APDA-186] 17 p3111 N67-31040
Fortran /Nova/ program for calculating spatial distribution of burnup in reactors in one or two dimensions
[AEEW-M-697] 17 p3112 N67-31142
Irradiation behavior of vibrationally compacted uranium oxide-plutonium oxide fuel elements under power reactor conditions
[BNWL-366] 18 p3292 N67-31702
High-temperature controlled irradiation capsule for power reactor 18 p3299 N67-32430
Extrusion upset-forging method of producing nuclear power reactor uranium billets for co-extrusion 19 p3458 N67-32951
Long-term plutonium value change effects on fuel cycle costs of plutonium fuelled power reactors
[SGAE-RT-10/1967] 19 p3490 N67-33331
Zircaloy-2 clad uranium oxide fuel rod design for irradiation in power reactor
[GEAP-5462] 19 p3495 N67-33899
Transfer functions in application to nuclear reactor
[CEA-R-3162] 19 p3497 N67-33974
Utilization of thorium in nuclear power reactors
[AEET-269] 20 p3682 N67-34487
High-performance once-through boiling of potassium in single tubes at saturation temperatures of 1500 deg to 1750 deg F - application to design of large power boiler
[NASA-CR-842] 20 p3747 N67-34982
Irradiation testing of six high performance uranium dioxide fuel assemblies in power reactor
[GEAP-5487] 21 p3890 N67-36518
Short power surge effects on hydraulic and thermal performance in swimming pool reactor channel - out-of-pile experiments on power excursions
[ANL-TRANS-487] 21 p3890 N67-36519
In-pile irradiation equipment and techniques, power reactor systems development, and reactor technology conference
[TRG-1404/R/] 21 p3891 N67-36541
Rodded uranium oxide fuel bundles for high power reactor output
[AECL-2945] 23 p4285 N67-38073
Design of Zircaloy-2 uranium oxide nuclear fuel elements for Canadian heavy water power reactor
[AECL-2949] 23 p4283 N67-38101
Survey of size, weight, and cost of primary power sources in terrestrial low power reactor program
[ORNL-4136] 23 p4286 N67-38529

POWER SERIES
Equilibrium equations and power series expansion to determine thermoelasticity of nonhomogeneous, anisotropic shells
[R665D09] 05 p0772 N67-15002
Optimal evaluation of integral function, and optimal control of stationary systems
[JPRS-39475] 07 p1056 N67-17338
Type evaluation of integral function at optimal speed 07 p1056 N67-17339
Diagonal sequences of Pade table
[MRC-TSR-660] 09 p1467 N67-19700
Mechanical determination of coefficients of formal power series calculated by aid of IBM 1620 computer
[JUL-396-PP] 10 p1688 N67-21749
Four coil systems with prolate volume of uniformity 11 p1929 N67-23782
Convergent power series solution for ordinary nonlinear differential equations
[MRC-TSR-641] 13 p2346 N67-25317
Asymptotic representation of limit cycle of Van der Pol equation for small damping coefficients
[D1-82-0596] 15 p2733 N67-28258
Recursion formulas for coefficients of f and g series
[NASA-TM-X-52005] 15 p2736 N67-28670
Mathematical models to approximate functions, bounds and power series for three-body problems, satellite orbit theories, and other aspects of trajectory analysis and guidance theory
[NASA-SP-141] 16 p2907 N67-29070
Precession quantities and numerical partial derivatives as power series in time from arbitrary epoch
[NASA-CR-84969] 16 p2905 N67-29433
Graeff method for eigenvalues
[CS-63] 16 p2921 N67-29619
Quantum mechanical expression expanded into power series for relaxation time and shear viscosity of gas consisting of loaded sphere molecules
[NASA-CR-89795] 17 p3135 N67-31127
Algebraic rational and context-free power series in noncommuting variables as solutions of certain polynomials systems
[TR-25] 19 p3479 N67-32903
Analytic solution of Schrodinger equation for ground state of two-electron atom and extension of method to hydrogen molecule
[NASA-CR-89016] 21 p3898 N67-33946
Systems of ordinary differential equations solution using expansion in power series method on quick response computers
[NASA-CR-89516] 22 p4061 N67-36870
Diagonal sequences of power series summation table
[MRC-TSR-739] 24 p4479 N67-39704
Condensation transformation method for summation of positive term series
[MRC-TSR-743] 24 p4480 N67-39708

POWER SPECTRUM
Power and cross power spectrum analysis by hybrid computers
[NASA-TM-X-1334] 03 p0366 N67-12369
Power spectrum produced by linear mixing of frequency modulated signals
[IRDC-2358-111-66U] 05 p0676 N67-13368
Fast oxide reactor measurements by noise analysis techniques
[IDO-17210] 07 p1131 N67-17477
Power spectrum of atmospheric turbulence for use in aircraft structural design
[SEG-TR-66-45] 07 p0993 N67-17747
Wind profiles from meteorological balloons subjected to power spectral analysis
[ECOM-5090] 15 p2741 N67-26272
Technique for measuring power spectra of complex nonstationary signals
[D1-82-0585] 18 p3049 N67-33129
Topcat project power spectral measurements in Australia of clear air turbulence associated with jet streams
[ARC-CP-949] 20 p3672 N67-34986
Equations for power spectral density function, and for root mean square of power spectral density function
[NASA-CR-87094] 20 p3690 N67-35129
Solar cosmic ray diffusion and interplanetary magnetic field power spectrum
[NASA-CR-86386] 21 p3898 N67-35966
Pressure gauge array used to measure energy dissipation of ocean waves off Rhode Island for directional wave spectrum calculations
[REPT.-1155] 22 p4094 N67-36822
Computer program abstracts for numerous technical subject areas
[NASA-CR-89971] 23 p4310 N67-38176

POWER SUPPLY
SA AIRCRAFT POWER SOURCE
SA AUXILIARY POWER SOURCE
SA NUCLEAR-ELECTRIC POWER SUPPLY
SA PLASMA POWER SOURCE
SA SOLAR POWER SOURCE
SA SPACECRAFT POWER SUPPLY
Improvement of electrochemical cells such as nickel-cadmium and silver-zinc batteries 01 p0007 N67-10263
Isotope properties, thermoelectric conversion systems, and space missions using isotopic power 01 p0007 N67-10265
Turbomachinery and heat transfer components of Brayton space power system 01 p0007 N67-10266
Applications of thermionics for space power systems 01 p0195 N67-10870
Passive circuit devices for providing continuous electric power
[CR-67-696] 01 p0068 N67-12242
Nuclear reactors for electrical power

production
[BNL-10309] 01 p0107 N67-10612
Fibrous thermal insulation materials for radioactive isotope power supply system
[ALO-3633-1] 01 p0110 N67-10627
Zinc/air high energy density rechargeable energy storage system as power source for vehicle propulsion
[AD-639000] 01 p0000 N67-10634
Electronic equipment evaluation, epitaxial film measurement, and microelectronic power supply
[AD-639001] 02 p0342 N67-11238
Space power system material compatibility tests of selected refractory metal alloys with boiling potassium
[NASA-TM-X-52342] 02 p0269 N67-11330
Vortex valve performance power index
[NASA-TM-X-52297] 02 p0175 N67-11338
Applications Technology Satellite /ATS/ launching, communications, power supply, control, and ground station activities
[NASA NEWS RELEASE-65-97] 02 p0311 N67-11348
Power supply requirements for vacuum modulator tubes with electron beam focused by magnetic field
[ECOM-2734] 03 p0372 N67-12339
Bevatron operation and development - radius feedback system and mezzanine pulsing
[UCRL-16909] 03 p0381 N67-12879
Performance and reliability studies of solar conversion power supply subsystem for Nimbus-B satellite
[NASA-CR-80336] 03 p0335 N67-12970
Development and evaluation of high temperature magnetic and electrical materials for advanced space electric power systems
[NASA-CR-54357] 03 p0413 N67-13188
Fabrication feasibility of power supply synchronizer subsystem
[NASA-CR-80538] 03 p0335 N67-12303
Fabrication of self-contained laboratory power source providing 1 kW continuous wave output over 150 to 800 MHz frequency range
[NASA-CR-80536] 03 p0336 N67-12315
Summary reports on accelerator structures, radio frequency power sources, accelerator control and instrumentation, accelerator physics, and building and site planning
[LA-2567-MS] 04 p0536 N67-13640
Testing of high voltage power supply and linear exciter for Mariner transmitter noise amplitude modulation
[NASA-CR-80573] 05 p0673 N67-14451
Design and development of charging system, solar array simulator, tracking system, and satellite power systems
[NASA-CR-81267] 06 p0796 N67-15635
Vacuum foil type insulation for radioisotope power systems
[ALO-3634-2] 07 p1131 N67-17485
DRUTES code to determine design points of unmanned, direct-radiating, thermoelectric power system utilizing SNAP-8 and SNAP-10B reactors and thermoelectric converters
[NAA-SR-MEMO-11819] 07 p1132 N67-17498
Isotopic battery using strontium 90 decay for energy source 08 p1300 N67-18230
High efficiency current regulated direct current power supplies for use on magnetic field coils
[CONF-661016-12] 08 p1222 N67-18807
Pulsed direct current power supply for septum magnets
[CERN-66-31] 08 p1294 N67-19210
Pulsed excitation of resonance power supply system for high energy synchrotron electromagnets 09 p1427 N67-19378
Power supply and hard tube modulator system for heavy ion linear accelerator high duty factor conversion
[UCRL-17111] 10 p1600 N67-20791
Pulsed jet power supply to wall attachment bistable in fluid switching elements
[B1] 10 p1611 N67-21123
Component reliability, speed of operation, size, and power requirements of moving and nonmoving parts for fluidic devices
[G1] 10 p1611 N67-21124
Magnetic mirror field control in Aston facility
[UCRL-70035] 10 p1722 N67-21559
High temperature vacuum foil insulation for radioisotope power systems
[NYO-3634-3] 10 p1766 N67-21571
Hydrodynamic journal bearing instrumentation program
[NASA-CR-72109] 11 p1892 N67-23330
Low Reynolds number hypersonic force tests of SNAP-19 capsule and Nimbus B satellite solar panel
[MND-3607-89] 12 p2145 N67-23735
Low voltage motor-generator power supply for induction furnace used for melting reactive metals 12 p2107 N67-23956
Power system synthesizer for simulating power line faults, and generating, programming, and recording output voltage, frequency conversion, and transient power conditions
[F-15568] 12 p3018 N67-24307
Self-contained laboratory power source providing output of 150 to 800 MHz
[NASA-CR-84018] 13 p2251 N67-26269
Thermionic reactors as power supply systems for space vehicles - conference
[DGRR/WGLR PAPER-66-092] 13 p2354 N67-26454
Sensors signal conditioning, and power supply instrumentation for Van Allen belt dosimetry system
[NASA-CR-65629] 14 p2530 N67-26590
SNAP-21 program - deep sea radioisotope-fueled thermoelectric generator power supply system
[MMM-3691-12] 14 p2576 N67-27060
Economical separation of starting and holding power supply equipment for large number of sputter-ion pumps used with accelerators
[BNL-11047] 14 p2512 N67-27482
Accelerator structures, power sources, accelerator control and instrumentation, accelerator physics, and project planning in medium-energy physics program
[LA-3674-MS] 14 p2514 N67-27599
Electric power, environmental control/life support, instrumentation, communications, and cryogenic storage systems for earth orbital manned space station
[NASA-TM-X-59699] 14 p2620 N67-27654
Development of multiple source, multiple low voltage converter-regulator power supply with automatic failure sensing and redundant switching
[NASA-CR-84866] 15 p2645 N67-28776
Circuitry, fabrication details, and performance characteristics of 75-VA static inverter for use as gyro platform power supply
[NASA-CR-84800] 15 p2646 N67-28779
Three phase power supply for parametrons
[FTD-HT-66-697] 16 p2822 N67-29547
Solar-cell array simulator providing programmed dc power supply
[NASA-CR-72075] 16 p2824 N67-30140
Universal power supply system consisting of 2.5 kW regulated dc supply, 2 kW inverter, and remote control assembly
[ECOM-67376-F] 17 p2995 N67-30437
Electric design of EBR-II for improved reliability and operation
[ANL-7202] 17 p3108 N67-30526
Application of saturable reactors to nonregulated dc power supplies feeding pulsating loads
[PPAD-616D] 17 p3109 N67-30643
Torque to weight and torque to volume ratios, actuating power requirements, and heat transfer considerations related to application of mechanical contact clutches in space
[NASA-CR-85773] 17 p3072 N67-30664
Ground handling and support equipment for 250 watt radioactive isotope thermoelectric power supply system
[GEMS-2048-I, VOL. III] 17 p3046 N67-31074
Solid state shunt stabilizer circuits used in Mercury digital computer power supply as replacement for thermionic valve circuits
[RAE-TR-66390] 17 p3149 N67-31079
Micropower transistor logic circuits designed to operate from power supply voltages which vary with temperature
[NASA-TN-D-4053] 17 p3037 N67-31194
Aluminum bonded lead telluride couples for use in space thermoelectric power supplies
[NASA-CR-85794] 17 p3099 N67-31372
IMP-E flight plan, communications system, power supply, attitude control system, contamination monitor, experiments, and Delta launch vehicle
[NASA NEWS RELEASE-67-178] 17 p3168 N67-31436
Optical and calorimetric tests of nickel mirrors for use as power source for thermionic generators
[NASA-CR-85750] 17 p3122 N67-31438
Nimbus-B solar conversion power supply subsystem
[NASA-CR-86660] 18 p3196 N67-31866
Solar array power system concepts for variety of manned missions - mechanical design of arrays, structures, and components
[NASA-CR-65657] 18 p3197 N67-31882
Design and performance of SNAP-8 nuclear reactor simulator for nonnuclear testing of space power systems
[NASA-TN-D-4095] 18 p3295 N67-32371
Proposed electric power supply system for high voltage electron microscope research facility 19 p3438 N67-32799
Superconducting magnetic spectrometer used to determine energy spectrum of electron beam and to stabilize high voltage power supply 19 p3457 N67-32900
Circuitry, fabrication, and performance characteristics of 75-VA integrated static inverter for gyro platform power supply
[NASA-CR-87908] 21 p3813 N67-35971
Using in vivo power supplies for implanted electronic devices - bioelectric potential, piezoelectric crystals, muscle power, and biochemical fuel cell
[AD-654702] 21 p3788 N67-36187
Space exploration programs - systems analysis - spacecraft power and guidance systems - propellant engineering and communications systems
[NASA-CR-86106] 21 p3953 N67-36667
Deep sea strontium 90 thermoelectric power supply system - SNAP-21 program
[MMM-3691-6] 22 p4091 N67-37232
Design, fabrication, and test of thermoelectric converter for SNAP-23A terrestrial radioisotope power supply system
[MMM-3824-0006] 23 p4091 N67-37418
Variable parameter power source with controllable voltage modulation, frequency modulation, and harmonic content
[NADC-AE-6721] 22 p3966 N67-37504
Design and performance of ripple filter for fuse power supplies
[HDL-TM-67-14] 23 p4181 N67-38246
Vacuum foil-type insulation for radioisotope power systems
[ALO-3634-04] 23 p4363 N67-38543
Performance of DME-A satellite attitude control, attitude detection, telemetry, command, antenna, and power systems
[TG-907] 23 p4352 N67-38859
No-break power system for sophisticated and/or synchronous communications-electronic equipment
[REPT.-3-ORR-67, PT. II] 24 p4403 N67-39494

POWER TRANSMISSION
Digital measurement technique for turbine engine transmission systems 05 p0679 N67-14670
Diagnostic noise study of X-19 power transmission systems
[C-2979] 10 p1636 N67-20558
Methods of raising power loading of high voltage transmission lines 11 p1834 N67-22184
Power and gain relationships of two-channel and multichannel antennas 13 p2276 N67-25115
Soviet handbook on design and components of gyromotors, suspension systems, spin axle support, power transmission devices, housings, and gyroscopic instrumentation
[FTD-HT-66-359] 16 p2892 N67-29044
Bearing designs for power transmission machinery 21 p3855 N67-35444
Rolling contact bearing designs and applications to power transmission machinery 21 p3860 N67-36079
Design requirements, types and applications of bearings for power transmission machinery 23 p4261 N67-39262
Load capacity/speed interaction of plain bearings for power transmission machinery 23 p4261 N67-39263
Design requirements and types of rolling bearings for power transmission machinery 23 p4261 N67-39264

POYNTING THEOREM
Design, construction, and field testing of device to measure magnitude of Poynting vector associated with electromagnetic field
[REPT.-67-05] 06 p0916 N67-15999
Accuracy of Poynting equation for predicting effect of inert gas pressure on vapor pressure of liquid
[MEL-456/66] 16 p2851 N67-29775

PRACTICE
S MEMORY
S TRAINING
PRANDTL-MEYER EXPANSION
Radiative transport effects in corner flow - solution to diabatic flow problem found as perturbation on adiabatic Prandtl Meyer solution
[TR-124] 06 p0980 N67-15414
Theoretical predictions of weak shocks and Prandtl-Meyer expansions in unsteady flow and three-dimensional steady supersonic flow
[NASA-TM-X-60079] 17 p2992 N67-30906
PRANDTL NUMBER
Prandtl number dependence on hydrodynamic flow characteristics of triangular channels with and without local expansions 06 p1382 N67-18483
Air flow along wing of finite span analyzed using Prandtl integrodifferential equation
[FTD-HT-66-149] 10 p1607 N67-20639
Survey of boundary layer flow in which Prandtl equations apply in laminar or turbulent form
[ACA-67] 20 p3625 N67-34754
PRASEODYMIUM
Gamma-gamma directional correlations and energy level in praseodymium 144 03 p0437 N67-12580
Energy level, spin, and decay rate of 138 praseodymium
[JINR-P-2819] 07 p1150 N67-17495
Oxidation rate of praseodymium foil in pure oxygen
[AWRE-O-72/66] 10 p1578 N67-21512
Electrowinning high purity neodymium, praseodymium, and didymium metals from oxides
[BM-RI-6957] 14 p2559 N67-27733
Magnetic and crystallographic characteristics of praseodymium hydrides 21 p3918 N67-36310
Chemical and electron optical studies of gels, oxide microspheres, and sols prepared from europium, neodymium, and praseodymium hydroxides 21 p3786 N67-36322
Preparation of thorium dicarbonate, uranyl carbonate, and sesquicarbonates of lanthanum, cerium, praseodymium, terbium, and yttrium from corresponding anhydrous acetates 21 p3788 N67-36340
Crystal field heat capacity of praseodymium nickel and praseodymium bismuth 21 p3789 N67-36370
PREAMPLIFIER
Charge sensitive preamplifier for semiconducting nuclear radiation detector stability 06 p0854 N67-16260
Pulse amplitude, preamplifier, photomultiplier, and other electronics improvements in design 09 p1423 N67-19425
Sensitive low noise preamplifiers for semiconductor radiation detectors
[INR-682/I-A/PL] 11 p1839 N67-23958
Design and construction of degenerate parametric preamplifier for upper microwave region
[PROM.-3724] 11 p1839 N67-23006
Antenna, preamplifier, demodulator, and display, synchronization, copying, and data handling equipment subsystem requirements for low cost mobile meteorological satellite ground stations
[AD-651395] 17 p3043 N67-30460
Noise performance and circuitry of charge sensitive field effect transistor preamplifier used in high resolution solid state radiation detectors
[AFWL-TR-67-39] 17 p3035 N67-30462
Current-sensing low impedance preamplifier for high performance 1.5 MHz magnetic tape recorder 18 p3248 N67-31997
Voltage-sensing and current-sensing preamplifiers for magnetic tape recorders 18 p3248 N67-31998
RF intermodulation characteristics of VHF telemetry preamplifiers and receivers
[SC-DR-67-296] 20 p3601 N67-34439
Planetary entry blackout, instrumentation and data reduction for lunation experiment, spacecraft communications system, and low noise transponder preamplifier 20 p3603 N67-34779
FET preamplifier developed for gamma ray spectrometry, and radiation detector data
[IDO-17223] 20 p3700 N67-34930
Low-noise wide-band current preamplifier for use in fast signal processing systems for semiconductor detectors
[ORNL-P-3064] 21 p3813 N67-35430
Infrared heterodyne mixer and preamplifier development program
[NASA-CR-83602] 24 p4462 N67-39785
PRECESSION
SA MOMENTUM PRECESSION
Effects of precession and nutation in equator and equinox of earth
[NASA-TM-X-55600] 02 p0255 N67-11375
Effect of viscous friction on precessional motion of gyroscope requiring correction 03 p0396 N67-12780
Precession and nutation for lunar and earth orbits 05 p0789 N67-14417
Precession and nutation of deformable bodies
[NASA-CR-84052] 13 p2369 N67-26383
Precession quantities and numerical partial derivatives as power series in time from arbitrary epoch
[NASA-CR-84990] 16 p2885 N67-29432
Flywheel despin mechanism performance with coning body
[SC-TM-67-214] 20 p3689 N67-35120
Precession and nutation of deformable bodies - oscillations of incompressible viscous fluid globes
[D1-82-0618] 22 p4023 N67-36844
Spin stability of single-boom configuration, precession damping, infrared aspect sensor, and perigee attitude selection for multiple satellite system
[NASA-CR-73144] 23 p4345 N67-38865
PRECIPITATION
SA ELECTRON PRECIPITATION
SA SNOW
Statistical analysis of precipitation data from cloud seeding Whitetop project for Missouri and Chicago plume rainfall and Chicago plume echo cover 03 p0418 N67-12483
Bistatic radar pattern for drop size distribution in model precipitation volume
[P-6] 03 p0368 N67-12933
Annual and seasonal trends and fluctuations of temperature and precipitation in various regions of British Columbia
[CIR-4396] 04 p0571 N67-13909
Silicon effects on precipitation processes of aluminum-copper-magnesium alloy
[RAE-TR-66065] 04 p0582 N67-14163
Chemical kinetics of excess solute precipitation in liquid sodium solutions
[NRL-6424] 05 p0697 N67-15095
Continuous process for peroxide precipitation of uranium from nitrate solutions
[ISO-207] 06 p0830 N67-16531
Atmospheric research on precipitation scavenging, raindrop evaporation, stream functions and trajectories, observation networks, sampling, exposure prediction, and turbulence spectra
[BNWL-235-1] 07 p1070 N67-17312
Washout coefficients for inorganic iodides in process stack gases measured in three snowfalls and one rainfall 07 p1070 N67-17313
Purification of concentrated lithium chloride solution by oxine precipitation-carbon adsorption method
[Y-1553] 07 p1030 N67-17736
Radar equipment for polarization studies of clouds and precipitation
[FTD-MT-65-303] 07 p1030 N67-17760
Atmospheric electrical soundings related to precipitation 08 p1275 N67-18212
Water and carbon dioxide precipitation technique for manned spacecraft cabin atmosphere using thermal radiation principles
[AMRL-TR-66-118] 08 p1231 N67-18292
Radioactive isotopes for analyzing concentration of microcomponents in natural waters 10 p1577 N67-21214
Cold stratus precipitation, cloud seeding, long range weather forecasting, climatic element fields by orthogonal functions, wind perturbation, and Northern Hemisphere vorticity
[JPRS-39684] 11 p1914 N67-23901
Ice and snow crystals in precipitation cold stratus of Kirin China area - April - June 1963 11 p1914 N67-23902
Precipitation test in seeding cumulus clouds with saline powder 11 p1914 N67-23903
Weather radar applied to measurement of surface precipitation
[RCS-O&D-1966] 11 p1918 N67-23181
Composition of precipitates formed in reactive fuels after long-term storage
[ERDL-T-1681-66] 12 p2196 N67-25607
Clouds, precipitation, icing, storms, turbulence, and their effects on supersonic transport flights 12 p2214 N67-25894
Normal values of precipitation highs in France
[REPT.-55] 13 p2343 N67-26023
Comparative data on Soviet precipitation gauges and international reference precipitation gauge for reducing systematic errors in readings 15 p2740 N67-28159
Mathematical approach to physiochemical process of oxide precipitation from sodium flow
[SM-85/48] 15 p2857 N67-28178
Washout coefficients for selected gases and radioactive particles as function of precipitation rate
[BNWL-SA-657] 15 p2857 N67-28218
Dissolution and precipitation of uranium carbides
[NLCO-TR-8] 15 p2880 N67-28449
Moisture and radar analysis of heavy tropical storm in Florida
[ML-67066] 16 p2934 N67-29441
Synoptic relationship between concurrent radar precipitation patterns and Tiros IX cloud photographs
[AD-649063] 16 p2925 N67-29671
Diffraction contrast at planar interfaces of large coherent precipitates
[CAL/T-221-39] 16 p2908 N67-29713
Radioactivity concentration measurements in air and precipitation over Hawaii
[SU-326-P-16-2] 17 p3099 N67-31468
Frontal cloud characteristics following artificial initiation of precipitation
[T-R-526] 18 p3291 N67-32487
Spectrum, spatial uniformity, and frequency correlation defined for radar clutter and precipitation echoes
[TG-899] 18 p3234 N67-32823
Computer program for simulating moist convection culminating in precipitating cloud
[REPT.-7482-257] 19 p3464 N67-33289
Tritium content in Southern Hemisphere precipitation 19 p3444 N67-33473
Application of radar to measurement of surface precipitation
[REPT.-3] 19 p3486 N67-33661
Propane for artificially precipitating fog
[CRREL-TR-189] 19 p3427 N67-33723
Precipitation formation in convection - precipitation effect on cumulus dynamics and calculation of hail growth
[MW-47] 20 p3672 N67-34223
Recuperation of cesium 137 by phosphotungstate precipitation
[EUR-3473.F] 20 p3580 N67-34567
Global distribution of precipitable water over China, and characteristics of east Asia circulation
[JPRS-41850] 20 p3632 N67-34275
Coprecipitation and adsorption of radioactive elements
[AEC-TR-6716] 21 p3776 N67-35402
Coprecipitation of microparticle impurities from liquid to solid phase 21 p3776 N67-35404
Coprecipitation of plutonium with lanthanum oxalate from mixed solutions of nitric and oxalic acids 21 p3776 N67-35405
Coprecipitation of plutonium with lanthanum oxalate from mixed solutions of nitric acid and ammonium oxalate 21 p3776 N67-35406
Effects of impurities on cerium coprecipitated with potassium sulfate crystals 21 p3776 N67-35407
Coprecipitation and transition of cerium and lanthanum into potassium sulfate crystals 21 p3777 N67-35409
Coprecipitation of astatine with monovalent cation precipitates 21 p3777 N67-35502
Secondary adsorption of europium on barium sulfate and effect of precipitant ion on adsorption isotherm 21 p3776 N67-35505
Sorption of biphosphate ions by radioactive and irradiated barium sulfate precipitates 21 p3776 N67-35506
Weather radar rainfall measurements at range of 75 miles and analysis of raindrop size data obtained from several locations
[ECOM-03071-1] 21 p3982 N67-35600
Rare earth oxides precipitated from anhydrous molten nitrate salts 21 p3782 N67-36230
Equations derived for relating total precipitable water and surface dew point 22 p4000 N67-36860
Brief summary of results in study of precipitation effects in semiconductors

[AD-687381] 23 p4332 N67-38869
Calculation of air vertical velocity rate over Finland on basis of precipitation rates
[REPT.-65] 23 p4282 N67-38345
Tabulated data and maps of precipitation and snow recordings during winter 1964-65 in Finland 23 p4283 N67-38360
Short range, subsynoptic surface weather forecasts of cloudiness and precipitation 24 p4487 N67-39835

PRECIPITATION HARDENING
Precipitation of chromium and zirconium from beryllium-chromium and beryllium-zirconium alloys during aging process
[ATD-66-104] 09 p1460 N67-19619
Titanium sheet alloy selected for precipitation hardening
[WAL-TR-408/3-13] 14 p2551 N67-26849
Stretch forming of precipitation hardened, very long stainless steel skins subjected to heat treatments after forming
[S+T-MEMO-1/67] 14 p2544 N67-27257
Review and potential application of plastic flow theory to polymeric solids, creep, collective dislocation, and precipitation hardening
[AD-651153] 16 p2977 N67-29659
Mechanical and heat treatments for precipitation hardenable stainless steels and effects on mechanical properties
[NASA-TM-X-53578] 16 p2906 N67-29173
Welding precipitation-hardening stainless steels
[NASA-TM-X-53562] 16 p2859 N67-29175
Surface treatments for precipitation hardenable stainless steels
[NASA-TM-X-53603] 16 p2906 N67-29177
Precipitation reactions in carbon containing niobium alloys after heat treatment
[AFML-TR-66-259] 16 p2907 N67-29645
Dependence of irradiation behavior of tempered nickel chromium iron alloy on precipitation state
[ANL-TRANS-421] 16 p2911 N67-29630
Vapor deposition and precipitation hardening methods for producing dispersion chromium alloys
[NASA-CR-54612] 18 p3236 N67-32330
Electron microscopic study of precipitation hardening and plastic deformation of maraging steel
[UCRL-17284] 21 p3868 N67-35853
Precipitation-peptization method for preparation of mixed thoria-urania sols
[ORNL-TM-1782] 21 p3795 N67-36295

PRECIPITATION PARTICLE MEASUREMENT
SA RAIN GAUGE
Cirrus crystals, cloud measurements, precipitation particle distribution and replication, and thin sectioning of snow pellets 08 p0417 N67-13481
Precipitation particle distributions in cumulus congestus clouds using aircraft foil sampler 08 p0418 N67-12485
Airborne cloud particle replicator for measuring form, size, and frequency distributions of hydrometeors in clouds 08 p0394 N67-13486
Precipitation measurement over ocean by weather radar 11 p1913 N67-23066
Airborne photomultiplier for measuring particle size and concentration in clouds and precipitation 11 p1876 N67-22019
Quantitative determination of point and area precipitation by radar echo measurements
[ECOM-00033-F] 11 p1917 N67-23375
Orographic effects on atmospheric precipitation
[ECOM-03713-3] 13 p1351 N67-25631
Sounding and temperature data used to determine snow thickness patterns for use in forecasting of rain or snow
[AD-655167] 19 p3484 N67-33078
Cosmic ray produced radio nuclides as tracers of atmospheric processes
[BNWL-SA-1146] 19 p3494 N67-33957
Tritium content in precipitation for Canada 19 p3444 N67-33470
Low energy protons and electrons precipitated at high latitudes measured using low altitude oriented polar orbiting satellites 20 p3720 N67-34151
Air pollution, dust collectors, particle size, dust precipitation measurements, and comparison of apparatus and measurements 20 p3751 N67-35081
Comparative dust precipitation measurements and conversion of data from different instruments 20 p3844 N67-35087
Correlation of rainfall distribution and drop size with climatic regions and type of rain
[FA-F-1851] 21 p3882 N67-35414
Simultaneous satellite and balloon observations of auroral zone precipitation
[NASA-TM-X-00236] 21 p3844 N67-36485
Continuity equations derived and applied to kinematic models of microphysical processes occurring in atmosphere - precipitation onset
[IERTM-NSSL 33] 22 p4007 N67-37347

PRECISION
Improved precision and timing for photographic satellite tracking 04 p0509 N67-13583
Passive nonmetallic gyroscopic earth satellite for measuring in-plane precession predicted by general relativity
[NASA-CR-84370] 15 p2788 N67-28003
Lens distortion errors and estimated precision of aerial camera 16 p2895 N67-29479

PRECORDIUM
Precordial vector electrocardiogram changes under hypoxia conditions of flight personnel having hypertension and arteriosclerosis 02 p0150 N67-11413

PREDICTION
S IMPACT PREDICTION
S LINEAR PREDICTION
S PERFORMANCE PREDICTION

PREDICTION RECORDING
Simplified prediction equations for satellite position display equipment
[NRL-6396] 04 p0613 N67-13957
Method for increasing accuracy of telemetry signal strength predictions 07 p1633 N67-16727

PREDICTION THEORY
Regression equations for specifying atmosphere density above 30 km from observational data at radiosonde altitudes
[TR-187] 01 p0102 N67-11025
Cyclic processes in biosphere caused by cosmic forces and relation to economic planning 03 p0237 N67-12356
Theoretical basis for prognosis using transient statistics for random processes in form of mean square of Taylor series 03 p0366 N67-12519
Quantum mechanical study of molecules - prediction of ground, ionized, and excited states of unknown nitrogen fluoride molecule
[NASA-CR-668] 06 p0945 N67-15668
Prediction of noise distorted multivariate nonstationary signal from sequence composed of signal and stationary noise
[TR-19] 06 p0843 N67-16356
Prediction theory for motion behavior of helicopter blades at low rotor speeds in strong steady high winds
[ARC-CP-852] 08 p1230 N67-18360
Discrete linear time series models and dynamic models for forecasting and optimal control
[TR-76] 09 p1473 N67-19672
Reliability prediction techniques - ballpark and stress analysis methods
[RADC-SP-66-8] 11 p1889 N67-23612
Digital distributed parameter model to study effects of propellant feed system coupling and hydraulic parameters on chugging instability prediction
[NASA-TN-D-3896] 12 p2196 N67-23795
Linearized characteristics method, and equivalent body method for predicting flow field about axisymmetric body at small angle of attack
[NASA-TN-D-3946] 12 p2685 N67-23854
Axial current algebra tests in pion-nucleon physics
[TR/187] 12 p2189 N67-24281
Correlation of F-2 layer annual ionization anomaly as function of solar radiation entering atmosphere 13 p2310 N67-25103
Prediction of performance and characteristics of automatic control devices from results of theoretical experiments
[FTD-HT-66-243] 13 p2396 N67-25408
Maximum heat transfer rate determinations of heat pipes using analytical model 14 p2631 N67-26794
Prediction of wind and virtual temperature profiles for periods up to 72 hours from surface through stratosphere
[NASA-CR-61170] 14 p2568 N67-27317
Probability forecasting for solar activity and geophysical responses
[REPT.-4WWM-185-1] 14 p2528 N67-27483
Psycholinguistic determination of grammatical aspects of language behavior by studying contextual predictability and frequency factors of two Italian prose passages
[TR-41] 15 p2653 N67-28544
Performance prediction and operation theory for superconducting parametric amplifier used in measurement of small direct current voltages
[R-344] 15 p2630 N67-28711
Algorithm for predicting fracture of brittle materials subjected to transient mechanical and thermal loading
[AFFDL-TR-66-220] 16 p2979 N67-29000
Formulae for predicting stress concentration factors applicable to two-dimensional symmetrical T-head configurations
[AMRA-TR-66-36] 16 p2980 N67-29004
Accuracy of Poynting equation for predicting effect of inert gas pressure on vapor pressure of liquid
[MEL-456/66] 16 p2851 N67-29779
Comparison of methods for treating data on tensile strength of thermoplastics
[PA-TR-2827] 17 p3084 N67-30949
Survey of prediction techniques for solar cycle activity
[NASA-TM-X-53598] 17 p3163 N67-31334
Limitations of theory of radiative transfer in lunar surface, and modified version for prescribing behavior of infrared radiation recorded on earth 18 p3238 N67-31940
Plans for future studies on prediction of joint satellite observations, and San Marco 3 satellite ionospheric experiment 19 p3402 N67-32989
Prediction method for near field noise of subsonic and supersonic jets observing jet-flow structure
[NASA-CR-957] 19 p3499 N67-33469
S-wave pi-pi scattering with small scattering lengths 20 p3699 N67-34918
Comparison of some reliability growth estimation and prediction schemes
[NASA-CR-87993] 21 p3855 N67-35139
Applicability of Cole theory of compressible turbulent flows in calculating skin friction coefficients
[RM-5290-PR] 22 p4028 N67-37537
Climate prediction based on study of upper air wind data
[AFCRL 67-0213] 23 p4277 N67-38228
Review of proceedings from seminar on solar dendroclimatic relationships and discussion of predictions of sunspot activity on basis of tree ring variance
[NASA-CR-66972] 23 p4186 N67-38411
Prediction of fall time of IMP-3 satellite
[NASA-TM-X-55923] 23 p4252 N67-38660
Theoretical method for predicting burnup characteristics of advanced gas cooled, graphite moderated reactors
[AEEW-M-740] 23 p4292 N67-38234

PREDICTOR
Theoretical analysis of first order polynomial predictor for data compression
[NASA-TN-D-3866] 08 p1348 N67-18180
Behavior of sequential predictors of binary sequences
[SEL-66-092] 12 p2132 N67-24088
Numerical solution of differential equations using predictor-corrector multistep methods for stability theory
[NASA-TN-D-3976] 13 p2349 N67-25197
Adaptative predictor studies based on Tiros cloud picture video data, and relative merits of linear and Markov prediction data compression techniques 14 p2492 N67-27485
Conditional expectation predictor applied to data compression, and computer simulation of Tiros cloud cover picture data 14 p2492 N67-27486
Predictor design and coding system for compressed data signal 14 p2492 N67-27487
Predictor-corrector algorithm applicable to numerical integration of satellite orbits in multirevolution steps
[NASA-TM-X-53906] 24 p4380 N67-39980

PREFLIGHT ANALYSIS
FBM-6 non-nuclear test system designed to provide preflight qualifications for SNAP-10A
[NAA-SR-11814] 06 p0915 N67-16438
Preflight and postflight clinical and physiological observations of Voskhod manned spacecraft crew members 10 p1859 N67-20367
Preflight analysis for upper tropopause aircraft flights over Bishop, California to

study atmospheric turbulence due to mountain wave phenomena
[RAE-TM-AERO-971] 17 p3056 N67-31236
PRELAUNCH TESTING
Multiparameter monitoring visual displays for Apollo prelaunch checkout
[NASA-CR-81728] 07 p1048 N67-18617
Shock and vibration environment of Ranger Block III during surface transportation
[NASA-CR-71771] 09 p1536 N67-19656
Prediction of prelaunch checkout procedures in 1970
[P-3518] 12 p2212 N67-34913
PREMIXED FLAME
Burning rates, temperatures, and burnt gas compositions for ethylene-perchloric acid premixed flames
[RPE-TR-66/1] 07 p1300 N67-17606
Burning rates, temperatures, and burnt gas compositions for ethane-perchloric acid premixed flames
[RPE-TR-66/2] 07 p1300 N67-17609
Burning velocities, temperatures, and burnt gas compositions measured for ethylene-rich ethylene -perchloric acid premixed flames
[RPE-TR-66/1, PT. V] 11 p2000 N67-23126
Swirl effects on stabilization and length of turbulent butane-propane air flames
[TAE-61] 12 p2235 N67-34367
PRESERVATION
SA FROZEN FOOD
Radioactive isotopes used in connection with food preservation and storage 06 p0984 N67-15541
Packaging and preservation of space vehicle hardware
[NASA-CR-87419] 20 p3650 N67-35007
Collection and preservation of blood, urine, and feces and sweat samples obtained during space flights
[NASA-CR-89336] 23 p4196 N67-39361
PRESSING
SA COLD PRESSING
SA HOT PRESSING
High density zirconium carbide thin plates by rolling and pressing methods, with subsequent high temperature baking
[JPRS-39434] 02 p0295 N67-11831
Pressing metal shells from high strength beryllium powder
[SCL-DC-66-57] 04 p0556 N67-14024
Isostatically pressed magnesium oxide stirrers for electrorefining plutonium metal
[RFP-825] 07 p1003 N67-17739
Favorable pressing and sintering properties of molybdenum acquired during processing treatment of molybdenum powder raw material 12 p2117 N67-33974
High speed forming machines, and semihot pressing of steels and other alloys
[FTD-HT-66-375] 20 p3651 N67-35144
High speed pressing of semihot steels 20 p3653 N67-35146
High speed, semihot sheet metal pressing 20 p3652 N67-35147
Preparation of high density graphite by hydrostatic pressing
[LA-3664] 22 p4055 N67-37513
PRESSURE
SA ATMOSPHERIC PRESSURE
SA BASE PRESSURE
SA BLOOD PRESSURE
SA CHAMBER PRESSURE
SA COMPRESSION
SA CRITICAL PRESSURE
SA DYNAMIC PRESSURE
SA FORCE
SA GAS PRESSURE
SA HYDROSTATIC PRESSURE
SA IMPACT PRESSURE
SA INLET PRESSURE
SA INTERNAL PRESSURE
SA ISOSTATIC PRESSURE
SA LIGHT PRESSURE
SA PARTIAL PRESSURE
SA RADIATION PRESSURE
SA STATIC PRESSURE
SA STRAIN
SA SUPERCRITICAL PRESSURE
SA SURFACE PRESSURE
SA TRANSIENT PRESSURE
SA VAPOR PRESSURE
SA WALL PRESSURE
SA WATER PRESSURE
SA WIND PRESSURE
Theoretical pressure dependence of elastic constants in face-centered cubic metals
[NWL-2056] 01 p0003 N67-10458
Solar radiation pressure effect on semi-major axis of Telstar II orbit
[NASA-TM-X-55570] 02 p0303 N67-11361
Ultrahigh pressure studies and crystal growth techniques - annotated bibliography
[ATD-66-56] 03 p0452 N67-13491
Pressure wave propagation in snow with nonuniform permeability
[CRREL-RR-210] 05 p0706 N67-15887
Vibration analysis of smooth and ribbed cylindrical shells filled with liquid and subjected to pressure and axial force 09 p1524 N67-20043
Inputs and outputs of digital pneumatic jet components for adaptation to standardized pressure range 10 p1609 N67-21110
Critical field of superconducting aluminum as function of pressure and temperature
[AROD-2771-13] 12 p2194 N67-34581
Computer program for calculating composition of uranium plasma as function of plasma temperature and pressure
[NASA-CR-85363] 16 p2957 N67-30043
Dissociation pressures and phase equilibria of pentafluoroanisole-boron trifluoride complex system
[K-1689] 17 p3015 N67-30828
Controlled temperature and pressure irradiation capsules to study basic swelling mechanisms 18 p3200 N67-32421
PRESSURE APPARATUS
SA LOW PRESSURE CHAMBER
SA VAPOR PRESSURE APPARATUS
Fortran computer program for transient thermodynamics of pressurizers
[WAPD-TM-545] 01 p0165 N67-10689
High pressure gas mixing facility
[Y-1546] 03 p0547 N67-11706
Acoustic apparatus for study of acoustic wave pressure-disturbance propagation in plasma
[NASA-CR-79287] 02 p0293 N67-12233
Synthesis of new solid state materials by ultrahigh pressure techniques
[AFCRL-66-737] 07 p1106 N67-17660
Construction, testing, and refining of vacuum gauges - ionization gauge cross section ratios
[NASA-CR-85970] 18 p3289 N67-31709
PRESSURE BREATHING
Functional test of flight personnel fitness based on cardiovascular activity when breathing under excessive pressure 02 p0187 N67-11472
Elastic lung properties of anesthetized dogs under excess intrapulmonary pressure 03 p0508 N67-11635
Pressure breathing with limited counterpressure against high altitude hypoxia of man
[AGARDOGRAPH-108] 06 p1235 N67-18403
Orifice selection in semi-closed circuit mixed gas underwater breathing apparatus
[RR-1-67] 19 p3284 N67-33623
Cardiopulmonary effects of pressure breathing during hypothermia in anesthetized dogs
[AMRL-TR-66-184] 23 p3979 N67-37389
Rat lung changes resulting from prolonged exposure to 100 percent oxygen at 550 mm mercury
[NADC-MR-6710] 24 p4382 N67-39480
PRESSURE CHAMBER
Equipment for testing metals in high pressure chambers and temperature measuring method
[FTD-TT-65-1807] 01 p0058 N67-11092
Integrated ergometer/lower body negative pressure chamber system for studying physiological response to weightlessness
[LMSC-6-06-66-5] 10 p1567 N67-21248
Test procedure for temperature-altitude determination of forced air cooled electronic equipment using conventional recirculating chambers
[NADC-AE-6637] 12 p2065 N67-34727
Gun tunnel investigations on influence of perforated plate at exit of high pressure chamber
[DLR-FB-67-07] 13 p2303 N67-36089
Safe working conditions for humans operating in caisson pressure chambers supplied by compressed air
[JPRS-40918] 14 p2545 N67-37597
Apollo space suit technology applied in conceptual designs of collapsible hyperbaric chamber for medical therapy
[NASA-CR-89071] 24 p4393 N67-40488
PRESSURE COEFFICIENT
Series expansion and direct integration solutions on inviscid magnetohydrodynamic boundary layer of incompressible fluid flow with pressure coefficient parameter
[NAL-TR-110] 10 p1515 N67-21417
PRESSURE DISTRIBUTION
SA SUPERSONIC PRESSURE DISTRIBUTION
High and low barometric pressure effects on susceptibility and resistance to infection
[NASA-CR-90119] 02 p0215 N67-12280
Approximate method of computing pressure distribution around bodies of revolution at angle of attack at supersonic velocities 03 p0694 N67-13997
Pressure, temperature, and velocity distributions of symmetric airfoil models in boundary layer wind tunnel
[DLR-FB-66-57] 04 p0479 N67-13786
Pressure distribution on metal rolls during rolling process
[NASA-TT-F-10422] 04 p0555 N67-13795
Pressure distribution and sheltering coefficients of gas flow over wavy plate
[AD-640169] 04 p0530 N67-13911
Pressure distribution behind reflected diffracted shock wave
[ARC-27026] 05 p0636 N67-14886
Hydrodynamic forces and pressure distributions for oscillating sphere in incompressible, nonviscous fluid of finite depth formulated as boundary value problem
[AD-640288] 05 p0595 N67-15004
Pressure variations inside gas-filled enclosure due to capillary flow
[NOLTR-66-115] 05 p0598 N67-15060
Pressure distribution in vortex combustion chamber
[FTD-TT-65-1713] 05 p0777 N67-15389
Flow field, pressure distributions, and heat transfer distribution of several tension shell configurations at hypersonic speeds
[NASA-TN-D-3699] 06 p0884 N67-15805
Inverse problem of annular airfoil and ducted propeller for pressure distribution factors
[DTMB-2351] 06 p0787 N67-16136
Laminar boundary layer influences on pressure distribution over geometrices in flow past thin blunted cone at high supersonic velocities
[FTD-TT-65-1118] 06 p0787 N67-16305
Pressure distribution on oscillating panels in low supersonic flow with turbulent boundary layer
[NASA-CR-891] 06 p0845 N67-16689
Pressure distributions on windward surfaces of conical lifting bodies at supersonic speeds
[ARC-CP-723] 07 p0987 N67-16777
Pressure distribution on blunt-fin blunt-plate combination at hypersonic speed
[ARL-66-0142] 07 p0969 N67-17754
Pressure distribution over plane-nosed cylinder at subsonic and transonic speeds
[ARC-R+M-3435] 07 p0999 N67-17906
Estimation of pressure distributions for lifting surface for arbitrary vibration modes
[NLR-TR-F.250] 08 p1265 N67-18977
Effects of fluid mass flow rate and exit orifice diameter on radial static pressure distribution in compressible vortex flow field
[NASA-CR-82156] 08 p1266 N67-18855
Pressure and temperature distributions in shock layer along rays in three-ray scheme for solving singularities of hypersonic nonequilibrium gas flow around blunt body 08 p1270 N67-19174
Structure and behavior of laminar separation bubbles formed under various Reynolds numbers and pressure distributions 09 p1319 N67-19900
Wall pressure distribution in reattachment bubble
[AS] 10 p1611 N67-21128
Mean square deviation distribution of mean-monthly altitude at 500 millibars on Eurasian continent and application to long range forecasting 11 p1815 N67-22694
Supersonic wind tunnel measurements of lead and lateral pressure distributions on circular and rectangular ducts at incidence
[ARC-CP-705] 11 p1778 N67-22790
Pressure distribution at zero lift on slender delta wings at supersonic speeds
[ARC-CP-774] 11 p1773 N67-22799
Pressure distribution of two-dimensional flow on air cushion vehicle
[NT-8-1966] 11 p1782 N67-22971
Helicopter rotor blade pressure distributions compared with static two-dimensional airfoil characteristics for

extreme flight conditions
[NASA-TN-D-3936] 12 p3013 N67-23818
Theoretical and experimental analyses of static pressure in plane turbulent jet at low Mach numbers
[DLR-FB-67-64] 12 p3067 N67-24563
Local heat-transfer data and static-pressure distributions for Freon-113 condensing inside vertical tube
[NASA-TN-D-3952] 12 p2237 N67-24616
Shock wave shape and surface pressure distribution in hypersonic flow of blunt delta wings at low angles of attack
[ARA-81] 12 p3011 N67-24985
Guided missiles exhaust nozzle shape effects on tailfin loads and pressure distribution - Tables
[CAL-AA-2234-W-1, VOL. I] 13 p2342 N67-25126
Splitter effect in conical diffusers - compressibility effect and pressure distribution
[AD-646397] 13 p2341 N67-25173
Force and pressure distribution measurements in wind tunnel tests of rectangular wing with single lifting fan
[ARC-R+M-3457] 13 p2343 N67-26049
Pressure distribution, air speed, propulsion, and other characteristics of experimental air cushion vehicle
[NT-8-1966] 15 p2640 N67-27819
Pressure distribution and shock wave measurements of power law body shapes at Mach number of 6.85
[ARC-CP-871] 15 p2638 N67-28171
Pressure distribution curves applicable to pneumatic tires
[NASA-CR-784] 16 p2977 N67-29026
Vertical distributions of pressure, temperature, and density of mean monthly atmosphere models at 15 degrees north
[AFCRL-67-0120] 17 p3052 N67-30491
Pressure distribution measurements on cones in symmetrical incompressible flow, with and without influence of wake
[NASA-TT-F-11129] 17 p2992 N67-30922
Pressure distribution on trapezoidal wing of canard aircraft model in supersonic pressure tunnel - tables
[NASA-TM-X-140] 18 p3190 N67-31534
Surface flow, heat transfer, pressure distribution, and static longitudinal stability of Mercury capsule model at Mach 6.9 and 9.4
[NASA-TM-X-458] 18 p3340 N67-31728
Pressure distribution on hypersonic glide configuration having 79.5 deg sweepback and 45 deg dihedral at Mach number of 4.95
[NASA-TM-X-823] 18 p3186 N67-31814
Flow on airfoil profiles with blowing out from nose slots - measurement of pressure, temperature and velocity distributions in boundary layer wind tunnel
[NASA-TT-F-10066] 18 p3186 N67-31850
Pressure distribution measurement of interference effects on maximum lift-drag ratio at supersonic speeds produced by wedge shaped bodies located under triangular wing
[NASA-TM-X-76] 18 p3186 N67-31960
Wind tunnel studies of pressure distributions on S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-66580] 18 p3342 N67-32009
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-66575] 18 p3342 N67-32010
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-66581] 18 p3342 N67-32011
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-66582] 18 p3342 N67-32012
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-66576] 18 p3342 N67-32013
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-66583] 18 p3342 N67-32014
Aerodynamic characteristics and pressure distributions of spherically blunted 25 degree cone investigated in nitrogen at Mach 20
[NASA-TN-D-4008] 19 p3364 N67-32443
Delta-wing and half-cone combinations tested to determine surface pressure distributions and flow field interaction
[ARC-R+M-3473] 20 p3561 N67-34692
Heat and pressure distribution on SNAP-19 fuel capsule in hypersonic flow
[MND-3607-93, VOL. I] 20 p3683 N67-34827
Dynamic response of pressure measuring systems, fatigue tests on wing center section tension skins, unsteady pressure distribution estimates, and variable Laval nozzle design 21 p3851 N67-36124
Estimating lifting surface pressure distributions for arbitrary vibration modes
[NLR-TR-F.250] 21 p3851 N67-36126
Maximum sound pressure spectrum calculated from fixed and mobile jets 21 p3897 N67-36461
Calculation of warp to produce load and pressures on thin slender wings in supersonic flow
[ARC-R+M-3471] 22 p3957 N67-37637
Pressure distribution measurements in wind tunnels for aerodynamic application
[TP-451] 22 p4033 N67-37960
Hydrodynamic coefficients for compressible water entry of slender cone
[ERR-PO-317-1] 23 p4239 N67-39166

PRESSURE DRAG
Splitter plate and suction wake effects on pressure drag behind wedge 08 p1274 N67-19310
Pressure drag of airfoil with different round leading edges at transonic and low supersonic speeds
[ARC-CP-921] 16 p2816 N67-30047
Minimum drag surfaces for given lift coefficient in two-dimensional supersonic flow field
[RAE-TR-66305] 20 p3563 N67-35175

PRESSURE DROP
SA FRICTION PRESSURE DROP
Inlet pressure and pressure drop characteristics for nonwetting mercury flow in single, tapered diameter tube cooled by NaK, and comparison to Lockhart-Martinelli correlation predictions
[NASA-TN-D-3691] 01 p0166 N67-16745
Heat transfer and pressure drop relationships for gas flow across bundle of finned tubes 02 p0323 N67-11239
Pressure drop characteristics for subcooled water flow at atmospheric pressure in narrow heated channel
[AERE-M-1739] 04 p0532 N67-13968
Heat transfer and pressure drop measurements for high temperature boiling potassium in forced convection
[NASA-CR-81060] 05 p0775 N67-15151
Pressure losses in tubing and fittings - flow systems analysis, entrance effects in flexible metal hoses, and methods for analyzing flow over rough surface
[NASA-CR-81256] 06 p0885 N67-15844
Time delay, flow velocity, and pressure drop in hydraulic drive with throttle adjustment 07 p1091 N67-17286
Heat transfer crisis and pressure drop data for upward flow of steam-water mixtures in annular and clustered tubular test elements
[EUR-2334.E] 07 p1128 N67-17348
Forced convective nonboiling, subcooled boiling, and subcooled burnout heat transfer and pressure drop of polyphenyl reactor coolants
[EUR-3129.E] 07 p1128 N67-17353
Pressure loss associated with compressible flow through square mesh wire gauzes
[NGTE-R-281] 09 p1435 N67-19970
Pressure drop across sharp end capillary tubes for laminar flow
[HASL-180] 10 p1615 N67-21507
Methods for predicting pressure drops in two-phase flow systems
[UCRL-50123] 10 p1616 N67-21622
Forced convection once-through mercury boiler studied in sodium potassium to mercury heat exchanger for heat transfer and two-phase flow pressure drop data
[NASA-CR-72221] 11 p2000 N67-23883
Transient pressure drop and heat transfer characteristics of regeneratively cooled nozzle assembly used in full scale, cold flow nuclear rocket test facility
[NASA-TN-D-3931] 13 p2063 N67-24618
Pressure drop characteristics for flow of subcooled water at atmospheric pressure in narrow heated channels
[AERE-M-1739, PT. II] 14 p2319 N67-27684
Heat transfer and pressure drop effects on stainless steel inner passage of single tube heat exchanger from water boiling
[NASA-TN-D-4057] 17 p3179 N67-31214
Pressure drop method for determining chemical kinetics of fluorination of beryllium
[NASA-TN-D-3993] 17 p3082 N67-31360
Strength of single layer bellows used in certain pneumatic devices with large pressure drops 19 p3371 N67-33561
Full-face respirator masks for radiological protection and relation of efficiency to pressure drop
[HOHF-3] 19 p3385 N67-33843
Pressure drop and heat transfer in laminar and turbulent tube flow of mercury
[BMWF-FBK-67-05] 20 p3744 N67-34136
Positive acceleration effects on human pulmonary artery pressure
[FPRC/1251] 20 p3576 N67-34814
Heat transfer and pressure drop of argon flowing through single tube with internal interrupted fins
[NASA-TM-X-1428] 20 p3636 N67-35114
Forced convection nonboiling heat transfer coefficients and pressure drop for heating and cooling of water in tape generated swirl flow
[TR-70281-47] 21 p3945 N67-35407
Heat-transfer rates and coefficients and coolant pressure loss characteristics in regeneratively cooled liquid hydrogen-liquid fluorine rocket engine thrust chambers
[NASA-TN-D-4178] 21 p3946 N67-35607
Pressure drop across fixed beds of anthracite briquettes and blast furnace materials
[BM-RI-6945] 23 p4299 N67-39134
Mathematical analysis of pressure drop across curved interfaces
[CRREL-SR-109] 24 p4436 N67-39423

PRESSURE EFFECT
Void measurements in regions of subcooled and low quality boiling - effects of heat flux, mass velocity, and pressure
[AE-238] 01 p0163 N67-10135
Thermodynamic theory for effect of pressure on crystallization kinetics of phase transformation in fused silica
[TR-6] 01 p0090 N67-10503
Derivation of equations for plastic flow in cylinder subjected to external pressure
[NOLTR-66-69] 01 p0159 N67-10905
Conversion of leak flow rates for various fluids and different pressure conditions
[EUR-2982.E] 01 p0061 N67-10909
Partial ionization and pressure effects on hydromagnetic ionizing waves
[APCRL-66-429] 02 p0292 N67-11285
Solid-liquid phase transformations of serpentine and olivine at varying temperatures and pressures
[NASA-CR-80435] 03 p0390 N67-12134
External pressure effect on ring stiffened fiber glass cylinders
[DOUGLAS PAPER-3535] 04 p0617 N67-13619
Electrocardiographic changes in rabbits under effect of high atmospheric pressure
[NMS-TRANS-1125] 04 p0496 N67-14199
Tolerance levels of human ear to overpressure from blast shock waves
[DTMB-2252] 06 p0797 N67-15469
Digital computer simulation of solar pressure effect on spacecraft attitude control after gas system depletion 06 p0963 N67-15797
Mathematical models for pressure variation effects on space dependent dynamics of boiling water reactors and steam generators 07 p1126 N67-17073
Solid propellant ignition and response of combustion to pressure transients 07 p1207 N67-17297
Effect of test chamber pressure level on accuracy of deep space heat transfer simulation
[NASA-TM-X-1355] 07 p1209 N67-17313
Cantilever beam and curved panel structures for sonic fatigue pressure and mode effect studies
[PAR-2D] 07 p1208 N67-17680
Effect of pressure on electromotive force of molybdenum and molybdenum-rhenium thermocouples
[UCRL-14993] 07 p1086 N67-17682
Taylor instability of flat plate subjected to uniform pressure
[GAMD-7235] 08 p1375 N67-18284
Temperature and pressure effects on elastic wave propagation velocity in monocrystalline metallic sodium
[NYO-2564-15] 08 p1289 N67-18484
Influence of temperature, pressure, and

excess of air entering calorimeter on calloricity of kerosene 09 p1540 N67-19487
Pressure effects on semiconductor laser radiation
[TR-5] 09 p1457 N67-20348
Temperature and pressure dependence of infrared and optical spectra of solids
[IITRI-A6138] 10 p1742 N67-20462
Far infrared spectra of solids under high pressure 10 p1743 N67-20467
Pressure effect on formation of compounds in yttrium oxide-aluminum oxide system
[LA-TR-66-64] 10 p1572 N67-20834
Reduced barometric pressure effect on secretory function of salivary glands in humans and dogs
[FTD-TT-65-1678] 11 p1792 N67-22724
Rolling contact bearing lubrication and fatigue life in reduced pressure environment
[NASA-TM-X-52357] 11 p1692 N67-23311
Effect of alveolar nitrogen concentration and environmental pressure on gas absorption rate from nonventilated lung
[FPRC/1242] 12 p2021 N67-23989
Exposure of human males to normal and high pressures to determine whether modifications of renal function occur
[DLR-FB-67-01] 12 p2036 N67-24582
Dent formation in buckling mode of circular cylindrical shells under axial compression 13 p2419 N67-26167
High and low barometric pressure effects on susceptibility and resistance of mice to infection
[NASA-CR-84073] 13 p2361 N67-26372
Buckling strength of truncated conical shell at uniform external pressure on small edge
[NASA-CR-795] 14 p2619 N67-27270
Pressure dependence of energy of resonance gamma ray of gold 197 and hyperfine structure coupling of gold 197 in ordered gold-manganese alloys
[ORNL-TM-1685] 14 p2589 N67-27336
Pressure-temperature history examined for effect on incipient boiling superheats in liquid metals
[ANL-7184] 15 p2726 N67-28518
Oxygen concentration and pressure effects on cellulose fuel ignition by thermal radiation
[USNRDL-TR-67-25] 16 p1963 N67-29000
Sensitivity measurements on hydrogen bubble chamber as function of pressure expansion and bubble density 17 p3066 N67-30981
Partial derivatives of fundamental thermodynamic functions in terms of temperature and pressure variables
[NASA-TT-F-11089] 17 p3190 N67-31585
Melting range of natural gabbro determined at pressures up to 45 kilobars
[NASA-CR-86627] 18 p3361 N67-31839
Physiological response of cattle to long duration reflected pressure in shock tube
[DASA-1855] 18 p3210 N67-32032
Inorganic fillers and pressure effects on films for separators for heat sterilizable silver zinc battery
[NASA-CR-89014] 21 p3769 N67-35534
Low temperature, high pressure hydrate formation investigated in n-tetrabutylammonium halides
[TR-29] 21 p3781 N67-35680
Pressure dependence of Neel and Curie temperatures and crystal structures of rare earth metals and alloys at high pressures 21 p3918 N67-36306
Mathematical model for dynamic response of mammal thorax to environmental pressure changes
[DASA-1857] 21 p3769 N67-36656
Physiological effects of high pressure environments of oxygen, air, and artificial gas mixtures on humans
[FTD-MT-65-245] 22 p3987 N67-36760
Optical absorption edge in lead salts and variation with temperature and pressure
[HP-13] 22 p4128 N67-37060
Pressure effect on optical absorption, radiative recombination, and resistivity of gallium antimonide
[HP-19] 22 p4128 N67-37500
Quantitative analysis of high pressure consolidation of submicron tungsten
[UCRL-50172] 22 p4055 N67-37655
Realistic propellant nonlinearities in structural analysis of idealized solid rocket grains under slow cooling and ignition pressurization conditions
[AA+ES-66-6] 22 p4131 N67-37668
Spectroscopic studies of high pressure effects on crystalline molecular complexes having aromatic hydrocarbons as donors and tetracyanoethylene as common acceptors
[TR-6] 23 p4300 N67-38114
Seebeck effect and electrical conductivity of stannic oxide as function of temperature and ambient pressure
[NASA-CR-69345] 23 p4333 N67-39067
Acceptance test data and mechanical pressure effects on 20 ampere-hour nickel-cadmium secondary spacecraft cells
[NASA-CR-69636] 24 p4375 N67-39988
Computer analysis of mass action equations used to calculate expected pressure dependence for formation of point defects in binary compounds
[SRL-TR-66-C] 24 p4394 N67-39496
PRESSURE FIELD
SA BALANCE EQUATION
Mathematical model for atmospheric pressure field using finite difference method 03 p0419 N67-13894
Turbulent swirling in flames that sets up adverse pressure field and causes increase in axial velocity decay to improve performance of combustion chambers and industrial furnaces
[TAE-56] 06 p1384 N67-19199
Sound detectors and flow noise of simple lines and perforated pipes in motion, and sampling pressure fields beneath turbulent boundary layer
[BR-4973] 12 p2068 N67-24701
PRESSURE GAUGE
SA IONIZATION GAUGE
SA MANOMETER
SA PIEZOELECTRIC PRESSURE GAUGE
Dynamic calibrations of pressure detectors at infrasonic frequencies
[NOLTR-66-105] 05 p0708 N67-14717
Omnidirectional pressure gauge for measuring weak blast waves
[NOLTR-65-172] 11 p1889 N67-22556
Qualification testing of pressure gauge used at Cape Kennedy in launch complex 34 pneumatic distribution portion of propellant consoles
[NASA-CR-83989] 13 p2321 N67-26000
Qualification testing of pressure gauge used at Cape Kennedy in launch complex 34 pneumatic distribution portion of propellant consoles
[NASA-CR-83988] 13 p2321 N67-26010
Qualification testing of pressure gauge used at Cape Kennedy in launch complex 34 3500 psi gaseous nitrogen system
[NASA-CR-83987] 13 p2321 N67-26011
Qualification testing of pressure gauge used at Cape Kennedy in launch complex 34 pneumatic distribution portion of propellant consoles
[NASA-CR-83988] 13 p2321 N67-26012
Proof pressure, function, low and high temperature, and cycle tests of 0 to 100 psig range pressure gauge
[NASA-CR-84090] 13 p2322 N67-26337
Supersonic and hypersonic wind tunnel tests to determine aerodynamic error due to mass flow around pancake type air blast gauge
[BRL-R-1345] 15 p2711 N67-28227
Comparison of atmospheric densities obtained from orbit decay and instruments
[RAE-TR-66370] 15 p2706 N67-28925
Self-recording pressure-time gauges and triaxial accelerometers evaluated during air blast test
[BRL-MR-1815] 19 p3430 N67-33835
Field test data on prototype self-recording pressure-time gauges and triaxial accelerometers 19 p3450 N67-33836
Static pressure gauge for use in high temperature, high pressure plasma flows of short duration
[TR-1001/2340-10/-8] 21 p3910 N67-35899
Environmental and function tests of pressure gauges for systems at Launch Complexes 34 and 37 at KSC
[NASA-CR-88555] 22 p4044 N67-36823
Long duration pressure pulse measurement using short pressure bars
[SC-R-67-1116] 23 p4357 N67-38703
Pressure gauge using thermistors for high altitude balloons 23 p4355 N67-38721
Orbitron and magnetron studies for gauge calibration in extreme high vacuum
[NASA-CR-904] 24 p4454 N67-40398
Installation methods for interior ballistics pressure gauge
[BRL-TN-1642] 24 p4455 N67-40820
PRESSURE GRADIENT
Pressure gradient effects on turbulent boundary layer wall-pressure fluctuations
[REPT.-747] 01 p0089 N67-10250
Turbulent nonisothermal flow of viscous compressible gas in starting length of axisymmetric and flat expanding channels with zero pressure gradient 02 p0822 N67-11232
Incompressible turbulent boundary layer with pressure gradient
[NASA-TT-F-10434] 06 p0364 N67-15882
Local similitude method for approximate solution of three-dimensional boundary layer with pressure gradient 06 p0366 N67-15907
Determination of pressure gradient required to maintain constant wall shear in incompressible boundary layer flow
[NASA-CR-82448] 09 p1389 N67-19181
Fluidics - pressure gradient effect on characteristics of turbulent bounded jet and confined jet
[AD-644727] 10 p1607 N67-20648
Generalized technique for calculation of boundary layers with zero pressure gradient
[R66SD57] 11 p1898 N67-22455
Van Driest eddy viscosity hypothesis used for wall shear stress and heat flux for turbulent boundary layer with pressure gradient
[TWF/TN/14] 21 p3622 N67-36111
Nonsimilar laminar boundary layer analysis applied to hypersonic inlet compression surfaces
[AFFDL-TR-66-146] 21 p3735 N67-36410
Qualitative singularities of viscoplastic flow in cylindrical pipe under effect of pressure gradient 21 p3634 N67-36581
Pressure gradient effect on skin friction balance measurements in channel flow
[DRL-426] 23 p4091 N67-37695
Intermittency distributions in turbulent wall boundary layers with and without pressure gradients
[NASA-TT-F-11256] 24 p4420 N67-39597
Laminar boundary layer with large pressure gradient and surface mass transfer
[P-3508] 24 p4421 N67-39680
Boundary layer study to determine effect of positive pressure gradient on transition from laminar to turbulent flow
[NASA-TT-F-11321] 24 p4423 N67-40196
PRESSURE MEASUREMENT
SA IMPEDANCE MEASUREMENT
SA PACINIAN CORPUSCLE
SA TONOMETRY
Cooling properties of ethyl alcohol at absolute pressure up to 800 atmospheres 02 p0320 N67-11200
Pressure and altitude data for GT-3 flight test
[NASA-TM-X-56486] 02 p0497 N67-12134
Acoustic flowmeter and ultrasonic techniques for measuring pressure in high temperature nuclear systems
[NYO-3623-4] 05 p0708 N67-14697
Pressure scanner unit developed for checking all pressure leads and connections and for providing reference vacuum for transducer calibration in wind tunnel testing
[BRL-TN-1616] 05 p0709 N67-15276
Pitot pressure and heat transfer measurements in shock tunnel, and free piston shock tube evaluation 06 p0360 N67-15717
Orifice effect on heat transfer and pressure measurements in low density wind tunnel
[NASA-TN-D-3229] 06 p1216 N67-18408
Mass drop-off measurements, based on precise pressure and temperature measurements, evaluated for space vehicle gas leak detection
[NASA-TM-X-52651] 08 p1360 N67-19021
Schlieren photography, and heat transfer and pressure surface measurements of transitional and laminar boundary layer separations 08 p1371 N67-19085
Flow separation bubble data, and comparisons with velocity and pressure measurements 08 p1219 N67-19207
Vacuum pressure measurement beneath and within battens of high performance insulation on cryogenic storage tank
[NASA-CR-82908] 09 p1543 N67-19989
Pitot pressure measurements behind cones magnetically suspended in supersonic stream
[AFOSR-66-2510] 09 p1398 N67-20257
Miniature semiconductor pressure sensor containing strain-gauge elements

[FTD-HT-66-314] 10 p1629 N67-39711
Pressure plotting experiments of internal airflow through inclined circular tubes at Mach 4
[ARC-CP-884] 10 p1613 N67-31159
Response times of typical transducer tube configurations for measurement of pressures in high speed wind tunnels
[ARC-CP-913] 10 p1631 N67-31204
Partial pressure measurements of residual gas mixtures in high vacuum systems by time of flight mass spectrometry
[AEDC-TR-66-190] 10 p1633 N67-31326
Scientific instrumentation and apparatus for pressure measurement 10 p1633 N67-31386
Vacuum theory, adsorption, desorption, and diffusion phenomena, pumping systems, pressure measuring devices, and leak detection methods
[ESRO-TM-48] 11 p1855 N67-22503
Planetary atmosphere structure determined from entry vehicle onboard measurements of pressure, temperature, and acceleration
[NASA-TN-D-3933] 11 p1872 N67-22302
Transducers for heat transfer rate, pressure, and force measurements of hotshot wind tunnels
[AEDC-TR-66-238] 11 p1857 N67-22357
Dynamometer for measuring hydrodynamic lift and ram pressure forces
[FTD-HT-66-65] 12 p2101 N67-24012
Static pressure measurements made at subsonic speed to examine compressibility effects on two-dimensional circular cylinder with two tangential blowing slots
[ARC-CP-889] 12 p2010 N67-24021
Pressure increase in hydrogen arc discharge with superimposed axial magnetic field
[ORNL-TR-1440] 13 p2384 N67-25610
Shock wave static pressures measured aboard frigate during firing of 4.5-inch cannon
[TL-1967-2] 13 p2322 N67-26021
Temperature, pressure, density, and wind measurements in upper stratosphere and mesosphere - tables
[NASA-TM-X-55780] 14 p2520 N67-26594
Digital computer programs for determining response of pressure measurement systems to step and ramp forcing functions
[AEDC-TR-66-225] 14 p2531 N67-26754
Tangential velocity profile in Ranque-Hilsch vortex tube by static pressure measurements at wall
[RISO-116] 15 p2689 N67-27924
Upper atmosphere pressure measurements by parachute suspended thermoconductivity gauges released from Arcas rockets
[ECOM-5110] 15 p2705 N67-28696
Modified pressure theory approach used to describe dc discharges in low and medium pressure regimes
[NASA-CR-54665] 15 p2755 N67-28745
Calibration of vacuum gauges for low pressure measurements
[AFFDL-TR-66-190] 16 p2895 N67-29507
Pressure measurements and flow photography tests on two-dimensional base flow at subsonic and transonic speeds
[ARC-R+M-3427] 16 p2814 N67-29662
Transient pressure measuring methods as applied to liquid propellant rocket thrust chamber
[NASA-CR-83584] 16 p2897 N67-29914
Review of literature on reflected shock pressure time profiles for air, oxygen, nitrogen, argon, carbon dioxide, and acetylene
[ARC-R+M-3446] 16 p2939 N67-30036
Heat transfer and pressure measurements on concave nose cylinder for Mach number range 2.49 to 4.44
[NASA-TM-X-221] 18 p3188 N67-32134
Fast ion gauge for determining neutral pressure during plasma formation and decay in 2X machine
[UCID-15165] 20 p3640 N67-34444
Feasibility of noninvasive venous pressure measuring methods during weightlessness
[NASA-CR-87444] 20 p3573 N67-34451
Condensing heat transfer coefficients and two-phase pressure change measurement for forced convection condensation of potassium in vertical downflow inside single tubes
[NASA-CR-651] 20 p3748 N67-35009
Measurement of pressure fluctuations and skin friction on slender wing upper surface
[RAE-TR-66339] 20 p3564 N67-35233
Atmospheric pressure measuring method for automatic meteorological stations 21 p3882 N67-35333
Supersonic wall pressure measurements on rocket sled slipper
[MDC-TR-67-68] 21 p3754 N67-35623
Method for treating pressure volume temperature data from Burnett compressibility apparatus using nonlinear least squares technique
[RI-7020] 21 p3784 N67-36103
Dynamic response of pressure measuring systems, fatigue tests on wing center section tension skins, unsteady pressure distribution estimates, and variable Laval nozzle design 21 p3851 N67-36124
Recursion formulas for dynamic response of pressure measurement systems
[NLR-TR-F.238] 21 p3851 N67-36125
Heat flux and pressure instrumentation used to measure Saturn rocket exhausts
[NASA-TM-X-53613] 21 p3949 N67-36395
Dynamic response of pressure transmission lines to pulse input
[CER66-67AP-JEC51] 21 p3833 N67-36477
Ultrahigh vacuum technology including cryopump, getter ion pump, diffusion pump, and pressure standardization studies
[NASA-CR-72066] 22 p4098 N67-37106
Analysis of upper atmospheric pressure measurements from cone cylinder pitot-static probes of Nike-Apache rockets
[SC-RR-251] 22 p4037 N67-37109
High-accuracy Burnett apparatus constructed for use at 12,000 psi and 0 deg to 65 deg C
[BM-IC-8350] 22 p4020 N67-37415
Pressure and heat transfer on flat 9-degree cones in hypersonic flow 22 p4031 N67-37612
Evaluation of uranium heat vaporization from behavior of uranium-carbon system
[LA-DC-8790] 22 p3992 N67-37928
Normal gravity self-pressurization of 9 in. diameter spherical liquid hydrogen tankage
[NASA-TN-D-4171] 23 p4334 N67-38294
Small volume, ultrahigh vacuum system for ionization gauge studies
[NASA-TN-D-4306] 24 p4455 N67-40566

PRESSURE OSCILLATION
Analytical data on pump-generated pressure, flow, blade wake, cavitation, and stall oscillations for application to turbopump design
[NASA-CR-80156] 02 p0283 N67-12914
Pump-generated pressure, flow, and blade wake oscillations analyses for application to turbopump design
[NASA-CR-80153] 03 p0383 N67-12915
Low pressure combustion instability tests on solid propellants, and pressure oscillation rate of depressurization 06 p0980 N67-15718
Mechanical absorption of acoustic oscillations in simulated rocket combustion chambers
[NASA-TN-D-3792] 06 p0963 N67-16690
Thermal acoustic oscillations induced by forced convection heating of dense liquid hydrogen
[LA-3548] 07 p1309 N67-17739
Motion of gas bubble in incompressible liquid with imposed harmonic pressure oscillations
[REPT.-85-38] 12 p2690 N67-34891
Oscillation amplitudes measured for base pressure behind cones in supersonic flowing gas
[REPT.-67-169] 18 p3259 N67-32169
Flight measurements of pressure fluctuations in turbulent subsonic boundary layer and relation with wall shear stress
[RAE-TR-66338] 20 p3560 N67-34389
Spectrum of pressure fluctuations in turbulent flow
[NASA-TM-X-60395] 23 p4235 N67-38273
Sound waves for pressure stabilization in stellarator 23 p4322 N67-38752

PRESSURE PROBE
Wind tunnel investigation of performance of conical pressure probe at hypersonic speeds
[NASA-TN-D-3719] 03 p0383 N67-13794
Probes for enthalpy and pressure measurements in high-temperature gases
[DLR-FB-67-17] 14 p2537 N67-37300
Errors from rotating total and static pressure measurements of circumferential variation of discharge pressure produced by axial flow inducer
[NASA-CR-85981] 17 p3048 N67-31128
Probe interference in hypersonic near wake
[PIBAL-1011] 20 p3559 N67-34199

PRESSURE PULSE
Dynamic plastic response of pressure pulse loaded rate sensitive ring structure
[REPT.-2] 06 p0975 N67-15771
Displacement, velocity, and acceleration formulas for circular cylinder subjected to step pressure pulse
[SC-TM-67-74] 17 p3174 N67-31350
Long duration pressure pulse measurement using short pressure bars
[SC-R-67-1116] 23 p4357 N67-38702

PRESSURE RATIO
Approximate equations relating Mach number to ratio of dynamic pressure to static pressure
[RAE-LIB-TRANS-1184] 07 p1065 N67-17230
Off-design performance characteristics of two isentropic plug nozzles designed for pressure ratio of 16.5
[NASA-TN-D-3853] 08 p1355 N67-18984
Jet-interaction amplifiers using super-critical pressure ratios 10 p1610 N67-21113
Axial flow compressor study to increase pressure ratio and reduce overall length
[NASA-CR-797] 14 p2608 N67-27301
Performance characteristics of high-weight flow, low pressure ratio, single stage turbine rotor and stator blades
[NASA-TM-X-6] 18 p3220 N67-31918

PRESSURE RECORDER
Pressure recorder for oceanographic use
[NOLTR-66-136] 01 p0072 N67-10401
Pressure impulse pickoff for data converter calibration 05 p0674 N67-14688

PRESSURE RECOVERY
Test results for two-dimensional combined external/internal supersonic compression inlet
[ARC-CP-938] 22 p3956 N67-37165

PRESSURE REGULATOR
Design for increasing working agent pressure in jet amplifiers 07 p0998 N67-16875
Performance of Coanda device as pressure maintainer and as switch or selector - fluidics
[B4] 10 p1557 N67-21134
Venting system for use with cryogenic propellants to control tank pressure during zero-gravity coast
[NASA-CR-72113] 12 p2290 N67-25068
Portable exhaust system for maintaining required negative pressures in glove boxes 13 p2301 N67-25474
Test results for pressure regulator of gaseous environmental control system
[NASA-CR-84453] 14 p2540 N67-27623
Operational and environmental tests of pressure regulator for Apollo spacecraft access arm
[NASA-CR-85255] 16 p2900 N67-30071
Environmental testing of pressure regulator for Saturn IB program
[NASA-CR-88313] 21 p3864 N67-36615
Environmental tests on pressure switches for Saturn IB program
[NASA-CR-88636] 22 p4010 N67-36867
Test results of back pressure regulator specimen
[NASA-CR-88621] 22 p4054 N67-37686
Testing of pressure switch for liquid hydrogen transfer system automatic loading sequence circuit
[NASA-CR-89777] 24 p4419 N67-39999
Functional and environmental testing of pressure switch for use in storage tank
[NASA-CR-89776] 24 p4419 N67-39991

PRESSURE RELIEF VALVE
Functional and environmental testing of compound pressure and vacuum relief valve for Saturn Ib launch vehicle
[NASA-CR-83550] 11 p1891 N67-23276
Environmental testing of compound pressure and vacuum relief valve
[NASA-CR-84676] 13 p2332 N67-26349
Saturn IB program to test spacecraft component reliability
[NASA-CR-88556] 22 p4052 N67-36734

PRESSURE TRANSDUCER
Sterilization of spacecraft telecommunications system - pressure transducers, magnetic tape recorders, and magnetic core memories 05 p0674 N67-14789
Investigation of pressure transducers, sound pressure generation systems, pressure transducer mounting, and forced oscillation dynamic balance for application to hypersonic shock tunnel
[NASA-CR-81713] 07 p1067 N67-18062
Moving belt radiator for waste heat

transfer in space - dynamic model analysis of belt shape and transducer measurement of belt pressures
[R-6289-7] 12 p2918 N67-34486
Operation and components of density probe high voltage pulse generator, manipulator control, and pressure transducers used for flow visualization
[NASA-CR-83953] 13 p2294 N67-25965
Capacitive pressure transducers for conditions of high noise intensity, large frequency range, strong vibrations, and high heat flux
[TP-413/1966/] 13 p2349 N67-26123
Calibration methods for low sensitivity pressure transducers used under conditions of rapid pressure fluctuations and broad frequency range
[TP-414/1966/] 13 p2322 N67-26124
Methods for performance testing of electromechanical pressure transducers
[NASA-CR-84445] 14 p2538 N67-27426
Momentum transfer to solid surfaces by nitrogen molecules at satellite velocities
[NASA-CR-66372] 15 p2790 N67-28385
Pulsed constant current generator for studies of electrical resistance of Manganin and other metal wire shock pressure transducers
[SC-TM-67-30] 16 p2897 N67-29638
Modified ballistic pendulum standard for calibration of shock transducers
[SC-TM-66-567] 17 p3071 N67-31473
Piezojunction effect in miniature solid state pressure transducer
[NASA-CR-66438] 18 p3271 N67-32330
Hydrostatic pressure coefficients of electrical resistivity for carbon and ytterbium pressure transducers
[NASA-CR-87161] 19 p3459 N67-32740
Accuracy of pressure transducers used in short duration wind tunnels
[NPL-AERO-1213] 20 p3644 N67-35123
Dynamic calibration of pressure transducers by air pulse, shock wave, and pulse from dropped weight
[BRL-MR-1843] 21 p3845 N67-35356
Numerical analysis of crystal pressure transducer recordings of stress wave emerging from imparted samples
[UCRL-50223] 21 p3846 N67-35453
Function and environmental testing of pressure switch
[NASA-CR-83907] 21 p3880 N67-36090
Portable calibrator to facilitate calibrations of intermediate range pressure transducers
[AFDC-TR-67-83] 21 p3851 N67-36187
Design and construction of low pressure calibrator for use with transducers at subatmospheric pressures and comparison with shock tube and static calibration methods
[ARC-CP-947] 22 p4044 N67-36882
Frequency response data for pressure transducers used in sonic boom evaluation
[NASA-CR-66369] 23 p4048 N67-37511
Environment and function testing of pressure transducer used for hydraulic accumulator pressure indicator
[NASA-CR-89775] 24 p4451 N67-39987

PRESSURE TUBE

Stress reorientation of hydride precipitates in cold drawn zirconium-niobium pressure tubes
[AECL-2624] 03 p0412 N67-12895
Critical crack length measurements in hydrided Zircaloy-2 pressure tubes
[TRG-1262/C/] 04 p0574 N67-13544
Combined failure of pressure tube and defected fuel element in plutonium recycle test reactor
[BNWL-272] 04 p0580 N67-14131
Supercritical water-cooled loop for pressure tube fuel and collapsed clad element tests in reactor environment
[WCAP-3374-4] 07 p1129 N67-17422
Fabrication of Zircaloy-4 clad zirconium-2.5 niobium pressure tubing by extrusion and cold drawing process
[REPT.-1] 07 p1094 N67-17885
Thermal diffusion of hydrogen in finned Zircaloy 2 pressure tubes
[AECL-2634] 08 p1323 N67-19256
Hydrogen effect on fracture toughness of Zircaloy and zirconium-niobium alloy pressure tubes
[AECL-2623] 10 p1855 N67-21501
Effect of fast neutron irradiation on tensile properties of cold worked zirconium-niobium pressure tubes
[AECL-2625] 11 p1924 N67-22985
Extrusion and cold drawing fabrication of zirconium niobium pressure tubes, and metallurgical evaluation
[AECL-2652] 14 p2547 N67-27784
Fundamental and applied research and development in metallurgy - development of fabrication process for Zircaloy-aluminum composite pressure tubing
[NMI-2000.11] 16 p2910 N67-29781
Transonic pressure tunnel tests to determine effects of sting-support interference on longitudinal aerodynamic characteristics of transport aircraft models with upswept aft ends
[NASA-TN-D-4021] 17 p2993 N67-31034
Lateral and longitudinal aerodynamic characteristics of hypersonic missile configurations with canard controls in supersonic pressure tunnel
[NASA-TM-X-134] 18 p3339 N67-31533
Longitudinal and lateral aerodynamic characteristics of tailless fixed-wing supersonic transport configuration in pressure tunnel
[NASA-TM-X-960] 18 p3193 N67-31933
Computer program for evaluating monopole and dipole conditions in pressure tube reactor lattices
[AEEW-R-515] 23 p4284 N67-38339
Heat-treated Zr-2.5 percent Nb pressure tubes for water-cooled power reactors
[AECL-2990] 23 p4285 N67-38377
Hot press diffusion bonding of sintered aluminum powder to stainless steel to form pressure tube transition joint for heavy water organic cooled reactor
[A1-CE-46] 24 p4492 N67-39899

PRESSURE VESSEL

Stress-strain relations for shallow glass domes with constrained edges
[NOLTR-66-46] 01 p0150 N67-10499
Service life of reduction reactor vessels used for bomb reducing batches of uranium fluoride to uranium metal
[RFP-741] 01 p0165 N67-10625
Effect of openings on strength of reactor containment vessels and design of reinforcements
[IITRI-575P22-15] 01 p0169 N67-10765
Nondestructive testing of PM-2A reactor pressure vessel to obtain data for predicting brittle fracture failure
[WAPD-TM-694] 01 p0199 N67-10771
Fortran IV computer program for design and structural analysis calculations of filament-reinforced metal shell pressure vessels
[NASA-CR-72124] 02 p0318 N67-12097
Indication of size of opening resulting when defective pressure vessel or pressure piping is initially brought to operating conditions
[AECL-2422] 03 p0427 N67-12296
Fatigue properties of neutron-irradiated pressure vessel steels
[WAPD-T-1864] 04 p0558 N67-13379
Stress determination at nonradial openings in spherical pressure vessel
[REPT.-66-9D7-526-R1] 04 p0630 N67-13910
Determination of embrittlement of pressure vessel steels after increasing neutron radiation doses
[EUR-2830] 04 p0560 N67-13972
Fabrication and installation of boiling water reactor pressure vessel
[SWRI-1228-7-33] 04 p0578 N67-14058
Fatigue properties, neutron irradiation effects, and nondestructive testing methods for reactor pressure vessel
[SWRI-1228-4-22] 04 p0578 N67-14059
Fracture toughness of reactor pressure vessel steels
[COO-1477-3] 04 p0562 N67-14096
Electrodeposited nickel, spherical pressure vessel fabrication for cryogenic storage
[NASA-TM-X-53562] 05 p0710 N67-14530
Damaging neutron exposure criteria for evaluating embrittlement of reactor pressure vessel steels
[NRL-6415] 05 p0737 N67-14909
Feasibility of glass and ceramic pressure vessels for deep submergence applications
[DTMB-2343] 06 p0977 N67-16402
Long time integrity of nuclear reactor pressure vessels
[ORNL-NSIC-15] 06 p0914 N67-16524
Shell theories and computer programs for evaluating internal and external pressures at nozzles in pressure vessels
[TID-22343] 07 p1262 N67-17431
Evaluation of austenitic steel as construction material for pressure vessel of fast reactor
[EURFNR-927] 07 p1123 N67-17526
Low temperature irradiation of steels for reactor pressure vessels to determine radiation damage
[RCN-57] 07 p1135 N67-17943
Creep calculations on pressurized thin spherical shell with sealed opening
[NONR-562/20//51] 08 p1375 N67-18261
Theoretical and experimental stresses determined on steel spherical shell models with single radially attached nozzle
[ORNL-TM-1634] 10 p1765 N67-20726
Fatigue strength tests on pressure vessels
[SWRI-1228-1-28] 10 p1765 N67-20862
Fracture toughness testing of reactor pressure vessel steels
[COO-1477-6] 10 p1766 N67-21688
High strength aluminum alloy pressure vessel for measurement of phonon energy shifts produced by neutron inelastic scattering
[SGAE-PH-43/1966] 10 p1723 N67-21798
Irradiation tests on Hastelloy and ferritic pressure vessel steels 11 p1895 N67-23689
Soviet electroslag welding method for production of clad plate rolled products for pressure vessels
[FTD-MT-65-468] 11 p1869 N67-23539
Prestressed concrete pressure vessels evaluated for use in power reactors
[JUL-250-VW] 11 p1926 N67-23997
Short-term loading of conical acrylic windows for external or internal hydrostatic pressure vessels
[NCEL-TR-512] 12 p2110 N67-24843
Smooth-bonded metal liners for glass fiber filament-wound pressure vessels
[NASA-CR-72165] 12 p2111 N67-25070
Experimental stress analyses and fatigue tests on pressure vessels
[SWRI-1228-1-29] 13 p2415 N67-25529
Tension, compression, and impact testing of maraging and alloy steels and titanium alloy - welding materials for submersible pressure hulls
[REPT.-5-10-67-3] 13 p2341 N67-25343
Sealed tube dissolution method applied to refractory plutonium containing materials
[LA-3554] 14 p2476 N67-26825
Nondestructive testing of metal plates for pressure vessel application 14 p2533 N67-26900
Archimedes bathyscape for deep sea exploration
[JPRS-40791] 14 p2633 N67-27296
Low cycle fatigue behavior of internally pressurized boxes
[MEL-5/67] 14 p2629 N67-27715
Metallurgy of fuel elements for power and research reactors, and of steels for pressure vessels
[RISO-129] 15 p2747 N67-28345
Calculation of stress distributions in pressurized cylinders with external fillets using DUZ-1 computer program
[WAPD-TM-654] 15 p2750 N67-28412
Prediction of low cycle fatigue life and terminal failure behavior of pressure vessels
[SWRI-1228-1-36, PT. 2] 15 p2800 N67-28443
Pressure vessel geometry effects on interior ballistics of gas guns
[AFFDL-TR-66-159] 15 p2889 N67-28893
Motor chamber and nozzle shell designs, material and process evaluation studies, and fabrication methods for pressure vessel components of two 260-SL motors
[NASA-CR-72128, VOL. V.] 16 p2964 N67-29022
Advanced vehicle technology and juncture stress fields peculiar to multicellular pressure vessels 17 p3171 N67-30964
Design guide for pressurized gas systems for spacecraft - conversion tables, pressure vessels, materials and fabrication, leak detection, fluid system components, and storage
[NASA-CR-66591] 18 p3198 N67-32149
Flat disk-shaped acrylic windows under short-term hydrostatic loading
[NCEL-TR-527] 18 p3253 N67-32607
Fracture toughness measurements of reactor pressure vessel steels
[COO-1477-7] 19 p3469 N67-32900
Effects of helium coolant pressure changes on research reactor vessel strains associated with core and control rod movements
[BNL-11243] 19 p3495 N67-33005
Sustained and combined cyclic-sustained

stress flaw growth data for estimating life of cryogenic pressure vessels subjected to extended periods of time at pressure
[NASA-CR-72252] 20 p3741 N67-35017
Energy method based on continuum mechanics for stress and deflection determination of submarine hull and foundation structures under hydrostatic loading
[MEL-TM-4/67] 21 p3938 N67-35312
Leakage rates and characteristics determined for minute weld defects in reactor pressure vessels
[NSJ-TR-87] 21 p3886 N67-35528
Nondestructive flaw detection in reactor pressure vessel and primary loop, using acoustic emissions
[IDO-17230] 21 p3859 N67-35849
Cyclic pressure tests and fatigue strength of steel pressure vessels
[SWRI-1228P1-37] 21 p3944 N67-36655
Notch strength of irradiated A302-B steel measured in simulated reactor pressure vessel walls
[NRL-6575] 24 p4463 N67-39485
Irradiation effects at 100 to 240 deg C in six pressure vessel steels
[AE-296] 24 p4488 N67-40143

PRESSURE WAVE
Circumferential variations in resonant pressure wave, resonant combustion diagnostic techniques, and hydrodynamic response of injectors to high amplitude chamber pressure oscillations 06 p0986 N67-15730
Theoretical inviscid fluid mechanics conference - flow theory and hydrodynamic calculations for shock wave propagation problems
[NOLTR-66-191] 07 p1063 N67-17021
Pressure calculation for plane detonation front impingement on metal plate 07 p1063 N67-17023
Propagation characteristics of finite amplitude acoustic pressure wave, and contribution of entropy-producing regions to mechanisms of aerodynamic noise generation
[NASA-CR-736] 11 p1927 N67-21961
Cavitation processes produced by acoustic tensile pressure waves in tap water
[NASA-CR-85776] 17 p3067 N67-31293
Analytical model for describing combustion chamber disturbances during start transient and steady state operations of hypergolic liquid rocket engines
[NASA-CR-88865] 22 p4167 N67-37886

PRESSURE WELDING
Weldability of titanium and titanium alloys using various welding methods
[TB-71] 20 p3656 N67-34356

PRESSURIZATION
SA FUEL TANK PRESSURIZATION SYSTEM
Liquid hydrogen pressurization tests for application to heat exchanger design in Saturn missile
[NASA-CR-79002] 02 p0250 N67-11396
Freon 22-air injection system for pressurizing tanks for Saturn systems leak check
[NASA-CR-82996] 09 p1516 N67-20012
Leakage rate determination by Radiflo method using krypton-85 as tracer, and by helium pressurization
[SC-DC-67-1534] 17 p3061 N67-30639
Streamer observation in high energy pressurized gas discharge chamber 17 p3065 N67-30968
Design guide for pressurized gas systems for spacecraft - thermodynamic and physical property data
[NASA-CR-86390] 18 p3198 N67-32147

PRESSURIZED CABIN
Clothing and equipment, instrumentation, and pressurized cabins for protection of aircrew during high-altitude aircraft flights
[ATD-66-67] 03 p0332 N67-12404
Pressurized cabins and oxygen equipment for high altitude flights 03 p0352 N67-12497
High altitude instrumentation and equipment failure - ventilation-type pressurization cabin 03 p0353 N67-12498
Hermetic sealing and thermal insulation in construction of ventilation-type and regeneration-type pressurized cabins 03 p0332 N67-12499
High altitude equipment and pressurized aircraft cabin requirements 03 p0332 N67-12500
Cabin pressurization characteristics of USAF and commercial transport aircraft
[AD-654311] 21 p3758 N67-36044

PRESSURIZED SUIT
Development of pressurized antigravity suit with oxygen regulator for flying personnel high altitude protection
[FPRC/1232] 01 p0023 N67-10479
Thermal performance of air ventilated suits as heat exchangers measured on heated manikin
[FPRC/1239] 01 p0023 N67-10546
Pressurized suit feasibility for use in workplaces at temperatures of 40 to 50 deg C
[AHSB/RP/-M-43] 01 p0024 N67-10583
Water immersion technique to simulate ingress and egress maneuvers under weightlessness conditions in six degrees of freedom for astronaut in pressurized suit 04 p0498 N67-14251
Thermal balance between heat removal and metabolic rate in pressurized Gemini G2-C full pressure suit at two barometric pressures
[NASA-CR-81185] 06 p0986 N67-15830
Physiological, psychological, and microbiological aspects of 24 days confinement, including 20 days each in fully pressurized suits and in simulated altitude of 27,000 ft in pure oxygen
[NASA-CR-708] 07 p1021 N67-17601
Personal hygiene procedures during and skin reactions from 20-day period in pressurized suits 07 p1015 N67-17615
Design, fabrication, and testing of prototype one-atmosphere arm and overglove system for astronauts
[NASA-CR-65685] 11 p1901 N67-23327
Pressure suited astronaut performance characteristics studied during ingress and egress maneuvers through airlocks and passageways
[NASA-CR-66341] 11 p1901 N67-23329
Sensible heat transfer effects in Gemini and Apollo pressure suits
[NASA-CR-83744] 12 p2036 N67-24923
Prototype extravehicular pressure suit assembly for use in earth and lunar environments
[AMRL-TR-66-143] 14 p2472 N67-27057
Performance and thermal response of Gemini extravehicular space suit tested in simulated environment
[NASA-CR-65617] 14 p2473 N67-27233
Partial-pressure suit as emergency garment for astronauts and aircrew
[SAM-TR-67-15] 18 p3319 N67-32653
Closed cell sponge, integrated into partial pressure suit, to cause pressure on human body in vacuum environment
[AMRL-TR-66-183] 19 p3380 N67-32991
Full pressure spacesuit helmet with aspherical glass faceplace for astronaut protection during extravehicular mission
[AMRL-TR-66-193] 19 p3381 N67-33106
Assessment of type B full pressure suit as parachuting garment
[RAE-TR-66330] 20 p3586 N67-35195
Insulation suit with air regeneration system for human protection against radioactive environment
[JPRS-41816] 21 p3770 N67-35385
Studies and tests to standardize light-duty PVC pressurized suits, blouses, air hoses, and connecting fittings
[AHSB/RP/-R-76] 22 p3976 N67-36780
Wet suit worn in conjunction with antigravity suit evaluated in acceleration tolerance tests
[NADC-MR-6713] 24 p4366 N67-39611
Longitudinal and circular pressure sealing closures for full pressure protective suit assemblies
[AMRL-TR-67-59] 24 p4389 N67-39794
Filamentary fabric made with slip-net principle principle for pressurized suits
[NASA-CR-89786] 24 p4544 N67-39937

PRESSURIZED WATER REACTOR
Fuel cycles in CANDU and pressurized water reactors - uranium production and discharge irradiation 03 p0423 N67-12600
Zircaloy braze alloy and brazing procedure for pressurized water reactor fuel element assemblies
[ITTRI-578P29-2] 04 p0557 N67-14092
Neutron flux measurements for reactor pressure vessel, and exposure limit calculations for preventing radiation embrittlement
[NRL-6476] 06 p0914 N67-16479
Analog simulation of pressurized water nuclear power plant with space time core equations for ship propulsion
[EUR-3112.I] 07 p1126 N67-17902
Workability, heat treatment characteristics, and corrosion resistance for pressurized water of zirconium molybdenum chromium and zirconium molybdenum nickel alloys
[NSJ-TR-24, REV.] 12 p2119 N67-24310
Existing data analyzed for applicability to boiling and pressurized water reactor accidents
[BMI-1790] 14 p2576 N67-27486
Heat transfer and fluid flow characteristics in pressurized water reactor
[EURAEC-1724] 15 p2746 N67-28313
Pressurized water reactor pH reactivity effect
[WCAP-3696-1] 15 p2748 N67-28436
Control of xenon instabilities in large pressurized water reactors
[WCAP-3680-1] 15 p2749 N67-28471
Reactor technological developments in pressurized water reactor and power reactor research facility
[WAPD-BT-30] 17 p3103 N67-30170
Certain process variable effect on bond quality of gas pressure bonded pressurized water reactor core 2 plate type fuel elements 17 p3104 N67-30177
Porosity control in manufacture of pressurized water reactor seed fuel wafers 17 p3104 N67-30178
Reactor technological developments utilizing pressurized water reactor, water cooled reactor, water moderated reactor and fuel elements
[WAPD-BT-31] 17 p3104 N67-30203
Experimental confirmation of pressurized water reactor core 2 seed 1 poison wafer space design 17 p3104 N67-30204
Release and distribution of fission products from pressurized water reactor core 2 fuel materials 17 p3105 N67-30212
Heat transfer and liquid flow characteristics in pressurized water reactor
[EURAEC-1770] 17 p3105 N67-30237
Radiological control of refueling of pressurized water reactor shippingport atomic power station with core 2 and modifications on other reactor systems to accommodate new core characteristics
[WAPD-298] 19 p3496 N67-32922
Burnout heat flux in boiling water
[EURAEC-1534] 20 p3744 N67-34161
Physical characteristics of UO2 fuel specimens for Army PM reactor fuel experiments to study radiation effects in pressurized water reactor
[ORNL-TM-1783] 21 p3885 N67-35588

PRESTRESSING
Prestress process for nuclear reactor application
[EUR-3264.F] 11 p1923 N67-22924
Prestress to laminate one-directional framework during polymerization for increased strength
[NASA-TT-F-10909] 14 p2561 N67-27522
Prestressing during resin polymerization for increased strength of one-dimensional laminate
[ONERA-TN-104/1967/] 16 p2916 N67-29941
Analytical data on free vibrations of pressurized prestressed toroidal shell applied to simple toroidal shell structure models
[NASA-CR-885] 22 p4132 N67-36913
Tungsten cable for internal prestressing of chemically consolidated zirconia
[NASA-CR-89697] 24 p4457 N67-39851

PREVENTION
S ACCIDENT PREVENTION
S CORROSION PREVENTION
S FIRE PREVENTION
S ICE PREVENTION

PRIMARY COSMIC RADIATION
Flux of primary cosmic radiation from Luna-10
[NASA-CR-80172] 02 p0302 N67-12338
Flux of heavy nuclein primary cosmic radiation and solar cycle modulation
[NASA-TM-X-55706] 08 p1258 N67-18384
Charge and energy spectra of primary cosmic rays made with large area Cerenkov scintillation counter on baloon flights - heavier than iron nuclei
[NASA-CR-83419] 11 p1927 N67-22876
Spectrometry of primary and solar protons by meteorological balloons over Iceland using scintillation and Cerenkov counters 11 p1971 N67-22918
AES Proton I measurement of primary

cosmic ray energy spectrum in high energy range
[NASA-CR-83531] 11 p1972 N67-23357
Measurements of primary cosmic radiation gamma quanta from Proton I and II satellites
[NASA-CR-83850] 13 p2396 N67-25900
High energy cosmic ray experiments in manned orbiting laboratory
[NASA-CR-85839] 17 p3155 N67-31163
Primary and secondary particle radiation doses shielded from solar flare and Van Allen belt protons by aluminum and polyethylene slabs
[NASA-CR-88879] 22 p4137 N67-37629
Determination of fragmentation parameters of multicharge component of primary cosmic rays
[NASA-CR-88971] 23 p4329 N67-38349
Solution of Fokker-Planck diffusion equation in intensity prediction of antiproton component of primary cosmic ray flux
[NASA-CR-88977] 23 p4329 N67-38297
Antimatter body size and primary cosmic ray flux
[NASA-CR-89306] 23 p4340 N67-39051
PRIMER
SA FINISH
Desensitization process for zirconium powder used in primers
[T68-24-4] 11 p1811 N67-22668
Corrosion protection of epoxy primers on aluminum containing cadmium plated high strength steel fasteners
[NAEC-AML-2530] 13 p2334 N67-25182
Corrosion protection of antimony oxide primers over aircraft metals
[NAEC-AML-2532] 14 p2558 N67-27469
Polyamide diphenolic acid wash paint primers
[CCL-228] 17 p3015 N67-30652
PRINCIPLE
S MAXIMUM PRINCIPLE
S PONTRYAGIN PRINCIPLE
S SAINT VENANT PRINCIPLE
S VARIATIONAL PRINCIPLE
PRINTED CIRCUIT
Topographic simulation scheme used to program path layout of conductors in printed circuit board design
11 p1847 N67-22629
Microcellular techniques for application to modern batch fabrication processes
[SR-1] 11 p1794 N67-23123
Flat conductor harness for lightweight multilayer printed circuit board
[NASA-TM-X-53584] 11 p1840 N67-23333
Production engineering measure for multilayer printed wiring board
[REPT.-5] 17 p3034 N67-30386
Feasibility of using waveguide devices of superhigh frequency range for construction of logic elements for high speed digital computers
[FTD-MT-67-98] 19 p3466 N67-32782
Solder cracking of printed circuit boards from induced stress in soldered connections
[NASA-TM-X-53653] 22 p4018 N67-36783
PRINTED RESISTOR
Properties of vacuum deposited thin film nichrome resistors for microelectronic circuit applications
18 p3242 N67-31573
Pilot process for fabrication of screened resistors on ceramic substrates
18 p3243 N67-31576
PRINTER
Solid state raster scan character generator for facsimile annotation
[TG-831] 01 p0053 N67-10515
Automatic conversion of standard numerical strip printer to combine two-dimensional pulse analyzer information into convenient page
[TID-23746] 16 p2966 N67-29864
Contact printing with coherent light
[TO-B-66-89] 17 p3074 N67-30180
Design and fabrication of multifunction contact and projection printer
[ECOM-00177-F] 20 p3640 N67-34524
PRISM
SA QUARTZ
Correlation of spectral irradiances determined by prism and filter spectroradiometric techniques
[NASA-CR-80191] 03 p0430 N67-12936
Boundary problem connected with calculation of prismatic elastic shell of variable thickness
[FTD-TT-65-1906] 10 p1764 N67-20621
Optical resonator consisting of two rotating prisms able to remove reflection losses and obtain discrete magnitudes of dispersion
[FTD-HT-66-109] 10 p1694 N67-21363
Pyramid-shaped prism for reducing light beam vignetting and eliminating autocollimation hot spot sensitivity to transverse displacement
15 p2708 N67-27849
Development of large prism spectrograph with high dispersion spectrum
17 p3061 N67-30701
PRISMATIC BAR
Semimembrane nonlinear theory applied to prismatic shells with finite number of thin rectangular plates
09 p1536 N67-20127
PRIVATE AVIATION
Flight test of light aircraft stability augmentation system for private aircraft accident prevention
[FAA-ADS-83] 03 p0333 N67-13058
Economic benefits and potentials of general aviation industry, and need for government planning of airport and airway systems
11 p2003 N67-22271
PRM
S PULSE RATIO MODULATION /PRM/
PROBABILITY
SA DUFFING EQUATION
SA STATISTICAL PROBABILITY
SA TRANSITION PROBABILITY
Mathematical model for space mission success evaluation
[NASA-CR-79323] 01 p0152 N67-10340
Probabilistic event store computer simulation for evaluating interactions between surface-to-air missile systems and aircraft in nonjamming environment
[TR/RP-67] 01 p0168 N67-10320
Sequential probabilities, and learning and retention of tracking task skill
[NASA-CR-79915] 02 p0223 N67-11847
Multiple collision probabilities and their dependence on angular distribution of incoming neutrons
03 p0424 N67-12804
Probability of failure constraint concept for optimization of general structural system under simultaneous and alternative load systems - truss example
[NASA-TN-D-3777] 04 p0618 N67-13720
Queueing systems with limited channel resources, and Markov chain probability model for problem of homogeneous system with single action channels
05 p0736 N67-14347
Error acquisition probability in Mark 1 ranging subsystem as function of signal-to-noise ratio and integration time used in correlation
06 p0839 N67-15916
Computation of expected discounted return in Markov chain
[AD-641193] 06 p0902 N67-15969
Formulas for upper and lower probability inferences based on sample from unknown finite univariate population
[TR-14] 06 p0904 N67-16350
Test for suboptimal actions in Markovian decision problems and intrinsically determined Markov chain
[AD-641195] 07 p1112 N67-17342
Intrinsically determined Markov chain
07 p1112 N67-17344
Selection from multivariate normal populations
[NASA-CR-81723] 07 p1115 N67-18011
Saddle point method of approximating probability of extreme values of random variable
[TR-510] 09 p1467 N67-19692
Finite and infinite sequences of exchangeable events - statistics
[TR-64] 09 p1470 N67-20018
Convolutional encoding and decoding, algebraic decoding, and probabilistic decoding
[R-327] 10 p1583 N67-20527
Probability ratios for negative pion-deuterium reactions determined by gamma quanta yields from hydrogen and deuterium gas target
[JINR-P1-2906] 10 p1727 N67-21641
Probability discrete automata for signal control, using thyratrons
[FTD-HT-66-646] 10 p1597 N67-21944
Error probability for fading dispersive channels, and optical propagation through turbulent atmosphere
11 p1830 N67-22650
Method to evaluate joint probabilities necessary to determine operating characteristics of dependent mixed sampling inspection plans for single specification limit case
[N-26] 11 p1908 N67-22685
Deterministic solutions for class of chance-constrained programming problems
[ORC-66-34] 11 p1910 N67-23416
Probability of channel realization of nuclear reaction, derived by maximum likelihood method
[JINR-P10-2925] 12 p2158 N67-23556
Average digit error probability after decoding random linear codes
[AFCRL-66-695] 12 p2050 N67-23614
Preparedness and unconditional probability of trouble free operation functions derived for repairable multiaction devices
12 p2070 N67-24208
First-passage probability used as measure of performance in stochastic control problem - dynamic programming
[NASA-CR-66349] 12 p2073 N67-25060
Decision making during paced arrival of probabilistic information
[IZF-1966-17] 13 p2362 N67-25651
Moment method equations for probability calculations of multiphase logic circuits
13 p2397 N67-25725
Application of probabilistic modeling techniques to tilt stabilization assembly for radar aircraft antenna
[NASA-CR-83964] 13 p2353 N67-26065
Averaged estimate of probability of false signal used in searching for minimization method in analog computer
14 p2500 N67-26862
Bibliography of subjective probability and Bayesian procedures - regression analyses
[NASA-CR-84487] 14 p2545 N67-27645
Least squares method of determining polynomial for deriving relation between probability characteristics of prediction error and measurement error
15 p2783 N67-28130
Probability of mission success by trajectory optimization for translunar space flights
[NASA-CR-84815] 15 p2791 N67-28772
Linear programming approach to solution theorems in probabilistic programming
[AD-650284] 15 p2876 N67-29954
Error probability prediction based on statistical properties of random variables
[ECOM-0151-M1091] 16 p2918 N67-29115
Data generating model used in complex probability estimation tasks by human subjects
[P-3579] 16 p2825 N67-29138
Probabilistic interpretation of Miner's rule for cumulative damage due to fatigue
[D1-82-0603] 19 p3545 N67-33165
Feasibility of numerical calculation of probability integrals of n-dimensional normal distribution
[DLR-MITT.-67-07] 19 p3462 N67-33466
Fiducial sets and theorems, and search algorithm for probability of complex system failfree operation
21 p3879 N67-35812
Distributions determined by cutting simplex with hyperplanes
[TR-17] 21 p3879 N67-35890
Coefficients of Weiner canonical expansion for likelihood function of continuous Martingale
[AFOSR-67-1555] 23 p4083 N67-36973
Development and evaluation of probability indexes for photointerpreter performance
[AD-650853] 24 p4392 N67-40250
PROBABILITY DENSITY
Probability of segment overlap by system of random segments investigated and applied to visual observation under cloudy conditions
02 p0376 N67-12507
Adaptive decomposition of superposed patterns of probability density functions
[RADC-TR-66-549] 06 p1252 N67-19529
Probability density of extreme values of deflections and stresses of elastic shell nonlinear vibrations under random loads
09 p1527 N67-20068
Data processing method using normal law superposition applied to calculation of probability densities
[JINR-P10-2933] 12 p2162 N67-23747
Asymptotic variances and covariances of maximum likelihood estimators from censored samples of four-parameter generalized gamma population
[ARL-66-0158] 14 p2583 N67-26670
Sums and products of two Rayleigh distributed random variables and relationship between Rayleigh density and other probability densities
[NMC-TM-67-15] 15 p2795 N67-28567

Distribution of time between successive axis-crossings obtained by stochastic process [AD-632364] 18 p3289 N67-33665
Random scattering of quasimonochromatic radiation in long transmission line [AFCRL-67-0953] 22 p3994 N67-36718
Density functions for some random sums of normal, sinusoidal, and Rayleigh variables [NMC-TM-67-35] 23 p4273 N67-38300
Cauchy distribution of product and quotient of random variables from population characterized by probability density function 24 p4477 N67-39476
Pareto probability density distribution used to find the statistical probability of detecting radar target signals of unknown frequency [RM-5429-PR] 24 p4406 N67-39716

PROBABILITY DISTRIBUTION
Implementation and performance of maximum likelihood detector in channel with intersymbol interference [NASA-CR-79027] 02 p0234 N67-11857
Probability distribution of phase error of Mariner type communication system - differenced output statistics of cross correlators 02 p0239 N67-12149
Probability distribution estimation for errors in discrete velocity measurement 03 p0393 N67-13423
Selection procedures, ranking methods, and order statistics from multinomial distribution [AD-635619] 03 p0416 N67-13433
Fortran computer program for studying trinomial probability distributions in reliability problem [ORNL-4004] 04 p0569 N67-14041
Asymptotic Chi-square distribution of log likelihood ratio to obtain confidence limits of reliability of systems that can be represented by Boolean function of Bernoulli variates [D1-82-0489] 04 p0570 N67-14342
Bayesian study of multinomial distribution [TR-50] 05 p0729 N67-14944
Admissible Bayes procedures and classes of epsilon Bayes procedures for testing hypotheses in multinomial distribution [TR-55] 05 p0729 N67-14959
Identifiability of countable mixture of discrete probability distributions using infinite matrices methods [ARL-66-0146] 05 p0730 N67-15018
Amplitude probability distribution of received noise and current in lightning discharges and of ELF and VLF radio noise [RR-511] 06 p0870 N67-15420
Multivariate logarithmic series distribution as probability model for human ecology [ARL-66-0148] 06 p0902 N67-16038
Theoretical relationship between spectral density function and probability distribution of crossings for stationary random function with Gaussian distribution [ARC-CP-834] 07 p1146 N67-18189
Analysis of equation for conditional probability distribution of state of nonlinear system and application to nonlinear filtering 06 p1245 N67-18306
Spatial distribution of rainfall probability over Barbados based on 11-year sample stratified for climatic and synoptic regimes 10 p1870 N67-30426
Distribution of waiting times in bivariate Poisson exponential process [D1-82-0573] 11 p1906 N67-32393
Spin deviation probabilities in ordered magnetic materials [TR-31] 11 p1906 N67-32400
Reliability applications of bivariate exponential distribution [ORC-66-36] 11 p1909 N67-33114
Probability distribution of time to first loss of lock investigated by second order phase-locked loop - spacecraft telemetry and command 12 p2050 N67-33643
Average time dispersion expressions for use in correct operation of emergency systems - numerical characteristics of probability distribution 12 p2070 N67-34311
Probability and canonical distribution functions for characterizing particle position and velocity in Brownian motion model 12 p2155 N67-34239
Tables of confidence intervals for binomial distribution [PMR-MP-39-23] 12 p2340 N67-34960
Renewal theorem for nonnegative random variables - probability distribution functions [AD-648577] 14 p2564 N67-37073
Dynamic systems, and electronic theory on nonlinear intervals, and performance bounds of optimum detection for Gaussian signals 14 p2509 N67-37100
Electronic developments furthering research in areas of language learning, information processing, data transmission, and certain other subfields 14 p2489 N67-37103
Formulae and tabulation of estimator biases for negative binomial distribution [ORNL-4005] 15 p2735 N67-38519
Bibliography on statistical probability and probability distribution functions [ARL-66-0185] 15 p2808 N67-38542
Probability distribution of distances between atoms in copper crystal lattice [D1-82-0593] 15 p2782 N67-38689
Statistical analysis of simulated upper sideband static Doppler tracking data to determine probability characteristics of error distribution [NASA-CR-85846] 17 p3027 N67-31122
Theory and solutions for ranking problems in multivariate normal statistical populations [NASA-CR-85594] 18 p3285 N67-31744
Statistical analysis of renewal and Markov processes - probability distribution [AD-652492] 19 p3478 N67-32789
Tables of joint probabilities useful in evaluating mixed acceptance sampling plans [NASA-CR-87424] 20 p3669 N67-34190
Sequential detection of changes in Gauss-Markov process achieved through probability ratio test [NASA-CR-87477] 20 p3691 N67-34543
Probability of sample distribution function lying between two parallel straight lines [TR-48] 21 p3876 N67-35343
Asymptotic expansion for posterior distribution with observations drawn from member of one parameter exponential family [TR-114] 22 p4062 N67-37094
Dichroism and birefringence of polymers containing polyene segments [ONR-TR-91] 23 p4269 N67-38112
Poisson approximation to binomial for relating percentiles of beta and chi squared distributions [SC-DC-67-1788] 23 p4276 N67-38686
Multidimensional iteration theory applied to calculate distribution probability of points on rectangular lattices [DISS-3805] 24 p4479 N67-39467
Extension of matrix formulation of nonlinear statistical mechanics to Bogoliubov gas - perturbation solutions for plasma electron distribution and correlation functions [ARL-67-0103] 24 p4508 N67-39844

PROBABILITY THEORY
Set theory and probability theory for defining total and partial system reliability 02 p0247 N67-12133
Bivariate goodness-of-fit test, similar to Kolmogoroff-Smirnoff univariate test for estimating error and erasure probability of indicator channel - information processing 02 p0236 N67-12148
Estimates for probability characteristics of thinned recurrent flows and possible application 03 p0376 N67-12511
Mathematical expectancy and reliability determination of reserved systems with or without repair 03 p0376 N67-12512
Average search time evaluation for word in dictionary using compressed codes as memory address 03 p0370 N67-12516
Reactor cell parameters in multigroup collision probability theory [EUR-3075.E] 03 p0427 N67-13093
Property equations for queues with servers, random arrivals, and exponential service times [TRG-1158/S/] 03 p0417 N67-13155
Stellar and planetary atmosphere light scattering theory based on probability [NASA-TT-F-10325] 04 p0581 N67-13795
Maximum likelihood method applied to high energy elementary particles [DESY-66/17] 04 p0592 N67-14098
Probability theory applied to contamination analysis and monitoring of spacecraft sterilization requirements 05 p0852 N67-14781
Literature survey of problems on information theory, statistical analysis, and probability theory [FTD-HT-66-289] 07 p1113 N67-17718
Probability of first occurrence of specified sequences 08 p1245 N67-18300
Combinatorial communication - interpretation of basic combinatorial formula 08 p1246 N67-18347
Epsilon-delta entropy concept applied to data compression techniques 08 p1253 N67-18351
Parameter estimation in exponential decontamination models [NASA-CR-83663] 08 p1229 N67-19107
Probability method of determining energy losses in ruby laser with misaligned resonators [FTD-HT-66-492] 08 p1288 N67-19231
Probability models for multiprogramming computer systems [REPT.-84] 09 p1421 N67-19713
Probability methods and mathematical statistics for theory of plates and shells 09 p1521 N67-20002
Path probability method for deriving equations for nucleation and crystal growth 10 p1744 N67-20418
Path probability method, and theory of nucleation and growth of thin film 10 p1745 N67-20419
Digital computer method for constructing region of allowable values of parameters of elements in automatic control systems 11 p1843 N67-22407
Optimal preventive maintenance schedule for complex continuous action system 11 p1843 N67-22411
New method for defining stochastic integrals and differential equations 12 p2128 N67-23701
Gaussian processes with stationary increments possessing discontinuous sample paths [RM-5226-PR] 12 p2052 N67-24081
Algorithms for probabilistic calculations of malfunctions in single-phase logic circuits 13 p2297 N67-25711
Probabilistic calculation of single phase logic circuits by orthogonalization of Boolean functions 13 p2297 N67-25717
Proofs of martingale convergence theorems using probability and Banach spaces [NASA-CR-83834] 13 p2348 N67-25745
Probabilistic problems of PERT time 13 p2289 N67-25774
Probability calculations for multiphase circuits 13 p2298 N67-25781
Neyman-Pearson lemma role in theory of discrete search applied to maximize probability and limit costs [AD-649850] 16 p2989 N67-29438
Table of exact critical values of information for case of equiprobable alternatives [REPT.-689] 16 p2922 N67-29707
Fortran codes for calculating collision probabilities in homogeneous cuboids and finite cylinders [AE-281] 17 p3128 N67-30697
Nonlinear, probabilistic hybrid computer concepts for specifying operational schemata of central nervous system models [NASA-CR-85698] 17 p3004 N67-30915
Overall false alarm probability for radar scanning over a wide interval of target ranges [RAE-TR-66405] 17 p3027 N67-31138
Probability of target lock-on by tracking system using automatic rangefinder during automatic search [JPRS-41244] 17 p3028 N67-31439
Chance-constrained equivalents shown to exist for several stochastic programming problems [ORC-67-10] 18 p3284 N67-31584
Formula for expected number of crossings of arbitrary curve by non-stationary Gaussian process [D1-82-0596] 19 p3479 N67-32965
State of randomly excited dynamical system estimated from noise measurements having finite duration, and optimal linear filter synthesized from conditional probability theory 19 p3421 N67-33263
Formulas for definition of finite probabilities of two-connected Markov chain and transition time from state to state 20 p3617 N67-33919
Convergence rates and asymptotic behavior in law of large numbers for random variables [RM-168] 21 p3877 N67-35413

PROBE
S ELECTRON PROBE

S IMPEDANCE PROBE
S ION PROBE
S LANGMUIR PROBE
S LUNAR PROBE
S MAGNETIC PROBE
S MARS PROBE
S METEOROLOGICAL PROBE
S MICROWAVE PROBE
S PLASMA PROBE
S PRESSURE PROBE
S RESONANCE PROBE
S SOLAR PROBE
S SPACE PROBE
S TEMPERATURE PROBE
S VELOCITY PROBE
S VENUS PROBE

PROBLEM
S BOUNDARY VALUE PROBLEM
S CANONICAL PROBLEM
S CAUCHY PROBLEM
S DIRICHLET PROBLEM
S DUAL CONTROL PROBLEM
S INITIAL VALUE PROBLEM
S ISOPERIMETRIC PROBLEM
S MANY-BODY PROBLEM
S NEUMANN PROBLEM
S OPERATIONAL PROBLEM
S POINCARE PROBLEM
S POTENTIAL PROBLEM
S RIEMANN PROBLEM
S THREE-BODY PROBLEM
S TRAVELING SALESMAN PROBLEM
S TWO-BODY PROBLEM

PROBLEM SOLVING
Solutions for linear differential equations with quasi-periodic coefficients by accelerated convergence method
[NASA-TT-F-10370] 01 p0002 N67-10219
Computation methods based on Molodenskii integral equation for disturbing potential
[ACIC-TC-1692] 01 p0048 N67-10498
Indirect measurement of bound magnitudes - matrix algebra solution
[NT-147] 01 p0095 N67-10576
Algebraic method for solution of dynamic problems in nonrelativistic system with known symmetry properties
[IC/66/87] 01 p0126 N67-10729
Technique of quasi-optimum control
[NASA-CR-79714] 01 p0095 N67-10870
Karman-Pohlhausen integral method for solving problem of unsteady laminar thermal boundary layer for viscous fluid flow over semi-infinite 02 p0234 N67-11231
Man-machine problems, and mathematical modeling of conflict situation in interdependent group activity of operators 02 p0217 N67-11461
Imposition of conditions on nonlinear function of scalar so that system will be stable or asymptotically stable
[NASA-CR-79765] 02 p0231 N67-12075
Efficient solutions of algebraic equations for decoding - coding theory 02 p0238 N67-12144
Solution to problem of finding optimum control of object with given transfer function 02 p0375 N67-12460
Statistical inference in classical occupancy problem
[MRC-639] 02 p0416 N67-13438
Incremental procedure for solution of nonlinear problems with applications to plates and shells
[NASA-TN-D-3768] 02 p0471 N67-13257
Phase function method of solving quantum mechanics problems
[JINR-P-2758] 04 p0568 N67-14067
Theory based on Vlasov general variational method to analyze beams and plates on elastic foundations
[NASA-TT-F-357] 04 p0620 N67-14238
Solution of Cauchy singular integral equation of second kind by reduction to Abels integral equation
[IMM-NYU-352] 05 p0730 N67-15666
Problems in coordination of scientific research
[JPRS-39155] 05 p0781 N67-15167
Dynamic programming algorithm for estimating best fit, and solution to example problem 06 p0906 N67-16115
First derivative solution estimates of Dirichlet problem for quasilinear elliptic equations in unbounded domain
[TG-230-T560] 06 p0963 N67-16190
Integrated Fourier series application to absolute and uniform convergence problem
[TG-230-T499] 06 p0963 N67-16328
Method for solving variable permeability two dimensional and axially symmetric magnetostatic problems by using NUTCRACKER computer code
[SLAC-56] 06 p0919 N67-16538
Computing generalized inverse of matrix 07 p1110 N67-17223
Matrix tearing and partitioning for solving large systems of linear or nonlinear equations 07 p1111 N67-17225
Method for solving badly conditioned least squares equations 07 p1111 N67-17226
Chebyshev solution of large linear singular and inconsistent systems 07 p1111 N67-17227
Solutions to motion sensing problems associated with Project Wisp
[EGG-1183-2078] 07 p1081 N67-17590
Theory and numerical application of parametrix method for solving higher order differential equations and boundary value problems
[REPT.-33] 08 p1297 N67-18235
Dependency of constraints for differential equations - transformation algorithm for solving system of ordinary differential equations and constraints 08 p1298 N67-18302
Method for solving three-body problem by using Sturm-Liouville functions
[JINR-P-2825] 08 p1333 N67-18599
Bibliographical survey of research on stability theory of solutions to partial differential equations
[NASA-CR-82662] 08 p1302 N67-19169
Methods for evaluating constants and calculating variances and covariances when solving nonlinear regression problems
[BM-RI-6900] 08 p1303 N67-19235
Solving problems of thermoconductivity for bodies of revolution
[FTD-HT-66-453] 09 p1541 N67-19516
Algorithm applied to second order representation of nonlinear programming problem
[AD-641196] 09 p1466 N67-19683
Parametric method for solving nonconcave optimization problems applied to linear fractional programming
[MRC-TSR-655] 09 p1458 N67-19722
Time-shared program system for solution of stability problem for parallel flows over rigid or flexible surfaces
[ASRL-TR-116-4] 09 p1436 N67-20196
Method for solving eigenvalue problems, based on integral equations, and application to beam and plate problems
[DTMB-TRANS-335] 10 p1764 N67-20637
Fortran program for numerical solution of magnetic field boundary value problems
[UCRL-50127] 10 p1695 N67-21596
Human behavior in problem solving when aided by computers and display systems
[SDC-TM-3237] 10 p1568 N67-21841
Method for solving wide range of differential equations
[AFWTR-TR-66-1] 10 p1669 N67-21858
High speed digital computer program and data handling instructions for problem solving with structural analysis and interpretive system
[NASA-CR-83270] 11 p1884 N67-22962
Method for calculating terms containing products and reciprocals of factorials by using canonical decomposition of each factor in factorials
[NASA-TM-X-55733] 11 p1906 N67-22979
Random search and gradient method in optimization problems 11 p1907 N67-23406
Formation of attributes in pattern recognition, and problem solving 11 p1843 N67-23416
Stiffness characteristics of triangular plate elements in bending, and solutions 11 p1909 N67-23518
Solution accuracy examples in large simultaneous equation systems 11 p1909 N67-23835
Digital analog simulation techniques using Mimic language
[NASA-CR-83551] 11 p1832 N67-23279
Deterministic solutions for class of chance-constrained programming problems
[ORC-66-34] 11 p1910 N67-23416
Optimal control theory applied to systems described by partial differential equations
[REPT.-66-31] 12 p2007 N67-23540
Periodic solutions for restricted three-body problem of celestial mechanics
[NASA-CR-765] 12 p2129 N67-23710
JOSS, introduction to computer system implementation, and problem solving
[P-3486] 12 p2056 N67-23963
Elliptic partial differential equation solution to neutron scattering problem
[EUR-3282.E] 12 p2169 N67-24390
Asymptotic behavior of solutions of boundary problems for quasilinear differential equations
[NASA-TT-F-494] 12 p2121 N67-24612
Solution of biharmonic problem for wide class of regions by method of summary representations
[NASA-TT-F-10482] 12 p2231 N67-25061
Degradation equation of gamma radiation energy, and its solution
[NASA-TT-F-10627] 12 p2175 N67-25069
Solution of differential equations in Banach space - functional analysis
[MRC-TSR-667] 13 p2345 N67-25198
Direct method for solving integral equations
[MRC-TSR-669] 13 p2345 N67-25197
Iterative methods for solving nonlinear least squares problems
[NASA-CR-83736] 13 p2345 N67-25260
Mathematical methods for solving various problems of wave diffraction and propagation - Conference
[FTD-MT-65-236] 13 p2264 N67-25261
Methods of solving integral equations of first kind in relation to wave diffraction problems 13 p2346 N67-25264
Asymptotic methods and nonanalytic solutions for problems of wave propagation and diffraction 13 p2264 N67-25265
Integral and operational identities in relation to wave diffraction 13 p2265 N67-25207
Infinite systems of equations and electromagnetic wave diffraction 13 p2265 N67-25208
Methods of solving wave diffraction problems with antennas 13 p2277 N67-25209
Mixed moving boundary value problem solutions for three-dimensional wave equations, wave diffraction on sphere, and wave diffraction in half space 13 p2265 N67-25210
Numerical integration, matrix solutions, and other calculations for wave diffractions, transition wave processes, oscillatory functions, and electromagnetic wave excitations 13 p2265 N67-25216
Integral equations for Laplace and Helmholtz equations in axyzymmetrical case 13 p2345 N67-25775
Generalized computer techniques for solving contour map problems
[NASA-CR-83991] 13 p2291 N67-26007
Method of computing Greens function as solution of stable initial value problems using analog and digital computers to integrate large systems of ordinary differential equations
[RM-5286-PR] 14 p2561 N67-26486
Technical details reviewed on NASA sponsored research at Experimental Astronomy Laboratory
[NASA-CR-84291] 14 p2369 N67-26521
New solution to Lambert problem 14 p2810 N67-26523
Optimal multiple impulse orbital rendezvous 14 p2810 N67-26527
Linear parameter optimization with quadratic cost in application to ballistic missile guidance coefficient 14 p2570 N67-26529
Use of auxiliary differential equations derived from nonlinear differential equations to find Lyapunov function
[NASA-CR-799] 14 p2562 N67-26556
Normal solvability and index of boundary value problem for first order elliptic system on orientable surface with boundary
[TG-230-T569] 14 p2562 N67-26777
Computer simulation of mathematical problems for automatic control systems
[MT-64-264] 14 p2500 N67-26843
Solution to problem of multiple scattering in slab illuminated by parallel rays of radiation expressed in terms of problem with isotropic radiation sources
[RM-5295-PR] 14 p2561 N67-26911
Problem solving with man-computer system using on-line programming
[AD-649262] 15 p2672 N67-26962
Subject aptitude and performance effect on presentation of troubleshooting information
[AMRL-TR-66-191] 15 p2652 N67-26972
Problem of computer transforming data by simultaneous consideration of criteria
[TR-100] 15 p2575 N67-26976
Procedure for formulating problem of

estimating domain of attraction of equilibrium solution of nonlinear dynamical system and development of numerical algorithm
[NASA-CR-84817] 15 p2737 N67-28767
Second variation method for computation of optimal control problem with terminal constraint
[NASA-CR-84847] 15 p2737 N67-28831
Radiation transfer in spectral line and properties of transfer equation solutions to facilitate numerical solution and improve accuracy of approximation method
[CLM-TRANS-10] 15 p2771 N67-28849
Two solutions to problem of motion of body with stationary point
[TRANS-512] 15 p2755 N67-28868
Computer augmentation of problem solving capability in man-machine system
[P-3533] 15 p2876 N67-28963
Modified quasilinearization concept for solving nonlinear two point boundary value problem
[NASA-TN-D-4025] 16 p2917 N67-29034
Rational and interactional decision making roles tested in task-oriented groups
[TR-4] 16 p2933 N67-29500
Voting function for continuous quantities and nonlinear programming with linear fractional function and application to economic problem
[JPRS-40493] 16 p2920 N67-29537
Problem of nonlinear programming with linear fractional function and application to optimization of enterprises work fund 16 p2930 N67-29539
Solution to problem of gun internal ballistics using ordinary rather than partial differential equations
[AGARD-550] 16 p2965 N67-29568
Two center problem of quantum mechanics
[JINR-P4-3175] 16 p2950 N67-29665
Conference proceedings on applying differential equation or state variable techniques to radar and communication system problems
[NASA-CR-76277] 16 p2962 N67-29901
Methods for regulating problems in numerical solution of theory of optimal automatic control systems
[JPRS-41079] 16 p2922 N67-30017
Decomposition method for linear programming problems containing coupling constraints and variables
[MRC-TSR-739] 17 p3089 N67-30214
Interpolation with positive real functions
[RADC-TR-67-70] 17 p3039 N67-30253
Hilbert space derivation of Liouville equation of classical mechanics in angle-action variables
[USNRDL-TR-67-31] 17 p3069 N67-30265
Spline function approximations for solutions of ordinary differential equations
[MRC-TSR-733] 17 p3089 N67-30278
Theory and applications of digital resolver
[NOLTR-66-223] 17 p3029 N67-30302
Applicability of spline functions for approximation of solutions of ordinary differential equations
[MRC-TSR-723] 17 p3090 N67-30315
Formulas for evaluating solid angle subtended by plane polygon and circular disk at general point in space for application to determining efficiency of nuclear particle detector
[AERE-R-5419] 17 p3059 N67-30474
Numerical methods and integration for solution of restricted three-body problem 17 p3091 N67-30607
IBM 1620 computer program for administering problem solving task to human subjects
[TR-11] 17 p3010 N67-30626
Information processing model for simulating problem solving behavior
[TR-10] 17 p3031 N67-30627
Approximation method, and potential theory to study class C potentials
[TH/300] 17 p3138 N67-31366
Approximation method for determining maximum response of simple beams to stationary random excitation perfectly correlated in space and time
[NASA-CR-816] 17 p3042 N67-31430
Finding optimal edge covering tour of connected graph - Chinese postman problem
[ORC-67-13] 17 p3095 N67-31440
Partial response method to solve structural mechanics problems of shipbuilding 18 p3348 N67-31653
Generalized integration method for generating explicit functions on analog computer
[HDL-TR-1341] 18 p3288 N67-32464
Class of wave equations for describing wave phenomena in physics, and methods for analyzing stability of Cauchy and mixed problems 18 p3305 N67-32471
Algorithm for determining minimal cost symmetric assignment
[ORC-67-12] 18 p3288 N67-32637
Game with polyhedron solution which is unique and nonconvex
[RM-5363-PR] 18 p3289 N67-32682
Statistical questions related to analysis of digital computer simulation experiments
[P-3666] 18 p3289 N67-32696
Application of lifting foil theory solved by rheoelectric analogy to calculation and design of subcavitating and supercavitating propellers
[AD-652981] 19 p3363 N67-32791
Aerodynamic problems associated with large supersonic aircraft 19 p3366 N67-33073
Operator performance and crew reliability in relation to systems effectiveness 19 p3382 N67-33308
Generalized solution differential survival games
[JPRS-41926] 19 p3482 N67-33734
Computer method of solving boundary layer equation 19 p3435 N67-33773
New solutions of Einstein gravitational equations for radially symmetric distributions of matter 19 p3499 N67-33865
Information retrieval effectiveness based on numerical taxonomy method for evaluating and predicting equipment performance from environmental engineering data
[FA-R-1847] 19 p3486 N67-33913
Solving heat conduction boundary problems of vertical finned reactor fuel elements
[UJV-1622] 19 p3496 N67-33940
Necessary conditions for similar solutions to turbulent gas dynamics problems
[UCRL-50211] 19 p3435 N67-33956
Methods for constructing digram-balanced latin squares for all even n values
[TDCK-46396] 20 p3671 N67-34932
Explicit solution for Lagrange multipliers in optimal thrust programming and steering problem
[NASA-TN-D-4119] 21 p3930 N67-35468
On-line time sharing computer system designed for use by engineers to solve complex numerical problems
[RM-5323-PR] 21 p3878 N67-35750
Finite algorithms for reducing convex integral programming problem to linear programming problem 21 p3879 N67-35806
Stochastic epsilon-stability of solution to quadratic programming problem 21 p3879 N67-35807
Existence theorem for solving optimization problems with fixed time 21 p3831 N67-35808
Dynamic programming method for checking solutions to problems of decision making hypotheses 21 p3821 N67-35809
Queuing system control problem solution using Bellman equations and Markov process 21 p3821 N67-35814
Transfer of mental abilities at different stages of practice in solving concept problems
[RB-67-20] 21 p3773 N67-36614
Implicit enumeration using imbedded linear program to improve computational efficiency
[AD-655444] 23 p4060 N67-36764
Modification of 82 inch coude spectrograph of observatory telescope
[NASA-CR-88385] 23 p4044 N67-36817
Algorithm for solution of polynomials with real or complex coefficients
[CS-71] 22 p4061 N67-36829
Pattern recognition theory related to detection, correlation, decision theory, and mathematical problem solving
[RE-303] 23 p3977 N67-36870
Empirical representation of creep strain data for problems involving time varying stresses and temperatures
[ARC-CP-945] 23 p4152 N67-36928
Nonlinear steady state solutions to moving load problems
[AFOSR-67-1439] 22 p4153 N67-36933
Operator homotopy approach to develop constructive methods for solving nonlinear equations
[NASA-CR-88706] 22 p4063 N67-37228
Estimation of absolute values of Horner sum, using Chebyshev polynomials as maximizing polynomials
[NASA-CR-88701] 22 p4063 N67-37388
Generalized best-the-average solution in nonsymmetric game theory
[AD-655626] 22 p4064 N67-37444
Lambda method for solution to boundary value problems in plane elasticity
[AFOSR-67-0975] 22 p4156 N67-37514
Numerical solutions to steady state plasma sheath problems 22 p4119 N67-37764
Steepest descent method and applications to systems of linear equations
[TR-12] 22 p4066 N67-38054
Mathematical programming using generalized sequential unconstrained methods 23 p4372 N67-38094
Numerical investigation of higher order methods for solving elliptic partial differential equations
[NOLTR-67-51] 23 p4373 N67-38122
Reduction of solution of game of pursuit for survival payoff to solution of Cauchy problem for first order partial differential equation
[NASA-TM-X-60396] 23 p4376 N67-38945
Algorithm for approximation solution to resource distribution problem in network planning
[JPRS-42893] 23 p4376 N67-38960
FORMAC computer programs for symbolic formulation and solution of engineering and structural mechanics problems
[LMSC-6-77-67-25] 24 p4412 N67-39328
Problem solving by quantitative and numerical analyses
[AD-657323] 24 p4475 N67-39461
Computer program requirements for solving quadratic equation with floating point coefficients
[CS-74] 24 p4480 N67-39837
Convolution algebras on locally compact surfaces
[AROD-5254-11-M] 24 p4483 N67-40245
Duality in discrete programming
[TR-67-5] 24 p4483 N67-40822

PROCEDURE
S OPTICAL CORRECTION PROCEDURE

PROCESS
S BURNING PROCESS
S ELECTROSLAG PROCESS
S ERGODIC PROCESS
S IRREVERSIBLE PROCESS
S ISENTROPIC PROCESS
S ISOTHERMAL PROCESS
S MARKOV PROCESS
S NUCLEATION PROCESS
S PERIODIC PROCESS
S POISSON PROCESS
S RANDOM PROCESS
S STOCHASTIC PROCESS

PROCESSING
S DATA PROCESSING
S INFORMATION PROCESSING
S SIGNAL PROCESSING

PROCESSOR
S DATA PROCESSOR

PRODUCT DEVELOPMENT
Development of 20-watt integrated oscillator amplifiers
[NASA-CR-80540] 03 p0374 N67-12391
Soviet electroslag welding method for production of clad plate rolled products for pressure vessels
[FTD-MT-65-468] 11 p1889 N67-23139
Identification of designs, materials, and processes used in manufacturing of electronic equipment 12 p2063 N67-23651
Sintered aluminum products development and control of material and processing parameters 13 p2325 N67-25503
Thorium utilization studies dealing with fuel characterization, fuel testing during radiation, and fabrication processes for fuel protopes used in power reactors 13 p2356 N67-25873
Development plan for design, development, and production of solid state Mars probe radar altimeter
[NASA-CR-66394] 15 p2715 N67-28933
Aluminum electrolytic capacitor development 21 p3815 N67-35607
Low weight beam tube development for traveling wave amplifiers
[ECOM-02578-3] 21 p3817 N67-35687
Carbon zinc battery with capacity for prolonged storage at high temperatures developmental progress

[ECOM-02291-F] 21 p3762 N67-35868
Design and testing of three-stage parachute system for low level deployment up to Mach 1.2
[SC-DR-66-2707] 21 p3757 N67-36005
Product-process relationships, automatic process control, and dependence of manufacturing research on scientific innovations 23 p4368 N67-38517
Transfer of technology developed for atomic energy, defense, and space to private industry and public sector of community 23 p4368 N67-38519
Structural design and analysis of 30 watt/pound roll-up solar array
[NASA-CR-89753] 24 p4379 N67-40347

PRODUCTION
S AIRCRAFT PRODUCTION
S GENERATION
S ION PRODUCTION
S KAON PRODUCTION
S OXYGEN PRODUCTION
S PAIR PRODUCTION
S PARTICLE PRODUCTION
S PHOTOPRODUCTION

PRODUCTION ENGINEERING
Processes for production of heavy water in France
[JPRS-38475] 01 p0629 N67-10593
Production engineering measure for ceramic electric wave filters
[QR-13] 01 p0654 N67-10956
Production engineering measure for single crystal yttrium-iron-garnet spheres and limiters
[SJ-223-0045-11] 01 p0654 N67-10957
Electric connectors developed for telephone communication equipment
[AD-637831] 01 p0842 N67-11051
Production engineering procedure for silicon monoxide capacitors
[AD-639588] 01 p0855 N67-11052
Ingot of titanium alloy containing three percent aluminum studied to develop production technology 02 p0374 N67-11790
X-ray analysis of multicomponent titanium alloy to provide data for production of sheets with uniform mechanical properties 02 p0374 N67-11793
Hot and cold drawing, piercability, and reliability of AT-3 titanium alloy recommended for tube production 02 p0384 N67-11795
Production engineering measure for silicon overlay transistors
[QPR-3] 02 p0344 N67-11894
Production engineering measure for microwave ferromagnetic materials and circulators
[SJ-220-3999-4] 02 p0395 N67-11924
Production engineering testing of quartz crystal filters
[QR-13] 02 p0345 N67-12189
Production engineering measure to establish capability of manufacturing p-n-p silicon switching transistor
[TI-03-66-92] 02 p0245 N67-12198
Optimal scheduling for parallel-series machine combinations, and algorithms for optimal parts processing 03 p0376 N67-12589
Production engineering measure for improved reliability of solid electrolyte tantalum capacitors
[QR-12] 03 p0373 N67-12879
Management techniques to maintain quality, cost control, and production schedules in manufacture of space vehicle and products 03 p0402 N67-12710
Reporting technique and method of sequencing operations based on parts availability and installation 03 p0403 N67-12713
Control system design for plants developed into engineering technique via direct method of Liapunov
[NASA-CR-654] 03 p0379 N67-13258
Manufacture and microstructure of dispersion strengthened aluminum products containing aluminum oxide
[RISO-113] 05 p0412 N67-12285
Application of computer control to construction projects - Production engineering
[JPRS-39133] 04 p0626 N67-14156
Production engineering in manufacture of quartz crystals for filter applications
[QR-1] 05 p0751 N67-14951
Production engineering measure for ruby laser rods
[QPR-3] 05 p0715 N67-15107
Production engineering measure for mechanization of high reliability capacitors
[QR-14] 05 p0685 N67-15285
Production engineering measure for improvement of production techniques to increase reliability of silicon transistor type 2N3057
[REPT.-2] 05 p0685 N67-15286
Production engineering and metal forming methods for possible application in Latin America 06 p0825 N67-15516
Production engineering for radioactive isotopes 06 p0960 N67-15629
Production of radioisotopes in commercial reactors 06 p0910 N67-15631
Belgian program for production of actinium 227 and use as energy source for aerospace applications 06 p0911 N67-15540
Production, maintenance, and other factors affecting reliability of three medium-capacity, general-purpose Soviet computers 06 p0848 N67-16076
Production engineering measure for silicon linear integrated circuits
[QPR-5] 06 p0853 N67-16192
Production engineering measure for subminiature high reliability ceramic capacitors
[QPR-1] 06 p0854 N67-16337
Series resistance of tuning varactor in variable capacitance diode production engineering measures program
[QR-1] 06 p0855 N67-16418
Production engineering measures for very high frequency quartz crystal units
[QR-8] 06 p0855 N67-16421
Production engineering measures and failure mode evaluation for 50 A silicon power transistor
[QPR-1] 06 p0856 N67-16582
Production engineering measure for improved reliability of hermetically sealed tantalum foil capacitors
[QR-4] 06 p0856 N67-16589
Production engineering and reliability evaluation for insulated gate field effect transistors
[V-21] 06 p0856 N67-16594
Ultrasonic welding and other lead attachment techniques for crystal units - production engineering
[QR-8] 07 p1049 N67-16859
Production engineering measure for low field magnetron
[AD-641469] 07 p1049 N67-16884
Production engineering techniques for manufacture of microminiature crystal unit
[QPR-4] 07 p1050 N67-17196
Production engineering measure for silicon n-p-n switching transistors
[T-21] 07 p1051 N67-17645
Production engineering measure for subminiature, transistor type potentiometer
[AD-643778] 07 p1083 N67-17720
Production engineering measure for silicon npn switching transistors
[I-22] 09 p1424 N67-19544
Production engineering measures for quartz crystal filters and quartz crystal units
[QPR-5] 09 p1434 N67-19666
Production facilities for manufacturing multiturn metal film trimmer resistors
[AD-649711] 09 p1424 N67-19679
Design and production engineering measures for ceramic electric wave filters and resonators
[QR-14] 09 p1425 N67-19733
Production engineering measure for silicon mixer diode
[QPR-5] 09 p1425 N67-19829
Production engineering techniques for ruby laser crystal growth
[QPR-4] 09 p1456 N67-20083
Product engineering measure to improve reliability and capability of high voltage miniature silicon rectifier
[AD-649690] 10 p1500 N67-20552
Higher productivity, lower rejection rates, and closer tolerances in metal rolling processes through use of measuring devices with radioisotopes 10 p1640 N67-21226
Beta and gamma radiation used in production engineering for flaw detection and inspection 10 p1643 N67-21249
Production engineering measure for increasing reliability of aluminum electrolytic capacitors, and dielectric oxide film formation tests
[QR-1] 10 p1594 N67-21346
Production engineering measures for design, processing, and fabrication of precision crystal units
[QR-1] 10 p1594 N67-21433
Production engineering measures for subminiature feed-through ceramic dielectric capacitors
[QR-1] 10 p1595 N67-21697
Monte Carlo method and computer simulations used in model computations for work load distribution in plant production process
[REPT.-3696] 10 p1776 N67-21768
Production and reliability engineering measures for hermetically sealed tantalum foil capacitors
[QR-5] 11 p1837 N67-23572
Production method for niobium stripe having protective layer of niobium stannide
[INR-769/XIV/PS] 11 p1967 N67-23607
Production engineering measure for increased reliability of quartz crystal unit
[QPR-3] 11 p1840 N67-23182
Production engineering measure for quartz crystal unit
[QPR-1] 11 p1841 N67-23362
Production engineering measure crystal unit CR XM 56 U
[QR-3] 12 p2063 N67-23845
Design study for electrolytic production of hydrogen
[ACSDS-0100643, VOL. II] 12 p2045 N67-24672
Design study of hydrogen production by electrolysis using unmetalysed porous nickel electrodes
[ACSDS-0100643, VOL. I] 12 p2045 N67-24674
Electrode slag casting of ingots to increase industrial productivity
[FTD-HT-66-572] 12 p2110 N67-24768
Production of flux-cored filler wire from iron sheath and iron powder
[AMRA-CR-66-11/F/] 12 p2110 N67-24815
Test program and statistical analysis of setup parameter transferability for inert gas welding
[NASA-CR-83943] 13 p2327 N67-25969
Economic and technical evaluation of carbothermic, metallothermic, and electrolytic methods of producing magnesium
[BM-RI-6946, PT. 3] 13 p2332 N67-26349
Tabular line of balance production control system for production scheduling and control of weapons components
[Y-KA-17] 14 p2497 N67-26827
Hydrostatic pressing and induction sintering for production of billets from metal powders
[NASA-TT-F-10945] 15 p2724 N67-28382
Design and production engineering report for triaxial pulse connector
[AD-651193] 16 p2866 N67-29850
Cold pressing of blanks from sheet and shaped stock used in mass production of precision machines and instruments
[FTD-HT-66-366] 16 p2899 N67-29921
Production engineering and life expectancy tests conducted with 45 kV multiplier
[AD-649011] 16 p2868 N67-29494
Production engineering of high voltage oscillator
[AD-649012] 16 p2869 N67-29548
Production engineering measure for multilayer printed wiring board
[REPT.-5] 17 p3034 N67-30086
Electrothermal process for production of aluminum-silicon alloys
[JPRS-41530] 17 p3073 N67-31112
Mathematical expectation, dispersion, and conditional density expressions derived and applied to problems of controlling wear of tools during machining 18 p3265 N67-31667
Reliability estimation for complex systems during serial production 18 p3275 N67-32366
Oxygen supply system for manned space enclosures using catalytic decomposition of hydrogen peroxide
[AMRL-TR-66-169] 18 p3217 N67-32347
Vapor deposition and precipitation hardening methods for producing dispersion chromium alloys
[NASA-CR-54612] 18 p3226 N67-32390
Cesium oven and cesium getter test apparatus design
[N-1048-Q1] 19 p3414 N67-32970
Production capability for specific monolithic and hybrid semiconductor circuits and standard test mask incorporating transistor and resistor patterns 19 p3416 N67-33364
Information retrieval effectiveness based on numerical taxonomy method for

evaluating and predicting equipment performance from environmental engineering data
[FA-R-1847] 19 p3466 N67-33913
Cost-time effectiveness problem and testing for compliance with quality control specifications
[REPT.-66-66-01] 20 p3845 N67-34194
Tracking filter system for Saturn V-501 launch vehicle, and evaluation of fixed and tracking filters for bending mode stabilization applications
[NASA-CR-97486] 20 p3723 N67-34894
Production control and accounting system with IBM 1401 computer
[NASA-TM-X-55091] 21 p3804 N67-35648
General assessment of status of automated technology in production, analysis, and communication of technical information concerning engineering processes
[P-3625] 21 p3804 N67-35896
Basic design, component selection, and materials compatibility tests for sterilizable liquid bipropellant propulsion system
[NASA-CR-86630] 21 p3925 N67-35968
Historical review of rare earth uses, industrial processes, and production statistics 21 p3785 N67-36304
Comparison of TBP and DIEHPA solvents in production of rare earth nitrate acid systems 21 p3790 N67-36381
Hot die and molding techniques for production of polycarbonate molds
[UCRL-13287] 21 p3843 N67-36396
Production engineering for cylindrical seed and blanket type nuclear fuel pellets
[WAPD-TM-578] 21 p3890 N67-36397
Material evaluation and performance study for fabrication of porous air bearings
[ER-14396] 23 p4052 N67-36838
Optimal strategies for controlling one-dimensional Poisson production process under costly surveillance
[M134] 22 p4082 N67-37056
Survey of processes for heavy water production
[AAEC/TM388] 22 p4090 N67-37169
Material selection and production engineering for control elements of molten-salt reactor
[ORNL-4123] 22 p4091 N67-37363
Regenerative thrust chamber design, material selection, and fabrication methods
[NASA-CR-72266] 23 p4134 N67-37634
Algorithms and programming for production engineering - operations research
[ORC-67-17] 23 p4271 N67-38061
Algorithm for manufacturing products in fixed sequence operations 23 p4272 N67-38064
Synthesis and production of man-made diamonds by corporate research laboratory of geographically and managerially diversified industrial complex 23 p4368 N67-38518
Direct process of chemical vapor deposition for producing tungsten tubing
[ORNL-P-3163] 23 p4258 N67-38666
Production engineering measures for electrical stabilizing windings of stellarator 23 p4258 N67-38768
Connecting dynamic models of production processes into parallel, serial, and complex schemes
[JPRS-42994] 23 p4231 N67-39200
Pile type, high discharge rate, nickel-cadmium squib battery development
[NASA-CR-89327] 23 p4184 N67-39236
Positive stop-locking device development for incorporation in flareless fittings
[NAEC-AML-2631] 24 p4456 N67-39628
Melting techniques and mold properties for high precision castings of titanium and titanium alloys
[S+T-MEMO-2/67] 24 p4457 N67-39884
Maximum principle theory applied to production and inventory control
[RR-108] 24 p4483 N67-40063
PROFICIENCY MEASUREMENT
Quantification of human performance in electronic maintenance
[RADC-TR-66-442] 07 p1022 N67-17858
Performance oriented electronics technician training program - fleet performance evaluation of graduates
[STB-67-15] 13 p2361 N67-35130
Utility of data from field performance measurement
[AD-649646] 18 p2832 N67-29452
PROFILE
S AIRFOIL PROFILE
S ELECTRON DENSITY PROFILE
S TEMPERATURE PROFILE
S VELOCITY PROFILE
S WIND PROFILE
S WING PROFILE
PROGRAM
S APOLLO APPLICATIONS PROGRAM /AAP/
S COMPILER PROGRAM
S COMPUTER PROGRAM
S FISHBOWL OPERATION
S HIGH ALTITUDE BALLOON PROGRAM
S HUMMINGBIRD PROGRAM
S INSTRUMENTATION PROGRAM
S LUNAR PROGRAM
S MOONWATCH PROGRAM
S NASA PROGRAM
S OPTICAL SATELLITE TRACKING PROGRAM
S ORPHEUS PROGRAM
S PLANETARY-INTERPLANETARY PROGRAM
S PLOWSHARE PROGRAM
S ROCKET ENGINE ADVANCEMENT PROGRAM
S SNAP PROGRAM
S SOLAR ENERGY THERMIONIC /SET/ PROGRAM
S SPACE PROGRAM
S SPACE VEHICLE CHECKOUT PROGRAM
S TEST PROGRAM
S TOPSIDE PROGRAM
S UNIVERSITY PROGRAM
PROGRAM MANAGEMENT
Research program on management of science and technology
[NASA-CR-79701] 02 p0327 N67-11339
Federal non-defense expenditure programs analyzed for impact on regional income distribution
[NASA-CR-79997] 02 p0327 N67-11841
Review of processes developed, program management, and reporting techniques related to manufacturing of various stages of Saturn boosters - conference
[NASA-CR-80274] 03 p0461 N67-12701
Computer method, description, and program utilization for propellant testing 03 p0473 N67-13854
Survey of Critical Path Method /CPM/ and Program Evaluation and Review Technique /PERT/ network planning techniques
[DLR-MITT.-66-13] 04 p0625 N67-13766
NASA management of spacecraft sterilization program 05 p0780 N67-14764
Detailed procedures for safe and effective operation of test program 06 p0965 N67-15990
Program management study on effects of PERT on industries with large R+D organizations
[NASA-CR-81725] 07 p1213 N67-18014
Types and frequencies of problems encountered by project and laboratory managers working on 32 government-supported projects in aerospace and electronics industries
[NASA-CR-81761] 07 p1214 N67-18105
Basic fundamentals applying to evaluation of reliability program effectiveness
[NASA-SP-6501] 06 p1290 N67-19275
Technical summary and management plan for Ionospheric Beacon Satellite to be launched on Apollo applications flight
[NASA-CR-82975] 09 p1516 N67-19966
Logistics management conference
[NASA-TM-X-53566] 11 p1850 N67-21962
Keynote address on importance of logistics management to manned space program 11 p1850 N67-21963
Preplanning logistics support and role in Air Force Systems Command program scheduling 11 p1851 N67-21967
Scoping of logistics support to program requirements - participation of logistician during conceptual, design, development, production, and deployment phases 11 p1851 N67-21969
Logistics support management and program controls 11 p1851 N67-21971
Saturn V program management problems induced by failure to plan for integrated logistics program and contractor logistics activities 11 p1852 N67-21972
NASA position in contracting for logistics support 11 p1853 N67-21974
Control mechanisms in idea flow process - model and behavioral study
[NASA-CR-84478] 14 p2518 N67-27512
Management planning and administration of irradiation program for fast reactor Dounreay Experimental Reactor Establishment 18 p2903 N67-32455
Organization and methodology of managing space projects 20 p3750 N67-34681
Extension of configuration management techniques to computer programming
[NASA-CR-88490] 23 p4003 N67-36779
European telecommunications satellite program organization and management, time schedule, and cost estimate 22 p4147 N67-36941
Algorithm for divisible activity problem in critical path analysis for program management 23 p4271 N67-38062
Basic and applied science related to medical progress, and program management and planning in applied research 23 p4188 N67-38814
Aerospace related science and technology applicability to urban management problems
[NASA-CR-89307] 23 p4370 N67-38961
Personnel management in research and development organization - phasedown analysis of Gemini Program Office at Manned Spacecraft Center
[NASA-TM-X-60470] 23 p4348 N67-39139
Conference proceedings on quality and reliability management
[AD-648315] 24 p4457 N67-39944
Mission planning, orbit determination, thrust vector control, and configuration management program for Voyager project - summary
[NASA-CR-89733] 24 p4528 N67-39702
Configuration identification data and management procedures for Voyager project
[NASA-CR-89735] 24 p4529 N67-39703
Overall data management for Voyager project based on data system study and contractor data requirements, implementation, and management information studies
[NASA-CR-89704] 24 p4555 N67-40411
Contractor data package for Voyager spacecraft configuration management
[NASA-CR-89708] 24 p4555 N67-40413
Contractor data management package for system, subsystem, and component reliability assurance of Voyager spacecraft
[NASA-CR-89711] 24 p4461 N67-40418
Overall management, scheduling, manpower, and financial aspects of Voyager data management
[NASA-CR-89713] 24 p4427 N67-40419
Contractor data package for administration of procurement and contracting of Voyager spacecraft systems
[NASA-CR-89714] 24 p4427 N67-40421
Contractor data management system for Voyager project
[NASA-CR-89715] 24 p4427 N67-40422
Congressional hearings on planning and coordinating International Biological Program 24 p4556 N67-40423
Systems engineering aspects of developing Pioneer space probe
[NASA-TM-X-66564] 24 p4540 N67-40429
Contractor data requirements relating to advanced missions and potential follow-up programs of Voyager project
[NASA-CR-89721] 24 p4557 N67-40826
Contractor data management package for Voyager spacecraft sterilization project
[NASA-CR-89706] 24 p4533 N67-40828
PROGRAMMER
Program coupler assembly of Lunar Excursion Module mission programmer 03 p0402 N67-12778
Debugging program designed for inexperienced programmers 15 p2672 N67-27888
Design considerations of central programmer, common address, and data return bus 17 p3030 N67-30387
Instruction manual for programmers using Gerber series 1000 automatic drafting machine via Fortran II programs
[SC-RR-67-79] 17 p3053 N67-31967
PROGRAMMING
SA CODING
SA COMPUTER PROGRAMMING
SA DYNAMIC PROGRAMMING
SA LANGUAGE PROGRAMMING
SA LINEAR PROGRAMMING
SA MULTIPROGRAMMING
SA NONLINEAR PROGRAMMING
SA ON-LINE PROGRAMMING
SA THRUST PROGRAMMING
SOCRATES project using computer-based facility for psychological research on variables associated with preprogrammed

self-instruction and self-programmed individualized education
[AD-635676] 02 p0222 N67-11900
Programming requirements for punched card input and output systems of Mercury computer
[RAE-TR-66268] 09 p1423 N67-30335
Computer methods and programming, and polynomial root-finding 11 p1829 N67-29606
Programmed instruction and human performance
[TR-66-20] 11 p1799 N67-23670
Pentrysgin maximum principle relationship to basic mathematical programming theorems - control of dynamic system 12 p2070 N67-24203
Ten-event tone control system for programming complex experiments
[REPT.-22] 13 p2104 N67-24827
University research in nuclear physics, lasers, thermodynamics, hydrodynamics, radiation physics, and programming
[UCRL-50601-66-1] 13 p2333 N67-25400
Stored-program digital computer for use on small spacecraft such as IMP 14 p2503 N67-27411
Iterative method for solving integral programming problem - cybernetics applied to economics problem 15 p2672 N67-28156
Varying length floating point arithmetic for numerical analysis in programming
[CS-62] 16 p2917 N67-28901
Decomposition method for large structured quadratic programming problems
[MRC-TSR-718] 17 p3000 N67-30428
Numerical solution of optimal control and programming problems 18 p3292 N67-32218
Neliac compiler program for Control Data Corp. /CDC/ 924-A computer and Honeywell DDP 24
[NEL-1438] 18 p3340 N67-32686
Thin film and dielectric film fabrication, crossed-film cryotron as logical and memory storage unit, and associative memory design and programming technique
[TRW-00000-6001-R000] 20 p3806 N67-34998
Computer-processed tape system modified for setting of multiple line equations, including programming, preprocessor, and typesetter
[REPT.-2] 20 p3808 N67-35180
Soviet technical cybernetics articles on optimal control and distribution, system optimization, and programming problems
[JPRS-42273] 21 p3921 N67-35801
Stochastic epsilon-stability of solution to quadratic programming problem 21 p3879 N67-35807
Magnetic core operating system for greater storage in programming with IBM 7044 computer
[P-3168/1] 23 p4004 N67-36894
Text processing program Format
[NASA-CR-88745] 23 p4005 N67-37083
Performance, design, test, and qualification requirements of computer programs for support system for on-board checkout and data management system of Saturn/Apollo application program
[NASA-CR-88514] 23 p4006 N67-37201
Programming language for transcendental functions in applied mathematics
[NASA-TM-X-55943] 23 p4006 N67-37397
Algorithms and programming for production engineering - operations research
[ORC-67-17] 23 p4371 N67-38961
Automatic programed scaler for measuring and processing data on radioactive materials 23 p4219 N67-38234
Dual problems in convex and convex-fractional programming in functional spaces
[JPRS-42840] 23 p4376 N67-39030
Compiler generation using formal specification of procedure-oriented and machine languages
[RADC-TR-67-454] 24 p4413 N67-39552
Data processing equipment and procedures for real time programming system used with Gemini manned missions
[NASA-TM-X-60547] 24 p4414 N67-39631
Language and processor for compiler context resolver pass for IBM S/360 computer
[TM-3417/340/00] 24 p4415 N67-40144
Function minimization without derivatives by sequence of quadratic programming problems
[NASA-CR-89751] 24 p4483 N67-40396
PROJECT
S APOLLO PROJECT
S ARGUS PROJECT
S DEFENDER PROJECT
S ELOISE PROJECT
S FIRE PROJECT
S GEMINI PROJECT
S HARP PROJECT
S HAYSTACK PROJECT
S HIGH POWER PROJECT
S HORIZON PROJECT
S JUPITER PROJECT
S MERCURY PROJECT
S MESA PROJECT
S NATIONAL SEVERE STORMS PROJECT
S ORGEL REACTOR PROJECT
S PERT PROJECT
S PROSPECTOR PROJECT
S RANGER PROJECT
S REACTOR IN-FLIGHT TEST /RIFT/ PROJECT
S REDSTONE PROJECT
S RESEARCH PROJECT
S ROCKET PROJECT
S ROVER PROJECT
S SAND PROJECT
S SCANNER PROJECT
S SEDAN PROJECT
S STAR DUST PROJECT
S SURVEYOR PROJECT
S SYNCHRONOUS COMMUNICATIONS SATELLITE PROJECT
S TOPCAT PROJECT
S VELA PROJECT
S VOYAGER PROJECT
S WHITETOP PROJECT
PROJECTILE
SA HIGH ALTITUDE SOUNDING PROJECTILE /HASP/
SA HYPERVELOCITY PROJECTILE
SA MISSILE
Factors affecting shape design of projectiles 08 p0783 N67-15368
Nonlinear Magnus moment, and yaw cameras and sondes for studying stability of spinning projectiles 08 p0784 N67-15378
Simulation of raindrop impact on projectiles
[NOLTR-65-181] 08 p0861 N67-16130
Evaluation of small crossed-loop omnidirectional ultrahigh frequency prototype antenna for use as impact-measuring instrumented projectile
[NASA-CR-66295] 09 p1418 N67-19078
Integrated antenna-transmitter developed to telemeter data from inflight artillery fuze and shell
[HDL-TR-1343] 18 p3235 N67-32568
Implosion wave dynamics applied to hypervelocity projectiles and launcher
[UTIAS-125] 21 p3824 N67-35488
PROJECTILE CRATERING
Craters produced by missile impacts 09 p1438 N67-19393
Hypervelocity impact craters in pumice 09 p1438 N67-19394
Projectile size effects on hypervelocity impact craters in aluminum
[NASA-TM-D-4007] 18 p3247 N67-31538
Meteoritic and projectile cratering, petrography, and geologic applications to lunar surface studies
[NASA-CR-87007] 19 p3440 N67-33163
Hypervelocity impact cratering in pumice and dependence on projectile momentum 19 p3441 N67-33166
PROJECTILE PENETRATION
Transient behavior and response tests of synthetic fiber felts under ballistic impact and projectile penetration
[TR-67-8-CM] 08 p0908 N67-16458
Multivariable analysis of mechanics of penetration of high speed particles
[NASA-CR-664] 08 p0978 N67-16884
Differential equations for vertical penetration of rigid right circular cylinder into half-space of homogeneous isotropic soil
[SC-RR-66-376] 14 p2325 N67-27241
Earth penetration post test soil exploration technique for determining projectile effects on surface and subsurface soil
[SC-RR-66-2617] 16 p2981 N67-29857
Geology, soil, and climate at specific points used in predicting penetration depth of reentry impact of power supply capsule
[TEI-867] 17 p3054 N67-30750
Design, instrumentation system, target, and test facility of penetrometer for determining projectile impact deceleration effects in soil-like materials
[SC-DR-66-3715] 17 p3068 N67-31035
Impact sensitivity of condensed explosives initiated by metal projectiles
[BM-RI-6966] 19 p3581 N67-32253
Governing differential equations for projectile penetration in soil
[SC-DC-66-2423] 23 p4366 N67-36355
Time-acceleration traces for cylindrical ogival nose projectiles penetrating soil medium
[SC-DC-66-2424] 23 p4356 N67-36359
PROJECTION
Small eidopher for projection of black and white television pictures
[TIL/T-5077] 08 p0281 N67-11899
Computer programs for graphic projections of neutron flux, neutron power, and isotope concentration distribution from numerical data on PDQ-5 tape
[WAPD-TM-611] 10 p1587 N67-26661
Formulas for space coordinate reconstruction of points by two stereoprojections using least squares method
[JINR-P-2889] 10 p1621 N67-26969
Raster types, and reflecting and translucent rasters for projecting in illuminated rooms
[JPRS-39892] 10 p1631 N67-21189
Projection of noctilucent clouds on earth surface 15 p2699 N67-28629
Fortran program for drawing isometric-type projections of curved lines or data points with digital incremental plotter
[ORNL-4127] 24 p4413 N67-39696
PROJECTIVE-DIFFERENTIAL GEOMETRY
Enumeration of Latin squares and isomorphism detection in finite planes
[R66-3] 01 p0907 N67-11645
Perspective projection of spherical zone boundaries to image plane
[MTR-93] 10 p1621 N67-26972
Mathematical analysis of object and image planes mapped onto one another by photographic process
[HRB-35316-R-3] 13 p2272 N67-32497
PROLATE SPHEROID FUNCTIONS
Partial wave expansion in spheroidal coordinates for diatomic molecules
[NASA-CR-78974] 02 p0291 N67-13332
Donnell equation used in theoretical study of pressure stability of prolate spheroids
[NASA-CR-80540] 03 p0479 N67-12908
Spherical wave representation theory and functions for treating electromagnetic scattering
[LMSC-M-97-66-1] 06 p0941 N67-16123
Attenuation of plane wave electromagnetic field by imperfectly conducting prolate spheroidal shell
[SC-R-66-906] 08 p1236 N67-18612
Theory, computation procedure, and tables of prolate radial functions of first and second type
[NRL-6562] 16 p2986 N67-29945
Acoustic wave scattering by liquid prolate spheroid
[USCEE-195] 17 p3126 N67-30672
PROMETHIUM
Promethium 149 energy level 03 p0429 N67-12388
X-ray diffraction patterns of promethium compounds, preparation of promethium salts of some acids, and determination of ion radius of Pm 3 ion
[NP-16254] 04 p0805 N67-15978
Isotopic composition of promethium in spent power reactor fuels 05 p0736 N67-14989
Recovery and purification of rare earth fission products to produce promethium 147 05 p0845 N67-14990
Safety analysis of promethium 147 microspheres in self-luminous disks aboard Apollo spacecraft
[NASA-CR-65577] 08 p1371 N67-18878
Promethium 147 detection with liquid scintillation counts using channel-ratio method for quenching effect correction
[JUL-377-PC] 09 p1413 N67-30898
Ion exchange separation of kilocurie quantities of high purity promethium, for optimization of purification of light rare earth elements
[BNWL-216] 13 p2044 N67-24862
Programmed recording spectrophotometer used as analytical and control instrument in recovery by ion exchange of promethium 147 and americium 241
[BNWL-327] 17 p3000 N67-29878
L-forbidden transitions in odd mass promethium isotopes nuclei
[AE-276] 17 p3131 N67-30733
Ion exchange elution for purification of promethium, and preparation of promethium

oxide 21 p3788 N67-36347
Absolute transition rates in odd-mass promethium and europium isotopes [AE-287] 21 p3907 N67-36570
Hot pressing of samarium and promethium oxides [BNWL-448] 22 p4056 N67-37705
PROMINENCE
Narrow band interference polarization filters for motion picture recording of motion and emission of solar prominences [T-25] 01 p0147 N67-10356
Physical phenomena of solar prominences 06 p0056 N67-15489
Mathematical model of spectral line profiles of solar flares and prominences 12 p2294 N67-24343
Dynamics of solar prominences of September 12, 1956 12 p2294 N67-24344
Mass trajectories and solar magnetic field in region of active prominences 12 p2294 N67-24345
Solar magnetic field in corona and prominences 12 p2294 N67-24347
Solar filament and prominence diagrams, and solar activity observation tables for Manila, March 1967 13 p2390 N67-26140
Analysis and behavior classification of solar prominences in sunspot cycle [SR-12] 15 p2787 N67-29965
Classification of solar prominences for sunspot cycle number 19 /1955-1964/ [SR-13] 19 p3531 N67-33570
Resonance scattering of solar radiation in prominences 20 p3722 N67-35043
Faint and bright prominences comparisons based on analyzing hydrogen and metal lines 20 p3722 N67-35044
Spectrophotometry results on bright prominences 20 p3722 N67-35045
Steady state equations for hydrogen excitation in prominence surges 20 p3722 N67-35046
PROPAGATION
SA COSMIC RAY PROPAGATION
SA CRACK PROPAGATION
SA DIFFRACTION PROPAGATION
SA ELECTROMAGNETIC PROPAGATION
SA FLAME PROPAGATION
SA IONOSPHERIC PROPAGATION
SA MULTIPATH PROPAGATION
SA NOISE PROPAGATION
SA RADIO PROPAGATION
SA RADIO SIGNAL PROPAGATION
SA SHOCK WAVE PROPAGATION
SA SOUND PROPAGATION
SA STRESS PROPAGATION
SA TRANSEQUATORIAL PROPAGATION
SA WAVE PROPAGATION
Coupled wave equations for multimode inhomogeneous media [AFCRL-66-607] 01 p0132 N67-10361
Propagation of correlations in Boltzmann gas [NASA-CR-79829] 01 p0060 N67-10416
Radiation and propagation problems related to antennas and probes in magnetoionic plasma [NASA-CR-71378] 07 p1039 N67-17779
Very high frequency Omni Range /VOR/ system radial stability and propagation error analysis [EER-11-1] 07 p1040 N67-17952
Light and electromagnetic wave similarities, laser oscillator and radiation studies, and laser use in space, communication, medicine, and photography research [FTD-TT-65-1453] 09 p1457 N67-20183
Propagation anomaly research, and telemetry signal strength prediction for manned spacecraft application 17 p3025 N67-30602
Block coding and synchronization, propagation, communications systems, information processing, and data compression of space telemetry 20 p3603 N67-34778
Distance problems on homogeneous, symmetrical graphs, and recursion formulas for obtaining propagation rate of disturbance on infinite graph, and upper distance limit on finite graph 21 p3879 N67-35811
PROPAGATION MODE
High frequency disturbances in infinite plasma studied by propagator method [LGI-65-27] 11 p1956 N67-23490
Mathematical analysis of modes in periodic waveguide-structures [AROD-4155-4] 11 p1837 N67-22571
Relation between fundamental modes for plasma with temperature gradient in presence and absence of magnetic shear [LGI-67-3] 15 p2773 N67-27804
Effect of thermal oxide dislocation enhancement on silicon and a proposed mode of propagation 23 p4239 N67-38482
PROPAGATION VELOCITY
Influence of electron velocities on cut-off characteristics of cylindrical magnetron [WRE-TN-CPD-117] 03 p0450 N67-13143
Propagation velocity correction factors broadcast from monitor stations in radio navigation system [NRL-MR-1716] 05 p0734 N67-14994
One-dimensional shock wave propagation on impact in compressible plastic medium 08 p1374 N67-18205
Propagation and diffusion of plasma column in magnetic field [CEA-R-3130] 19 p3530 N67-33950
Mach number function tables for shock wave propagation in static atmosphere [ISL-T-10/66] 20 p3626 N67-35183
Propagation velocity measurements on collisional drift wave in alkali plasma 23 p4319 N67-38736
Measurement and prediction of group velocity at very low radio frequencies [TR-535] 24 p4403 N67-39511
PROPANE
SA CYCLOPROPANE
Bremsstrahlung of electrons investigated in propane chamber [JINR-P-2744] 01 p0123 N67-10639
Thermal properties of gas jet control system using propane stored as liquid for Black Arrow satellite [RAE-TR-66301] 09 p1397 N67-20320
Performance and space storage characteristics of small propane-flox upper stages [NASA-TM-X-52330] 10 p1762 N67-21219
Determination of gas flow parameters from propane attitude control jets, and effects on satellite optical sensors and telescopes [RAE-TR-66290] 11 p1918 N67-22485
Pyrolytic carbon deposited from propane in fluidized bed [ORNL-TM-1649] 13 p2369 N67-25615
Liquid propane dispersal systems for improving visibility during periods of supercooled fog above airport landing approaches [CRREL-TR-161] 14 p2566 N67-27553
Propyl alcohol formation in gamma radiated carbon dioxide-propane mixtures for oxygen atom reactions with hydrocarbon [AERE-R-5336] 15 p2654 N67-27781
Propane for artificially precipitating fog [CRREL-TR-169] 19 p3427 N67-33723
Chemical kinetics of nitration of propane with nitrogen dioxide [NASA-TT-F-11115] 21 p3785 N67-36286
Nitrogen and propane cold gas systems used in microthrust propulsion for satellite attitude control - storage tanks, boilers, nozzles 21 p3928 N67-36674
PROPELLANT
SA BIPROPELLANT
SA CASE BONDED PROPELLANT
SA COLLOIDAL PROPELLANT
SA COMPOSITE PROPELLANT
SA CRYOGENIC PROPELLANT
SA DOUBLE BASE PROPELLANT
SA EXPLOSIVE
SA FUEL
SA GAS PROPELLANT
SA HIGH ENERGY PROPELLANT
SA HYBRID PROPELLANT
SA HYPERGOLIC PROPELLANT
SA LIQUID PROPELLANT
SA LITHERGOLIC PROPELLANT
SA MONOPROPELLANT
SA PLASTIC PROPELLANT
SA SOLID PROPELLANT
SA STORABLE PROPELLANT
SA THIXOTROPIC PROPELLANT
SA TRIPROPELLANT
Optimum propellant mass for second stage of ELDO B 1 launch vehicle and trajectory calculations for four orbital altitudes [BOLKOW-RF-34] 04 p0616 N67-14292
Aerospace technological developments on propulsion systems, propellant mixtures, aircraft structure and design, flow theory, and other aerodynamic characteristics - conference topics 08 p1369 N67-18661
Propellant leakage flow rates detection, fluid simulation of oxidizer and fuel, and materials compatible with thermal conductivity [NASA-CR-85613] 12 p2103 N67-24632
Computer program for performance calculations of rocket propellants [TG-230-T511] 14 p2606 N67-26897
Point-kernel radiation shielding computer program to evaluate propellant heating and dose to crew during engine operation [NASA-TM-X-1397] 14 p2579 N67-27615
Repetitively pulsed, xenon propellant, plasma accelerator, and metal vapor propellant injector development [NASA-CR-72271] 17 p3132 N67-30603
Encyclopedia of explosives - Chlorides to detonating relays [PA-TR-2700, VOL. 3] 18 p3226 N67-32281
Bibliography of foreign open source literature dealing with propellants and combustion [ATD-66-146] 19 p3393 N67-33492
Nitrogen tetroxide and hydrogen fluoride propellant vapors effect on plant life on and near Kennedy Space Center [NASA-CR-87903] 20 p3579 N67-35191
Space exploration programs - systems analysis - spacecraft power and guidance systems - propellant engineering and communications systems [NASA-CR-84106] 21 p3953 N67-36667
Flow measurement mechanical configurations for propellant leakage detection system [NASA-CR-85727] 22 p4046 N67-37281
PROPELLANT ACTUATED DEVICE
SA THRUSTOR
Design considerations and test program for propellant type explosively actuated devices for spacecraft applications 07 p0997 N67-16985
Design, environmental testing, and performance characteristics of electric ignition element [R-1837] 10 p1591 N67-20651
Propellant binders terminated by acid chloride groups, ballistics of propellant-actuated devices, and applications technology satellite motor development 12 p2196 N67-23653
Analytical model and digital computer simulation of stroking propellant actuated device [FA-M67-19-1] 13 p2247 N67-25324
PROPELLANT ADDITIVE
Comparative performance and applications of high energy propellant combinations for space propulsion systems [BOLKOW-RF-13] 04 p0602 N67-14308
Effectiveness of additives on combustion velocity determined for composite solid propellants 12 p2197 N67-24394
Additives and composition changes considered to increase efficiency of solid propellants 12 p2197 N67-24396
Ozone difluoride evaluated as liquid propellant additive [NASA-CR-54833] 23 p4335 N67-38655
PROPELLANT BINDER
Saturated hydrocarbon polymeric binder materials prepared for advanced solid propellant and hybrid solid grain [NASA-CR-80718] 04 p0602 N67-13676
Suitability of thermoplastic rubbers as binder for composite solid propellant 06 p0697 N67-15721
Mechanical and physical properties of elastomers used in spacecraft launching equipment, propellant system, electric insulation, and as sealant for capsules [NASA-TT-F-10951] 14 p2561 N67-27313
Saturated hydrocarbon polymeric binder for advanced solid propellant and hybrid solid grain [NASA-CR-84443] 14 p2481 N67-27439
Saturated hydrocarbon polymeric binder for solid propellants - ethylene-neohexene copolymer chain functional groups [NASA-CR-88018] 21 p3925 N67-35643
PROPELLANT CHEMISTRY
Mixing and reaction studies of hydrazine and nitrogen tetroxide using photographic and spectral techniques [NASA-TM-X-52344] 02 p0235 N67-11331
Propellant chemistry, PCM telemetry, and computer simulation related to European space vehicle launcher development 11 p2005 N67-23491
Chemical aspects of nitrogen peroxide and dimethyl hydrazine propellants used for second stage of launch vehicle Europa 1 11 p1810 N67-23492
Conductometric method for graphite

determination in propellants
[FA-T67-5-1] 12 p2041 N67-33924
Conference presentations on preparation and properties of solid and composite propellants, fuel combustion, and combustion chambers
[DLR-MITT.-66-14] 12 p2196 N67-34381
Chemical composition, production, and properties of oxidizer salts for composite solid propellants 12 p2197 N67-34385
Bibliography and analytical review of 34 U.S.S.R. titles on propellant properties and combustion processes
[ATD-67-33] 24 p4521 N67-40166
PROPELLANT COMBUSTION
SA METAL COMBUSTION
SA SOLID PROPELLANT IGNITION
Ignition performance and operating characteristics of oxidizer-rich liquid oxygen/gaseous hydrogen propellant mixture combustion
[NASA-TN-D-3729] 02 p0325 N67-11812
Thermodynamic properties of propellant combustion products, and vaporization heat data on lithium
[QLR-66-4] 05 p0775 N67-15055
Flame stability, and propellant combustion in supersonic flow 06 p1382 N67-18672
Ignition of hydrogen fluorinated oxidizers
[NASA-CR-72153] 09 p1504 N67-19913
Combustion of ammonium perchlorate composite propellants, and chemical reactions at gas-solid interface
[ERDE-15/R/65] 11 p1969 N67-22786
Air breathing and rocket engine propulsion technology and propellant combustion engineering
[ATD-66-137] 11 p1970 N67-23104
Resonant combustion, propellant atomization, and injector hydraulics for liquid propulsion systems 12 p2199 N67-23956
Calculations for diffusion controlled combustion of hydrogen for application to scramjet engines
[NASA-CR-66363] 13 p2396 N67-25999
Storage unit, omnidirectional antenna, and thrust vector control tests for ATS, and propellant combustion in ballistic system 16 p2961 N67-29151
Constant volume bomb method for determining ballistic performance of solid propellants - combustion characteristics (ISAS-410, VOL. 32, NO. 3)
16 p2967 N67-30065
Nonlinear aspects of combustion instability in liquid propellant rocket engines
[NASA-CR-72270] 20 p3718 N67-35122
Bibliography on unsteady combustion in liquid propellant rocket engines
[RR/OH/294] 24 p4549 N67-39449
Statistical analysis of yaw steering law required to optimize propellant combustion for space missions
[TR-1001/2121-10/-1] 24 p4527 N67-39505
Nonequilibrium combustion effect on propellant performance for hydrazine/nitrogen tetroxide combination
[TS-67-3] 24 p4520 N67-39839
General formulation and solution of chemical rate equations for use in determining nonequilibrium rocket combustion kinetics
[TS-67-3] 24 p4549 N67-39563
Digital computer program for evaluating mixing and combustion characteristics of rocket exhaust jet with turbine gases exhausting peripherally about nozzle exit with surrounding external air stream
[NASA-CR-89619] 24 p4431 N67-39971
PROPELLANT DECOMPOSITION
Solid phase reaction effects on ballistic properties of propellants
[NASA-CR-66457] 22 p4131 N67-37633
PROPELLANT GRAIN
SA SOLID PROPELLANT
Gravitational stresses in circular cylindrical orthotropic viscoelastic solid propellant grain 05 p0754 N67-14900
Internal displacements in solid propellant grains - analysis of thick hollow cylinder with reinforcing layers
[AD-646017] 11 p1969 N67-22521
Photoelasticity used to determine stress concentration factor associated with transverse slot end in finite plate subjected to uniformly distributed load - rocket propellant grain
[REPT.-13] 21 p3939 N67-35431
PROPELLANT MASS RATIO
Universal cryogenic-liquid/oxidizer engine system for two-phase operation, and application to space vehicles 21 p3927 N67-36165
Centaur propellant utilization difference bridge performance in correcting deviations from desired mass ratio
[NASA-TM-X-1440] 22 p3985 N67-37302
Relative mass of fuel and thrust/weight ratio for flight vehicle according to prescribed motion law 23 p4179 N67-39174
PROPELLANT OXIDIZER
SA HIGH ENERGY OXIDIZER
Decomposition kinetics of solid rocket oxidizer ammonium perchlorate
[PU-3573] 05 p0664 N67-14724
Evaluation of assay methods for ammonium perchlorate
[PA-TR-3498] 12 p2043 N67-24406
Self-deflagration of Hydroxylammonium Perchlorate /HAP/ and solid oxidizer and propellant extinguishment studies
[AFOSR-67-0382] 12 p2199 N67-24829
NASA-compiled bibliography with abstracts on high energy propellants, oxidizers, and related topics
[NASA-SP-7062/03/] 14 p2606 N67-27224
Heat release rate of ammonium perchlorate fuel or catalyst as function of temperature
[PU-3473] 15 p2803 N67-28163
Analysis based on dielectric properties and using oscillometry to determine water in nitrogen tetroxide
[TR-1001/2210-10/-6] 21 p3701 N67-35692
PROPELLANT PROPERTY
High energy propellant properties and characteristics affecting design, operation, and performance of liquid propellant rocket engine
[ARSN-6] 04 p0602 N67-14278
Fluorine and fluorine oxygen mixtures in rocket systems
[NASA-SP-3037] 13 p2395 N67-26000
Density, viscosity, thermal conductivity and decomposition of hydrazine-nitrate solution in hydrazine
[DLV-617] 14 p2606 N67-27130
Gas chromatography for determining ethylene dimethacrylate and camphor in propellants
[FA-T67-7-1] 17 p3017 N67-30673
Metal combustion in tripropellants as chemical means to increase temperature and propulsion efficiency of hydrogen 21 p3948 N67-36106
Composition and power characteristics of solid rocket propellants
[FTD-MT-65-504] 22 p4130 N67-37226
Method for predicting propellant performance based on analysis of ingredient properties
[REPT.-67-002] 22 p4131 N67-37344
PROPELLANT SENSITIVITY
Propellant and explosive safety activities - management planning, static electricity and lightning hazards, and sensitivity measurement
[NASA-CR-81250] 06 p0984 N67-18981
Characteristics, sensitivity, and possible safety hazards of various propellants and explosives - combustion processes, damage assessment, and definitions 06 p0982 N67-15985
Sensitivity of explosives and propellants to impact and friction 06 p0983 N67-15987
Shock sensitivity, friction, and other physical data concerning monergolic propellant solutions of hydrazine nitrate in hydrazine
[DVL-568] 06 p1359 N67-19162
Safety measures and propellant sensitivities reviewed for fabrication, transport, and handling 12 p2197 N67-24390
Work summaries and abstracts of publications on research and evaluation of explosives, burning processes, propellant sensitivity, combustion, flame propagation, and fire hazards
[BM-IC-8349] 22 p4163 N67-37416
PROPELLANT SPRAY
Physical processes involved in heat transfer between burning spray and thrust chamber wall 06 p1354 N67-18334
PROPELLANT STORABILITY
S STORABLE PROPELLANT
PROPELLANT STORAGE
Reliquefier design and cycles studied to reduce boiloff in extraterrestrial cryogenic propellant storage
[NASA-CR-66720] 04 p0602 N67-13672
Outgassing rate measurements on stored composite fuels of polybutadiene acrylic acid and polyurethane binders
[NASA-TN-D-3790] 06 p0951 N67-15869
Cryogenic technology research on propellant storage, fluid mechanics, and scientific instrumentation 17 p3150 N67-30687
Three-probe heater sensor system, transient response system, and simulation fluid selection propellant leakage detection system study
[NASA-CR-85647] 18 p3372 N67-32306
PROPELLANT TANK
SA FUEL TANK
SA ROCKET PROPELLANT TANK
SA STORAGE TANK
Bubble mechanics, boiling heat transfer, and propellant tank venting in zero gravity environment - storage and handling of cryogenic liquid propellants in orbit
[NASA-CR-632] 03 p0382 N67-12790
Liquid propellant reorientation experiments in tank models under low level acceleration
[NASA-TN-D-3789] 04 p0639 N67-13680
Liquid hydrogen oscillation periods in large rocket booster tank measured through range of accelerations
[NASA-TM-X-52545] 05 p0766 N67-14910
Propellant tank configurations, and dynamic response of propellant sloshing in launch vehicles 05 p0865 N67-15805
Hydrodynamic theory and lateral sloshing behavior for various moving rigid propellant tank shapes 06 p0865 N67-15866
Nonlinear effects in lateral sloshing due to propellant tank geometries 06 p0866 N67-15867
Viscous damping of liquid motions and lateral sloshing in rigid tanks 06 p0866 N67-15868
Dynamic response of sloshing propellants, tank configurations and construction, and vibration testing of dynamic launch vehicle models 06 p0866 N67-15870
Analytical representation of lateral sloshing in tank by equivalent mechanical system 06 p0866 N67-15871
Interaction of sloshing propellant in tank with launch vehicle stability and control 06 p0872 N67-15888
Thermal performance of self evacuated multilayer radiation shield insulation of lightweight prefabricated panels for space vehicle cryogenic propellant tanks
[NASA-TM-X-52358] 06 p0978 N67-16946
Mission performance gains from using spent booster tankage as propellant source for electric propulsion spacecraft 10 p1755 N67-26513
Orbital investigation of liquid hydrogen dynamics in propellant tank of S-IVB stage
[NASA-TN-D-3968] 14 p2605 N67-26546
Manufacturing capabilities of superinsulation materials designed for use with liquid hydrogen propellant tanks and space vehicle structures
[GDC-ERR-AN-900] 14 p2544 N67-27210
High density slurries for hydrostatic proof testing of propellant tanks 14 p2629 N67-27753
Mechanized ultrasonic scanning system for testing butt welds in large aluminum propellant tanks
[NASA-TM-X-53550] 16 p2898 N67-28180
High energy radiation methods for measuring liquid oxygen and liquid hydrogen mass in propellant tanks of orbiting spacecraft
[NASA-CR-85700] 17 p3154 N67-31408
Calorimetric measurements performed in tests of multilayer insulation system for liquid nitrogen tank
[NASA-CR-85656] 18 p3354 N67-31734
Capacitance technique of gauging orbiting spacecraft liquid propellant tanks in zero gravity environment
[NASA-CR-87496] 20 p3641 N67-34606
High performance design criteria for multilayer insulation systems for cryogenic propellant tankage - handbook
[NASA-CR-87465] 20 p3740 N67-34910
Thermoconductivity of propellant tank insulants, satellite communication ground station, and twenty-four hour satellite motion stability 20 p3794 N67-35021
Thermoconductivity, specific heat, and density of insulants for liquid hydrogen propellant tanks 20 p3740 N67-35022
Cryogenic positive expulsion bladders development
[NASA-TM-X-52353] 22 p4132 N67-36758
Normal gravity self-pressurization of 9 in.

diameter spherical liquid hydrogen tankage [NASA-TN-D-4171] 23 p4334 N67-38294
Method of attenuating liquid motion in propellant tanks during vehicle acceleration and orbital coast of flight [NASA-TM-X-53589] 24 p4434 N67-40365
PROPELLANT TESTING
SA ENGINE TESTING
Propellant testing of dynamic instability, acoustic losses, and steady state burning [NOTS-TN-5008-25] 01 p0148 N67-11139
Propellant testing, computer method of calculation, and Fortran program [NT-92/1965/] 03 p0473 N67-12852
Computer method to calculate equilibrium flow and propellant performance 03 p0473 N67-12853
Computer method, description, and program utilization for propellant testing 03 p0473 N67-12854
Fortran computer program, vocabulary, symbols, and instructions used in calculating propellant performance 03 p0371 N67-12855
Standardized combustion chamber and test method developed in Germany for solid propellants 12 p2197 N67-24387
Combustion instability in chambers investigated with solid propellant tests 12 p2197 N67-24388
Heat transfer in walls of combustion chambers and effects on solid propellant ignition 12 p2198 N67-24393
Test method for measuring burning process of solid propellants in combustion chamber 12 p2199 N67-24399
Blast and fireball characteristics of liquid oxygen/liquid hydrogen propellant [NASA-CR-65651] 18 p3355 N67-32112
PROPELLANT TRANSFER
Behavior of propellant liquid-vapor interface outflow from cylindrical space vehicle tanks in weightlessness [NASA-TN-D-3746] 02 p0252 N67-11958
PROPELLER
SA SHROUDED PROPELLER
SA VARIABLE PITCH PROPELLER
Method for modelling profiles on wings and propellers [FTD-TT-65-1936] 01 p0004 N67-11146
Propeller-excited vibration forces on model ship hull [DTMB-2266] 13 p2411 N67-25140
Supercavitating propellers tested in cavitating oblique flow condition to confirm validity of quasi steady calculation method 14 p2630 N67-27775
High speed propeller spinning test facility design and specifications [ARA-WTN-58] 20 p3620 N67-34628
Aerodynamic characteristics of seven foot diameter ducted propeller in wind tunnel [NASA-TN-D-4142] 20 p3561 N67-34883
Helicopter rotor and V/STOL propeller testing system in sonic wind-tunnel [TP-494/1967/] 22 p4029 N67-37319
PROPELLER BLADE
Method to test specimens and panels of airplane skin for vibration resistance in shell with propeller-engine unit [FTD-TT-65-1743] 05 p0771 N67-14857
Prediction of rotational sound due to blade loadings in ducted propellers [NASA-CR-66270] 06 p0788 N67-16682
Exact treatment of helicoidal wake in propeller lifting surface theory [REPT.-1117] 10 p1606 N67-20557
Ducted propeller blade loading, duct stall, and interference [VIDYA-229] 11 p1777 N67-22671
Mathematical model and solution to integral equation for unsteady propeller lifting surface theory with finite number of chordwise modes [R-1133] 16 p2878 N67-29496
Propeller blade thickness and appendage asymmetry effects on propeller-appendage interaction [REPT.-66-24] 16 p2980 N67-29663
Survey of propeller rotor whirl flutter [NASA-TR-R-264] 16 p2816 N67-30127
Application of lifting foil theory solved by rheoelectric analogy to calculation and design of subcavitating and supercavitating propellers [AD-652981] 19 p3363 N67-33791
Aerodynamic design of highly efficient propeller blade based on vortex theory [NASA-TT-F-11218] 23 p3955 N67-36705
Thrust and blade spindle torque measurements of 5 variable pitch propellers for minesweeper [DTMB-2325] 22 p4132 N67-36857
PROPELLER DRIVE
SA HELICOPTER PROPELLER DRIVE
Longitudinal aerodynamic characteristics of large semispan V/STOL tilt-wing configuration with single propeller rotating in both left and right directions [NASA-TN-D-3754] 07 p0989 N67-17622
Ultrasonic inspection method for Viscount aircraft propeller cylinders [REPT.-6701.278] 22 p4057 N67-37778
PROPELLER EFFICIENCY
Performance prediction of VTOL propellers operating at zero forward speed [TN-67-3] 20 p3565 N67-34494
PROPERTY
S CHEMICAL PROPERTY
S DYNAMIC PROPERTY
S ELASTIC PROPERTY
S ELECTRIC PROPERTY
S MAGNETIC PROPERTY
S MECHANICAL PROPERTY
S OPTICAL PROPERTY
S PARTICLE PROPERTY
S PHYSICAL PROPERTY
S PROPELLANT PROPERTY
S SURFACE PROPERTY
S THERMAL PROPERTY
S THERMODYNAMIC PROPERTY
S THERMOPHYSICAL PROPERTY
S TRANSPORT PROPERTY
PROPORTIONAL CONTROL
Proportional hot gas secondary injection thrust vector control system for high energy solid propellant rocket motor [NASA-CR-637] 03 p0455 N67-12758
Static and dynamic characteristics of water and air operated proportional fluid amplifier, using flow visualization techniques [C5] 10 p1612 N67-21127
Momentum interaction principle used to produce proportional fluid amplifier [C1] 10 p1557 N67-21138
PROPORTIONAL COUNTER
Macroscopic and microscopic distribution of dose deposited in tissue by high energy protons - spherical proportional counters and silicon Au-I-Al detectors [NASA-CR-73040] 02 p0213 N67-11985
Streamer chamber triggered by proportional counters designed to register stopping mesons [JINR-P13-2998] 12 p2164 N67-23768
Statistics of electron multiplication in proportional counters 13 p2380 N67-26145
Proton-recoil proportional counter and helium sandwich detector for critical assemblies [IITRI-578P31-1] 14 p2533 N67-26996
Large surface proportional counters for activity determination of low specific radioactives, energy determination of measured radiation, and dose determination [KFK-411] 14 p2536 N67-27343
Gas detectors for thermal neutron at high counting rates [CEA-R-2962] 15 p2744 N67-27919
Effects of gamma flux intensity on sensitivity of proportional neutron counters containing boron trifluoride [AD-634621] 15 p2744 N67-27973
Streamer chamber with multiple wire proportional counter for registering stopped mesons 17 p3133 N67-30970
Proportional counter filled with mixture of isopentane [NASA-CR-67328] 19 p3509 N67-33741
PROPRIOCEPTION
SA SENSORY PERCEPTION
Water immersion and body position effect on perception of gravitational vertical [NADC-MR-6709] 24 p4383 N67-39702
PROPULSION
SA CHEMICAL PROPULSION
SA ELECTRIC PROPULSION
SA ELECTROMAGNETIC PROPULSION
SA ELECTROSTATIC PROPULSION
SA IONIC PROPULSION
SA JET PROPULSION
SA LOW THRUST PROPULSION
SA NUCLEAR PROPULSION
SA PLASMA PROPULSION
SA SHIP PROPULSION
SA SOLAR PROPULSION
SA SPACECRAFT PROPULSION
SA SUBMARINE PROPULSION
SA THRUST
Feasibility of V/STOL propulsion concepts for short haul transport aircraft [NASA-CR-670] 05 p0831 N67-14973
Aerodynamic suspension and propulsion during jet flight conditions, and long-distance transportation studies 06 p1355 N67-18645
Research in systems analysis, propulsion, guidance and control, telecommunication, and space sciences [NASA-CR-84965] 16 p2988 N67-29141
Automatic computation method using linear equation to determine chemical equilibrium in reactor system in connection with rocket propulsion [NASA-CR-87324] 19 p3397 N67-33833
Space exploration projects on systems, guidance and control, environmental simulation, space sciences, propulsion, telecommunications, and engineering mechanics [NASA-CR-87458] 20 p3727 N67-34761
PROPULSION CALCULATION
Pressure distribution, air speed, propulsion, and other characteristics of experimental air cushion vehicle [NT-S-1966] 15 p2640 N67-27819
PROPULSION CONFIGURATION
Structural design and propulsion configurations for SCAT 4, 5, 16, and 17 18 p3190 N67-31611
Turbojet and turbofan engines for supersonic transports 18 p3330 N67-31622
Airframe-propulsion system integration for hypersonic aircraft [NASA-TN-D-4128] 23 p4175 N67-38848
Configuration selection for aeroshell, lander, and terminal decelerator and propulsion for Voyager capsule bus system [NASA-CR-89676] 24 p4536 N67-40045
PROPULSION SYSTEM
SA HOT CYCLE PROPULSION SYSTEM
SA ROCKET ENGINE
Combustion oscillations in propulsion systems and design and construction of shock tunnel for velocity measurement studies [HIC-74] 01 p0163 N67-10605
Machinery and propulsion system technology for air cushion vehicles [DTMB-2303] 01 p0006 N67-11006
Potential application of propulsion to aeronomy satellites [NASA-CR-79700] 02 p0311 N67-11340
Chinese Communist abstracts dealing with rocket propulsion and material technology [ATD-66-89] 02 p0296 N67-12050
Space program research and advanced development in guidance and control, engineering mechanics, environmental simulation, propulsion, space sciences, and telecommunications [NASA-CR-79917] 02 p0329 N67-12101
Bladder development and metal foil pinhole simulation - advanced liquid propulsion systems research 02 p0296 N67-12116
Propulsion system and launch vehicle stage requirements for automated space missions 03 p0467 N67-12901
Gas jet propulsion systems for satellite attitude control [ESRO-TM-29] 03 p0467 N67-13056
Upper stage for ELDO B1 launch vehicle - propulsion system, attitude control, and reliability 04 p0615 N67-14186
High speed wind tunnel tests to determine aerothermodynamic characteristics of closely coupled, high bypass lift/cruise fan propulsion system [R66FPD161] 05 p0754 N67-14852
Lithium chloride electrochemical storage battery for vehicle propulsion system [EDR-4669] 05 p0638 N67-14997
Dipole moment approximation of three-dimensional plasma acceleration through axisymmetric diverging magnetic fields [NASA-TN-D-3782] 06 p0942 N67-18063
Ammonia fueled resistojet thrustor system for three-axis attitude control and two-direction station-keeping of stable platform type satellite [NASA-CR-72104] 06 p0953 N67-15677
Space mission requirements and technical feasibility of non-chemical space propulsion system 06 p0955 N67-16947
Air breathing propulsion in aerospace transport [NASA-TT-F-10697] 07 p1181 N67-17389
Abstracted data on propulsion technology - liquid and solid propellants, air breathing engines, and combustion engineering concepts [ATD-66-121] 07 p1183 N67-17985
System design and materials testing in

development of sterilizable liquid propulsion system
[NASA-CR-61642] 07 p1183 N67-17970
Updated bipropellant and advanced thruster systems for Manned Orbital Research Laboratory, and comparison of integrated propulsion/reaction control systems
[NASA-CR-66393] 06 p1371 N67-18580
Aerospace technological developments on propulsion systems, propellant mixtures, aircraft structure and design, flow theory, and other aerodynamic characteristics - conference topics 06 p1389 N67-18661
AGARD activities in aerospace medicine, avionics, flight mechanics, fluid dynamics, guidance and control, propulsion and energetics, structures and materials, and technical information 00 p1402 N67-19010
Manned Orbital Laboratory propulsion/reaction control system improvement
[NASA-CR-66292] 00 p1510 N67-20166
Gas jet propulsion systems for satellite attitude control 12 p2141 N67-23665
Air breathing engine, rocket propulsion, and nonchemical combustion technology survey
[ATD-66-143] 12 p2190 N67-24493
High temperature resistant materials for missile propulsion systems
[NOLTR-66-214] 12 p2126 N67-24946
Review of potential chemical and atomic fuel rocket engines for space power systems
[FTD-TT-65-693] 13 p2247 N67-25446
Mercury ion propulsion system with electrodeless, self-sustaining gas discharge 13 p2296 N67-26133
Surveyor spacecraft systems engineering, thermal control, propulsion system, and scientific instrumentation 14 p2621 N67-27742
Spacecraft configuration, attitude control, propulsion, and temperature control for Mariner Mars 1969 project 14 p2621 N67-27744
Composite Teflon-aluminum foil bladders for Surveyor vernier propulsion system
[NASA-CR-84663] 15 p2784 N67-29018
Gas turbine propulsion systems for shaft-driven heavy-lift helicopter
[REPT.-1882.1] 15 p2785 N67-29262
Polymer chemistry research for applications in propulsion systems 16 p2914 N67-29152
Liquid methane propulsion system concept for military and commercial supersonic transport applications
[NASA-TM-X-52199] 16 p2961 N67-30037
Orbit trim propulsion requirements for sun synchronous satellites
[NASA-TM-X-55825] 16 p2965 N67-30148
Logic and methodology for propulsion system comparison-evaluation, with consideration of mission objectives and operations 17 p3151 N67-30487
Solid propulsion technology development for altitude, velocity, and thrust vector control 17 p3151 N67-30558
Combustion instability, and secondary injection studies in liquid propulsion technology 17 p3151 N67-30559
Vehicle design, performance, and propulsion of Nuclear Engine for Rocket Vehicle /NERVA/ 17 p3188 N67-30610
Electromagnetic, electrostatic, and other propulsion systems for aerospace mission application
[TP-394/1966/] 17 p3152 N67-31082
Supersonic transport configurations, propulsion systems, structural materials, handling qualities, and sonic boom - conference
[NASA-TM-X-905] 18 p3190 N67-31606
Supersonic commercial air transport airframes and propulsion systems 18 p3199 N67-31609
Supersonic commercial air transport configuration and propulsion system studies at Mach 3.0 18 p3190 N67-31610
Exhaust nozzles for SCAT propulsion system 18 p3220 N67-31634
Propulsion system dynamic simulation computer program - instruction manual
[NASA-CR-72113] 19 p3409 N67-32011
Compilation of research articles on manned military aircraft - hypersonic and supersonic flight, air breathing propulsion, simulation, noise, and aerodynamics
[NASA-TM-X-420] 19 p3365 N67-32070
Air breathing propulsion systems for supersonic aircraft 19 p3528 N67-32074
State-of-the-art in aerodynamics, aerodynamic heating, and propulsion for hypersonic cruise aircraft 19 p3366 N67-32076
Potential utility and feasibility of servomechanism propelled walking vehicles
[P-314] 20 p3645 N67-34111
Ion propulsion system evaluation for attitude control and stationkeeping of synchronous satellites
[NASA-TM-X-55874] 20 p3716 N67-34343
Flight test of experimental air cushion vehicle with flaps
[NT-13-1967] 20 p3567 N67-34978
Mixed propulsion system of peripheral jet air cushion vehicle
[REPT.-4] 20 p3567 N67-34979
Thermodynamic and geometrical characteristics of pulse jet
[REPT.-37] 20 p3719 N67-33249
Zero leakage test program for Saturn launch vehicle application 21 p3656 N67-35569
Laboratory leakage measurement techniques on separable connectors 21 p3857 N67-35577
Leakage measurement techniques for use in spacecraft propulsion systems applications 21 p3857 N67-35578
Intentional combustion oscillations in propulsion systems
[HIC-92] 21 p3909 N67-35706
Space exploration research on systems analyses, guidance and control, engineering development, propulsion systems, telecommunications, and space sciences
[NASA-CR-86108] 21 p3952 N67-35972
Basic design, component selection, and materials compatibility tests for sterilizable liquid bipropellant propulsion system
[NASA-CR-86030] 21 p3925 N67-35988
Airframe, pneumatic, hydraulic, propulsion, flight control, electrical, guidance, telemetry, and range safety command subsystems for Atlas launch vehicle
[GD/C-BGJ67-001] 21 p3926 N67-36061
Microthrust propulsion systems used for satellite and orbit control - thermodynamic and electric methods of acceleration 21 p3928 N67-36073
Nitrogen and propane cold gas systems used in microthrust propulsion for satellite attitude control - storage tanks, boilers, nozzles 21 p3928 N67-36074
Mission planning and research project on electric propulsion systems
[NASA-CR-86419] 22 p4122 N67-36941
Aluminum colloid formation in supersonic nozzle by homogeneous nucleation 22 p4123 N67-36947
Transient heat transfer and thermodynamic analysis of Apollo service module propulsion system
[NASA-CR-65579] 22 p4182 N67-37222
Surveyor E instrumentation, propulsion and control systems, and flight plans
[NASA NEWS RELEASE-67-227] 22 p4146 N67-37335
Semiannual review of supporting research and technology projects at Jet Propulsion Laboratory
[NASA-CR-88968] 23 p4182 N67-38822
Electric circuits and ion thrustor ground test hardware for efficient, reliable, lightweight power conditioning
[NASA-CR-72179] 24 p4376 N67-39290

PROPULSION SYSTEM PERFORMANCE
Low power magnetoplasmadynamic arc thrustor performance
[NASA-TM-X-52256] 03 p0456 N67-13096
High energy propellant properties and characteristics affecting design, operation, and performance of liquid propellant rocket engine
[ARSN-6] 04 p0602 N67-14278
Aerobee rocket propulsion system failure
[NASA-TN-D-3359] 07 p1196 N67-17501
Mission performance gains from using spent booster tankage as propellant source for electric propulsion spacecraft 10 p1755 N67-30512
Electric propulsion system performance gains using thermal power augmentation 10 p1755 N67-30513
SNAP-10A flight test data on overall system and component performance, and effects of launch and space environments on system operation
[NAA-SR-11934] 10 p1687 N67-31510
Simulated bearing coolant injection effect on performance of two stage, velocity compounded turbojet drive turbine
[NASA-TM-X-1264] 11 p1970 N67-32840
Performance of FW-4 third stage solid propellant rocket engine of Delta launch vehicle
[NASA-TM-X-59777] 14 p2696 N67-26569
Twin spool high by-pass ratio turbojets for short and middle range programs 16 p2923 N67-29156
Cryogenic kick stage
[RKS-66-1029] 19 p3541 N67-33849
Mission analysis and design study of Mars spacecraft solar-powered electric propulsion system
[NASA-CR-89652] 24 p4378 N67-39060

PROPULSIVE EFFICIENCY
Research project summaries in propulsion, guidance and control, trajectory optimization, physics and chemistry, communications, and related space sciences
[NASA-CR-86100] 21 p3902 N67-36101

PROPYL PENTABORANE
Experimental behavior of combustion products of HEF-2 and air during expansion in exhaust nozzles
[NASA-TM-X-361] 18 p2354 N67-31532

PROPYLENE
SA POLYPROPYLENE
Electoformation and discharge of lithium and copper chloride in lithium aluminum chloride in propylene carbonate for evaluating lithium, copper chloride battery system
[TR-1] 06 p0794 N67-18469
Bladder and expulsion devices for spacecraft liquid propulsion systems - pinhole leak test fixture, heat sterilization of ethylene propylene with hydrazine, and metal diaphragms 06 p1353 N67-18324
Potentialities of propylene glycol sulfite as electrolyte solvent for high energy battery
[NASA-TM-X-1280] 14 p2649 N67-27365
Characterization of ethylene propylene vulcanizates
[RAE-TR-66288] 15 p2730 N67-27798
Amorphous propylene polymerized with titanium tetrachloride and aluminum triethyl to determine association
[DISS-3892] 24 p4395 N67-39692

PROPYLENE OXIDE
Ultrasound used in combination with propylene oxide for sterilization of bacterial spores
[NASA-CR-87494] 20 p3573 N67-34412

PROSPECTOR PROJECT
Flight loads of Prospector agricultural aircraft during turning, dusting or spraying, and flying straight and level
[ARL/SM-309] 20 p3566 N67-34700

PROSTHETICS
Automatic control of activity of apparatus-organism system maintaining homeostasis, based on complex feedback network 03 p0374 N67-12344
Control problems in operation of externally powered upper extremity prostheses - electronic hands, elbows, and arms
[REPT.-67-22] 20 p3588 N67-35100

PROTACTINIUM
Tabulation of protactinium 233 total neutron cross section data
[IN-1014] 04 p0884 N67-13434
Protactinium extraction from solution of thorium chloride in hydrochloric acid by partition chromatography 06 p0633 N67-16252
Auger, internal conversion, and gamma ray spectra from protactinium 233 decay and photoelectron scattering effect on internal-external method
[TID-23962] 10 p1730 N67-31613
Mossbauer effect in protactinium 231
[DP-MS-66-68] 15 p2641 N67-28439
Complex formation of protactinium with chloride and sulfate ions by sorption on silica gel 21 p3779 N67-35813
Adsorption of cesium, plutonium, and protactinium from mixed solutions 21 p3779 N67-35815

PROTECTION
SA ACCELERATION PROTECTION
SA CIRCUIT PROTECTION
SA EAR PROTECTOR
SA EYE PROTECTION
SA INSULATION
SA METEOROID PROTECTION
SA RADIATION PROTECTION
SA THERMAL PROTECTION
SA VIBRATION PROTECTION
Reinforced concrete breakwater for protection and repasturing of narrow eroding coastlines 01 p0160 N67-10470
Protective equipment for maintenance of normal vital activities of human body during

high altitude flights 03 p0352 N67-12496
Extravehicular protection and operations [APL-TG-941] 11 p1800 N67-23113
Protection of wire and optical aircraft accident recorders against crash damage [AAEE/TECH/204/WEA] 15 p2707 N67-37791
Evaluation of rain erosion resistant materials for helicopter rotor protective covering [SEG-TR-65-53] 15 p2840 N67-28183
Electric welding current destruction of electric earth conductors, and protective work rule measures [TIL/T-5696] 15 p2730 N67-28844
Extravehicular protection and operations [NASA-CR-773] 16 p2839 N67-29388
PROTECTIVE CLOTHING
SA FLIGHT CLOTHING
SA SPACE SUIT
Clothing and equipment, instrumentation, and pressurized cabins for protection of aircrew during high-altitude aircraft flights [ATD-66-67] 03 p0352 N67-12494
Protective gear and devices for pilot safety during acceleration of flight, parachute jumps, and ejection 03 p0352 N67-12495
Sodium chloride aerosol penetration, and noise level measurements in airhoods and airblouses of personnel working with radioactive materials [AERE-R-5184] 04 p0497 N67-13817
Protective masks to prevent inhalation of agricultural chemicals [JPRS-39381] 05 p0662 N67-15178
Anticontamination clothing as protection against radiation damage or injury [CONF-660621-1] 07 p1021 N67-17546
Physiological protective efficiency on prototype disposable passenger oxygen mask [AM-66-7] 07 p1022 N67-17929
Sierra, hanging, quick-don, crew, pressure breathing oxygen mask [AM-66-30] 07 p1023 N67-17931
Photochromic eye protective device based on triplet absorption [TRW-05465-6003-R000] 10 p1567 N67-21716
Physiological response to varied work programs in men wearing water cooled protective clothing [NASA-CR-739] 11 p1788 N67-22151
Combination chemical heat release and fabric insulation system for preventing excessive loss of body heat of downed pilots in ocean [TM-67-1] 12 p2032 N67-24375
Fitting personnel with half-mask respirators for protection against toxicity [RFP-810] 12 p2032 N67-24572
Clothing for protection against extreme ambient temperatures in aircraft [RAE-LIB-TRANS-1205] 12 p2032 N67-24587
Protective clothing, and head ventilation device for flying personnel [FPRC/1237] 13 p2262 N67-25589
Body heat loss of divers wearing variety of foam neoprene wet suits studied while immersed at 30-32 deg F in arctic pool [NEL-1408] 19 p3372 N67-32971
Closed cell sponge, integrated into partial pressure suit, to cause pressure on human body in vacuum environment [AMRL-TR-66-183] 19 p3380 N67-32991
Full pressure spacesuit helmet with aspherical glass facepiece for astronaut protection during extravehicular mission [AMRL-TR-66-193] 19 p3381 N67-33106
Full-face respirator masks for radiological protection and relation of efficiency to pressure drop [HOHF-3] 19 p3385 N67-33843
Electrically heated gloves for maintenance personnel working in severe cold climates [AAL-TR-67-1] 20 p3581 N67-34106
Feasibility and effectiveness of partial body shielding for personnel protection against hazards of radioactive fallout [USNRDL-TR-67-39] 20 p3581 N67-34113
Assessment of type B full pressure suit as parachuting garment [RAE-TR-66330] 20 p3586 N67-35195
Polyimide plastic film smoke hood for protection of jet transport passengers against smoke and toxic gases during evacuation [AM-67-4] 22 p3975 N67-38727
Electrically heated gloves development [TR-67-82-CM] 22 p3976 N67-38847
Sound attenuation characteristics of Navy SPH-3 helmet [USAARU-67-8] 23 p3978 N67-37090
Wet suit worn in conjunction with antigravity suit evaluated in acceleration tolerance tests [NADC-MR-6713] 24 p4388 N67-39611
PROTECTIVE COATING
SA CLADDING
SA WATERPROOFING
Sprayed metal coatings for protection of aluminum alloy aircraft parts [M-66-441] 01 p0078 N67-10543
Phosphate films evaluated for use as protective coating for metal surfaces [M-66-656] 01 p0028 N67-10544
Soviet automobile technology - corrosion resistant chromium coatings for auto-tractor engine components, and high energy ignition system for starting gas turbine engines [FTD-TT-65-1856] 02 p0263 N67-11345
Antifriction properties of porous and dense chromium coatings for automobile-tractor engine components 02 p0263 N67-11346
Soldering titanium alloy with protective coatings of rhenium, rhodium, or silver 02 p0265 N67-11803
Oxidation of titanium and its alloys, and strengthening Ti alloys for use at high temperatures by using Al-Ni protective coating 02 p0276 N67-11806
Metal corrosion tests conducted to evaluate protective properties of temporary agents [TDCK-46171] 02 p0286 N67-11997
Paints and other protective antifouling compositions for preventing ship hull corrosion [TDCK-46170] 02 p0277 N67-11998
Painting and protective coating of nonferrous metals [TIL/T-5687] 03 p0411 N67-12859
Castable polyurethane and thin film forming conformal coating materials compared and evaluated for use as environmental protective coating [NASA-TM-X-59180] 03 p0415 N67-13110
Zinc oxide-potassium silicate thermal coating tested under various vacuum, temperature, solar electromagnetic, and proton environments to determine their effects on solar absorptance [NASA-CR-73028] 05 p0774 N67-14922
Oxidation resistance tests of protective coatings for tantalum alloy [NASA-CR-54578] 05 p0718 N67-14924
Oxidation resistant coatings tested in argon with oxygen and water vapor traces and evaluated for inert-atmosphere applications [NASA-CR-81191] 06 p0891 N67-15683
Electrostatic properties of conductive transparent thermoplastic materials evaluated by use of charging and grounding test procedure [PR-2] 06 p0899 N67-16215
Polymerized resin varnish for surface protection against radioactive contamination 06 p0899 N67-16256
Electrodeposition of organic coatings on complex military structures [CCL-209] 06 p0901 N67-16498
Low solar absorption emissivity coatings for low temperature spacecraft radiators - ultraviolet radiation tests [NASA-CR-73150] 06 p0982 N67-16568
Emittance and thermal cycling tests of stainless steel tubes coated with iron and calcium titanate, and niobium-zirconium tubes coated with iron titanate [NASA-CR-72149] 06 p0982 N67-16569
Synthesis and characterization of polymeric systems for space vehicle protective coatings 07 p1034 N67-16857
Optical characteristics of vapor deposited coating systems for thermal control of spacecraft structural surface [NASA-CR-73039] 07 p1090 N67-17182
Rubber coatings to protect metals from cavitational wear [FTD-HT-66-510] 07 p1106 N67-17670
Chemical conversion coating methods for protection of aluminum alloys [NASA-CR-83060] 08 p1293 N67-19116
Sterilizable potting compounds and conformal coatings for space applications [NASA-CR-83464] 08 p1340 N67-19158
Oxidation, thermal cycling, and irradiation effects on silicon carbide coated graphite [BNWL-242] 10 p1660 N67-20723
Beta radiation gauge for measuring thicknesses of coatings, paints, and varnishes 10 p1642 N67-21240
Protective coating applied to magnetic pellets containing cobalt 60 by electroplating method leaving no residue [AD-644620] 10 p1647 N67-21427
Vortex arc studies, solar flux and spectral measurements, spacecraft coatings, solar simulation studies, and solar cell radiation effects testing [NASA-TM-X-55735] 11 p1853 N67-22141
Passive and thermal control coatings development and degradation equipment procurement 11 p1888 N67-22145
Physical-properties thermal-shock test of spacecraft thermal control coatings 11 p1901 N67-22146
Thermal properties of polymers used as protective films and paints [RAE-TN-CPM-51] 11 p1904 N67-22717
Production method for niobium strips having protective layer of niobium stannide [INR-749/XIV/PS] 11 p1967 N67-23007
Potential protective coatings for beryllium oxide based reactor fuel elements [AAEC-TM-334] 12 p2145 N67-23744
Solid state diffusion of powdered molybdenum onto carbon steel - protective coating 12 p2117 N67-23975
Water repellent antistatic coatings, multi-purpose fluid thickeners, and thermally stable elastomeric polymers [AD-647072] 12 p2127 N67-24986
Heat treatment and metallographic examination of iridium deposited on tungsten and molybdenum as high temperature protective coating [NASA-CR-83867] 13 p2339 N67-25961
Anodized aluminum alloy tail rotor drive shafts examined for effectiveness of corrosion protection [M67-116] 13 p2328 N67-26039
Cleaning methods and primer paint systems for steel sheet treatment evaluated for mechanical and corrosive properties [V-67-21] 13 p2328 N67-26040
Fused salt electrodeposition and examination of iridium protective coatings on tungsten, molybdenum, and niobium [NASA-CR-84124] 13 p2341 N67-26443
Evolution of sheath constructions for communications cable [AD-646537] 14 p2504 N67-26783
Application of welded thin metal in new communication cable designs [AD-646538] 14 p2504 N67-26788
Low modulus materials for coaxial cable insulation and jacketing [AD-646530] 14 p2505 N67-26787
Metal, plastic, and rubber sheathing materials for protecting telephone lines from insect attacks [AD-646543] 14 p2486 N67-26807
Coordination chemistry of magnesium ion, for magnesium alloy protective coatings [NRL-R-6510] 15 p2723 N67-28099
Reflection coefficients of lacquers containing photostabilizing compounds - protection of aluminum mirror surfaces produced by transfer method 15 p2644 N67-28168
Iridium-molybdenum diffusion for protective coatings on refractory metals [NASA-CR-84823] 15 p2728 N67-28788
Oxidation protection of tantalum and niobium by silicide coatings [NASA-CR-84874] 15 p2664 N67-28987
Manufacture of reactor fuel elements from fused carbides and coating with pyrolytic graphite [ORNL-TR-1417] 16 p2929 N67-29277
Accelerated condensation apparatus for corrosion preventative coating evaluation [RIA-67-306] 17 p3043 N67-30649
Preparation and application of paint coatings on ship hull steel plate and testing in sea water for effects of cathodic action [TDCK-48258] 17 p3079 N67-30796
Laminated plastic-aluminum materials tested in humid environment for suitability as sealants for water purification tablets [TL-1967-14] 17 p3011 N67-30913
Feasibility of using ductile nickel-chromium alloy claddings to protect chromium alloy turbine vanes and blades [NASA-CR-85869] 17 p3081 N67-31161
Protective aluminum coatings for chromium alloys [NASA-CR-85011] 17 p3083 N67-31414
Deposition of protective refractory coatings on graphite [JPRS-41967] 18 p3280 N67-32296
Solid phase deposition of zirconium nitride

on graphite sphere 18 p3290 N67-32297
Vapor deposition of protective molybdenum silicide coatings on graphite 18 p3290 N67-32298
Deposition of protective coatings of carbides of titanium, zirconium, and niobium and of aluminum nitride on graphite 18 p3290 N67-32299
Uranium plutonium nitride fuels, radiation effects in reactor cladding materials, coated particle fuels, uranium dioxide plutonium dioxide fuels, and high burnup effects on ceramic fuels
[BMI-1791] 18 p3294 N67-32354
Quality control assurance for coatings used on satellites, and getter-ion sublimation pumps with controls and power supplies 18 p3383 N67-32600
Vacuum chambers for particle irradiation of thermal control coatings, and testing of paint samples of alkali silicates and methyl silicones 18 p3384 N67-32601
Sterilizable polymer compounds for embedment or conformal coating
[NASA-TM-X-53710] 19 p3477 N67-33969
Phosphate films on metal surfaces evaluated for corrosion inhibition, mechanical properties, and compatibility with paints
[M67-363] 20 p3588 N67-34120
High temperature reaction kinetics of tungsten and tungsten-cobalt alloy with oxygen and microstructures of metal oxides for oxidation resistant coating applications
[BM-RI-6908] 20 p3588 N67-34130
Impact tests on hemispherical shell models of deep submergence structures and plate /brittle/ specimens protected by viscoelastic material
[DTMB-3314] 20 p3736 N67-34175
Zinc paints and galvanizing for corrosion prevention 20 p3657 N67-34538
Simulated space environment effects on thermal radiation characteristics of black coatings
[NASA-TN-D-4116] 21 p3946 N67-35729
Synthesis of metal phosphinate and silicone carbonane polymers, high temperature and fluid resistant elastomers and aircraft protective coatings, and grease thickeners
[NAEC-AML-2571] 21 p3875 N67-36011
Phase change coatings for use as variable thermal control surfaces
[NASA-CR-66394] 21 p3948 N67-36060
Development and testing of coatings for tantalum alloy nozzle vanes
[NASA-CR-54529] 21 p3869 N67-36159
Electrodeposition of thick coatings of platinum and palladium of refractory metals from aqueous electrolyte
[BM-RI-7016] 22 p3981 N67-36704
Synthesis, characterization, and evaluation of organic and semiorganic heat resistant polymer coatings
[NASA-CR-66757] 22 p4077 N67-37306
Electrodeposition of iridium from fused sodium cyanide and aqueous electrolytes
[RI-7023] 23 p3986 N67-37351
Electroplating of uranium with protective nickel coating
[SCL-DR-67-43] 23 p4361 N67-39289
Improved electroplating process for protective nickel coating of uranium
[SCL-DR-67-44] 23 p4361 N67-39290
Experimental investigation to evaluate high temperature performance and self-generating protective oxide coating of three JT graphite composites
[NASA-TN-D-4231] 24 p4472 N67-39621
Oxidation protection of niobium and tantalum by their silicides
[NASA-CR-99635] 24 p4467 N67-40040
Additives used to provide surface recombination centers on thermal control coatings and thus stop optical degradation
[NASA-CR-99555] 24 p4517 N67-40089

PROTEIN
SA ALBUMIN
SA CHLOROPHYLL
SA ENZYME
SA GELATIN
SA GLOBULIN
SA HEMOGLOBIN
SA PEPTIDE
SA SERUM

Presence of protein precursors in lactating mammary glands
[NASA-TT-F-10048] 01 p0013 N67-10223
Tracer studies on nucleic acid and protein synthesis control mechanisms, and relation to radiation damage
[NYO-3643-23] 01 p0016 N67-10852
Determination of food value of protein of unicellular algae in rats for application to life support systems 02 p0194 N67-11541
Literature review on biliproteins of algae
[AFOSR-66-1127] 02 p0340 N67-12531
Spontaneous droplet separation from high molecular compounds and enzymatic conversion into continuous systems
[NASA-TT-F-10440] 04 p0492 N67-13839
Plasma proteins effect on rheology of blood in microcirculation 05 p0646 N67-14594
Physiochemistry of collagen as fibrous protein with high degree of crystallinity 05 p0647 N67-14601
Role of fibrinogen and other plasma proteins in rheology of blood 05 p0648 N67-14607
Serum-lipoprotein distribution and protein analysis by refractometry 06 p0882 N67-15948
Effect of plague toxin on blood proteins and incorporation of methionine-S35 in tissue proteins
[TRANS-1712] 06 p0885 N67-16428
Biosynthesis of deoxyribonucleic acid /DNA/, ribonucleic acid /RNA/, and protein molecules 07 p1003 N67-16706
Ribonucleic acid and protein synthesis in sea urchin eggs after fertilization 07 p1005 N67-16782
Dimer protein example to describe properties of allosteric enzymes
[NASA-TT-F-10651] 07 p1010 N67-17395
Amino acid composition of Pseudomonas saccharophila
[NASA-TM-X-1335] 07 p1010 N67-17500
Ion binding properties of human serum lipoproteins
[UCRL-14631] 07 p1014 N67-17737
Oxidized bovine insulin and tobacco mosaic virus protein used to determine hydrolysis specificity of thermolysin
[NASA-CR-70649] 07 p1015 N67-17890
Histone effect on synthesis of antibodies and other proteins in rabbit spleen cell culture
[NASA-TT-F-10727] 08 p1237 N67-18941
Protein extraction from unicellular algae and effect of 50, 100, and 150 gram diets of dry algae biomass on human metabolism
[JPRS-39942] 12 p3019 N67-23535
Extraction of proteins from unicellular algae 12 p3019 N67-23536
Serum lipoprotein distribution and protein analysis by refractometry 14 p3457 N67-26768
Extended hydrogen bond model to include proteins and DNA
[ISS-66/47] 14 p3478 N67-27135
Physiological properties of protoplasm streaming in myxomycete plasmodium and nitella
[RAE-LIB-TRANS-1206] 15 p3650 N67-28706
Separation of proteins in mollusk shells by gel filtration
[NASA-CR-86230] 16 p3837 N67-30075
Fluorescent emission of proteins and nucleic acids in biological cell nucleus
[DISS-3834] 17 p3003 N67-30764
Intermediate f-structure between fibrillar and globular actins in muscle protein
[JPRS-41505] 17 p3006 N67-31124
Geometry and electronic structure of biologically significant molecules as observed by natural and magnetic optical activity - protein conformation, chlorophyll, and porphyrins
[UCRL-17300] 19 p3373 N67-33065
Isolation of nucleohistones from Ehrlich ascites tumor cells and fractionation into euchromatin and heterochromatin
[BMWF-FBK-66-36] 19 p3379 N67-33389
Chemical synthesis of protinaceous foodstuffs in application to long manned space flights 20 p3576 N67-34590
Light scattering technique for determining protein molecular weights - macromolecules
[JPRS-41832] 20 p3578 N67-34898
Complex dielectric constant of protein solutions at ultrahigh frequencies - dielectric properties of hemoglobin bound water
[REPT.-69-01] 21 p3764 N67-35479
Charged protein molecule production by electrostatic spraying 22 p4133 N67-36949
Biological value of plant proteins in closed life support system 22 p4191 N67-39013
Index of natural human resistance to dietary replacement of animal protein by Chlorella protein 22 p4195 N67-39115
Full-scale fire modeling studies of light water and protein-type foams
[NRL-6573] 24 p4471 N67-39589
Techniques of labeling globulin with purified fluorescein and/or ferritin dyes for electron microscopy of specific proteins
[ISS-67/8] 24 p4385 N67-40172
Protein antibodies which react specifically with DNA damaged by ultraviolet radiation, produced in rabbits by immunization
[NASA-TT-F-11340] 24 p4386 N67-40184

PROTEIN METABOLISM
Protein metabolism in hard muscular work in relation to nutritional requirement 03 p0239 N67-12444
Incorporation of isotopically labeled nucleotides and amino acids studies in planaria
[NASA-CR-88857] 03 p0346 N67-12979
Labelled amino acid incorporation into protein by rabbit spleen and lymph node microsomes
[NASA-TT-F-10354] 07 p1011 N67-17514
Denaturation effect on protein coacervation capacity with dyes
[NASA-TT-F-10651] 08 p1237 N67-18933
Effect of 50 and 100 gram diets of dry algae biomass of human metabolism 12 p3019 N67-23537
Effect of 150 gram diet of dry algae biomass on human metabolism 12 p3019 N67-23538
Synthesis of tissue proteins in rats during hypodynamia 16 p3837 N67-29215
High carbohydrate, fat, and protein diet and high altitude effects on body composition changes in growing albino rats
[REPT.-306] 17 p3003 N67-30707
Protein metabolism in rats exposed to industrial beryllium and its alloys
[JPRS-41254] 17 p3005 N67-31102
Absorption kinetics of glycine in Macracanthorhynchus hirudinaceus
[NASA-CR-88384] 22 p3968 N67-36721

PROTEINOID
Amino acid and proteinoid production in relation to origin of life 03 p0241 N67-12734

PROTOBIOLOGY
Abiogenic synthesis of protobiochemicals in hydrothermal model system under influence of ionizing radiation
[NASA-CR-84414] 14 p3483 N67-27373

PROTON
SA RECOIL PROTON
SA SOLAR PROTON

Particle physics research
[MPG-66-6] 01 p0125 N67-10680
Cross sections for proton annihilation reactions in flight to meson and electron pairs
[CALT-68-70] 01 p0125 N67-10687
Elastic scattering of 1 BeV protons from helium and oxygen
[BNL-10438] 01 p0129 N67-10843
Charged and neutral pion-pion resonances from pion-proton interactions
[BNL-10469] 01 p0129 N67-10853
Resonance production in KKN final states from pion-proton interactions from exposure to liquid hydrogen bubble chamber
[BNL-10461] 01 p0130 N67-10905
OGO-C observations of low-energy protons and electrons in earth magnetosphere
[NASA-CR-80113] 02 p0362 N67-12362
High energy neutron-proton interactions 03 p0441 N67-12866
Intensity variations of protons and electrons of outer radiation belt
[NASA-CR-80164] 03 p0457 N67-12927
Modified Fortran evaporation program used for calculating radiochemical cross sections and particle multiplicities for protons on carbon and aluminum targets
[NASA-CR-80437] 03 p0443 N67-13116
High resolution study of inelastic proton scattering from nuclei in lead region
[CONF-660906-10] 04 p0588 N67-13965
Analysis of strange particle resonant states from negative pion-proton interactions
[UCRL-16788] 04 p0589 N67-14013
Inelastic negative pion-proton interaction at high energy - four-prong events with protons
[JINR-P-2773] 04 p0589 N67-14015
Proton transfer reaction on carbon, aluminum, vanadium, silver, tantalum, and niobium target nuclei
[JINR-E-2824] 04 p0589 N67-14051
Small angle electron-proton elastic scattering cross sections for momentum transfers between 10 and 100 f super minus 2
[DESY-66/30] 04 p0592 N67-14097

Stopping power and range tables for protons, mesons, and electrons in lithium fluoride, silicon, germanium, liquid hydrogen, propane, and freon
[NASA-SP-3036] 04 p0582 N67-14699
Sulfur 32 deuteron-proton direct and compound nucleus reactions
[LA-DC-8062] 05 p0771 N67-14629
Proton spectra from alpha-particle bombardment of medium weight elements 06 p0236 N67-15600
Yield characteristics, emission spectrum, and angular and energy distributions studied with photoprotons from Sn114 and Sn124 06 p0933 N67-15637
Angular and energy distributions of antimony photoprotons measured to determine reaction on nuclei near closed shell 06 p0932 N67-15638
Neutron-proton elastic scattering above 1 GeV
[SLAC-66] 06 p0939 N67-16382
Effective mass distributions and cross sections of multi-pion final states from pion proton interactions at 2.2 and 4.2 BeV/c
[UCRL-16981] 07 p1147 N67-17400
Operating characteristics of 800 MeV proton linear accelerator - Meson factory projects
[LA-DC-8144] 07 p1059 N67-17571
Physics related topics including proton transfer reactions, computer uses, and mass spectrometry
[ANL-7210] 08 p1344 N67-19058
Standing wave structure for accelerating protons, and detuning effects in linear accelerator cavity
[BNL-10064] 09 p1431 N67-20153
Rate equations and shell model developed for dynamic proton polarization and relaxation
[UCB-34P29-T-1] 10 p1690 N67-20756
Angular distributions, absolute cross sections, and spectroscopic factors in nuclear /p,d/ and /p,t/ reactions involving argon, vanadium, and chromium
[PUC-937-211] 10 p1704 N67-20835
Pictures of pion-proton interaction obtained from exposure of bubble chamber
[CEA-R-2948] 10 p1706 N67-20889
Electromagnetic form factors of proton - Photoproduction of electron-positron and muon pairs as high momentum tests of quantum electrodynamics, and muon g-2 value
[SLAC-PUB-225] 10 p1707 N67-20906
Fluctuations of electron-proton showers in lead produced by 45 to 230 MeV electrons
[JINR-P-2946] 10 p1709 N67-20942
Angular distributions of products of proton transfer in weakly bound states
[JINR-P-2794] 10 p1712 N67-20996
Calculation of radiation dose due to high energy protons
[ORNL-P-2568] 10 p1721 N67-21531
Quasispin formalism and applications to nucleon system and proton-neutron system
[NUP-66-16] 11 p1936 N67-22480
Atomic resonance and scattering - magnetic moment of proton and spin-exchange scattering 11 p1957 N67-22644
Proton spin-lattice relaxation in liquid methane
[NP-500/PL] 11 p1812 N67-22910
Six and seven pion annihilation modes of 2.7 GeV/c antiprotons on protons
[IS-T-115] 11 p1943 N67-23301
Absolute cross sections and isomer yields ratios for deuteron proton nuclear reactions
[NYO-2771-19] 12 p2159 N67-23572
Monte Carlo method for including epithermal neutron scattering by bound protons in combined slowing down thermal calculations
[WAPD-TM-617] 12 p2159 N67-23576
Double pion production without annihilation in antiproton-proton interactions at 2.7 GeV/c
[IS-T-127] 12 p2161 N67-23597
High field measurements of 200 MHz in conventional proton linear accelerator geometries at 5, 50, and 120 MeV 12 p2078 N67-24068
Cavity resonance, power generator, and experimental results of RCA 7835, with factor of initial operating parameters of FTH 515 12 p2078 N67-24069
Structural design equations in Alvarez type proton linear accelerator 12 p2166 N67-24094
Coupled motion in low energy proton linear accelerator 12 p2166 N67-24096
Numerical calculations of coupling effects in low energy proton linac 12 p2166 N67-24098
Space charge effects in proton linear accelerator 12 p2166 N67-24101
Space charge effects on longitudinal motion in proton linear accelerators 12 p2167 N67-24102
Brookhaven recent preaccelerator progress to report proton acceleration 12 p2060 N67-24117
Structural design of 20 MeV proton linear accelerator, new injection for SATURNE synchrotron 12 p2060 N67-24122
Feasibility study for superconducting linear accelerator for protons 12 p2062 N67-24137
Polarization of protons and elastic scattering studies with Van de Graaff accelerator
[ORO-2972-25] 13 p2374 N67-25619
Angular and momentum distributions of protons, kaons, and pions from photoproduction of hydrogen at energies up to 5.8 GeV
[DESY-66/34] 13 p2378 N67-25986
Single pion and multi-pion production in pion proton interactions at 1.6 GeV/c
[CEA-R-3036] 14 p2591 N67-27485
Proton spin-lattice relaxation time in various liquids
[INP-507/PL] 14 p2593 N67-27690
Pitch angle distribution and energy spectrum of protons in aurora 15 p2896 N67-27892
Directional effects in transmission of protons through silicon monocrystals
[LYCEN-6654] 15 p2781 N67-28306
High energy elastic and inelastic scattering, and soft proton emission
[AEC-TR-6800] 15 p2784 N67-28440
Sigma hyperon-pion final states in kaon-proton interactions
[COO-1195-80] 15 p2785 N67-28466
Polarization parameter in negative pion elastic scattering by protons from 600 to 3300 MeV/c
[UCRL-17263] 15 p2786 N67-28473
Annihilation of stopping antiprotons into kaons
[R-575] 15 p2787 N67-28523
Identification of tellurium-111 by daughter isotopes of proton decay
[JINR-P6-3138] 15 p2789 N67-28539
Fast beam and slow third integral resonance extraction from proton synchrotron
[BNL-11102] 15 p2790 N67-28586
Mass distributions of proton meson and neutron pion combinations for 114 cases of neutron proton reactions
[JINR-P1-3146] 15 p2790 N67-28598
Lambda hyperon-proton scattering and lambda hyperon-neutron interaction
[IC/67/16] 15 p2791 N67-28801
Specific yield functions for IGY neutron counters for vertically incident cosmic ray protons, using Monte Carlo method
[BSR-3018] 16 p2965 N67-29002
Triton spectra from helium 3-triton proton reaction
[AD-650070] 16 p2940 N67-29103
Advanced proton linear accelerators - meson factories and injectors for synchrotrons
[LA-DC-8383] 16 p2873 N67-29497
Proton linear accelerator requiring high duty factor RF sources
[LA-DC-8343] 16 p2822 N67-29699
Nuclear physics experiments involving Brookhaven cosmotron
[BNL-11035] 16 p2946 N67-29710
Energy loss of fast protons and deuterons traversing argon hollow cathode discharge
[AECL-2669] 16 p2957 N67-30000
Galactic radio frequency noise emission from protons orbiting around charged intergalactic dust particles
[NASA-CR-85003] 17 p3155 N67-31052
ESRO sounding-rocket payload experiment utilizing Geiger-Mueller counter and far ultraviolet monochromator to determine relation between proton fluxes and intensity of auroral light
[ESRO-SN-61] 17 p3168 N67-31172
Measurements of trapped protons in equatorial magnetosphere 18 p3323 N67-31787
System components for measuring yield and angular distribution of gold sputtered by protons
[ORO-3597-1] 19 p3500 N67-32703
Proton proton and meson proton interactions with polarized proton targets
[UCRL-17433] 19 p3504 N67-33078
Single and double electron capture charge transfer cross sections for high energy protons and hydrogen atoms incident upon hydrogen and helium target gases
[AAEC/E159] 20 p3691 N67-34007
Low energy protons and electrons precipitated at high latitudes measured using low altitude oriented polar orbiting satellites 20 p3720 N67-34181
Rule for estimating chemical displacement of protons in olefinic systems from additive increments of double bond
[JPRS-41595] 20 p3592 N67-34419
Real part of nuclear elastic scattering amplitude determined from interference of Coulomb and nuclear interactions
[JINR-E1-3267] 20 p3698 N67-34490
Emission of correlated proton pairs in negative pion-xenon nucleus interaction in bubble chamber
[REPT.-767-V1-PH] 20 p3699 N67-34491
Angular distribution measurements of protons extracted from carbon by high energy electrons
[ISS-66/30] 21 p3902 N67-35035
Radiation problems associated with high energy accelerators
[UCRL-17141] 21 p3838 N67-35435
Low energy protons and models of trapped radiation environment
[NASA-SP-3024, VOL. IV] 21 p3929 N67-35447
Design of large hydrogen bubble chamber for proton synchrotron
[CERN/TC/BEBC-66-73] 21 p3829 N67-35657
Energy fluxes of low energy protons and positive ions in earths inner radiation belt
[NASA-CR-88886] 22 p4126 N67-37222
Primary and secondary particle radiation doses shielded from solar flare and Van Allen belt protons by aluminum and polyethylene slabs
[NASA-CR-88879] 22 p4127 N67-37223
Spectroscopy of proton ground state configurations in zirconium isotopes
[ORNL-TM-1866] 22 p4108 N67-37808
Correlated proton pair emission during negative pion interaction with xenon nuclei
[INR-767/V1/PH] 22 p4112 N67-37990
Low energy sigma hyperon elastic scattering cross sections for proton-hyperon interactions
[ORO-2504-103] 23 p4301 N67-38301
Solution of Fokker-Planck diffusion equation in intensity prediction of antiproton component of primary cosmic ray flux
[NASA-CR-88977] 23 p4329 N67-38397
Proton transfer process studied using aromatic hydrogen exchange
[COO-1025-34] 23 p4307 N67-38611
High energy proton shielding properties of lead, polyethylene, titanium hydride and aluminum 23 p4311 N67-38997
Jet analysis of pion-proton interactions
[INR-P-807/V1/PH] 24 p4429 N67-39418
Proton-nucleon elastic scattering cross section in high energy range
[INR-P-802/V1/PH] 24 p4496 N67-39488
PROTON I SATELLITE
AES Proton I measurement of primary cosmic ray energy spectrum in high energy range
[NASA-CR-83581] 11 p1972 N67-22387
Measurements of primary cosmic radiation gamma quanta from Proton I and II satellites
[NASA-CR-83850] 13 p2398 N67-25686
PROTON II SATELLITE
Nuclear component of primary cosmic rays aboard Proton II satellite studied with aid of Cherenkov spectrometer
[NASA-CR-83563] 11 p1971 N67-22385
Measurements of primary cosmic radiation gamma quanta from Proton I and II satellites
[NASA-CR-83850] 13 p2398 N67-25686
PROTON III SATELLITE
Proton III satellite design and instrumentation
[NASA-CR-88688] 04 p0615 N67-13915
PROTON BEAM
Spatial distribution of absorbed doses of high energy protons behind shield 02 p0299 N67-11897
Servocontrolled hydraulic mechanism to plunge one-ton magnet for Nimrod extracted proton beam

[RHEL/R-117] 04 p0524 N67-12354
Thermoluminescent dosimeters used to measure number of particles, particle distribution, and beam shape of 12.5 BeV external proton beam of synchrotron
[ANL-7196] 04 p0551 N67-13629
Cybernetic principle of proton accelerator operation
[JPRS-39073] 04 p0527 N67-12805
Interactions of proton beams and particle accelerator cavities
[FSD/ING-48] 06 p0920 N67-15440
Capture gamma radiation measured following proton bombardment to determine giant resonance region of nuclei excitation 06 p0931 N67-15631
Gamma quantum yield at 90 deg measured following capture of 11 MeV protons by B11, Na23, and Al27 nuclei 06 p0931 N67-15632
New injectors for large proton synchrotrons, and recent developments in linear accelerators
[BNL-10687] 10 p1661 N67-30958
Linear accelerator for generating proton beam for meson production
[LA-DC-7642] 10 p1710 N67-30962
Emittance, beam spot size, proton extraction efficiency, and beam time structure of external proton beam at ZGS
[COO-1545-13] 10 p1711 N67-30974
Concrete attenuation of neutron flux emitted at 90 deg to primary proton beam direction of 10 GeV synchrophasotron
[JINR-P9-2953] 10 p1734 N67-31586
Growth of phase space in high intensity proton beams due to nonuniform radial charge distribution
[BNL-10528] 10 p1733 N67-21822
Effect of charged particle slowing down on nuclear cascade in steel initiated by protons
[ORNL-3854] 12 p2168 N67-24157
Slow extracted beam handling at targeting stations and external proton beam production
[BNL-11634] 14 p2591 N67-27483
Synchrotrons for producing proton beams with energies above 20 GeV
[BNL-11117] 15 p2687 N67-28438
Synchrotron, fast ejected proton beam behavior in energy range of 50 to 400 MeV determined by measuring ejected beam vertical phase space emittance and density distribution
[BNL-11141] 15 p2769 N67-28584
Experimental application of polarized proton targets
[JINR-P2-3217] 16 p2945 N67-29688
Beam measurements during operation of variable energy cyclotron
[RHEL/R-135] 16 p2874 N67-29813
Polarization measurements of proton beam obtained by scattering beryllium target inside synchrocyclotron
[JINR-P1-3189] 17 p3123 N67-30232
Operational problems of high energy polarized proton targets 17 p3133 N67-30094
High voltage generator stabilization of electron microscope beam 19 p3427 N67-33784
Expansion of bevatron external proton beam channel
[UCRL-17276] 20 p3619 N67-34387
Secondary emission and charge transport from targets in proton beam
[CERN-67-17] 20 p3696 N67-34580
Inductive beam intensity monitor for extracted proton beam from synchro-cyclotron
[CERN-67-9] 20 p3643 N67-34970
Proton beam transport system from linear accelerator to Nimrod accelerator
[RHEL/R-141] 21 p3827 N67-36387
Variable energy extraction of high energy protons from negative ion cyclotron into external beam transport system
[P-79] 22 p4019 N67-36682
Pulsation device for proton beam emitted from Van de Graaff accelerator and application to measurement of lifetimes of nuclear excited states
[LYCEN-6648] 22 p4110 N67-37953
PROTON BELT
SA RADIATION BELT
Fluxes and spectra of electrons and protons in atmosphere measured by spectrometer experiments on Gemini spacecraft
[NASA-CR-65604] 11 p1973 N67-22326
Calculations regarding trapping, retention, transfer, and acceleration of charged particles in earth radiation belt
[NASA-CR-84092] 13 p2316 N67-26414
PROTON DAMAGE
Biological proton and gamma radiation effects on potato seeds and plants 02 p0178 N67-11603
Damage and defense of bone marrow in mice from proton and X-ray irradiation 02 p0209 N67-11671
Neutron activation analysis of grains from enstatite achondrite meteorites - effect of proton damage on luminescence spectra of various meteorite classes - Lunar luminescence
[AFCRL-TR-66-665] 04 p0614 N67-14321
Proton bombardment of high purity single crystal silicon
[NASA-TN-D-3969] 14 p2584 N67-26549
PROTON DENSITY
SA MAGNETOSPHERIC PROTON DENSITY
Proton events in magnetosphere associated with magnetic bays
[NASA-TM-X-55504] 02 p0299 N67-11371
Mariner IV observations of protons in interplanetary space
[NASA-CR-79364] 02 p0300 N67-11688
Electron and proton intensities in outer radiation belt
[NASA-CR-80163] 03 p0457 N67-12919
Particle density and electromagnetic field of bunched charge in ideal accelerator
[AECL-2614] 04 p0586 N67-13230
Solar energetic particle intensities obtained with Mariner IV and Injun IV during 5-12 February 1965 cosmic ray event
[NASA-CR-84126] 13 p2400 N67-26441
Solar modulation of cosmic rays and effect on proton and helium fluxes, interstellar travel, and secondary production
[NASA-TM-X-55797] 16 p2970 N67-29690
PROTON ENERGY
Cytogenetic effects of high energy protons 02 p0201 N67-11591
Proton and electron balloon measurements of splash and re-entrant cosmic ray albedo
[NASA-CR-79516] 02 p0301 N67-12219
Size resonance effects in proton total absorption cross sections of elements derived and compared with optical model calculations 06 p0924 N67-15588
Proton pairing and binding energies of two proton radioactive nuclei ranging in atomic number from 4 to 50 - angular energy correlation of protons emitted in two proton radioactive decay 06 p0929 N67-15631
Giant resonance studied in gamma-proton reaction on lead and bismuth nuclei 06 p0932 N67-15636
Radiative proton capture reactions investigated by gamma spectroscopy - spectrometer developed 06 p0933 N67-15642
Electron and proton energy spectrum in islands of at back of magnetosphere
[NASA-TM-X-57080] 06 p1357 N67-18713
Excitation functions and angular distributions for lithium-beryllium reaction
[BMWF-FBK-66-26] 12 p2163 N67-23751
Energy for electron-hole pair generation in silicon by protons using lithium drifted semiconductor detectors
[NASA-CR-85784] 17 p3150 N67-31222
Radiation levels in area of external proton tunnel of Argonne Zero Gradient Synchrotron, and shielding protection
[ANL-7373] 18 p3368 N67-31706
Energy fluxes of low energy protons and positive ions in earth inner radiation zone
[NASA-CR-86919] 18 p3322 N67-32179
Frequency distributions for energy deposition of protons passing through gases, water, and plastic materials - depth dosimetry
[NASA-CR-73146] 23 p4196 N67-38807
Earth trapped proton measurements using sensors on board four Elektron series satellites
[NASA-CR-85368] 23 p4340 N67-38852
PROTON IMPACT
Response functions obtained with organic scintillators in proton-recoil neutron spectrometry
[ORNL-P-3471] 07 p1149 N67-17434
Collision and differential cross section of two body reactions produced at 3 BeV/c
[CEA-R-3037] 10 p1795 N67-20048
Emission spectra of nitrogen, oxygen, and atmospheric mixture of nitrogen and oxygen excited by proton impact 17 p3013 N67-30276
Empirical formulas for particle production in proton-beryllium collision
[BNL-11299] 19 p3518 N67-33886
Fast deuteron emission in large stars induced by protons in nuclear emulsion
[INR-775/VI/PH] 21 p3908 N67-35841
PROTON IRRADIATION
Effect of gamma radiation and protons with energies of 127 to 660 MeV on yeast cells 02 p0183 N67-11441
Proton and gamma radiation effects on mitotic activity of human cell culture 02 p0186 N67-11464
Radiation hazards to space plants, and gamma and proton radiation effects on crops 02 p0188 N67-11476
Gamma and proton radiation effects on germination, development, and yield of potato crop 02 p0188 N67-11479
Mitotic activity, destructive processes in brain cell nuclei, and disturbances in cell division processes of white rats subjected to whole body radiation with protons and gamma rays 02 p0189 N67-11482
Proton and gamma radiation effects on plant chromosome aberration 02 p0202 N67-11599
Relative effectiveness in rats of repeated X-ray irradiation and proton irradiation simulating solar flares 02 p0205 N67-11630
Hematopoietic changes in rats caused by proton and gamma radiations 02 p0206 N67-11637
Irradiation effects of high energy protons studied on silver-cadmium and nickel-cadmium cells containing battery electrodes and potassium hydroxide electrolytes
[NASA-CR-79535] 02 p0175 N67-11782
Macroscopic and microscopic distribution of dose deposited in tissue by high energy protons - spherical proportional counters and silicon Au-i-Al detectors
[NASA-CR-73040] 03 p0213 N67-11985
Statistical evaluation of proton radiation from solar flares
[NASA-CR-80531] 03 p0458 N67-12210
Defects in single crystals of bismuth telluride caused by proton irradiation
[NASA-CR-80847] 04 p0601 N67-14254
Monte Carlo transport calculations estimating solar flare proton radiation dose received by travelers during supersonic flight
[NASA-CR-81727] 07 p1185 N67-18016
Spatial distribution measurements of fluorine and sodium nuclide activation products from irradiated aluminum target
[NASA-CR-81796] 08 p1228 N67-18240
Biological effect of proton radiation and radioprotective agents on survival rate and average survival time of mice 10 p1559 N67-20403
Fluorine contamination and depth distribution in Zircaloy studied by proton irradiation and detection of gamma radiation from nuclear reaction
[AE-237] 10 p1699 N67-20743
Energy kinetics in alkali halide crystals after proton irradiation
[NASA-TT-F-10787] 13 p2392 N67-25801
Shielding properties of pharmaceutical chemical agents to proton radiation determined in rats and mice
[NASA-CR-84099] 13 p2361 N67-26407
Electron microscope study of proton irradiated metal surfaces
[NASA-CR-84423] 14 p2556 N67-27701
Electron emission from tungsten under proton bombardment - effect of nitrogen adsorption
[SC-R-67-1038] 15 p2782 N67-28354
Excitation and inhibition effects of 510 MeV protons, fast neutrons, and gamma irradiation on higher nervous activity of mice 16 p2829 N67-28252
Comparative effects of fast neutrons, protons, and gamma radiation on higher nervous activity of August rats 16 p2830 N67-29254
Influence of proton and electron irradiation at 1 MeV on impurity diffusion in silicon
[NT-156] 16 p2917 N67-30114
Pitting and blistering damage effects after applying low energy proton irradiation to aluminum and gold surfaces
[NASA-CR-85570] 17 p3079 N67-30689
Space radiation equivalences for permanent damage to silicon transistors by measuring changes in transistor parameters after exposure to proton, electron, and gamma ray irradiation
[NASA-CR-814] 19 p3349 N67-33868
Proton irradiation effects on coils of

gastrointestinal tract and liver
[NASA-CR-87513] 20 p3579 N67-35124
High sensitivity neutron and proton flux detector using spallation of mercury to terbium 149
[UCRL-17505] 21 p3848 N67-35854
Simulated proton space environment effects on ultraviolet transmittance of optical materials
[NASA-TM-X-55911] 21 p3897 N67-36569
Proton penetration codes for dose calculation through aluminum and iron shielding
[NASA-CR-88880] 22 p4107 N67-37621
Proton homonuclear diatomic molecule collisions
[PSI-67-10] 23 p4297 N67-38131
Proton irradiation effects in MOS and junction field effect transistors and integrated circuits 23 p4324 N67-38478
Proton dose measurements of Gemini astronauts with nuclear emulsions
[NASA-TT-F-11237] 24 p4367 N67-40329

PROTON-PROTON REACTION

Energy levels in iron 56 excited by proton proton gamma reactions 03 p0434 N67-12557
Spin correlation coefficients for elastic scattering of high energy polarized protons on protons
[JINR-P-2776] 04 p0588 N67-14012
Selective bibliography on elastic and inelastic proton-proton scattering
[UCRL-14716] 05 p0741 N67-14687
Angular distribution in quasi-elastic high energy proton-proton scattering on lithium 06 p0927 N67-15610
Differential cross section for deuteron production in proton-proton collisions measured for kinetic energies of 1.55, 2.5, and 2.9 GeV
[REPT.-03106-26-T] 06 p0940 N67-16413
Monte Carlo simulation of proton-proton spin correlation experiment
[LA-3558] 07 p1150 N67-17461
Elastic proton-proton scattering, and momentum transfer distributions
[NYO-2362TA-139] 08 p1330 N67-18474
Isobar production in proton-proton interactions at 28.5 BeV
[CONF-660906-11] 06 p1334 N67-18610
Isobar production mechanisms in proton-proton collisions
[PPAD-6007] 10 p1710 N67-20955
Proton-proton scattering angular distributions and shape dependent scattering parameters
[UCRL-16991] 10 p1713 N67-20998
Elastic proton-proton scattering model for high energy and large momentum transfer
[TH/174] 11 p1940 N67-23003
Quasi-elastic antiproton-proton interaction mechanisms
[NP-16425] 12 p2172 N67-24699
Separation energies, single particle energies, and proton-proton and electron-proton scattering reactions
[ISS-66/40] 13 p2379 N67-26093
Proton structure, magnetic form factors, and large-scale p-p scattering as function of transverse momentum
[CERN-67-3] 13 p2379 N67-26101
Three-body and four-body strange particle final states from 8 GeV/c proton-proton interaction
[COO-119-5-72] 15 p2764 N67-28436
Four body final state of protons and mesons from proton proton interactions at 8 GeV/c
[COO-1195-78] 15 p2770 N67-28597
Nucleon isobar production in proton-proton collisions
[UCRL-17257] 16 p2948 N67-29604
Absolute normalization measurements for proton-proton scattering experiments
[SLAC-PUB-238] 16 p2949 N67-29610
Calculated pole approximation for differential cross sections of proton-proton reactions
[NP-16448] 17 p3125 N67-30295
Absorption model analysis of kaon-resonance reactions using pion and vector meson exchange
[AD-652836] 18 p3310 N67-32316
Nuclear structure results derived from interactions of protons in GeV region
[BNL-11285] 19 p3505 N67-33342
Proton-proton reaction yielding proton, neutron, and pion at 10 GeV/c
[DESY-67/4] 19 p3512 N67-33957
Resonance production and characteristic behavior of mesons and baryons from polarized proton interactions
[ITF-66-3] 21 p3905 N67-36298
Bounds for correction to Born term and applications to proton-proton scattering for generalized dispersion model
[UCRL-17571] 21 p3907 N67-36599
Nuclear physics research with emphasis on proton-proton reactions, proton scattering and polarization, and shell structure
[ORNL-4122] 22 p4105 N67-37379

PROTON PROTUBERANCE

Time history and energy spectra of solar proton flare on February 5, 1965
[NASA-TM-X-55738] 10 p1757 N67-21457

PROTON RESONANCE

Production of kaon antikaon pairs in pion-proton interactions
[UCRL-16832] 07 p1153 N67-17594
Extended coupled-channel calculation of data on analog state resonances in lead 206 nuclear reaction processes
[ORNL-P-3438] 07 p1154 N67-17681
Axial beta protons in irradiated cis and trans cyclohexane-1,2-diol 11 p1906 N67-22256
Resonances in proton-alpha and alpha-proton reactions in light nuclei
[NP-16461] 12 p2172 N67-24697

PROTON SCATTERING

Proton polarization from carbon 12/helium 3 proton/nitrogen 14 reaction
[JINR-P-2725] 01 p0128 N67-10778
Cyclotron and bevatron experiments to measure polarization parameter in proton-proton scattering
[UCRL-16866] 01 p0131 N67-10919
Proton induced reactions on vanadium 51 03 p0434 N67-12555
Planning of optical experiment to measure neutron-proton scattering above pion production threshold
[JINR-E-2765] 03 p0445 N67-13304
Review on pion-proton elastic scattering at high energies
[CERN-66-16] 03 p0446 N67-13306
Distorted wave formalism to analyze proton-gamma correlation data in silicon nuclear reaction 06 p0921 N67-15569
Targets of free thin metallic foils of enriched isotopes for study of elastic scattering of protons 06 p0923 N67-15585
Angular distribution of protons elastically scattered by calcium, nickel, and zinc isotopes 06 p0924 N67-15591
Inelastic scattering of protons calculated by distorted wave method using nickel 58 06 p0925 N67-15592
Optical model parameters for elastic scattering differential cross sections of 6.8 MeV protons on nuclei of chromium, copper, and nickel isotopes 06 p0925 N67-15594
Direct interactions in inelastic scattering of 6.6 MeV protons by aluminum 27 nuclei 06 p0925 N67-15595
Rectangular complex potential to describe elastic scattering of protons on helium 4 06 p0927 N67-15606
Angular distributions and correlations of inelastically scattered protons in carbon nuclear reaction 06 p0928 N67-15613
Angular distribution of elastically scattered 6.8 MeV protons on chromium, cobalt, nickel, copper, and zinc nuclei targets 06 p0928 N67-15614
Microscopic description of nickel isotopes by inelastic proton scattering
[UCRL-16984] 07 p1152 N67-17552
Dispersion sum rules for electron production by using vector amplitude of Compton scattering on proton
[JINR-E-2865] 06 p1332 N67-18532
Negative kaon proton elastic diffraction and resonant scattering in GeV region
[COO-264-343] 06 p1333 N67-18593
Algebraic technique applied to computation for pion-proton scattering
[CONF-660638-1] 06 p1334 N67-18606
Energy loss, range, pathlength, straggling, multiple scattering, and inelastic nuclear collision probability calculations for 0.1 to 1000 MeV protons
[AFWL-TR-65-150] 10 p1696 N67-20665
Theory and experimental arrangements for using 1-GeV protons for studying nuclear structures
[BNL-10686] 10 p1699 N67-20754
Proton inelastic scattering from C-12, Ni-58, Ni-60, and Ni-64 studied by measuring de-excitation gamma radiation along axis perpendicular to scattering plane
[RLO-1368-14] 10 p1713 N67-20997
Negative pion proton scattering polarization parameter measurements
[UCRL-17153] 10 p1722 N67-21592
Elastic electron-proton scattering cross sections at momentum transfers up to 110/square fermi
[DESY-66/37] 10 p1728 N67-21651
Parametric relationship between scattering of proton-nucleus and proton-nucleon
[IC/66/120] 11 p1971 N67-23489
Elastic proton-proton scattering model for high energy and large momentum transfer
[TH/174] 11 p1940 N67-23003
Monte Carlo calculation of electron, electron, proton reaction for incident energies between 300 and 600 MeV - tables
[ISS-66/37] 11 p1941 N67-23004
Polarized hydrogen target for proton scattering experiments
[AERE-R-5338] 12 p2162 N67-23758
Dispersion sum rules for pi-proton and kaon-proton scattering
[JINR-P2-3081] 12 p2171 N67-24688
Magnetosphere of planet Mercury as scattering center for solar flare protons
[R67SD4] 14 p2612 N67-27049
Multiple Coulomb scattering effects on small proton beams
[NASA-CR-84505] 14 p2593 N67-27604
Cross sections for proton scattering by carbon-12
[CEA-R-3006] 15 p2761 N67-28319
Inelastic scattering of 40-MeV polarized protons
[ORNL-TM-1753] 15 p2763 N67-28421
Extension of work on optical model description of nucleon-nucleus interactions by measuring polarization and differential and reaction cross sections of proton-oxygen system
[P-77] 16 p2940 N67-29063
Polarization parameter in elastic proton proton scattering from 0.75 to 2.84 GeV
[TR-27] 16 p2944 N67-29624
Triple scattering parameter and phase shift analysis of proton scattering at 600 MeV
[JINR-P1-3167] 16 p2946 N67-29694
Scattering cross section measurement near 180 degrees using filmless spark chamber technique
[JINR-P13-3132] 16 p2950 N67-29986
Wire spark chamber as momentum spectrometer to analyze inelastically scattered protons 17 p3044 N67-30681
Pion-proton and proton-proton forward scattering amplitudes
[BNL-11175] 19 p3505 N67-33435
Pion-proton backward scattering between 1.54 and 2.04 GeV/c
[BNL-11359] 19 p3505 N67-33440
Spin correlation parameters and measurements in proton-proton scattering from 11 to 26 MeV
[CEA-R-3193] 19 p3506 N67-33467
Nuclear reaction studies using polarized helium 3 targets and beams and asymmetry measurements for proton elastic scattering by polarized helium 3
[ORO-1216-22] 19 p3510 N67-33841
A/theta/ asymmetry measurements of elastic proton-proton scattering due to totally polarized beam
[JINR-E01-3194] 19 p3511 N67-33911
T-invariance and Compton scattering of protons
[DESY-67/8] 21 p3901 N67-35681
Nuclear physics research with emphasis on proton-proton reactions, proton scattering and polarization, and shell structure
[ORNL-4122] 22 p4105 N67-37379
Offshell proton-proton scattering mediated by soft core potential
[LA-3706-MS] 22 p4105 N67-37408
Abstracts on nuclear physics reactions - proton and neutron scattering cross sections, particle capture, dipole moments, shell models, fission, emission, and radiative transition in isotopes
[ORNL-4082] 22 p4106 N67-37478
Differential cross section for elastic scattering of pions by protons between 2.1 and 6.0 GeV/c
[COO-1112-108] 23 p4302 N67-38289
Differences between positive pion-proton and negative pion-proton elastic scattering in diffraction peak region
[COO-1112-103] 23 p4303 N67-38539
Diffraction model for strong interactions and shrinkage of diffraction peak
[COO-1112-104] 23 p4310 N67-38999
Elastic scattering of protons by oxygen-16

and comparison with optical model
[P-90] 24 p4490 N67-39407
Multiple diffraction theory of high energy collisions used to analyse experimental data on scattering of 20 GeV protons by nuclei
[ISS-67/16] 24 p4501 N67-40180
PROTON TELESCOPE
Breadboard model of solar proton-alpha telescope spectrometer
[NASA-CR-65571] 06 p0673 N67-15674
Feasibility study and breadboard fabrication of switching proton electron channeltron spectrometer for detection of charged particles during manned spacecraft missions
[NASA-CR-65567] 06 p0673 N67-15680
PROTOZOA
SA AMOEBA
DNA synthesis in relation to cell division in Tetrahymena pyriformis determined by autoradiographic techniques
[USNRDL-TR-1664] 16 p1560 N67-20519
PROTUBERANCE
SA PROTON PROTUBERANCE
Heat transfer measurements on flat plate with attached protuberances in turbulent boundary layer at specified free stream Mach numbers
[NASA-TN-D-3736] 04 p0622 N67-13460
Wind tunnel studies of supersonic gas flow past cylindrical protuberance of plate
[TG-230-T515] 16 p2813 N67-29607
PRTR
S PLUTONIUM RECYCLE TEST REACTOR /PRTR/
PSEUDOMONA
Amino acid composition of Pseudomonas saccharophila
[NASA-TM-X-1335] 07 p1010 N67-17500
Reconstitution of ribosomes, evolution of enzyme systems in pseudomonas, molecular mechanism for T4 bacteriophage, and other studies related to evolution and chemistry of living systems
[NASA-CR-83321] 11 p1790 N67-22380
PSEUDORANDOM SIGNAL
Pseudorandom binary signal for frequency response testing in nuclear reactors
[ORNL-TM-1662] 10 p1687 N67-21530
Psychovisual factors of pseudo-random dot-scanning television systems
[SRRC-CR-66-49] 13 p2053 N67-24492
PSYCHIATRY
SA MILITARY PSYCHIATRY
SA SOCIAL PSYCHIATRY
Geographic and astronomic distance responses of rated pilots and navigators for evaluating mental status
[AD-644155] 10 p1561 N67-20654
PSYCHOACOUSTICS
SA AUDITORY SIGNAL
Techniques for measuring aircraft noise and predicting community response
[RD-66-31] 01 p0005 N67-10402
Intelligibility test methods and procedures for speech communication system evaluation
[ESD-TR-66-677] 13 p2055 N67-24624
Optimal accoustic environment in spacecraft cabins for extended manned missions
[NASA-TT-F-10989] 15 p2794 N67-32221
Comparison of audibility threshold performance of human ear submerged in water and in air
[REPT.-3] 16 p2854 N67-28961
PSYCHOLOGICAL EFFECT
Speech associative activity under conditions of signal interference and time shortage 02 p0219 N67-11534
Individual and group psychological responses of healthy men confined for 24 days 07 p1012 N67-17660
Psychological effects on pairs of men in confined environments
[AD-641298] 10 p1560 N67-20541
Social isolation and group composition effect on group and individual task performance
[AD-643599] 10 p1896 N67-20575
Inter-group competition effect on group member adjustment
[AD-648220] 11 p1900 N67-22129
Affective factors in stereoscopic perception of persons and objects
[TR-28] 11 p1900 N67-22130
Response suppression as function of vacation from punishment in pigeons
[NASA-CR-83000] 13 p2250 N67-25951
Physiological and psychological effects of space environment on astronauts - aerospace medicine 16 p2826 N67-29206
Drug effects on human performance under conditions of task induced stress
[ONR-H-67-1] 16 p2833 N67-29502
Management survey on economic, sociological, and psychological determinants of organizational success
[NASA-CR-86985] 18 p2359 N67-32361
Relationship between ambivalence, risk taking, and perceptual styles as personality variables
[AFOSR-67-1157] 18 p2219 N67-32671
Individual and group reaction to extreme conditions of psychological stress in field situation - project Sealab II
[TR-1] 19 p2371 N67-32729
Choice reaction time evaluated with respect to stimuli or responses - psychology and human performance
[AFOSR-67-1864] 22 p3978 N67-37045
PSYCHOLOGICAL FACTOR
Monitoring, predicting, and controlling psychological state of human operator in man-machine system 02 p0349 N67-12342
Theoretical framework of psychological factors in decision making
[HUMRRO-TR-66-14] 04 p0493 N67-13904
Relationships existing between human behavior and psychological environment during fallout shelter confinement
[REPT.-75111-3F] 05 p0661 N67-15697
Factors affecting aircrew morale and job satisfaction
[SAM-TR-66-91] 07 p1022 N67-17652
Behavioral component of interpersonal attitudes and social status as determinant of respect and friendship acceptance
[TR-37] 10 p1776 N67-21434
Hypothetical model for verbal behavior, attitudes, and interpersonal intentions
[TR-39] 10 p1563 N67-21435
Unqualified representation of events in military research and development 11 p2007 N67-23414
Effects of goals and intentions on human performance level, task choice, and attitudes
[AIR-E-51-1/67-FR] 13 p2023 N67-24714
Information theory applications to psychological and psychophysiological research 14 p2467 N67-26661
Operator performance from psychological point of view 14 p2469 N67-26676
Psychological problems in selection of aviation, military, and industrial personnel 14 p2470 N67-26700
Influence of leadership experience on social judgment behavior
[TR-2] 14 p2473 N67-27558
Psychological stress and justification effects on performance of dull task by students
[TR-3] 16 p2825 N67-29127
Dynamics of role theory for workers judgement
[TR-18] 21 p3773 N67-36016
Flying personnel morale as function of training stage and self-definition
[NAMI-1007] 22 p3977 N67-36885
Social psychiatry and factor analysis - conceptual structure of subjects related to interpersonal attraction
[TR-4] 24 p4388 N67-39549
PSYCHOLOGICAL INDEX
Conference on Air Force behavioral problems - aspects and applications of military psychiatry for personnel evaluation, mental health, therapeutic methods, and animal studies
[AD-646166] 14 p2458 N67-26921
Psychological index method for differential diagnosis of brain damage in human subjects 14 p2460 N67-26928
Validation of display evaluative index technique for large-scale display evaluation
[RADC-TR-67-134] 18 p2217 N67-32214
PSYCHOLOGICAL TESTING
Psychological testing of mental stress in pilot performance
[NAL-TR-165] 01 p0015 N67-10160
Experimental data on simple and choice signal reaction time
[PRP-36N] 01 p0025 N67-10412
Poor reaction to work loads related to low scores on modified Harvard step test given to flight personnel 02 p0191 N67-11502
Perception and information processing by pilot under ordinary emergency conditions 02 p0219 N67-11527
Human reaction to random visual stimuli as determinant of judged complexity
[SP-3066/000/00] 07 p1019 N67-16929
Evolution of perceptual frames of reference in human psychological behavior studies
[AD-635794] 09 p1398 N67-15641
Stimulus variation and repetition in testing recall of noun-adjective combinations
[TR-43] 09 p1399 N67-15644
Method for scoring tests with ten choice differentially weighted response alternatives on IBM 805 Test Scoring Machine
[MEMO-66-18] 11 p1797 N67-22380
Literature survey on correlations between human brain lesions and memory changes, clinical case histories, and psychological tests of memory functions 11 p1791 N67-22382
Anatomy, experimental medicine, pathology, physiology, and psychobiology studies on chimpanzee - Biology
[ARL-TR-67-4] 12 p2023 N67-24389
Medical and psychological tests for U.S.S.R. manned space flight
[FTD-HT-66-353] 13 p2094 N67-24992
Psychological experiments dealing with human reaction time and information processing by man 14 p2469 N67-26694
Psychopharmacological evaluation of effects of prolonged exposure to oxygen atmospheres on performance of subhuman primates 14 p2454 N67-26720
Morale level as function of subjects own definition of morale
[NAMI-994] 14 p2461 N67-27048
Identification, isolation, and quantification of situational variables accounting for substantial variances in human behavior
[AD-647466] 14 p2462 N67-27077
Space psychology research 16 p2836 N67-29207
Persuasive communication effects under high and low stress conditions - interaction between fear and birth order
[TR-2] 16 p2834 N67-29434
Additional follow-up criterion for validating predictor scores for measuring psychological characteristics of sample of Air Force scientists
[AFOSR-67-0696] 16 p2834 N67-29665
Response mode effects on post-test errors and human performance during learning
[AIR-C28-4/67-TR11] 17 p2961 N67-30266
Test program for determining psychological effects from various conditions of boredom and monotony - 7 day stay in totally dark soundproof cubicle
[REPT.-38] 18 p3218 N67-32629
Naval Medical Research Institute deep isolation laboratory
[REPT.-37] 19 p2372 N67-32771
Choice behavior in cued-recognition task
[NASA-CR-87398] 20 p3581 N67-34106
Vibration and noise effects on human performance in timed work situations
[NASA-TT-F-11142] 22 p3970 N67-37358
PSYCHOLOGY /GEN/
SA FACTOR ANALYSIS
SA NEUROSCIENCE
Experimental investigations of biological, physiological, and psychological factors in aviation and space flight environments
[JPRS-32372] 02 p0178 N67-11491
Physiological and psychological investigations pilot training in flight simulators 02 p0208 N67-11515
Influence of secondary task interference in tracking
[NASA-CR-79822] 02 p0221 N67-11525
Psychological analysis of chimpanzees behavior
[JPRS-35887] 02 p0211 N67-11532
SOCRATES project using computer-based facility for psychological research on variables associated with preprogrammed self-instruction and self-programmed individualized education
[AD-636076] 02 p0222 N67-11909
Computer science developments applicable to psychology
[AD-636853] 02 p0232 N67-11921
Human reactions to perceived consistencies and inconsistencies in personality assessment tests
[TR-16] 07 p1019 N67-16527
Organizational efficiency and productivity determined by variables associated with economics, psychology, and sociology
[NASA-CR-70451] 07 p1213 N67-17979
Fear of failure, cognitive controls, and human motivation and performance
[TR-17] 09 p1404 N67-18055
Characteristics and problems of conceptual orientation using resolution mode and

cognitive consistency-inconsistency concepts
[RR-9] 10 p1566 N67-39074
Methodological study of behavioral and semantic differential scales relevant to intercultural negotiations
[TR-32] 10 p1565 N67-21715
Training objectives for corrective maintenance of AN-URC-32 transceiver based on task analysis by psychologists and electronics technicians
[TR-46] 11 p1798 N67-22565
Behavioral biology bibliography, including citations on neurophysiology, psychology, and information science
[NASA-CR-62040] 13 p2256 N67-35641
Engineering psychology textbook dealing with human operator performance, sensory perception, and information theory
[FTD-HT-66-147] 14 p2467 N67-36681
Human operator performance, engineering psychology, and automatic control systems 14 p2467 N67-36682
Application of laboratory research in psychology to learning processes
[TR-716-1] 15 p2652 N67-39974
Job complexity relationship with electronic maintenance training variables
[AD-652391] 18 p3219 N67-32652
Problems, methods, and principles in development of space psychology 23 p4190 N67-39068
PSYCHOMETRICS
Table of intensity increases produced by two signals of differing amplitudes
[AM-66-4] 02 p0223 N67-12823
Short period fluctuations in human intelligence measured
[NASA-CR-79740] 02 p0223 N67-12067
Multidimensional components of interpersonal attitudes
[TR-35] 04 p0492 N67-13962
Limit theorem use in paired comparison model building for fitting experimental behavioral data
[M-111] 05 p0650 N67-15334
Scheme for human behavior studies in conceptual attainment tasks
[R-321] 06 p0806 N67-16481
Evaluation of airman jobs by four categories of raters
[PRL-TR-66-3] 06 p0816 N67-16643
Equation of alternate forms by human subjects in number facility and speed of closure subtests - repetitive psychometric measures
[EATR-4049] 09 p1490 N67-19754
Geographic and astronomic distance responses of rated pilots and navigators for evaluating mental status
[AD-644155] 10 p1561 N67-20654
Semiconductor hot-wire anemometers and electronic psychrometer for microclimatological studies of herbaceous vegetation 11 p1874 N67-21992
Method for scoring tests with ten choice differentially weighted response alternatives on IBM 805 Test Scoring Machine
[MEMO-66-18] 11 p1797 N67-22536
Linear models for paired comparisons
[M-111] 11 p1802 N67-22365
Partially balanced association scheme useful in application of multivariate statistical analysis
[ARL-66-0105] 12 p2129 N67-32823
Item response characteristics in attitude and personality measurement
[STB-67-16] 13 p2265 N67-36348
Development of items for identification test designed to measure effects of environmental stress on human perceptual performance
[TR-209-1] 14 p2461 N67-36947
Cybernetic multiple choice type testing
[ESD-TR-67-229] 16 p2918 N67-39068
Test series administered to Air Force personnel to determine weather forecaster proficiency
[ESD-TR-67-238] 16 p2925 N67-39488
Fortran II program for three-mode factor analysis
[AD-653100] 19 p3300 N67-32839
Perceived stress, performance personality and biochemical factors in humans
[ARL-TR-67-11] 19 p3277 N67-33571
Verbal self-report scales for measuring subjective feelings
[REPT.-1] 22 p3900 N67-37707
Constant error in amplitude discrimination and inter-stimulus interval
[PRP-35N] 23 p4197 N67-39180
Standard displacement step stimulus components effect on lateral saccadic eye movement
[PRP-28N] 23 p4186 N67-38403
Experimental critique of method of constant stimuli and alternative procedures
[NASA-CR-89282] 23 p4187 N67-38422
Systematic biases in eye movement latency data
[PRP-27N] 23 p4188 N67-38659
Derivation of lower bound on noncentrality parameter of chi-square test of goodness of fit
[PRP-26A] 24 p4362 N67-39631
PSYCHOMOTOR
Motor mechanisms and theoretical model studied for perception and identification of visual images
[FTD-TT-65-1743] 21 p3770 N67-35420
PSYCHOMOTOR PERFORMANCE
SA REACTION TIME
Complex, time shared, perceptual motor skills task for studies of isolation and confinement
[REPT.-15] 01 p0023 N67-10372
Concept and image contrast of perception during emergency flight instrument readings 02 p0216 N67-11415
Acute alcohol ataxia in relation to vestibular function
[NASA-CR-80433] 03 p0347 N67-13100
Chimpanzee performance before, during, and after space flight conditions 05 p0657 N67-15143
Coding and identification, signal-response compatibility, conservation, reduction and creation, and expectancy and motivation
[IZF-1966-8] 08 p1230 N67-19208
Effects of varying amount of interpolated learning on facilitation and interference in human performance on modified Mashburn apparatus
[SDC-936-1-2] 11 p1797 N67-22522
Effects of varying amount of interpolated learning on facilitation and interference in human performance on modified Mashburn apparatus
[SDC-936-1-1] 11 p1797 N67-22523
Human behavior and psychomotor performance during piloting and tracking tasks
[EWR-116-66] 13 p2263 N67-35687
Transfer function analysis on human response to mechanical vibration
[AD-634633] 15 p2652 N67-27962
Physiological changes due to diurnal variations and effect on learning, skill retention, and psychomotor performance
[W-74] 16 p2823 N67-29487
Rail test to evaluate psychomotor performance in low level wideband noise
[AMRL-TR-66-85] 16 p2824 N67-29691
Suitability evaluation of part of general vehicular research trainer as test for predicting success in naval aviation training
[AD-651869] 17 p3000 N67-30169
Electrophysiological correlates of vigilance and learning studied simultaneously by behavioral and electrographic means
[NASA-CR-65843] 18 p3291 N67-31641
Influence of alcohol and/or dramamine on psychomotor performance of four young adults
[NAMI-1002] 18 p3216 N67-33073
Human performance - relation between component task performance and total task performance
[AIR-E-29-3/67-TR-1] 21 p3771 N67-35643
Flight learning process formulated in terms of aviator psychomotor function, body image, and space orientation ability
[NAMI-996] 22 p3900 N67-37578
Progress reviews of research in auditory and visual perception, simple motor systems, and human and animal motivation
[PRP-34NA] 23 p4186 N67-38391
Effect of exteroreception on motor reaction of pigeons exposed to brief weightlessness 23 p4194 N67-39184
Psychomotor performance of man during weightlessness 23 p4194 N67-39190
PSYCHOPHYSICS
Characterization and classification of learning and psychophysical experiments as asymptotic or nonasymptotic
[AD-639218] 04 p0492 N67-13911
Models for improvement of performance in psychophysical tasks
[NASA-CR-66950] 12 p2036 N67-25072
PSYCHOPHYSIOLOGY
SA NEUROPHYSIOLOGY
Administration, research, and support in psychophysics and psychophysiology
[PRP-23N] 01 p0022 N67-10220
Human electrophysiological and psychophysiological measurements during isolation period 03 p0179 N67-11460
Psychophysiological characteristics of process by which sequence of movements is learned 02 p0184 N67-11444
Psychophysiological aspects of pilot performance in automated control systems 02 p0219 N67-11519
Effect of changes in psychophysiological sensory loads on human body during prolonged space flight 02 p0196 N67-11586
Psychophysiological evaluation of perception of aviation instruments and signal devices located in aircraft cabin 02 p0203 N67-11697
Psychophysiological method for evaluating astronaut functioning during extravehicular operations 02 p0208 N67-11613
Psychophysiology and performance of pilot during instrument flying after inactive period 02 p0200 N67-11490
U.S.S.R. conference on space biology and medicine environmental factors in space cabins and human body reactions to acceleration, weightlessness, and isolation
[JPRS-39596] 04 p0484 N67-13421
Altitude acclimatization for increased resistance to hypoxia and psychophysical factors of manned space flight 04 p0485 N67-13431
Isolation influence on psychophysiological reactions of man during long space flight 04 p0485 N67-13435
Psychophysiological afferentation effects of sensory overload conditions in spacecrew
[JPRS-39077] 04 p0491 N67-13906
Buffer conditions in experimental stress studied by means of plasma free fatty acid level
[TR-21] 09 p1490 N67-19771
Psychophysiologic variables as indications of emotional stress
[RADC-TR-65-296] 10 p1560 N67-20439
Visual-arousal interaction and specificity of nystagmic habituation in human males under angular acceleration
[AMRL-886] 10 p1566 N67-21830
Human reaction to mental stress
[AFOSR-67-0530] 12 p2021 N67-23869
Psychophysiological reaction patterns to single stress learning task studied in chimpanzee, man, and monkey
[ARL-TR-66-16] 13 p2254 N67-35320
Information theory applications to psychological and psychophysiological research 14 p2467 N67-36681
Canvas of flight training students to determine relationship between motion sickness and anxiety
[NAMI-988] 22 p3900 N67-37008
Scaling of effort produced by strenuous isometric muscle contractions
[AMRL-749] 24 p4364 N67-39985
PSYCHOTHERAPY
Validity of tests on laboratory animals to determine effects of psychotropic drugs on human mental processes 05 p0640 N67-14379
Conference on Air Force behavioral problems - aspects and applications of military psychiatry for personnel evaluation, mental health, therapeutic methods, and animal studies
[AD-648168] 14 p2458 N67-36921
Group therapy for Air Force personnel 14 p2459 N67-36922
Medical and psychiatric problems related to amphetamine therapy for military personnel 14 p2459 N67-36924
PTM
S PULSE TIME MODULATION /PTM/
PULMONARY CIRCULATION
Human lung volume and ventilation measurements by combined spirometry and helium dilution technique during inverted body position
[FPRC/MEMO-222] 01 p0018 N67-10478
Pulmonary excretion of carbon 14 dioxide following contamination of skin by labelled Chlorella extract
[RCC-R-179] 01 p0018 N67-10681
Pathogenesis of high altitude pulmonary edema
[NAMI-964] 01 p0018 N67-11017
Neuron level analysis of respiratory center readjustment under conditions of breathing with excess intrapulmonary oxygen pressure in cats 02 p0194 N67-11550
Altered pulmonary hemodynamics

following experimental decompression sickness
[NASA-CR-79726] 03 p0346 N67-12940
Biological reactions interfering with blood flow through pulmonary microcirculation 05 p0648 N67-14593
Pressure breathing with limited counterpressure against high altitude hypoxia of man
[AGARDOGRAPH-106] 06 p1235 N67-18403
Acceleration effects on regional distribution of pulmonary blood flow and associated disturbances in ventilation/perfusion ratios in humans and dogs
[NASA-CR-83323] 11 p1790 N67-23356
Measurement of quantity of blood in lungs using iodine-125 polyvinyl pyrrolidone
[FPRC/1241] 12 p2038 N67-24589
Positive acceleration effects on human pulmonary artery pressure
[FPRC/1251] 20 p3578 N67-34914
Changes in stroke volume of right and left heart in relation to altitude tolerance - pulmonary circulation
[J-234-4] 22 p3970 N67-37246
PULMONARY FUNCTION
SA LUNG
Decreased respiration and lung capacity observed in four young men confined in horizontal position 02 p0192 N67-11511
Nerve reflex regulation of respiration under excess intrapulmonary pressure 02 p0206 N67-11634
Pulmonary function and chest X-rays of humans exposed to pure oxygen environment at 258 mm Hg pressure 07 p1012 N67-17008
Environmental whole-body plethysmograph for testing pulmonary functions in humans
[NAEC-ACEL-545] 12 p2003 N67-24702
Effects of posture, breathing pressure, and immersion in water on lung volumes and intrapulmonary pressures
[AMRL-TR-66-301] 22 p3973 N67-37904
PULMONARY LESION
Effect of species, age, strain, and individual susceptibility on type and severity of pulmonary lesions induced in animals after exposure to oxygen at near ambient pressures 14 p2452 N67-26721
Pathology of animals exposed for 235 days to 5 psia 100 percent oxygen atmosphere 14 p2453 N67-26724
Electron microscopic and morphometric studies of rat lungs after exposure to oxygen at atmospheric pressure and 258 torr 14 p2453 N67-26725
PULSATING FLOW
Pulse rate, pressure, and pressure level tested in simulated arteries of pulsating flow system with water-glycerol mixtures and whole steer blood 05 p0644 N67-14579
Motion equations for pulsating flow evaluated for applicability to blood flow through small tubes 05 p0644 N67-14580
Pulsating burnout phenomena and dependence on thermodynamic, hydrodynamic, and geometric parameters - boiling water loop tests
[EURAEC-1620] 07 p1208 N67-17434
Anatomy and dc characteristics of arterial system, and pulsating flow /ac/ characteristics
[NASA-CR-770] 12 p2036 N67-23949
PULSE
SA ELECTRIC PULSE
SA GEOMAGNETIC PULSATION
Ion caused afterpulses and dark pulses of photomultiplier tubes
[NYO-3421-7] 03 p0274 N67-13307
Mathematical model for separating signal noise of pulse flows with limited aftereffect 05 p0727 N67-14848
Pulses in linear acoustics
[ARD-66-68R] 06 p1225 N67-18289
Pulsed direct current power supply for septum magnets
[CERN-66-31] 06 p1234 N67-19210
Pulse voltmeter for measuring strength of voltage of nanosecond pulses
[FTD-HT-66-101] 09 p1448 N67-19781
Operation and characteristics of non-overloading high stability linear pulse amplifier
[INR-744/III/E] 14 p2307 N67-27685
Design principles, and structural and circuit arrangements of discrete pulse frequency control devices 15 p2683 N67-28114
Multivalued logical elements with pulse phase principle of information representation 21 p3822 N67-35821
Technique for measuring pulse train jitter
[HDL-TM-67-4] 21 p3894 N67-36492
PULSE AMPLITUDE
Asynchronous pulse-amplitude pulse width model of human operator performance
[NASA-CR-79760] 02 p0223 N67-12880
Pedestal technique of transistorized analyzers for improving precision and zero intercepts in calibration plots applied to large signal vacuum tube logic 03 p0394 N67-13016
Error reduction techniques and instrumentation for measuring amplitude of kilovolt pulses
[SLAC-PUB-199] 07 p1081 N67-17436
Pulse amplitude, preamplifier, photomultiplier, and other electronics improvements in design 09 p1423 N67-19435
Transient and steady state phase and amplitude changes measured and energy distribution calculated for Brookhaven linear accelerator
[BNL-10670] 10 p1699 N67-20742
Stabilization of scintillation spectrometers - pulse amplitude drift of light source
[FEI-37] 10 p1699 N67-20912
One-point sampler for determining amplitude of fast transient pulse during brief time increment compared to total pulse duration
[SCL-TN-66-113] 19 p3498 N67-32922
Circuitry of radio frequency pulse amplitude flip-flop based on tunnel diodes
[FTD-HT-66-791] 21 p3814 N67-35845
Harmonic and combination amplitudes, and mass values for de Haas-van Alphen effect in high purity lead crystals
[IS-T-179] 23 p4388 N67-39117
Noise/signal ratio calculation of nuclear pulse amplifier using gated active integration
[AERE-R-5021] 24 p4421 N67-40489
PULSE AMPLITUDE MODULATION /PAM/
Mathematical model for pulse amplitude modulation communication link
[TR-495] 10 p1804 N67-20534
Communications and networks - pulse amplitude modulation, multipliers, photoformer, and sequential circuits 18 p2230 N67-32219
PULSE CODE MODULATION /PCM/
Cognitive information processing studies of digital and PCM picture and signal transmission systems, and methods for tactile display reading and magnetic tape to Braille conversion 05 p0678 N67-14634
Conference on aerodynamic measuring techniques in Germany - multiplex telemetry of free flight test data, analog-to-digital data conversion, and automatic data processing systems and methods
[DLR-MITT.-66-04] 05 p0678 N67-14681
Pulse code modulated bid detector for noise signal correction in aerospace telemetry 05 p0674 N67-14684
Telemetry data processing plan for OGO-A mission - pulse code modulation digital and analog data techniques - ground data acquisition system
[NASA-TM-X-54634] 05 p0675 N67-14912
Pulse duration and pulse code modulations compared for input power and output signal to noise ratio at high and low signal strength
[NASA-CR-81296] 06 p0845 N67-16580
Use of statistical dependence between binary pulse code modulation data samples in several optimal and suboptimal demodulators - computer simulation
[NASA-CR-81763] 07 p1043 N67-18103
Apollo Pulse Code Modulation /PCM/ decommutation system capabilities and operation 08 p1349 N67-18997
Flight test and C-141 aircraft applications of integrated pulse code modulation data system
[AGARD-588] 08 p1351 N67-19337
Flight test application of integrated aircraft pulse code modulation data system 08 p1382 N67-19336
Integrated pulse code modulation data system for C-141 aircraft 08 p1383 N67-19339
Pulse code modulation telemetry system for satellite test vehicle of ELDO launch vehicle 11 p1810 N67-23492
Parity bit performance curves for pulse code modulated telemetry system
[NASA-TM-X-53744] 11 p1822 N67-23977
Nimbus satellite design study - failure rate data sheets, vibration tests of pulse code modulation and telemetry electronics, encoding accuracy, and metal oxide silicon field effect transistors
[NASA-CR-83739] 12 p2218 N67-24621
Shielding effectiveness of pulse code modulation cable system
[ECOM-3788] 13 p2338 N67-25479
Nimbus pulse code modulation telemetry subsystem design study
[NASA-CR-83908] 13 p2380 N67-26001
Addendum to final report for Nimbus pulse code modulation design study
[NASA-CR-83997] 13 p2380 N67-26002
Pulse coding to reduce effect of ground clutter on airborne search radars
[NRL-6550] 15 p2660 N67-28222
Algorithm for recovery of pulse code telemetry data, and simulation program to determine matrix characteristics 17 p2829 N67-30979
Pulse code modulation telemetry data compression evaluation - redundancy removal techniques, and buffer queueing control methods
[NASA-CR-85894] 18 p2230 N67-31640
Model analyses and computer simulations used in data compression study for improved pulse code modulation telemetry links
[NASA-CR-86903] 19 p3402 N67-32613
Pulse code modulation/phase-shift keying subcarrier demodulator for data acquisition
[NASA-TM-X-55606] 19 p3400 N67-32407
Influence of bandwidth restriction on signal-to-noise performance of PCM/NRZ signals
[ESRO-TM-16] 20 p3664 N67-34045
Multiple access communication utilizing small ground stations for satellite communication modulation - multiplexing techniques
[NASA-CR-87479] 20 p3665 N67-33234
Ruggedized cable assembly for PCM equipment
[ECOM-66824-F] 21 p3816 N67-35827
Automatic programmed scaler for measuring and processing data on radioactive materials
[NASA-CR-89268] 23 p4212 N67-38235
Airborne meteorological data acquisition system using PCM magnetic tape
[UDRI-TR-67-128] 24 p4499 N67-40514
PULSE COMPRESSION
SA CODING
Experimental pulse compression system from alternate pulses of single frequency and from frequency modulation 04 p0812 N67-15825
Lumped electric circuits and ultrasonic techniques for producing dispersion required by pulse compression systems 04 p0814 N67-15947
Degradation of pulse compression system due to random phase errors
[TG-943] 09 p1416 N67-19840
Bandwidth compression and limiting information content of television signals
[FTD-HT-66-592] 19 p3404 N67-32796
PULSE DIFFRACTION
Sound diffraction by obstacle of arbitrary shape with Robin boundary condition
[REPT.-12] 03 p0430 N67-13088
PULSE DURATION
Pulse time measurements in presence of noise - optimal linear filters
[AE-249] 03 p0395 N67-13089
Fracture characteristics of transparent polymers by effect of powerful light pulses at different temperatures 21 p3876 N67-36488
PULSE DURATION MODULATION /PDM/
Decoupler transformer for high energy pulse shaping
[UCRL-70011, REV. 1] 09 p1438 N67-20004
Optimization, synthesis, and sensitivity of discrete time systems with control signals of variable amplitude and pulse width
[USCEE-205] 21 p3809 N67-35486
PULSE FREQUENCY MODULATION /PFM/
SA PFM TELEMETRY
Properties of pulse frequency detector with tunnel diodes
[FTD-HT-66-196] 11 p1819 N67-23444
PULSE HEATING
Temperature response of sensor bonded to metal strip measured after pulse heating by capacitor discharge
[UCRL-13434, REV. 2] 07 p1080 N67-17425
Capacitor pulse heating techniques to determine in-pile specific heat data for reactor design materials as function of exposure to integrated neutron flux

[UCRL-14766] 18 p3298 N67-32430
PULSE HEIGHT
Spectrometer stabilization systems for precise measurements of pulse-height spectra
[JINR-P-2707] 01 p0073 N67-10722
Random access memory core for space-borne pulse height analyzer 02 p0262 N67-12127
Pulse height selector with semiconductor triodes 03 p0375 N67-13414
Pulse height distribution curve analyzed for plastic scintillator fast neutron detectors 03 p0440 N67-12813
Two-parameter analyzing facility for coincidence experiments in nuclear reactions 03 p0434 N67-12815
Pulse height ratio analyzer with logarithmic characteristic 06 p0880 N67-16237
Time-to-pulse height converter 06 p0853 N67-16346
Design concept of circuit to satisfy requirements of low level pulse height discriminator 06 p0881 N67-16239
Single-channel pulse height analyzer with fixed output delay for registering differential and integral spectra 06 p0881 N67-16293
Pulse height distribution and cosmic ray intensity investigated by silicon spectrometer
[CLOB/IBJ-54/D] 07 p1066 N67-17937
Hardware and software construction for 4,906 channel bistabilized pulse height analyzer, data processing, and control system
[UCRL-16814] 08 p1257 N67-18603
Correction of pulse height spectra with digital computers
[JINR-P-2851] 08 p1231 N67-18617
Inexpensive 128 channel pulse height analyzer equipped with time digitizer
[TID-22393] 08 p1282 N67-18630
Wide range multi-input pulse height recording system
[NASA-CR-83659] 08 p1283 N67-19119
Computer code for unfolding of gamma and neutron pulse height spectra measured by stilbene crystal at two different electronic gain settings
[BRL-MR-1796] 10 p1589 N67-21655
Radiation intensity determination of pulsed photon beams by pulse height measurements
[NSJ-TR-4, REV.] 11 p1939 N67-22973
Two-dimensional pulse height analysis of particle-gamma, gamma-gamma, and particle-particle coincidence effects
[BNL-10864] 13 p2377 N67-25930
Radioactive isotope abundance estimation using least square analysis of time dependent set of gamma ray pulse height spectra
[USNRDL-TR-67-3] 13 p2381 N67-26231
Calculation of energy spectra from continuous pulse height spectra
[ONRL-TR-1511] 15 p2767 N67-28485
Transistorized single channel pulse height analyzer with fixed delay of output pulse
[INR-763/III/E] 15 p2879 N67-29500
Automatic conversion of standard numerical strip printer to combine two-dimensional pulse analyzer information into convenient page
[TID-23746] 16 p2866 N67-29864
Computer program for processing data from pulse height and flight time analyzers
[NASA-CR-85796] 17 p3138 N67-31340
Computer program for analyzing nonlinearities of pulse-height analyzers and for examining smooth spectra of radioactive decay
[ORNL-TM-1865] 21 p3846 N67-35440
High response transistorized pulse height discriminator 23 p4254 N67-38983
PULSE JET ENGINE
Thermodynamic and geometrical characteristics of pulse jet
[REPT.-27] 20 p3719 N67-35249
PULSE MODULATION
Pulse train modulation, range measurement, and transmitter-receiver choice for radar systems 04 p0511 N67-13922
Improved data handling and pulse modulation systems for space telecommunication
[NASA-SP-49] 06 p0644 N67-16555
Burst mode operation of pulsing equipment for Astron linear accelerator
[UCRL-70019] 08 p1243 N67-18525
Design and engineering development of pulsed beam facility for MP tandem particle accelerator
[UR-NSRL-2] 17 p3043 N67-30429
Imietron control element with mechanisms of living neuron - Time interval modulation coding system 20 p3513 N67-34186
Automatic acquisition of carrier frequency of AM and PM signals by phase-lock loop system
[NASA-CR-87997] 21 p3794 N67-35322
Laser transmitting information system utilizing optical electronics for communication between space vehicle and launch platform
[NASA-CR-88834] 22 p3996 N67-36866
PULSE RADAR
Nature, size, and velocity distribution of random scatterers gathered by pulse radar on two wavelengths using vertical fixed beams 04 p0512 N67-13929
Survey of electronics research with devices and techniques for pulsed radar transmitters 04 p0514 N67-13945
Data handling and display systems for pulse radar 04 p0514 N67-13948
Pulse radar with high frequency linear accelerators used in receiving devices
[FTD-TT-65-1741] 07 p1026 N67-17685
Operational and performance objectives of space probe radar altimeter, and evaluation of altimeter generic types for space probe applications
[NASA-CR-66262] 07 p1120 N67-17825
Effects of klystron saturation and phase and amplitude distortion on performance of wideband high power chirp radar system
[TN-1966-54] 11 p1819 N67-22519
Statistical radar theory - tracking, synthesis, discrimination, smoothing, processing, speed, direction finding, scanning, detection, and resolution
[FTD-MT-65-47] 11 p1830 N67-22636
Pulse radar system at 70 Ge for target signature studies
[BRL-TN-1637] 16 p2862 N67-29683
Principles and performance analysis of multiple radar altimeter installations
[FAA-RD-67-13] 17 p3026 N67-30625
Mathematical models for predicting radar clutter performance and application to radar design
[RE-TR-67-1] 19 p3403 N67-33205
On-a-pulse frequency measurement technique for carrier frequency of radar pulse
[DSL-R-170] 21 p3795 N67-35378
Two frequency investigation of lunar surface properties using phase modulated radar transmissions
[NASA-CR-88919] 21 p3930 N67-35480
Laser crystal growth, semiconductors, transistors, storage element alloy films, and pulsed radar
[REPT.-6] 21 p3917 N67-36063
Optimum processing of coherent variable spaced radar pulse trains, and clutter variations expressed in terms of covariance matrix
[P-3657] 24 p4402 N67-39457
PULSE RATE
SA CHRONOTRON
Circuit design with flip-flop sensor for pickup rejection in low counting rate experiments 03 p0440 N67-12814
Increasing pulse repetition rate of transmitter to meet system gain requirements for partial ionospheric reflection sounder 05 p0701 N67-14451
Experimental results and mathematical model for feedback effects during short interval series pulsing with TRIGA Mark II reactor 07 p1125 N67-17064
Dead time corrections for losses in slow particle counting rate systems
[HEPL-481] 21 p3896 N67-35422
PULSE RATE /BIOL/
Fundamental vibration of arterial pulse wave
[NASA-TT-F-9572] 01 p0013 N67-10197
Pulse rate of pilots on routine flights and with complex tasks 02 p0208 N67-11661
Variation pulsometry for functional evaluation of transplanted dog heart 04 p0486 N67-13437
PULSE RATIO MODULATION /PRM/
Pulse ratio modulation used for linearization of on off control especially for attitude control of space vehicles - static characteristics, circuits, and phase leads
[NAL-TR-121] 16 p2872 N67-30003
PULSE RECORDER
Graphic method of recording pulse using electronic cardioscope and piezoelectric sensor
[NASA-TT-F-10363] 01 p0021 N67-10228
Pulse counting time automatic radiometers to record radiation intensities of any size 10 p1632 N67-21270
Remote control automated radiometer with pulse attachment to improve pulp and loading parameters in ore dressing plant 10 p1646 N67-21275
Pulse methods in chemical analyses
[REPT.-758/8VII/C] 11 p1812 N67-23012
PULSE TIME MODULATION /PTM/
Operating principle of high-speed pulse-time alternating current transducer based on magnetic core with rectangular hysteresis loop for discrete telemetering system 03 p0392 N67-12486
Chronotron alpha meter development
[EGG-1183-1285] 10 p1630 N67-20880
Solid state, pulse-train generator to control shutter and film-advance timing in camera experiments on sounding rockets
[NASA-TM-X-1290] 14 p2509 N67-27282
Design of large signal sets with good aperiodic correlation properties
[TR-EE66-13] 17 p3026 N67-31230
PULSE TRANSMISSION SYSTEM
Synchronous pulse shift registers with minimal number of hysteresis elements and various speeds 03 p0376 N67-12515
Theory of linear pulse systems
[FTD-MT-64-133] 10 p1597 N67-20694
Coherent pulse transmission through rain
[TN-1966-63] 12 p2057 N67-24951
Determing continuous operating component of quasi-continuous pulse systems and synthesis of variation algorithms of adjustable coefficients in model reference adaptive control systems
[JPRS-42993] 20 p3615 N67-34815
Determining continuous operating component of quasi-continuous pulse system 20 p3615 N67-34816
PULSE WIDTH
Radio wave interaction equations extended to finite width of wanted pulse
[SR-274] 06 p0673 N67-16157
Linearity and temperature stability of linear analog dc voltage-to-pulse width converter
[NASA-TM-X-55656] 19 p3419 N67-33788
Window discriminator with fast switching tunnel diodes for pulse selection from wide amplitude spectrum
[EUR-3551.E] 24 p4420 N67-40291
PULSE WIDTH AMPLITUDE CONVERTER
Bipolar analog-to-pulse width converter to implement analog-to-digital conversion in spacecraft systems
[NASA-CR-81252] 06 p0653 N67-16057
PULSE WIDTH MODULATION /PWM/
Operating principle and properties of phase detector with pulse width modulation
[FTD-TT-65-1538] 07 p1053 N67-17986
Integrating window amplifier employing pulse area measuring technique
[UCRL-16620] 11 p1840 N67-23218
Width-modulated pulse-Doppler waveforms for clutter rejection
[TM-364] 12 p2057 N67-24947
Solar-conversion power-supply subsystem for Nimbus B, using pulse width modulated voltage regulator
[NASA-TM-X-53852] 18 p3198 N67-32988
Pulse-width-modulated control system for servomotor plant
[UCRL-17011] 20 p3613 N67-34489
Calculation of sawtooth voltage oscillations of triangular shape for pulse width modulation pulse shaping circuit
[NASA-TT-F-11230] 22 p4015 N67-36706
Evaluation of pulse width modulator and power driver for integrated dc power amplifier
[GER-1218038] 22 p4013 N67-37331
PULSED GENERATOR
Low frequency electronic pulse generator for electromechanical devices
[IEA-104] 01 p0054 N67-10728
Triple pulse generator to study resolving power and dead time of circuits used in nuclear research 06 p0854 N67-16236
Equipment and techniques for generation and measurement of simulated nuclear detonation electromagnetic pulse environment 07 p1138 N67-18906
Random number pulsed generator for obtaining binary data
[FTD-HT-66-90] 11 p1838 N67-22589
Operation and components of density

probe high voltage pulse generator, manipulator control, and pressure transducers used for flow visualization [NASA-CR-83983] 13 p2294 N67-35965
Pulsed constant current generator for studies of electrical resistance of Manganin and other metal wire shock pressure transducers [SC-TM-67-30] 16 p2897 N67-39838
Breadboard model of spaceborne synchronous clock pulse generator for spinning spacecraft 16 p2346 N67-31598
High voltage pulse generator to trigger spark gaps and Kerr cells [IPP-4/45] 20 p3619 N67-34499
Controlled random pulse generator for converting stationary Poisson flow into nonstationary linearly dependent flow 21 p3321 N67-35815
Resettable memory circuit with pulse generator for sampling and measuring galactic X-ray [NASA-TM-X-55905] 21 p3819 N67-36402
Device for triggering discharge tubes in high voltage pulse generator [FTD-HT-66-723] 21 p3819 N67-36413
Ideal pulse former compare to monostable vibrator and Schmitt trigger [SGAE-E-7/1967] 21 p3830 N67-36616
Pulse magnetic field ferromagnetic microwave generator tested with voltage-triggered spark gap switch [ECOM-0215-1] 22 p4012 N67-37280
Inductive pulsed generator for high energy plasma physics experiments [BMWF-FBK-67-35] 22 p4101 N67-37977
Variations of tunnel diode pulse generator circuits [NASA-TM-X-55949] 23 p4228 N67-38595
Nanosecond risetime, high power, variable delay double pulser for measuring electron hole plasma decay [D1-82-0638] 23 p4334 N67-39358
PULSED LASER
Time resolved spectroscopy of flashlamp pulses 09 p0429 N67-12652
Quantum electronics, pulsed lasers, photoeffects, laser emission, and field theory - conference report [FTD-HT-66-458] 07 p1097 N67-17910
Hologram measurements of optically inhomogeneous field by pulsed laser [NASA-CR-83463] 08 p1328 N67-19271
Pulsed laser holograms 09 p1456 N67-19404
Pulsed ruby laser evaporation method for preparation of germanium and gallium arsenide crystalline films [R66SD66] 11 p1893 N67-22535
Eye safety problem created by projected field operations with pulsed ruby laser [USL-772] 11 p1893 N67-22697
Bleaching effect of cobalt doped zinc sulfide crystals under influence of extremely large pulses of ruby laser [NASA-TT-F-480] 11 p1894 N67-22838
Calibration procedures for pulsed laser beam monitors in terms of energy and power per volt using absorption type calorimeter as standard [UCRL-50165] 13 p2334 N67-36352
Stimulated Brillouin scattering effects in nitrogen and methane gases using giant pulse laser 14 p2548 N67-36707
Pulsed neodymium doped glass laser for high photon energy density [WRE-TN-PAD-126] 14 p2549 N67-37125
Characteristics of pulsed laser crystals as function of gamma irradiation - crystal lattice defect influence on efficiency of fluorescence [AD-650120] 16 p2902 N67-39129
Magneto-optics with pulsed argon laser, converging detonations, Saha equation, multiple-phonon absorption, germanium optical constants, europium fluoride spectra, and lattice dynamics [NOLC-705] 18 p3316 N67-31079
Magnetic domain patterns on FeCoNi photographic film with pulsed argon laser light 18 p3277 N67-31580
Miniature semiconductor photodiode detection system for determining horizontal displacement of ballistic pendulum used in laser impulse measurements [BRL-TN-1651] 18 p3278 N67-32638
Twelve channel Doppler profile spectrophotometer for plasma scattered laser light [AWRE-O-42/67] 20 p3636 N67-34178
Glass damage by high intensity laser light pulses - effects due to optical absorption by impurities and neodymium and opto-acoustic coupling [AD-654727] 21 p3365 N67-35611
Stimulated Raman scattering and mode selective techniques for giant pulse lasers, and studies of optical harmonic generation and bleachable dye lasers [P67-81] 21 p3815 N67-35819
Cyanide and pulsed lasers as possible coherent sources of infrared radiation [NASA-CR-84492] 22 p4059 N67-36773
PULSED RADIATION
Transient annealing in semiconductor devices following pulsed neutron irradiation [SC-DC-66-1230] 01 p0140 N67-10235
Giant optical radiation pulses from ruby lasers by control of static cavity geometry [TR-4] 01 p0060 N67-10950
Transistor quality statistics in pulsed ionizing radiation environment [FR-66-17-158] 02 p0242 N67-11250
Application of pulsed neutron sources to structure and lattice dynamics studies of solids [INR-744/II/PS] 04 p0586 N67-12919
Transient radiation damage in silicon [ECOM-01788-3] 06 p0950 N67-16642
Pulsed neutron experiments in moderating assemblies 07 p1123 N67-17053
Fast reactor pulsed by mechanical means and by photoneutrons from linear electron accelerator 07 p1125 N67-17067
Temporal and spectral features of intense auroral zone X-ray event in 4 to 5 second period range - electron precipitation [NASA-CR-82964] 09 p1507 N67-20378
Pulse neutron methods for studying geological sections of well 10 p1623 N67-21288
Pulse radiolytic experiments and spectrograms of transient absorption in alpha-methylstyrene 11 p1907 N67-22252
Literature review on pulsed nuclear reactor technology [JUL-BIBL-9] 11 p1925 N67-23024
Lithium-drifted silicon detector used as pulse radiation dosimeter [UCRL-16924] 11 p1887 N67-23317
Pulsed neutron measurements performed during low power testing of high temperature gas cooled reactor to determine reactivity of various control rod patterns [GAMD-7352] 14 p2578 N67-27351
Adaptation of dc electron Van de Graaff accelerator for pulse radiation damage investigations in semiconductors [INR-764/II,III/E] 15 p2888 N67-27879
Prompt neutron, time decay, eigenvalue, and reactivity coefficient measurements in ROSPO reactor using experimental endogenous pulsed source technique [RT/FI/66/20] 17 p3117 N67-31346
Janvier method in pulsed neutron experiments [CEA-R-3070] 19 p3488 N67-33119
Green function for reflected slab reactor solved using diffusion theory model, for pulsed neutron problem [UCRL-70388] 19 p3490 N67-33333
Transient heat transfer and thermal hydrodynamics of pool-type pulse reactors [SC-RR-67-19] 22 p4092 N67-37496
Pulsed neutron and cell parameter research studies, and work on gray control elements [IAEA-3496-18] 23 p4292 N67-39252
PUMP
SA CENTRIFUGAL PUMP
SA CONDENSATION PUMP
SA ELECTROMAGNETIC PUMP
SA FUEL PUMP
SA HEAT PUMP
SA HYDRAULIC PUMP
SA INJECTOR
SA ION PUMP
SA JET PUMP
SA TURBOPUMP
SA VACUUM PUMP
Vibration transmission of flexible pipe couplings influenced by elements of trim pump system [MEL-265/66] 01 p0159 N67-10364
Operation of pumps and blowers under reduced feed regimes [ATD-66-94] 01 p0061 N67-11140
Design and construction of high-vacuum cascade pump [INR-740/XVIII/PP] 07 p1056 N67-17124
Preliminary calculations of pump and air blower operations [FTD-HT-66-124] 09 p1453 N67-19805
Behavior of nuclear water moderated reactor during primary cooling pump failure [JUL-407-RE] 10 p1682 N67-21071
Vacuum theory, adsorption, desorption, and diffusion phenomena, pumping systems, pressure measuring devices, and leak detection methods [ENRO-TM-48] 11 p1886 N67-22589
Steel alloy pump tested in mercury corrosion loop to establish feasibility of design [NASA-CR-72201] 11 p1890 N67-22942
Sensitivities of condenser, radiator, and pump bypass temperature controls to control flow [NASA-CR-72217] 11 p1909 N67-22946
Carbon rug rings used to eliminate metal-metal rub of inducer on housings in rocket engine oxidizer pump [NASA-CR-83547] 11 p1970 N67-22274
Blade element performance of two-stage axial-flow pump with tandem-row inlet stage [NASA-TN-D-3982] 13 p2307 N67-35044
Improvements and tests to determine effectiveness of noise reduction on seawater cooling pump of ship [REPT.-606.112, II] 13 p2329 N67-36060
High vacuum system for automatically loading liquid air traps [ISS-66/41] 20 p3622 N67-35155
Construction improvements of vacuum gauges, pumps, and seals [UCRL-70369] 22 p4086 N67-37710
Ozone effect on stability of Do-704 fluid in diffusion pump vacuum system [NASA-CR-89770] 24 p4474 N67-40550
PUMP IMPELLER
Hubless pump inducer tested with shrouded centrifugal impeller, using water and liquid nitrogen [NASA-TN-D-3807] 08 p1285 N67-18698
Development of porous disk impeller for quiet centrifugal pump [MEL-221/66] 15 p2716 N67-26200
PUMP SEAL
Positive-type shaft seal design concepts to future turbopump performance requirements [NASA-CR-61837] 07 p1064 N67-18039
Coolant pump shaft seal development [AECL-2549] 15 p2718 N67-26431
PUMPING
SA CRYOPUMPING
SA OPTICAL PUMPING
Optimum pumping power requirements for organic cooled reactors 08 p0913 N67-16230
Electrohydrodynamic traveling wave induction pumping of liquids and gases [NASA-CR-70466] 07 p1067 N67-17706
Automatic reengagement of pumping and neutron safety of GNP-1 accelerator [NT-65-18] 20 p3619 N67-34447
PUNCH
Axisymmetric contact of dynamic punch force on thick elastic plate 09 p1522 N67-20041
PUNCHED CARD
Application of punched card in analysis of phonocardiograms of congenital heart defects 04 p0488 N67-13454
Circuit reliability problems in nonnumerical applications of IBM 047 tape-to-card converter [EUR-2337.D] 07 p1047 N67-17928
Programming requirements for punched card input and output systems of Mercury computer [RAE-TR-66269] 09 p1432 N67-20235
Computer program generating binary coded decimal punched cards for scattering program describing subreflector figure of revolution 15 p2869 N67-26736
Five automated library circulation control systems employing manual, punch card accounting machine circulation, small and large scale control, and on-line control systems [NASA-TM-X-60081] 18 p3237 N67-32029
Punched card output system for Mercury computer [RAE-TR-66377] 20 p3666 N67-34682
Processing data from computerless laboratories by transporting punched cards or magnetic tapes to computer centers or on-line programming [CONF-660723-1] 20 p3760 N67-34927
Punched card input system for Mercury computer [RAE-TR-66291] 21 p3812 N67-36555
Experiment design and data processing methodology used in measuring physiological responses to high altitude acclimatization

[PR-1967-1] 24 p4382 N67-39572
PUNCHED TAPE
Canadian radio and electrical engineering bulletin articles on electronics, equipment, punched tape, navigation aids, and related subjects 03 p0366 N67-12539
Pneumatic tape reader for standard 5 or 8 hole punched paper tape 10 p1608 N67-31101
CDC-160A computer program for processing teletype paper tapes [SC-CR-67-2551] 17 p3033 N67-31043
Punched-tape read in circuit improvements for numerical control of machine tools [Y-IA-44] 19 p3424 N67-33656
PUPIL
Test equipment for determining visual recovery from high intensity flashes, and pupil reflex measurements [AD-642731] 06 p0797 N67-15360
PUPIL SIZE
Subjective sharpness threshold in Maxwellian view and under normal viewing conditions [AD-637096] 05 p0661 N67-15073
Survey of unattached sensors for use in remote physiological monitoring in space including techniques for measuring eyeblink, eye movement, and pupillary diameter [NASA-CR-85022] 18 p3218 N67-33493
PURIFICATION
SA AIR PURIFICATION
SA CLEANING
SA REFINING
SA STERILIZATION
SA WATER PURIFICATION
Gas desorption from cadmium sulfide single crystals heated in high vacuum [AROD-4461-14] 01 p0136 N67-10304
Solvent purification and water content determined by gas chromatography for nonaqueous electrolytes [NASA-CR-72106] 02 p0226 N67-11351
Preparation, purification, and analysis of high purity boron from iodide and bromide intermediates [AFCRL-66-188] 03 p0357 N67-12536
Radioelements, and isotope separation and purification [MLM-1312] 03 p0359 N67-12871
Synthesis, purification, and dissociation of boron triiodide and crystallization, purification, and evaluation of elemental boron [AFCRL-66-581] 05 p0664 N67-14732
Refining, filtration, and centrifugation process for iron contaminated zinc melt [BM-RI-6889] 06 p0893 N67-15932
Removal of hydrogen impurities in closed helium gas discharge systems [ECOM-2764] 06 p0943 N67-15974
Uranium purification from fission products 07 p1025 N67-17147
Radiochemical procedure for purification of stable fission product neodymium 148 07 p1025 N67-17149
Purification and crystallization of amorphous boron power - recovery and purification from residues and scrap [TID-23343] 07 p1106 N67-17450
Oil reclamation using molecular sieves [Y-1552] 07 p1093 N67-17734
Purification of concentrated lithium chloride solution by oxine precipitation-carbon adsorption method [Y-1553] 07 p1030 N67-17736
Desulfurization of liquid hydrocarbon fuel for fuel cells [PWA-2885] 08 p1233 N67-18382
Potassium purification process for removing metallic contaminants 09 p1408 N67-19590
Purification and single crystal growth of cadmium compounds and zinc compounds [QPR-6] 09 p1500 N67-19714
Preparation of platinum-free laser glass [SATR-4] 10 p1636 N67-20508
Laboratory preparation and purification of boron and sodium hydride [UCRL-13240] 10 p1572 N67-20769
Purification of natural thorium scrap materials using solvent extraction process [MCW-1512] 10 p1572 N67-20794
Stable gaseous isotope separation and purification by thermal diffusion and chromatography [MLM-1352] 10 p1705 N67-20847
Solvent degradation products in development of separations processes for purifying curium-244 produced in Savannah River reactors [DP-1016] 11 p1808 N67-22315
Neutron poisoned ion exchange column for purifying plutonium nitrate solutions [RFP-782] 11 p1809 N67-22383
Uranium purification by zone-refining techniques [Y-1564] 13 p2367 N67-25430
Electron beam melting equipment for purification of vanadium [CEND-3742-293] 13 p2271 N67-25981
Purification of molten sodium reactor coolant by high efficiency cold diffusion trapping of impurities [SM-85/47] 15 p2745 N67-28177
Feasibility of system employing recirculating, gettered, hydrogen atmosphere to remove carbon from molybdenum [BNWL-379] 16 p2960 N67-29765
Evaluation of effective gettering elements for purifying high interstitial vanadium [CEND-3742-288] 16 p2851 N67-29822
Cadmium sulfide and zinc selenide purification and crystal growth [QPR-7] 17 p3014 N67-30355
Solid hydrogen purification membranes - permeation rate of hydrogen through tantalum coated with thin film of palladium at high temperatures [ITR-3] 17 p3014 N67-30359
Separation of 234 uranium from 238 plutonium [AERE-R-5350] 17 p3015 N67-30417
Purification of irradiated tin with anion exchange columns and precipitation by thioacetamide or phenylarsonic acid [IA-1058] 17 p3136 N67-31156
Water recovery analysis of human urine and atmospheric condensate [AMRL-TR-66-137] 18 p3220 N67-32630
Purification techniques for removing low level metallic impurities from tungsten hexachloride [BM-RI-6984] 19 p3394 N67-33555
Purification of boron trifluoride dimethyl ether complex feed using activated charcoal column [NUMEC-3292-1] 19 p3396 N67-33729
Removal of liquid inclusions from solution-grown crystals in temperature gradient [TR-1001/9230-03/-5] 20 p3712 N67-34332
Uranyl nitrate purification by zone refining 21 p3777 N67-35504
Ion exchange elution for purification of promethium, and preparation of promethium oxide 21 p3788 N67-36347
Reactor materials development including metal preparation and purification, phase diagrams, mechanical behavior and forming, and methods for single crystal preparation [IS-RD-9] 21 p3872 N67-36443
Stable gaseous isotope separation and purification studies [MLM-1390] 22 p4108 N67-37870
Liquid sodium test program including corrosion and purification testing [JAERI-1129] 23 p4290 N67-38904
Purification and single crystal growth of Group II to VI compounds [ARL-67-0070] 23 p4333 N67-38925
Double electron beam melting and arc melting purification processes for vanadium - chemical analysis, hardness, and microstructure of melt [CEND-3742-311] 23 p4210 N67-39152
Macro purification method for substituted diazirines utilizing preparative scale gas-liquid chromatography [RR-TR-67-13] 24 p4395 N67-39629
Hot gettering and distillating apparatus for sodium purification [NAA-SR-12444] 24 p4396 N67-39699
Solvent extraction process for separating uranium from thorium, plutonium, polonium, iron and cobalt [BNWL-440] 24 p4396 N67-39751
Techniques of labelling globulin with purified fluorescein and/or ferritin dyes for electron microscopy of specific proteins [ISS-67/6] 24 p4385 N67-40172
PURINE
SA URANYL
Synthesis of purine intermediates from hydrogen cyanide under conditions simulating primitive earth atmosphere 03 p0343 N67-12737
Fluorescent emission measurements of nucleic acids - purine and purine nucleotide assays by chemical hydrolysis 06 p1225 N67-18335
PURITY
SA IMPURITY
Point defects in pure iron studied by means of electric resistivity [CEA-R-2905] 04 p0561 N67-13981
Nondestructive electrical resistance measurements on metals for purity control [JUL-317-RW] 10 p1654 N67-21005
Proton bombardment of high purity single crystal silicon [NASA-TN-D-3989] 14 p2564 N67-26549
Metal purity, and physical metallurgy of refractory metal alloys 14 p2552 N67-26985
Semiconductor detector spectrometer to determine purity of alpha [INR-767/XIII/1] 17 p3068 N67-31004
Colorimetric and paperchromatographic methods for purity control of radioactive chromium-51 [INR-811/XIII/C] 24 p4393 N67-39428
Tungsten hexafluoride-hydrogen fluoride triple point curve use in purity analyses [K-1699] 24 p4396 N67-39693
PWM
S PULSE WIDTH MODULATION /PWM/
PYCNOMETER
Pycnometer using mercury for volume measurements in determining density of porous fuel pellets in hot cells [ORNL-TM-1743] 15 p2711 N67-28343
Gravimetric sampling method based on small polyethylene ampoule as pycnometer for determining absolute cobalt 60 concentrations of solutions [ACEL-2079] 17 p3020 N67-31497
PYRAMIDAL BODY
Static longitudinal and lateral stability and control characteristics of right triangular pyramidal lifting reentry configuration at Mach numbers from 2.36 to 4.65 [NASA-TM-X-831] 18 p3188 N67-32135
PYRHELIOMETER
Calibration and comparative measurements of pyrheliometric instruments using natural sunlight [NASA-CR-83271] 11 p1877 N67-22061
PYRIDINE
Synthesis of conjugated double bond polymer containing pyridine rings 02 p0224 N67-11274
Inhibiting and inductive substances in polymerization kinetics of 4-chloropyridine 02 p0224 N67-11277
Electron spin resonance study of pyridine and its derivatives irradiated with electron beams 11 p1805 N67-22229
Color reaction for pyridine ring and pyridine alkaloids 18 p3220 N67-31499
Syntheses of 3-pyridyl indole and indole derivatives by pyridine substitution 21 p3783 N67-35948
PYRIDOXINE
Behavioral program with monkeys to determine response to monomethyl hydrazine with and without pyridoxine [ARL-TR-67-6] 13 p2254 N67-25331
PYROELECTRICITY
SA DIPOLE MOMENT
Evaluation of crystals, thin films, and ceramic materials for pyroelectric radiation detectors [NASA-CR-629] 02 p0295 N67-11949
Measurements of electrocaloric effect and static dielectric properties of crystalline tartaric acid [NASA-CR-89362] 23 p4210 N67-39291
PYROLYSIS
Fabrication of beryllium oxide radomes by pyrolitic deposition [AD-638219] 01 p0077 N67-10306
Differences in thermobalance measurements analyzed based on pyrolysis data, volumetric standards, and solid state reactions [NASA-TT-F-10281] 02 p0261 N67-12099
Pyrolysis and gas phase oxidation of organic compounds 04 p0504 N67-13822
Fluorescence of pyrolyzed pure and natural organic materials 08 p1225 N67-18334
Thermal decomposition of high boiling residue from in-pile radiopyrolysis of OM-2 compared with that of pure m-terphenyl [EUR-3150.E] 08 p1240 N67-19184
Gas chromatographic analysis of pyrolysis products of organic materials [RIA-66-3171] 09 p1410 N67-19796
Thin layer chromatographic separation of some ketones obtained by pyrolysis of lithium carboxylates [CNEA-195] 10 p1576 N67-21156
Instabilities in pyrolytically deposited silicon dioxide films at room temperature [ECOM-2779] 12 p2188 N67-23610
Kinetics of postpyrolysis of preirradiated

terphenyls
[EUR-3287.E] 14 p3480 N67-37259
Radiolytic and pyrolytic decomposition of organic coolants
[EUR-3172.E] 15 p3655 N67-37875
Physical behavior, reaction mechanisms, and reaction rates involved in pyrolysis of charring ablation-type polymers under radiation only, one-dimensional heating
[NASA-CR-84806] 15 p3732 N67-38777
Gas and liquid chromatographic systems for separating and identifying organic compounds - pyrolysis, mass spectrometry, and infrared analytical devices
[NASA-CR-86358] 21 p3793 N67-38639
Thermal reaction battery electrolytes from pyrolysis of oxime derivatives
[HDL-TR-1351] 22 p3984 N67-36992
Oxidation and pyrolysis of ethylene in shock waves
[AD-656040] 22 p3984 N67-37004
Pyrolysis of high polymers subjected to rapid heating - mass loss, differential thermal analysis, and material gas flow
[NASA-TT-F-11238] 22 p4079 N67-37731
PYROLYTIC GRAPHITE
Pyrolitic graphite and other coatings for nuclear fuel particles used in gas cooled reactor - Irradiation testing of advanced reactor components and materials
[ORNL-3951] 01 p0100 N67-10709
Corrosive action of hydrogen chloride on pyrolytic carbon coated uranium dicarbide beads
[LA-3488] 03 p0358 N67-12866
Microwave generation using double stream instabilities in pyrolytic graphite and bismuth
[REPT.-9] 06 p0945 N67-15949
Optical reflectance measurements of pyrolytic graphite and phenolic nylon chars and potential application to heat shield requirements
06 p0990 N67-15712
Mechanical properties of pyrolytic and single crystal graphite examined to determine effects of neutron damage
[TID-23388] 10 p1661 N67-30751
Radiation induced shrinkage and cracking in pyrolytic carbon samples
[ORNL-TR-1347] 10 p1661 N67-30905
Thermal diffusivity of pyrolytic graphite discs and hollow cylinders measured from 25 to 1900 deg C by flash technique
[LA-DC-8307] 10 p1773 N67-31597
Midget impinger for sampling uranium dusts and pyrolytic graphite aerosols
[SC-RR-66-597] 11 p1854 N67-32331
Carbon and graphite, sterilization of impact liners, nonmagnetic material for welded structures, and other materials science studies
12 p2165 N67-33649
Application of pyrolytic graphite in construction of nozzle throats
[TIL/T-5720] 15 p3720 N67-37726
Deformations in pyrolytic graphite, impurities in magnesium oxide, and ablating materials
16 p2914 N67-29147
Manufacture of reactor fuel elements from fused carbides and coating with pyrolytic graphite
[ORNL-TR-1417] 16 p2929 N67-29277
Fluidized bed coating of fuel particles with pyrolytic graphite
[ORNL-TR-1418] 16 p2929 N67-29278
Surface area effects on oxidation kinetics of pyrolytic graphite
[AMRA-TR-67-30] 21 p3873 N67-35681
Thermodynamic investigation of graphite-carbon vapor system at temperatures to 6000 deg K and pressures to 1000 atm
[RM-3336-2-PR] 21 p3946 N67-35491
Electrochemical reduction of chlorine on pyrolytic carbon in molten lithium chloride-potassium chloride
[NASA-TN-D-4175] 21 p3784 N67-35962
PYROLYTIC MATERIAL
SA ABLATING MATERIAL
Chinese Communist abstracts dealing with rocket propulsion and material technology
[ATD-66-89] 02 p0298 N67-13099
X-ray studies on structure of pyrolytic carbon coatings deposited on spherical particles of uranium dicarbide
[REPT.-753/IV,II/C] 04 p0568 N67-13697
Pyrolytic carbon deposited from propane in fluidized bed
[ORNL-TM-1649] 13 p2369 N67-25615
Strontium and cesium diffusion through thin layers of pyrolytic carbon
[GA-7478] 15 p3697 N67-38389
Behavior and effectiveness of pyrolytic carbon coatings in retaining fission products of fuel particles
[M/259] 18 p2995 N67-29921
Pyrolytic carbon coated uranium fuel particle oxidation with water vapor
[ORNL-4014] 20 p3586 N67-34988
Physical properties of pyrolytic Group IV metal carbides and nitrides
[NASA-TT-F-11180] 21 p3934 N67-36535
Metallographic preparation of pyrolytic carbon and/or tungsten coated uranium oxide and uranium carbide fuel spheres
[LA-DC-8078] 23 p4089 N67-37231
PYROMETER
SA OPTICAL PYROMETER
SA RADIATION PYROMETER
SA THERMOCOUPLE PYROMETER
Photoelectric pyrometer for measuring and controlling temperature of rotating machine parts
[FTD-TT-65-1939] 01 p0074 N67-10973
Polarized pyrometric probe operation and measurement of plasma particle energy
07 p1164 N67-17389
Photographic brightness pyrometer for recording thermophysical measurements
15 p3708 N67-37851
PYROTECHNICS
SA FLARE
Comparison of mechanically balled magnesium with atomized magnesium for use in pyrotechnic compositions
[PA-TR-3364] 01 p0083 N67-10329
Heat sterilization of pyrotechnics and spacecraft onboard liquid and solid propulsion subsystems
05 p0754 N67-14750
Salt spray tests conducted to determine corrosion resistance of submarine magnesium signal coated with plastic film
[NOL/TR-66-110] 06 p0895 N67-16592
Pyrotechnic shock isolation mount for equipment protection
07 p1199 N67-16918
Design considerations and test program for propellant type explosively actuated devices for spacecraft applications
07 p0997 N67-16925
Binding energies of polyester resins used in pyrotechnic formulations as function of polymerization time before and after pressing
[RDTR-51] 10 p1662 N67-21358
Evaluation of photoflash formulations containing hafnium and potassium perchlorate with barium nitrate, calcium sulfate, and magnesium alloys strontium and barium as additives
[PA-TR-3382] 11 p1814 N67-32107
Simulation of heat shield pyrotechnic shock impedance
12 p2413 N67-25168
Pyrotechnic shock testing of full scale lifting reentry vehicle
12 p2413 N67-25169
Army research and development activities in electronics, theoretical and applied physics, ballistics, pyrotechnic chemistry, and weapon system technology
[AD-634616] 15 p3808 N67-37971
Ferrocene chemistry of phosphorus and boron for fuel potential in pyrotechnics
[AD-634641] 15 p3856 N67-37908
Black body functions - Tabulation of data derived from Plancks radiation law
[RDTR-90] 16 p3337 N67-33476
Integrated rocket spin-up launch mechanism with pyrotechnic and mechanical events initiated by single electric signal
21 p3937 N67-36216
Spectroscopic study of visible radiation emitted by pyrotechnic compositions containing magnesium and calcium
[DRI-880-6703-F] 22 p4180 N67-36904
Aerodynamic decelerator, pyrotechnics, thermal control, propulsion, packaging and cabling, and independent data package for Voyager capsule bus system
[NASA-CR-89686] 24 p4538 N67-40234
PYROXENE
SA SILICATE
X-ray detection of disordered orthopyroxenes in meteorites
[NASA-CR-81376] 06 p0877 N67-16700
PYRRHOTITE
Microchemical analysis method for establishing chemical composition of troilite and pyrrhotite in meteorites
[NASA-TT-F-10893] 12 p2697 N67-25939
PYRROLE
SA POLYVINYL PYRROLIDINE
Gas chromatography and mass spectrometry of acetonitrile, furan, pyrrole, paraffins, and other aromatic organic compounds of biological significance
[NASA-CR-81769] 07 p1032 N67-18009
Synthesis and properties of polybenzimidazopyrrolone
[NASA-TT-F-10965] 14 p3482 N67-37526
PYRUVATE
Distribution of blood lactates and pyruvates during work and recovery
[NASA-CR-82308] 08 p1229 N67-19040
P3V AIRCRAFT
S P-3 AIRCRAFT

Q

Q-FACTOR
Generalized estimates of computer design Q-factor required by specifications
15 p3971 N67-37826
Mixed radiation measurements for dose equivalence and quality factor
[REPT.-777/XIX/D] 17 p3139 N67-30645
Linear energy transfer and quality factor of radiation imparted to tissues determined by recombination methods
[INR-786/XIX/D] 18 p3210 N67-31878
Ethanol and water admixture effects on dispersion and width of charged particle tracks in spark chamber
[ANL-TRANS-436] 22 p3994 N67-36015
Q-SPOILING
Focused Q-spoiled laser beam for high density plasma production from solid lithium hydride particle
[NYO-3579-5] 14 p3588 N67-37445
Temporal coherence and frequency versus time characteristics of Q-spoiled ruby laser
[SR-2] 19 p3486 N67-32778
QSO
S QUASI-STELLAR RADIO SOURCE /QSO/
QUADRATIC EQUATION
Mathematical algorithms with digital computer floating-point computation for solving quadratic equation
[CS-40] 02 p0289 N67-11886
Computer method for fitting surfaces to assay and other data in three dimensions by quadratic regression analysis
[BM-RI-6670] 02 p0257 N67-13089
Formulas for calculating optimal control law parameters and weight coefficients of quadratic equation to solve analytical design problem of optimal regulator in closed form
05 p0696 N67-14399
Categorizations and realizations applied to positive real and biquadratic immittance functions
[AFCRL-66-343/II/] 09 p1469 N67-19765
Quadratic matrix equations for determining vibration modes and frequencies of continuous elastic systems
11 p1991 N67-23829
Linear parameter optimization with quadratic cost in application to ballistic missile guidance
coefficient
14 p3570 N67-36529
Decomposition method for large structured quadratic programming problems
[MRC-TSR-718] 17 p3099 N67-30425
Quadratic approximation of logarithmic function for simplifying solution to transcendental equations
[NOTS-TP-4223] 19 p3482 N67-32510
Solution of Schroedingar equation expressed algebraically through solution of classical Hamiltonian equations in quadratic form of coordinates and momenta
[JINR-P3-3223] 19 p3586 N67-32799
Asymptotic estimates of Hilbert space complex valued square intergrable functions n-width
[MRC-TSR-748] 24 p4479 N67-39877
Computer program requirements for solving quadratic equation with floating point coefficients
[CS-74] 24 p4480 N67-39827
Function minimization without derivatives by sequence of quadratic programming problems
[NASA-CR-89751] 24 p4483 N67-40396
QUADRATURE
Numerical methods of solving differential and integral equations and quadrature formulas
[FTD-TT-65-1855] 01 p0207 N67-11257
General methods of finding exact error estimates of quadrature formulas for various classes of functions - extremum problems, Legendre polynomials, and Chebyshev polynomials
[AERE-TRANS-1085] 09 p1297 N67-18271

Quadrature formulas with least error estimate for some classes of functions 06 p1298 N67-18272
Computer method to calculate Fourier integrals 13 p2348 N67-25780
Quadratures of distribution of effective mass spectrum in arbitrary cascades [JINR-P2-3163] 16 p2946 N67-29692
Convergence of quadrature processes containing values of derivatives of integrated function [MRC-TSR-664] 17 p3068 N67-30167
Doppler radar system for detecting moving targets in clutter noise [HDL-TR-1349] 19 p3399 N67-32861
Optimal quadratures for analytic functions [AD-653713] 20 p3689 N67-34275
False alarm probability of quadrature clipper correlator for Poisson noise process [NEL-1458] 22 p3997 N67-37048
Generalized trapezoid formulas and errors in Romberg quadrature 24 p4477 N67-39471
Electronic generation of quadrature information for sinusoidal transducers [SC-RR-67-575] 24 p4450 N67-39693

QUADRATURE APPROXIMATION
Step function, and application of quadrature formulas to estimation using moments 14 p2563 N67-26533
Numerical integration of oscillating functions with nonlinear argument 14 p2566 N67-27735
Theory and solutions for ranking problems in multivariate normal statistical populations [NASA-CR-85594] 18 p3285 N67-31744
Estimated first time error probability statistics for hypotheses of same order X quadrature value [JINR-P1-3268] 21 p3681 N67-36645

QUADRUPOLE
Coordinate transformation method for deriving Inglis formula for inertial parameter of collective oscillations without concept of time dependent, self consistent potential well 06 p0934 N67-15653
Quadrupole fringing field effects on coupling in linear accelerator [BNL-10646] 08 p1330 N67-18486
Quadrupole mass spectrometer for determining relationship between partial pressures and filament temperature in synthesis of hydrocarbons [NASA-TN-D-3906] 11 p1811 N67-23869
Approximate treatment of nucleon phonon interaction using simple model with quadrupole phonon [JINR-P4-2985] 12 p2158 N67-23568
Spin quadrupole forces and collective states in deformed nuclei [JINR-E4-3035] 12 p2163 N67-23763
Introduction of ions into strong fields within quadrupole mass spectrometer [NASA-CR-83922] 13 p2221 N67-25896
Electrodynamics of quadrupolar media 14 p2663 N67-27090
Introduction of ions into region of strong fields within quadrupole mass filter [NASA-CR-79170] 15 p2713 N67-28361
Current density and structural design of superconduction quadrupole [BNL-11164] 16 p2960 N67-29706
Spin quadrupole force effect on allowed beta decay rate [JINR-P4-3171] 17 p3125 N67-30292
Introduction of ions into strong magnetic fields within quadrupole mass spectrometer [NASA-CR-85606] 17 p3130 N67-30780
Quadrupole-octupole system design for correcting spherical aberration of round lens 19 p3458 N67-33813
Construction of toroidal quadrupole plasma generating machine 23 p4323 N67-38777
Dipole-dipole interactions of nuclear spins with quadrupole-coupled nucleus - metal-hydrogen bonds [TR-11] 23 p4310 N67-38960
Quadrupole reversal in high frequency separator at high energies - spatial orientation theory [CERN-67-23] 23 p4314 N67-39237

QUADRUPOLE LENS
Magnetic quadrupole lens for use in ion beam handling facilities at Van De Graaff accelerator 03 p0380 N67-12610
Magnetic field calculations for superconducting quadrupole lens with currents in niobium stannide ribbon [BNL-10495] 03 p0455 N67-12393
Large transmission, heavy particle spectrometer using preceding magnetic quadrupole lens for improved resolving power [MIT-2098-276] 10 p1634 N67-21500
General conditions for achieving phase shifts of pi and two-pi by magnetic quadrupole multiplets [BNL-10613] 10 p1695 N67-21563
Motion of injected plasma stream in magnetic field of quadrupole lens 11 p1955 N67-21937
Quadrupole lens for compensating intersectional gaps in linear proton accelerators 12 p2152 N67-23506
Phase space transformation by means of quadrupole multiplets in optical systems [CERN-67-6] 16 p2929 N67-30021
Niobium stannide current sheet for superconducting quadrupole lens 17 p3149 N67-30996
Quadrupole lens combinations for high voltage electron microscopes, and quadrupole correctors for cancelling spherical aberrations 19 p3456 N67-33787
Performance characteristics of quadrupole lens systems 19 p3458 N67-33813
Cylindrical, superconducting cylindrical, and quadrupole lens designs for high voltage electron microscopes 19 p3459 N67-33814
Magnetic center of quadrupole lens located using peakers and magnetometer [LNF-67/47] 23 p4294 N67-38412

QUALITATIVE ANALYSIS
Method for differential determination of hydrogen in sodium metal [APDA-183] 01 p0020 N67-10685
Qualitative analyses, mass spectrometry, metal impurity determination, gas chromatography, and trace element detection studies [UCID-15014] 07 p1031 N67-17899
Chemical analyses, including applicability, safety precautions, apparatus and reagents, procedure, calculations, and references 08 p1235 N67-18396
Qualitative analysis of membrane solution to circular thin plate problem 09 p1552 N67-20102
Qualitative analysis on differential equations describing three-dimensional magnetohydrodynamic flow near stagnation point in presence of high magnetic fields - pitot and Prandtl tube [TR-41] 13 p2367 N67-26356
Qualitative singularities of viscoplastic flow in cylindrical pipe under effect of pressure gradient 21 p3834 N67-36581

QUALITY
S HANDLING QUALITY

QUALITY CONTROL
SA PRODUCT DEVELOPMENT
Component quality control and physics of failure programs for improving reliability and identifying failure modes of Minuteman II weapon system 01 p0050 N67-10125
Specifications and methods for procurement and quality control of alkaline and alkali-free cleaning agents [M-66-606] 01 p0078 N67-10542
Management techniques to maintain quality, cost control, and production schedules in manufacture of space vehicle end products 03 p0402 N67-12710
Quality assurance of weldments for Saturn S-IC assembly during manufacturing 03 p0403 N67-12717
Component reliability and quality control in producing beryllium mill product [MAB-226-M] 05 p0713 N67-15050
Quality requirements of automatic control systems [JPRS-39474] 05 p0686 N67-15173
Production engineering measure for improvement of production techniques to increase reliability of silicon transistor type 2N2055 [REPT.-3] 05 p0685 N67-15286
Quality control in development of continuous casting system for aluminum 06 p0885 N67-15517
Reliability and quality assurance plan for design and development of radar altimeter applicable to deep space probes [NASA-CR-66264] 07 p1120 N67-17637
Fabrication quality control of monolithic microcircuits [NASA-CR-81723] 07 p1053 N67-18012
Quality control program for manufacturing high reliability silicon monolithic integrated circuits [NASA-CR-81699] 07 p1054 N67-18021
Chemical analysis - analytical development, radiochemistry, electroanalysis, facilities, spectroscopy, equipment and methods, and standards and quality control [IDO-14679] 08 p1294 N67-18361
Standards and quality control in chemical analysis 08 p1261 N67-18369
Quality control program for chemical analysis - bias and precision data, training and testing, standards and reagents, and variables of liquid storage stability 08 p1235 N67-18394
High expansion foam to suppress fires - meeting on procurement, specifications, quality control and applications [AD-641970] 08 p1287 N67-18561
Maintenance of quality control among contractors of fire fighting equipment 08 p1288 N67-18563
Materials, machining, joining techniques, allowable stresses, quality control, heat transfer, and evacuation system provision in linear accelerator fabrication [CONF-661021-11] 08 p1285 N67-18666
Manufacturing and quality control requirements for space vehicle electrical harnesses [NASA-TM-X-53404] 08 p1257 N67-18689
Acceptance tests of auxiliary electrode nickel cadmium secondary spacecraft cells [NASA-CR-82596] 08 p1234 N67-19110
Qualification testing and failure analysis of integrated microcircuits [NASA-CR-83573] 08 p1258 N67-19141
Applications of radioisotopes to quality control and inspection of industrial processes, and to wear studies aimed at increasing machine component and cutting tool service lives 10 p1640 N67-21222
Radioisotopes used in automobile manufacturing for establishing optimum operating conditions, for controlling and checking operations, and for flaw detection and quality control 10 p1640 N67-21223
Gamma flaw detection and quality control improvement in plant manufacturing powerful gantry cranes, vertical lifts, and other hoisting mechanisms 10 p1641 N67-21229
Gammagraphy and ultrasonic flaw detection to maintain quality control in welded joints of thick-walled vessels 10 p1641 N67-21230
Quality control in problems of analytical design of optimal regulators 11 p1844 N67-23433
Production and reliability engineering measures for hermetically sealed tantalum foil capacitors [QR-5] 11 p1837 N67-23572
Quality control testing of semiconductor switches [W-23] 11 p1838 N67-23678
Mechanized nondestructive testing for steel quality control 11 p1893 N67-23424
Codes, specifications, and acceptance standards for weldments [ORNL-P-2615] 12 p2106 N67-23723
Structural design, development, and fabrication of multicavity 805 MHz accelerator tanks 12 p2078 N67-24667
Mathematical solutions to cybernetic problem involving automatic control systems, information processing and pattern recognition, and reliability and quality control [JPRS-40639] 12 p2069 N67-24201
Construction and reliability characteristics of semi-Markov process systems operating in periodically alternating modes 12 p2070 N67-24207
Preparedness and unconditional probability of trouble free operation functions derived for repairable multiaction devices 12 p2070 N67-24208
Algorithm for optimization of reliability of redundant system with weight, cost, or size restriction 12 p2070 N67-24209
Dynamic programming method used to solve problem of optimal redundancy of apparatus 12 p2070 N67-24210
Average time dispersion expressions for use in correct operation of emergency systems - numerical characteristics of probability distribution 12 p2070 N67-24211
Optimal control of process of obtaining monocrystal from melt - quality control 12 p2071 N67-24220
New model to prototype reliability of acoustical scale models [REPT.-606.122 V] 13 p2416 N67-25681
Qualification testing of pressure gauge used at Cape Kennedy in launch complex 34

pneumatic distribution portion of propellant consoles
[NASA-CR-83969] 13 p2321 N67-26009
Qualification testing of pressure gauge used at Cape Kennedy in launch complex 34 pneumatic distribution portion of propellant consoles
[NASA-CR-83968] 13 p2321 N67-26010
Qualification testing of pressure gauge used at Cape Kennedy in launch complex 34 2500 psi gaseous nitrogen system
[NASA-CR-83967] 13 p2321 N67-26011
Qualification testing of pressure gauge used at Cape Kennedy in launch complex 34 pneumatic distribution portion of propellant consoles
[NASA-CR-83966] 13 p2321 N67-26012
Qualification testing of pneumatically operated shutoff valve for Cape Kennedy ground support installations
[NASA-CR-83965] 13 p2327 N67-26013
Qualification testing of flexible hose for use in electrical power system of gaseous hydrogen piping of spacecraft support systems
[NASA-CR-83962] 13 p2327 N67-26016
Acceptance testing of Bendix bolts for material strength and dimensional accuracy
[M67-3-D.D] 13 p2329 N67-26041
Thickness control of stroke of ball point pen by ultrasonic process
[REPT.-6465.166] 13 p2329 N67-26042
Encapsulating foam improvement and quality control of potting plastic
[APL-TG-817] 13 p2344 N67-26239
Torque test for evaluating quality of aluminum alloy melts
[R-1833] 14 p2542 N67-26713
Tests and inspection procedures for process control of integrated circuits
[NASA-CR-84433] 14 p2506 N67-27438
Welding process with X-ray control of weld quality
[WAPD-TRANS-46] 15 p2721 N67-27903
Performance evaluation tests on flexible pressure hose in Saturn ground support equipment
[NASA-CR-84842] 15 p2719 N67-28826
Plutonium recycle test reactor fuel element quality control system
[BNWL-349] 16 p2932 N67-29768
Nondestructive testing methods for quality control in nuclear industry
[BNWL-SA-1142] 17 p3195 N67-30321
Inspection and quality control of NASA vehicle and space booster designs 17 p3036 N67-30574
Acceptance test results for nickel-cadmium secondary spacecraft battery
[NASA-CR-85625] 17 p3000 N67-31459
Digital microcircuit test program 18 p3247 N67-31604
Cybernetics and control of large systems - optimum planning, industrial process quality control, and network construction
[JPRS-41494] 18 p3285 N67-31863
Mathematical expectation, dispersion, and conditional density expressions derived and applied to problems of controlling wear of tools during machining 18 p3285 N67-31867
Stochastic approximation method for controlling industrial objects 18 p3285 N67-31869
Functional effectiveness and capacity control analyses for preventive maintenance repair of large numbers of machines 18 p3274 N67-32196
Functional analysis for failure location searches in engineering systems 16 p3275 N67-32201
Construction of confidence integrals with low failure probability from test results for system engineering 18 p3276 N67-32310
Quality control assurance for coatings used on satellites, and getter-ion sublimation pumps with controls and power supplies 18 p3282 N67-32600
Cost-time effectiveness problem and testing for compliance with quality control specifications
[REPT.-66-06-01] 20 p3645 N67-34194
Soviet computer development and quality control, data processing, and systems analysis
[P-3600/5] 20 p3697 N67-34292
Nimbus satellite component and materials environmental investigations, failure analyses, and quality control procedures
[NASA-CR-87481] 20 p3732 N67-34431
Component reliability and nondestructive testing of torpedo parts 20 p3647 N67-34469
Inspection and reliability testing of metal to metal bonding for aircraft structures 20 p3648 N67-34481
Projected tolerance zone concept for controlling position and attitude of threaded holes
[SC-DC-67-1744] 20 p3649 N67-34957
Gemini spacecraft reliability and quality control test program
[NASA-TM-X-60373] 22 p4147 N67-37043
Computer program for acceptance criteria in sampling for quality control
[PA-TR-3584] 23 p4257 N67-38134
Average outgoing quality and average fraction inspected values for continuous quality control sampling plan
[Y-1585] 23 p4258 N67-38449
Conference proceedings on quality and reliability management
[AD-648315] 24 p4457 N67-39646
Conference proceedings on quality and reliability management techniques and concepts
[AD-648316] 24 p4456 N67-40068
Delta ultrasonic inspection technique using reradiated sound energies for nondestructive testing of weldments
[TR-67-53] 24 p4460 N67-40400
Manufacturing verification tests for quality assurance and control data management on Voyager spacecraft
[NASA-CR-89709] 24 p4461 N67-40416
QUALITY FACTOR
S Q-FACTOR
QUANTITATIVE ANALYSIS
Absorption spectroscopic determination of water vapor abundance in Martian atmosphere 03 p0480 N67-12068
Preparation of electron probe microanalyzer standards using rapid quench method
[NASA-TM-X-55590] 03 p0360 N67-12226
Automatic scanning and computer processing of micrographs - computer application to quantitative analysis of image microstructures
[NBS-9428] 04 p0551 N67-13717
Quantitative interpretation of dynamic log anomalies from borehole gamma radiation measurements 06 p0674 N67-16241
Structure of mercury by quantitatively studying variation of energy with tetragonal and rhombohedral distortion of face centered cubic crystal
[AD-642367] 06 p0695 N67-16411
Measurement of uranium 235 content in uranium by activation technique 07 p1025 N67-17145
Colorimetric and coulometric methods for quantitative determination of uranium in purified solutions from dissolution of irradiated uranium carbide 07 p1025 N67-17146
Determination of free, combined, and absorbed carbon in beryllium
[Y-1556] 07 p1030 N67-17735
Chemical analyses, including applicability, safety precautions, apparatus and reagents, procedure, calculations, and references 06 p1235 N67-18395
Radiochemical analytical procedures, including applicability, safety precautions, apparatus and reagents, calculations, and references 06 p1236 N67-18396
Laboratory methods to determine quantitative nitrogen, hydrogen, oxygen, and carbon impurities in sodium 09 p1407 N67-19582
Quantitative relation of gas contamination in shielding medium to magnitude, frequency, and porosity level in aluminum Tungsten Inert Gas /TIG/ weldments
[NASA-CR-82970] 09 p1454 N67-19985
Improved method of quantitative autoradiography for industrial use
[EUR-3173.E] 09 p1455 N67-20226
Measuring apparatus for quantitative analysis of beryllium ore powder samples, concentrates, and products of metallurgical processing 10 p1634 N67-21302
Quantitative analysis of heat exchange between Antarctic waters, icebergs, and glaciers 11 p1867 N67-22348
Gravimetric determination of free uncombined carbon in plutonium carbide
[LA-3602] 11 p1810 N67-22386
Quantitative description of climatic element fields by orthogonal functions 11 p1915 N67-22905
Gas chromatographic determination of tri-isobutyl phosphate in trinormalbutyl phosphate
[PG-755/W/] 11 p1813 N67-22977
Conductometric method for graphite determination in propellants
[FA-T67-5-1] 12 p2041 N67-23824
Nondestructive X-ray diffraction method for quantitatively measuring percent alpha in delta stabilized plutonium alloys 12 p2118 N67-24303
Quantitative relationship between weldment defects and atmospheric contamination in inert gas shielding medium
[NASA-CR-83044] 13 p2325 N67-25768
Quantitative analysis and mapping of spatial perception 14 p2460 N67-26685
Chemical analytic methods using glucose and ferrosulfate for dosimetry of nuclear reactor radiation 14 p2485 N67-27729
Quantitation of deuterium oxide trace levels in water using infrared spectrophotometry
[SAM-TR-67-13] 17 p3015 N67-30642
Quantitative determination of combinability of any semantic class of forming roots and any affix morpheme with any affix morpheme 18 p3223 N67-32346
Concentration during coarsening study to derive quantitative information about particle-matrix interfacial free energy in well-behaved systems
[CALT-221-29] 19 p3472 N67-33527
Gas chromatographic determination of fluorine and oxygen in mixtures
[RFP-880] 20 p3593 N67-34461
Chemical method of astronaut urine volume measurement by tritium tracer dilution system
[NASA-CR-65603] 20 p3577 N67-34813
Wide line nuclear magnetic resonance method for determining oil content in single kernel samples of corn and sunflower seeds
[NIJS-R-500] 21 p3765 N67-35755
Quantitative analysis of high pressure consolidation of submicron tungsten
[UCRL-50172] 22 p4055 N67-37055
Computer code for identification and quantitative determination of isotopic components producing complex germanium/lithium/ spectrum
[UCID-15140] 22 p4112 N67-38028
Quantitative analysis of coronary artery atherosclerosis and coronary heart disease relationship
[UCRL-50270] 23 p4188 N67-38362
Low current density sputtering ion source and its application to isotopic and quantitative analysis of nanogram samples
[KAPL-P-3339] 23 p4369 N67-38575
Problem solving by quantitative and numerical analyses
[AD-657323] 24 p4475 N67-39461
Quantitative analysis of hypersonic shock flow interaction with magnetic field of wire oriented perpendicular to flow direction
[NASA-CR-89648] 24 p4459 N67-40062
QUANTIZER
Analog computer simulation of level quantization in digital servomechanisms 15 p3083 N67-28113
Experiments on charged quantized vortex rings in superfluid helium
[COO-1113-113] 23 p4303 N67-38527
QUANTUM ELECTRODYNAMICS
SA FIELD THEORY
Methods for applying infrared radiative corrections to measured results of electron and positron colliding beam experiments in quantum electrodynamics
[LNF-66/38] 01 p0121 N67-10683
Emission and absorption time correlation of exchange photons
[JINR-P-2791] 03 p0446 N67-13318
Consistency of current commutators in quantum electrodynamics
[AD-640153] 07 p1144 N67-17150
Current commutators in quantum electrodynamics
[AD-640152] 07 p1148 N67-17249
Quantum electronics, pulsed lasers, photoeffects, laser emission, and field theory - conference report
[FTD-HT-66-458] 07 p1097 N67-17916
Structural inconsistency of higher spin field quantum electrodynamics
[UCRL-17139] 09 p1490 N67-20178
Two-dimensional field theory model for interaction of massive fermions with massive vector bosons
[IC/66/113] 09 p1490 N67-20280
Electromagnetic form factors of proton - Photoproduction of electron-positron and

muon pairs as high momentum tests of quantum electrodynamics, and muon g-2 value
[SLAC-PUB-225] 10 p1707 N67-30906
Quantum electrodynamics of scattering of radiation from fully ionized, interacting - plasma oscillations, perturbation analysis, quantum field theory, and dielectric constant
[UCRL-50148] 10 p1739 N67-21499
Photoproduction, electron scattering, and quantum electrodynamics experiments on electron synchrotron
[NP-16354] 10 p1721 N67-31539
Noise sources describing quantum effects in laser oscillator
[TR-453] 11 p1893 N67-22537
Tomonaga field theory development and applications to quantum electrodynamics and elementary particles 11 p1939 N67-23954
Renormalization of quantized field for which no corresponding particle-like excitation exists
[UR-675-181] 14 p2567 N67-37654
Application of no-recoil approximations to functional preliminaries, soft photons in quantum electrodynamics, and soft mesons
[NYO-2262TA-147] 14 p2590 N67-37448
Monte Carlo study on limits of tests of quantum electrodynamics with electron-positron colliding beams 16 p2951 N67-30106
Research summaries of work in plasma physics, quantum electronics, radio science, solid state electronics, and systems theory
[SEL-67-090] 19 p3497 N67-32749
Elementary particle physics and broken symmetries in quantum electrodynamics
[REPT.-3] 20 p3695 N67-34540
Validity of quantum electrodynamics for wide angle electron pair production
[NP-16779] 21 p3900 N67-35833
Coherent soft photon processes free of infrared divergences and fictitious photon mass
[ICTP/67/15] 23 p4308 N67-38723
Statistical properties of electromagnetic radiations - Annotated bibliography
[AROD-4965.28-P] 24 p4481 N67-39460
Quantum effects in information transmission systems and analysis of wideband and narrow band communication systems
[NASA-TT-F-476] 24 p4405 N67-39685

QUANTUM GENERATOR
Evaluation of characteristics of monopulse quantum generator connected to interferometer in relation to population inversion, pumping power, and mirror reflectivity
[FTD-TT-65-2001] 05 p0739 N67-15000
Cosmos 97 satellite feasibility tests of ammonia gas laser frequency generator for determining satellite trajectory
[FTD-HT-66-725] 13 p2333 N67-25449
Quantum generators utilized in satellite communication
[NASA-CR-85262] 16 p2823 N67-30055

QUANTUM MECHANICS
SA FUNCTION SPACE
SA RELATIVITY THEORY
Problem of dynamical groups in quantum mechanics
[INR-687/VII/PH] 01 p0119 N67-10137
Quantum mechanical calculation of charge exchange probability during collisions
[NASA-TT-F-9707] 01 p0119 N67-10190
Significance of one-dimensional many-body problem to quantum mechanics - historical survey of existing one-dimensional and two-dimensional models
[AFOSR-66-1574] 01 p0114 N67-10316
Expression for transition temperature of pure Type II superconductor
[TR-3] 01 p0138 N67-10373
Schroedinger equation and Green function considered in iterative solutions for quantum mechanical bound states
[MRC-TSR-609] 03 p0416 N67-12535
Symmetry principles in physics - history, effectiveness in quantum mechanics, symmetries in elementary particle physics, and C, P, and T invariances
[BNL-956/T-397/] 04 p0584 N67-13935
Theory and analysis of relative motion and internal excitation in molecular collisions
[NASA-CR-80739] 04 p0585 N67-13663
Phase function method of solving quantum mechanics problems
[JINR-P-2758] 04 p0568 N67-14907
Quantum system with three or four identical spinless particles of specified mass interacting through pair forces 06 p0920 N67-15565
Talmi coefficients to determine transition to center of mass system of particles with different masses - quantum mechanics 06 p0935 N67-15656
Coordinate measurement effect on statistical ensemble of quantum mechanical system
[RM-5138-PR] 06 p0918 N67-16326
Scattering matrixes in nonrelativistic quantum mechanics and field theory 07 p1144 N67-17203
Chemical diffusion kinetics, low energy electron scattering, vacuum photolysis of hydrocarbons, deuteration, molecular beams, and quantum mechanics
[CALT-532-1] 07 p1148 N67-17419
Research involving gravitational radiation, general relativity, and quantum theory
[AFOSR-66-2699] 07 p1155 N67-17755
Quantum mechanical calculations to evaluate barrier penetration and resonance effects on phase shifts
[NASA-CR-69590] 07 p1157 N67-17855
Molecular orbital techniques used to find cubic field splitting 3a of certain ions in periodic group II-VI compounds of T sub d symmetry
[NASA-CR-81736] 07 p1180 N67-18100
Lie algebras with unbounded generators, domain properties, and nonrelativistic quantum mechanics
[IC/66/97] 06 p1299 N67-18485
Physical system of strongly interacting particle examined by enveloping algebra of dynamical group with assumption of quantum mechanical description
[NYO-2399-77] 06 p1332 N67-18581
Transition from relativistic mechanics to relativistic quantum dynamics through homogeneous canonical formalism - Schroedinger and Klein-Gordon equations
[NASA-TM-X-56005] 06 p1324 N67-18636
Transport coefficient kinetics for gas of loaded sphere
[NASA-CR-68702] 06 p1326 N67-18651
Transverse sum rules for analysis of inelastic electron scattering from light nuclei
[REPT.-485/PL] 06 p1335 N67-18719
Generalization of sum rules in Racah algebra
[EMM-66-83] 09 p1466 N67-19540
Entropy concepts in complex systems
[AFOSR-66-2863] 10 p1585 N67-20698
Microwave spectroscopy and quantum mechanical calculations for small atoms and molecules
[AD-644572] 10 p1570 N67-20709
Charge parity violation in decay of neutral kaon into pions
[BNL-10606] 10 p1712 N67-20989
Calculation of matrix elements in quantum mechanical problem of three bodies interacting according to Coulomb law
[JINR-P4-3011] 10 p1721 N67-21537
Algorithm to calculate eigenvalues and wave functions of two-center problem of quantum mechanics
[JINR-P2-3012] 10 p1667 N67-21591
Numerical calculations of quantum mechanics two-center problem
[JINR-P2-3009] 10 p1734 N67-21592
Showers in lead produced by gamma quanta
[JINR-P1-2990] 10 p1729 N67-21672
Momentum operators in quantum mechanics
[NASA-CR-83347] 10 p1669 N67-21837
Quantum statistical communication theory for optical communications
[AFOSR-67-0152] 11 p1821 N67-22695
Quantum mechanical methods used to study radiation induced defects in lithium hydride
[NYO-3657-1] 11 p1944 N67-23212
Theoretical and experimental studies in chemical physics - transport properties, molecular energy levels, excitons, phase studies mathematical models, quantum mechanics, and spectroscopy
[AFOSR-67-0041] 12 p2037 N67-23518
Collection of Soviet articles on quantum mechanics and mathematics
[FTD-MT-64-557] 12 p2128 N67-23701
Ionic crystal theory, and quantum mechanical approach to model for potassium chloride crystals 12 p2189 N67-23787
Derivation of quantum Vlasov equation and dispersion relation of relativistic electron gas
[MPI-PAE/PL 2/67] 12 p2180 N67-23987
Quantum statistical mechanics of anisotropic Heisenberg spin systems - ferromagnetic case
[PAECL/TP-8] 12 p2190 N67-23988
Mathematical models and techniques for solving problems on spectral theory and statistical mechanics
[BNL-998/T-422/] 12 p2130 N67-24231
Concept and behavior of Toeplitz matrix forms, and applications to classical function theory, prediction theory, quantum statistical mechanics, thermodynamics, and random theory 12 p2131 N67-24232
Hamiltonian, and contraction and projection operator techniques for describing macroscopic behavior in classical and quantum mechanical systems - statistical mechanics 12 p2155 N67-24240
Hydrodynamics equations based on quantum statistics derived for multicomponent system in ideal liquid approximation
[NASA-TT-F-10622] 12 p2187 N67-25032
Quantum field theory used in many-body problems - deceleration of relativistic particle in plasma and radiation of high temperature plasma
[FTD-MT-64-435] 13 p2383 N67-25367
Wiener integral application to thermodynamic limit problem in quantum statistical mechanics 13 p2367 N67-25569
Equations for describing nonstationary processes in two-photon laser
[NASA-TT-F-10629] 13 p2333 N67-25807
Quantum mechanics in magnetic resonance phenomena
[NP-16436] 13 p2377 N67-25925
Quantum mechanical calculations of second virial coefficients for hydrogen
[NASA-CR-83916] 13 p2379 N67-26072
Perturbation theory used in quantum mechanics to determine molecular energy and properties
[NASA-CR-68474] 13 p2361 N67-26275
Air Force supported studies of quantum organic chemistry, chemistry of organosulfur intermediates, phosphorus photochemistry, and reactivity of phosphorus compounds with ketones 14 p2479 N67-27165
Relativistic model in quantum field theory not based on perturbations
[JINR-P2-3113] 14 p2591 N67-27456
Quantum mechanical treatment of thermal neutron multiple scattering
[IN-1045] 14 p2592 N67-27591
Radiation physics studies of relativity and quantum mechanics
[ISS-67/1] 15 p2771 N67-28845
Two center problem of quantum mechanics
[JINR-P4-3175] 16 p2950 N67-29865
Ground state three-body correlation function in dilute boson gas with hard sphere interaction 17 p3127 N67-30391
Approximation of antisymmetric wave function describing state of n identical fermion system by single Slater determinant 17 p3127 N67-30396
Quantum mechanical expression expanded into power series for relaxation time and shear viscosity of gas consisting of loaded sphere molecules
[NASA-CR-85795] 17 p3135 N67-31127
Definition and criteria for open and closed electron shell states in quantum mechanics 17 p3138 N67-31425
Quantum mechanical calculations for gas phase bimolecular exchange reactions between hydrogen and bromine
[NASA-CR-85838] 17 p3020 N67-31451
Quantum mechanical treatment of neutral K-meson decay in vacuum
[TH/197] 17 p3139 N67-31457
Harmonic analysis used in calculations of lattice dynamics in quantum crystals 20 p3711 N67-34119
General space-momentum commutation relation for applications to quantum mechanics
[P-336] 20 p3669 N67-34302
Quantum statistical analysis of frequency modulated laser communication system
[AROD-5659.3-E] 21 p3866 N67-35027
Electron exchange effects in degenerate perturbation theory of intermolecular potentials
[NASA-CR-88169] 21 p3902 N67-35085
Generalized four-dimensional unitary relativistic model for quantum field theory

without ultraviolet divergence
[JINR-P2-3270] 21 p2998 N67-36627
Accurate and stable numerical solutions to Schroedinger equations
[NRL-6558] 22 p4000 N67-36828
Connection between SU/3/ and O/4/ symmetries
[AD-655653] 22 p4102 N67-36874
Research in biomedical electronics, information systems, physical, quantum, and plasma electronics, and space, atmospheric, and earth radio sciences
[AFOSR-67-1115] 22 p4017 N67-37447
Superconvergent sum rules derived for meson baryon scattering, and relationship to U/6,6/
[ICTP/67/17] 22 p4106 N67-37489
Semiclassical and quantum theoretical analyses for two particle interaction nucleon-transfer model
[YALE-1807-45] 22 p4111 N67-37965
Proton homonuclear diatomic molecule collisions
[PSI-67-10] 23 p4297 N67-38131
Semantics and interpretation of scientific terms relating to structures, phenomena, and rules of quantum mechanics
[TH/213] 23 p4298 N67-38200
One body Wigner-Moyal density for linear potential system of particles
[NYO-1480-75] 23 p4375 N67-38564
Quantum mechanical calculations for equations of state of real gas
[R67SD53] 23 p4340 N67-39300
Laser applications in communications systems
[FTD-MT-65-373] 24 p4481 N67-39395
Classical and quantal nonrelativistic scattering between simple atomic systems and approximate calculations on electron capture
[AFCRL-67-0351] 24 p4503 N67-40466
Quantum mechanical study of molecular transition probabilities, Einstein A coefficients and oscillator strengths of band systems of diatomic molecules
24 p4402 N67-40515
QUANTUM NUMBER
SA ANGULAR MOMENTUM
Mass, width, and quantum numbers of kaon resonance
[BNL-10462] 01 p0130 N67-10904
Quantum numbers in little groups of Poincare group
[JINR-E2-2962] 10 p1729 N67-21671
Quantum number correspondence principle in inelastic scattering
[NASA-CR-81436] 16 p2950 N67-29911
Accuracy of gamma quanta energy determination in xenon bubble chamber
[JINR-P1-3217] 22 p4112 N67-36021
QUANTUM THEORY
SA FIELD THEORY
Quantum field theory with indefinite metrics in Hilbert space
[REPT.-395] 01 p0124 N67-10668
Series for Green functions obtained of scalar and spinor fields in strong interaction of Yukawa type - quantum field theory
[JINR-P-2761] 04 p0583 N67-13378
Mathematical foundation for empirical science, with reference to quantum theory - calculus of experimental propositions
[KAPL-3147] 04 p0568 N67-14008
Formulation of current commutation relations in framework of general quantum field theory
[DESY-66/19] 04 p0591 N67-14071
Construction of S-matrix using perturbation theory free from ultraviolet divergences by one-component scalar quantized field
[JINR-P-2870] 10 p1702 N67-20822
History of quantum theory to 1950
[RAE-LIB-TRANS-1202] 11 p1941 N67-23062
Quantum theory of scalar field with nonstatic source
[JINR-P2-3040] 11 p1942 N67-23104
Quantum theory of noise in laser decay, and ionic cross relaxation in neodymium-glass oscillator
12 p2189 N67-23243
Semiclassical quantum formulation of mode mixing in nonlinear media using statistical density operator
[Q-61] 12 p2173 N67-24794
Quantum theory of measurement in relation to general theory of observation and control, and triality in structure of field theory
[AFCRL-66-646] 12 p2173 N67-24796
Quantum field theory applied to problem of radiation of high temperature plasma
13 p2383 N67-25389
Quantum theory of rigid body in terms of two-component spinor
[NUP-67-1] 13 p2374 N67-25595
Noncompact symmetry groups, unitary S-matrix, and quantum field theory
[IFA-FT-63] 13 p2376 N67-25906
Distribution characteristics and asymptotic behavior of expansion coefficients of quantum field operators
[DESY-66/36] 13 p2378 N67-25989
Intensity correlations in inelastic scattering experiments - theory of quantum beat and level crossing experiments using electron excitation
[UCRL-17286] 15 p2762 N67-28401
Quantum theory, transition probability, molecular orbitals, and perturbation theory - research projects
16 p2943 N67-29467
Quantum theory of internally modulated lasers
[SR-4] 16 p2904 N67-29672
Functional formulation of Bogoliubov axioms determining causal S matrix theory
[JINR-P5-3179] 17 p2124 N67-30235
Branching diagrams for SU/2/, SU/3/, U/2/, and U/3/
19 p2503 N67-32062
Quantum theory of thermogalvanomagnetic phenomena in metals and semiconductors
[NASA-TT-F-11156] 21 p3917 N67-36176
Schroedinger equation for Hamiltonian operator for quantum fields with nonlinear nonlocal scattering
[NP-16735] 21 p3906 N67-36513
Quantum theory of thermogalvanomagnetic phenomena in metals and semiconductors - heat flux and space density
[NASA-TT-F-11154] 21 p3924 N67-36530
Quantum theory of thermogalvanomagnetic phenomena in metals and semiconductors - heat density and electric currents
[NASA-TT-F-11155] 21 p3924 N67-36533
QUARK
Electromagnetic form factors of nucleons, and minimal interaction of quarks
[JINR-P-2757] 01 p0121 N67-10613
Quark model derivation of meson-baryon coupling constant relations
[IC/66/80] 01 p0121 N67-10614
Quark model and elastic baryon-baryon scattering
[IC/66/76] 01 p0122 N67-10615
Symmetry breaking quasi-particle method for baryons and quarks - bound state problem
[JINR-E-2714] 01 p0122 N67-10618
Calculation of quark magnetic moment in potential well, and ratio of axial and vector constants in dynamical quark model
[JINR-E-2827] 03 p0444 N67-13285
Treatment of three quark interactions based on nonrelativistic three-particle Hamiltonian
[INR-732/VII/PH] 04 p0584 N67-13646
Nonrelativistic three-quark model of baryonic states with nonlocal separable potential - group theory
[INR-733/VII/PH] 04 p0585 N67-13715
Magnetic moments and axial constants of configuration mixing in quark model
[JINR-P-2821] 04 p0587 N67-14006
Formation and spectrum of molecules formed with quarks
[JINR-P-2871] 08 p1331 N67-18521
Existence and quark properties of elementary particles of largest mass
[JINR-E2-2973] 10 p1701 N67-20786
Relativistic quark model as representation of current algebra
[CALT-68-103] 10 p1701 N67-20796
Hadron decay in quark model
[JINR-P2-2954] 10 p1718 N67-21462
Quark model of backward scattering
[JINR-E1-2941] 10 p1722 N67-21560
Parastatistics
[JINR-E2-3003] 10 p1729 N67-21668
Baryon antibaryon pair production in quark model
[TH/178] 11 p1938 N67-23938
Elementary particle structure, based on Sukarta quark-type model 11 p1939 N67-23956
Quark model for pionic two-body hadron decays which relates S-wave hyperon amplitudes and decays of kaon mesons into two pions
[TH/182] 11 p1941 N67-23967
Relations between total cross sections at high energy
11 p1947 N67-23467
Electromagnetic meson-baryon polarizability in Quark model
[JINR-P1-3073] 12 p2172 N67-24694
Model in which leptons are deeply bound states of combinations of quarks and quirks
[NASA-CR-83743] 12 p2176 N67-25971
Omega production and gyromagnetic ratio of quarks
[TH/186] 13 p2373 N67-25571
Quasi-independent quark model used to obtain baryon magnetic moments and relations for axial and vector constants
[JINR-P2-3115] 15 p2765 N67-28468
Nonleptonic hyperon decay in quark model
[TUEP-67-7] 15 p2771 N67-28642
Regge-quark model of hadron scattering
[AD-651698] 15 p2772 N67-28978
Nuclear research on sum rules, symmetry, and quark structure of currents
[JINR-P2-3135] 17 p3125 N67-30291
Nonrelativistic quark model and radiative transitions of mesonic and baryonic states
[TH/201] 17 p3131 N67-30606
Relation of elementary particles deformable sphere model to quark
[NUP-A-67-8] 20 p3694 N67-34820
Total and differential cross sections of three-particle quark forces in high energy inelastic hadron collisions
[JINR-P2-3359] 23 p4300 N67-38372
Quark model for elementary particles
[CERN-67-21] 24 p4366 N67-40830
QUARTZ
Thermoluminescent emission spectra of various materials by means of quartz-prism spectrography
[NRL-6468] 01 p0113 N67-10291
Cold-weld high reliability quartz crystal resonators
[REPT.-1] 01 p0032 N67-10331
Fabrication and performance testing of quartz filter crystal units for military applications
[QPR-7] 01 p0052 N67-10370
PEM low frequency /1 to 10 Mc/ quartz crystal filter manufacturing methods
[QPR-9] 02 p0244 N67-11896
Manufacture of upper sideband quartz crystal filters
[QPR-5] 02 p0244 N67-11923
Production engineering testing of quartz crystal filters
[QR-13] 02 p0245 N67-12189
Fluctuation phenomena near phase transitions in condensed systems
[TR-2] 05 p0667 N67-15080
Long wavelength neutron scattering by defect clusters in quartz 07 p1171 N67-16747
Small angle scattering of neutron damaged quartz crystals 07 p1171 N67-16748
Shock wave compression of quartz
[FTD-HT-66-211] 07 p1072 N67-17643
Production engineering measures for quartz crystal filters and quartz crystal units
[QPR-5] 09 p1424 N67-19668
Generation and detection of coherent elastic waves in quartz at extremely high frequency
[AD-642507] 10 p1751 N67-21233
Reagent for simultaneous dispersion staining microscopy and spot testing to distinguish halite from quartz in atmospheric dust samples
[ECOM-5065] 10 p1578 N67-21238
Production engineering measures for design, processing, and fabrication of precision crystal units
[QR-1] 10 p1594 N67-21433
Production engineering measure for increased reliability of quartz crystal unit
[QPR-3] 11 p1840 N67-23162
Production engineering measure for quartz crystal unit
[QPR-1] 11 p1841 N67-23262
X-ray diffraction and spectral analyses to determine aging and improve reliability of quartz resonators
[A-680-11] 12 p2066 N67-24799
Quartz ampoule for growing single crystals of gallium arsenide
[FTD-HT-66-675] 13 p2390 N67-25447
Calculation of Bechmanns number for harmonic overtones of thickness-twist vibrations of rotated-Y-cut quartz plates
[TR-4] 13 p2418 N67-26129
Apparatus for measuring and controlling thickness of thin film deposited on quartz in vacuum
[NASA-TT-F-10461] 16 p2891 N67-29001
Study of magnetic properties of ferruginous quartz of Kursk, USSR magnetic anomaly to determine rock origins and geological characteristics

[ACIC-TC-1161] 18 p3288 N67-32616
Sorption of silver 110 on fluorinated surfaces of L-36 glass and quartz 21 p3778 N67-35512
Adsorption of gold on germanium, silicon, and quartz from aqueous solutions 21 p3779 N67-35516
Aging effects in quartz resonators [ECOM-02251-4] 21 p3816 N67-35717
Analysis of optical inhomogeneity of quartz crystals by X-ray diffraction topography [NASA-TT-F-11197] 22 p4123 N67-36697
Microwave rectification using piezoelectric quartz crystal [AFCRL-67-0143] 22 p4123 N67-36716
Filter crystal parameter measurements with FM signals [ECOM-3845] 24 p4418 N67-39687
QUARTZ LIGHT
Quartz ablating wall annular flash lamp for optical pumping of neodymium and ruby laser crystals [AFAL-TR-67-32] 16 p2904 N67-29597
QUARTZ TRANSDUCER
Production engineering measures for very high frequency quartz crystal units [QR-8] 06 p0855 N67-16421
QUASAR
S QUASI-STELLAR RADIO SOURCE /QSO/
QUASI-STELLAR RADIO SOURCE /QSO/
SA RADIO GALAXY
Coherent radio emission mechanism in quasars and remains of supernovae [NASA-CR-80577] 03 p0466 N67-13236
Quasi-stellar objects analyzed stressing theory of local versus cosmological phenomenon [NASA-CR-80679] 04 p0612 N67-13678
Quasi-stellar radio source spectra and cosmology 05 p0761 N67-14855
Red shift and absorption line spectrum of quasi-stellar radio source PKS 0237-23 [NASA-CR-81343] 06 p0970 N67-16615
Models that treat events associated with quasi-stellar objects as plasma phenomena [NASA-CR-82503] 08 p1367 N67-19079
Radio telescope for recording radio frequency emission in universe from stars, quasars, and other sources [JPRS-40439] 14 p2814 N67-27384
Radio emission from quasi-stellar galaxies [REPT.-3] 16 p2969 N67-29553
Quasi-stellar radio source analysis by correlating space-time distribution of luminosities [MPI-PAE/ASTRO-2/67] 20 p3730 N67-35074
QUATERNARY ALLOY
Potentiometric titration of cerium and manganese following separation from plutonium and cobalt ternary and quaternary alloys [LA-3402] 03 p0411 N67-12861
QUATERNION
S DYADIC
QUENCHING
Point deffects in quenched gold-palladium alloys [AD-639664] 01 p0086 N67-10939
Electron attachment properties of high molecular weight gases for plasma quenching [NASA-CR-66366] 03 p0360 N67-13192
Hardenability of constructional steel 05 p0718 N67-14815
Effect of quenching on ductile-brittle bend transition temperature of chromium wire 06 p0892 N67-15834
Effect of quenching on ductile-brittle bend transition temperature of Cr-35Re wire 06 p0892 N67-15835
Feasibility of using quenched-in defect technique to study effect of rhenium on vacancy clustering in Mo-35Re 06 p0893 N67-15840
Vacancy clusters and mechanical properties as determined from quenching studies 07 p1098 N67-16787
Flow stress temperature dependence of secondary defects in quenched aluminum crystals 07 p1098 N67-16788
Response of quenched and tempered high strength steel to strain aging at varying temperatures [UCRL-16761] 07 p1103 N67-17896
Direct current quenching of alternating current electroluminescence in zinc sulfide 08 p1353 N67-19287
Alloy strengthening by fine oxide particle dispersion and splat cooling process for alloy development [NASA-CR-82972] 09 p1462 N67-19961
Promethium 147 detection with liquid scintillation counts using channel-ratio method for quenching effect correction [JUL-377-PC] 09 p1413 N67-20366
Drop smasher for rapidly quenching liquid metal into thin platelets [LA-3504] 10 p1769 N67-30701
Circuit for accurate pulsing of high temperature anneals of defects quenched in metals [COO-1456-3] 10 p1856 N67-31573
Oxygen and organic compound effects on quenching of toluene scintillators [EGG-1183-2111] 10 p1579 N67-31590
Electron microscope observations of quenched and aged gold and gold palladium alloys [AD-646455] 12 p2122 N67-24967
Additives, heat treatment, oil quenching, and tempering processes of pack carburizing stainless steels 14 p2553 N67-27023
Combined vacuum brazing and gas quenching used for production of leak-tight 6061 aluminum alloy containers [EATR-4085] 15 p2717 N67-28257
Rapid quench sampling probe for determining free stream composition from gaseous composition of captured sample in nonequilibrium air flows [AEDC-TR-67-65] 15 p2894 N67-28899
Water quenching of uranium extrusions for oxidation reduction 19 p3461 N67-32744
Quenching of resonance radiation of sodium by molecular nitrogen [P-304] 19 p3386 N67-32775
Thermomechanical treatment of steel - combined high temperature plastic deformation and quench hardening - austenite [AERE-TRANS-1071] 20 p3654 N67-34047
Statistical and thermodynamic equations for quench testing thermal stress resistance of spherical ceramic fuel elements for nuclear reactors [AAEC/E165] 20 p3679 N67-34219
Minimum spark ignition energy and flat plate ignition quenching distance for ignition of deflagration in gaseous mixtures [BM-RI-7069] 20 p3748 N67-34598
Fine oxide particle disperion strengthened alloy structures and mechanical properties and splat cooling process for alloy development [NASA-CR-87992] 21 p3887 N67-35349
QUEUE
Some inequalities for single server queues [ORC-66-19] 01 p0098 N67-11182
Multiphase queueing systems used as mathematical models for digital computer simulation 03 p0370 N67-12510
Estimates for probability characteristics of thinned recurrent flows and possible application 03 p0376 N67-12511
Mathematical expectancy and reliability determination of reserved systems with or without repair 03 p0376 N67-12512
Property equations for queues with servers, random arrivals, and exponential service times [TRG-1153/S/] 03 p0417 N67-13155
Queueing systems with limited channel resources, and Markov chain probability model for problem of homogeneous system with single action channels 05 p0726 N67-14547
Failure and repair of single line queueing system 05 p0727 N67-14549
Queue theory with Poisson input and general service times, treated as branching process [AD-640483] 08 p1301 N67-19004
Markov process analysis of Luchak queueing model [TR-16] 09 p1467 N67-19686
Queueing system with intervals of inaccessibility, and reliability problems 11 p1907 N67-22408
Closed networks of queues [ORC-67-1] 12 p2130 N67-24004
Optimal dynamic priorities determined in single queueing systems to minimize average losses 13 p2670 N67-24306
Bivariate Markov process for investigating Poisson arrivals at single channel queue [TR-17] 18 p3284 N67-31517
Cybernetics research including automatic and optimal control, information processing, operations research, reliability, random process, and queueing systems [JPRS-41786] 20 p3616 N67-35281
Servicing of two flows with relative priority in fully accessible queueing system with restricted number of places for waiting 20 p3671 N67-35291
Optimal absolute dynamic priorities in queueing systems 20 p3671 N67-35292
Stochastic models of operation of asynchronous digital computers 20 p3699 N67-35292
Queuing system control problem solution using Bellman equations and Markov process 21 p3821 N67-35514
Extremal problems in queueing theory and optimal control in computer simulation 23 p4272 N67-38068
QUINOLINE BLUE
S CYANINE DYE
QUINONE
High molecular compounds - double bond polymers containing pyridine rings, polymer film electric conductivity, and polymerization of quinoline, 4-chloropyridine, and aromatic compounds [FTD-TT-65-757] 02 p0224 N67-11273
Polymerization of quinoline complexed with zinc chloride 02 p0224 N67-11276
Effect of structural factors on thermostability of metal chelates of 8-quinolinols [AD-654735] 21 p3776 N67-35485
Phenylene diamines used as artificial electron donors, and quinones used as electron acceptors in photosynthesis reactions [AFCRL-67-0442] 23 p4200 N67-38236
Electron donor acceptor complexes - haloquinone complex absorption in polymer matrices [TR-5] 23 p4203 N67-38350

R

RABBIT
Effects of ruby laser radiation on ocular tissue of rabbits and estimation of human corneal threshold [FA-R-1815] 01 p0018 N67-10988
Functional disturbance of rabbit cardiovascular system subjected to penetrating radiation in orthostatic position [FTD-TT-65-53] 02 p0178 N67-11290
Neurosecretory activity change in hypothalamic region of rabbit exposed to space flight stress 02 p0180 N67-11417
Storage of oxygen by tissues under increased partial oxygen pressure - electroencephalographic activity of rabbit brain 02 p0184 N67-11443
Separate and combined action of vestibular and optokinetic stimuli in rabbits studied by electrodes implanted in cerebral cortexes 02 p0189 N67-11487
Morphological and histochemical changes in rabbit retinas following exposure to ionizing radiation 02 p0191 N67-11501
Helium replacement of nitrogen in chamber without regenerative oxygen supply increases lifespan of rabbits in simulated atmosphere 02 p0191 N67-11502
Adaptational reactions in rabbits formed by sympathetic-adrenal system in response to environmental changes 02 p0200 N67-11590
Vestibular apparatus of rabbits subjected to prolonged Coriolis accelerations 02 p0204 N67-11616
Electrocardiographic changes in rabbits under effect of high atmospheric pressure [NMS-TRANS-1125] 04 p0495 N67-14189
Biological reactions interfering with blood flow through pulmonary microcirculation 05 p0646 N67-14593
Labelled amino acid incorporation into protein by rabbit spleen and lymph node microsomes [NASA-TT-F-10354] 07 p1011 N67-17514
Histone effect on synthesis of antibodies and other proteins in rabbit spleen cell culture [NASA-TT-F-10727] 08 p1227 N67-18941
Rabbit intoxication by high pressure oxygen [NASA-TT-F-10758] 12 p2026 N67-24450
Acute X-irradiation effects on venous circulation in cerebral vessels of rabbits 16 p2829 N67-29351
Derivatives of trichloroethylphosphinic acids and effects on white mice and rabbits 16 p2847 N67-29594
Production of chorioretinal burns in

pigmented rabbits by thermal radiation
[SAM-TR-66-105] 17 p3062 N67-39443
Prior oxygen breathing effect on time of useful consciousness during hypoxia in rabbits
[RAE-LIB-TRANS-1235] 20 p3373 N67-34343
Diesel tractor afterburner for producing toxic exhaust gas for rabbit extermination
[ARL/ME-272] 20 p3717 N67-34668
Content of amino acids in different areas of rabbit brain under conditions of hyperoxia
[T-483-R] 21 p3766 N67-35503
Protein antibodies which react specifically with DNA damaged by ultraviolet radiation, produced in rabbits by immunization
[NASA-TT-F-11340] 24 p4386 N67-40184
Relationship of fever and heat regulation from dog and rabbit experimentation
[NASA-TT-F-11275] 24 p4387 N67-40552
Damaging radiation effects on vestibular apparatus in rabbit 24 p4388 N67-40572

RADA
S RANDOM ACCESS DISCRETE ADDRESS /RADA/ SYSTEM

RADAR
SA COHERENT RADAR
SA CONTINUOUS WAVE /CW/ RADAR
SA DOPPLER RADAR
SA LIDAR
SA MONOPULSE RADAR
SA MOVING TARGET INDICATOR /MTI/ RADAR
SA OPTICAL RADAR
SA PULSE RADAR
SA SATELLITE-BORNE RADAR
SA SEARCH RADAR
SA SIDE-LOOKING RADAR
SA SURVEILLANCE RADAR
SA TRACKING RADAR
SA WEATHER RADAR
Interpretations of local geology from radar imagery 04 p0536 N67-13481
Use of UHF radar techniques to detect and map subsurface discontinuities in lunar surfaces 04 p0611 N67-13502
Vegetation analysis with radar imagery 04 p0537 N67-13509
Interpretations of multiple polarization radar data concerning terrain phenomena 04 p0500 N67-13512
Interpretation of surface characteristics from both radar and radiometer sensors 04 p0550 N67-13523
Laboratory simulation of reentry plasma, and methods of alleviating reentry communications blackout phenomenon 04 p0595 N67-13687
Effects of plasma produced by high altitude nuclear explosion on radar wave propagation 04 p0510 N67-13689
Data processing, radio physics, radar, engineering and solid state research reports
[ESD-TR-66-401] 05 p0656 N67-15063
Tunable traveling wave maser for deep space communications and planetary radar
[JPL-TR-32-1072] 07 p1095 N67-17168
U.S.S.R. radar techniques for meteorology and weather forecasting programs
[JPRS-40459] 14 p2568 N67-37201
Phase stability of intermediate frequency carrier in radar site, and approximate solution to nonlinear differential equation of oscillators
[JPRS-40722] 14 p2489 N67-37203
Analytical sonar and radar signal processing techniques in reverberation and fluctuation noise
[RE-363] 14 p2495 N67-37724
Remote sensing of environment by radar and infrared imagery and optical sensors - bibliography
[REPT.-4864-12-P] 16 p2973 N67-39134
Conference proceedings on applying differential equation or state variable techniques to radar and communication system problems
[NASA-CR-76377] 16 p2962 N67-39901
Systems approach to signal design problems of radar and communication systems, using state variable differential equations and optimization techniques 16 p2963 N67-39906
Mathematical analysis of recurrent transient signal detectability at low signal to noise ratio in sonar and radar for underwater acoustics applications
[REPT.-5674-11-T] 19 p3400 N67-32903
Telecommunications, power subsystem, guidance and control, sequencing and timing, and radar for Voyager capsule bus system
[NASA-CR-83678] 24 p4536 N67-40647

RADAR AIRCRAFT DETECTOR
Radar video data processor for deriving aircraft position, identity, and altitude
[NS-67-1] 21 p3797 N67-35583

RADAR ALTIMETER
Opto-electronic aircraft altimeter concept based on properties of electron injection lasers and silicon photodiodes 03 p0399 N67-13079
Surveyor radar and Doppler velocity sensor frequency discriminator analysis for Gaussian signal and noise condition 06 p0633 N67-15749
Operational and performance objectives of space probe radar altimeter, and evaluation of altimeter generic types for space probe applications
[NASA-CR-66362] 07 p1120 N67-17835
Development plan for radar altimeter applicable to deep space probes
[NASA-CR-66363] 07 p1120 N67-17836
Reliability and quality assurance plan for design and development of radar altimeter applicable to deep space probes
[NASA-CR-66364] 07 p1120 N67-17837
Installation and operation of low range radar altimeters to be used by commercial aircraft as landing aids
[RD-67-13] 14 p2534 N67-36997
Solid state Mars probe radar altimeter
[NASA-CR-66383] 15 p2715 N67-38931
Development plan for design, development, and production of solid state Mars probe radar altimeter
[NASA-CR-66384] 15 p2715 N67-38932
Reliability and quality assurance plan for design, development, and production of solid state Mars probe radar altimeter
[NASA-CR-66385] 15 p2715 N67-38933
Principles and performance analysis of multiple radar altimeter installations
[FAA-RD-67-13] 17 p3026 N67-39825
Test program evaluation and modifications for Surveyor radar altimeter and Doppler velocity sensor system
[NASA-CR-66683] 22 p4002 N67-37922

RADAR ANTENNA
SA DUPLEXER
Fast switching microwave phase shifters for high power array radar antennas 04 p0514 N67-13946
Radar coordinate correction program of Haystack pointing system
[TN-1966-56] 05 p0675 N67-14962
Operation of Haystack display translator system
[ESD-TR-66-453] 06 p0642 N67-16197
Composite radome antenna system for aircraft, space vehicles, or guided missiles
[HDL-TR-1327] 06 p0643 N67-16949
Haystack pointing system for superposition of one-dimensional, and area covering scans
[ESD-TR-66-545] 06 p0644 N67-16497
Hartlebe airborne dual radar antenna system with improved gain-time-control action in interrogator transponder
[NRL-6491] 09 p1417 N67-19850
Radio meteorology and ultrahigh frequency wave propagation, atmospheric circulation, and radar antenna design
[FTD-HT-66-46] 15 p2741 N67-38385
Feasibility study for rerigging Haystack antenna
[SGH-668-1] 17 p3023 N67-39478
Cassegrain antenna gain measurement by pattern integration techniques
[NRL-MR-1784] 21 p3797 N67-35656

RADAR ASTRONOMY
International conference on scientific radio propagation - time synchronization by radio frequency standard
[NASA-CR-81349] 06 p0625 N67-16691
Radio propagation in atmosphere, and planetary radio and radar astronomical studies 06 p0640 N67-16904
Radio and radar studies of space plasma, lunar and planetary surfaces, communication theory, and spacecraft instrumentation
[NASA-CR-81360] 06 p0649 N67-16802
Lunar radar studies - unambiguous coherent radar mapping at 23 cm, high-resolution 2.8-cm reflectivity mapping, and progress in 8-mm radar system
[NASA-CR-83121] 10 p1761 N67-21175
Radio physics and astronomy research
[ESD-TR-66-446] 11 p1976 N67-23583
Radar and radio astronomy methods for satellite, ionospheric, auroral, and lunar surveillance 17 p3026 N67-39712
Bistatic radar imaging techniques for study of planetary surfaces
[NASA-CR-86284] 21 p3808 N67-36611
Two-layer atmosphere model of Venus
[NASA-CR-86990] 23 p4343 N67-38248
Digital computers, man-machine interactions, information processing, radio physics, radar astronomy, and solid state physics
[ESD-TR-67-337] 24 p4125 N67-40311

RADAR BEACON
Identification of position bracket decode change kit used with air traffic control radar beacon system
[RADC-TR-66-453] 01 p0052 N67-10516
Complementary slot-dipole antenna with hemispherical coverage for use in passive interferometer beacon acquisition system
[NASA-TM-X-53681] 08 p1348 N67-18749
Field appraisal of Stored Program Alpha-Numeric beacon system /SPAN/
[RD-66-53, APPEND.] 12 p2149 N67-24497
Gating devices for rejection of false air traffic control radar beacon system replies
[FAA-RD-67-1] 12 p2145 N67-24280

RADAR BEAM
Shaped-beam radiation pattern synthesis with approximately equal-percentage ripple
[FR-66-14-241] 01 p0038 N67-10447
Electronic scanning of aerial beams using phased array antennas 04 p0514 N67-13943
Noise and nonlinearities influencing guidance accuracy of beam-riding missile
[ARC-R+M-3417] 07 p1097 N67-17280
Spacecraft radio studies on multipacting between coaxial electrodes, S-band ranging, radar beam guidance, and rectangular cup radiator for high impact antenna 12 p2050 N67-22604
Radio antenna, transponder, multipacting in coaxial transmission, and radar beam geometry for spacecraft guidance and telecommunication 16 p2855 N67-29184
Spacecraft guidance radar beam performance, and performance margin and cost tradeoff for telecommunication system design 20 p3503 N67-34790

RADAR CLUTTER MAP
Spectrum, spatial uniformity, and frequency correlation defined for radar clutter and precipitation echoes
[TG-899] 16 p2334 N67-28523
Mathematical models for predicting radar clutter performance and application to radar design
[RE-TR-67-1] 19 p3468 N67-33205

RADAR CROSS SECTION
Real time computing system for reducing radar cross section data to median values
[NMC-TM-66-49] 07 p1067 N67-17749
Mapping of lunar surface and measurement of radar cross section of moon for selection of landing site
[NASA-CR-81718] 07 p1194 N67-18007
Equations and numerical solution for scattering of electromagnetic waves by finite wedge and for radar cross section backscatter
[SR-6] 16 p2334 N67-28054
Radar cross section decrease of Apollo command module due to reentry plasma sheath effects
[NASA-TM-X-53834] 16 p2976 N67-39150
Four-frequency radar system study of terrain clutter
[NRL-6487] 20 p3502 N67-34833
Electromagnetic scattering of regular polyhedra
[AFCRL-67-0307] 23 p4097 N67-36770

RADAR DATA
Pioneer project support - Doppler tracking data analysis, trajectory dispersions and initial tracking station acquisition, and gas leak effect on orbit 05 p0672 N67-14422
Analysis of sinusoidal periodicity in Pioneer VI Doppler tracking data 05 p0672 N67-14423
Surveyor III radar data evaluation for electrical properties of lunar surface 16 p2930 N67-32597
Investigation of cross-polarized radar on volcanic rocks
[NASA-CR-88001] 21 p3845 N67-36566
Multichannel, medium speed system for recording radar data directly on magnetic tape in digital computer format
[NRL-6884] 24 p4397 N67-39647

RADAR DETECTOR
Conference on radar techniques for detection, tracking, and navigation
[AGARDOGRAPH-100] 04 p0511 N67-13921
X-band radar for detection, measurement,

and identification of moving targets 04 p0513 N67-13931
Statistical radar theory - tracking, synthesis, discrimination, smoothing, processing, speed, direction finding, scanning, detection, and resolution
[FTD-MT-65-47] 11 p1830 N67-22636
Comparison of average and maximum likelihood ratio tests for detecting radar targets of unknown Doppler frequency
[RM-5196-PR] 13 p2376 N67-25413
Doppler radar system for detecting moving targets in clutter noise
[HDL-TR-1349] 19 p3399 N67-32861
Incoherent sequential detector performance evaluation for search radar system design application
[RM-5316-PR] 20 p3600 N67-34352
Airborne extremely high frequency radar system for cloud detection
[UCRL-50195] 20 p3672 N67-34415
Radar system to detect and analyze remote atmospheric turbulence
[NASA-CR-66454] 22 p4059 N67-37485

RADAR DIRECTION FINDER
Probability of locating submarine within stated distance on basis of two-dimensional sensors
[SP-2757/000/00] 17 p3058 N67-30256

RADAR DISPLAY
Vidicon scan converter and super bright radar display system
[FAA-RD-66-40] 07 p1121 N67-18079
Human factors evaluation of large screen radar display for use in air traffic control
[RD-66-105] 14 p2473 N67-27189
Source of ac interference on radar horizontal display
[RD-66-51] 17 p3027 N67-31179
Target enhancement on simulated radar/sonar type display using multi-phosphor cathode ray tube
[REPT.-9991021] 19 p3466 N67-32864

RADAR ECHO
SA VENUS RADAR REFLECTION
Measurements of S-band signal reflections from ground 04 p0512 N67-13928
Reflection coefficient of electromagnetic wave on nonuniform jet stream determined by invariant imbedding principle
[TR-38] 10 p1734 N67-20612
Radar meteorology fundamentals and progress related to weather prediction and air traffic control
[SRDS-RD-66-65] 10 p1673 N67-21436
Mass distribution of shower meteors determined from radar echo measurements
[NASA-CR-83328] 11 p1865 N67-22212
Quantitative determination of point and area precipitation by radar echo measurements
[ECOM-66033-F] 11 p1917 N67-23375
Utilization of radar echo pattern distribution in weather forecasting
[IERTM-NSSL-38] 11 p1837 N67-23470
Height determination of radar echoes from meteor trails
[SEL-67-091] 14 p2527 N67-27476
Pulse-to-pulse radar backscatter measurements of precipitation above and below bright band, orographic effects on rain, and radar view of lee-wave or rotor radar echo
[ECOM-03715-4] 15 p2582 N67-29065
Radar signal reflection from satellite for ionospheric scintillation analysis 16 p2856 N67-27302
Laser radar returns from lower troposphere compared with vertical ozone distributions
[PMR-TM-67-2] 16 p2963 N67-29542
Atmospheric turbulence and associated radar echo characteristics during F-100 aircraft penetration of Oklahoma thunderstorms 18 p3290 N67-31663
Meteor radar echoes and visual observations 18 p3331 N67-32052
Radar echo measurements of increased meteor counts during middle months of 1963 18 p3333 N67-32057
Comparison of X-band vertically pointing radar signal clear atmosphere returns with low level atmospheric convection to determine relationship between convection and radar angels
[ECOM-0025] 19 p3401 N67-32970
Radar echo distributions over United States
[AFCRL-67-0223] 23 p4000 N67-37561
Impedance loading for radar backscatter reduction of conducting loop
[AFCRL-67-0429] 24 p4404 N67-39584
Echo area of targets analyzed using geometrical theory of diffraction and creeping wave theory
[ESD-TR-67-519] 24 p4469 N67-40213

RADAR EQUIPMENT
Survey of principal developments in moving target indication theory and technique 04 p0512 N67-13930
Ranging measurements and equipment for Mariner Venus space probe 06 p0838 N67-15915
Hologram theory, and production of radar holograms
[NOLC-677] 07 p1035 N67-17698
Radar equipment for polarization studies of clouds and precipitation
[FTD-MT-65-303] 07 p1088 N67-17760
Mounting angle of VJ remote indicator effect on operator performance
[TR-166-1-41] 12 p2081 N67-23923
Integrated circuits for portable radar - gallium arsenide vapor etching with hydrochloric acid, epitaxial growth by germanium tetrachloride, and germanium etch and deposit in gallium arsenide
[TI-03-66-130] 12 p2064 N67-24018
Analysis of tracking, height, pressure, temperature, and wind measuring capabilities of FPS-16-RADAR, GMD-2 rawin system, and transponder radiosonde instrument
[NASA-CR-61168] 12 p2102 N67-24480
Data systems, radio physics, radar microwave component development, mechanical engineering, and solid state research
[ESD-TR-66-173] 17 p3025 N67-30710
Microwave component development 17 p3026 N67-30713
Engineering design studies for planetary radar box and advanced radar and radio telescope research facility 17 p3026 N67-30714
Environmental and hardware improvements for terminal radar control
[RD-66-23] 19 p3425 N67-32347
Surface topography of selectively deposited germanium for study of integrated circuits used in portable radar equipment
[TI-03-67-31] 20 p3611 N67-34645
Coaxial circulator combined with p-i-n active switching in broadband medium power radar duplexer
[NEL-1454] 21 p3814 N67-35488
USS Gyatt /DD-712 evaluation of Navy navigation satellite system /NAVSAT/ and very low frequency hyperbolic navigation system /Omega
[IR-67-61] 23 p4322 N67-38113
Randle Cliff radar digital range measuring instrument
[NRL-6572] 23 p4213 N67-38552

RADAR FILTER
Radar radio frequency filters for reduction of radar interference
[RD-66-50] 14 p2489 N67-27191

RADAR INSTRUMENTATION
Radar instrumentation on Surveyor I spacecraft and use in determining electrical properties of lunar surface 01 p0150 N67-19066
Shipboard radar instrumentation and transistor buoy radio transmitter for locating anchored buoy stations 11 p1880 N67-22373

RADAR MAP
Radar tracking in Air Traffic Control /ATC/ environment 04 p0515 N67-13951
Radar techniques applied to mapping of visible portion of lunar surface
[NASA-CR-80649] 04 p0514 N67-14256

RADAR MEASUREMENT
X-band radar for detection, measurement, and identification of moving targets 04 p0513 N67-13931
Techniques for estimating thunderstorm penetrations of tropopause
[AFCRL-66-556] 04 p0572 N67-14318
Cislunar electron density determined by radar group delay measurements
[NASA-CR-81279] 06 p0957 N67-15900
Radiosonde method compared to exponential vertical structure method of correcting radar elevation angle refraction errors caused by atmosphere
[ECOM-5071] 06 p0842 N67-16312
Site manual for radar intelligence system capable of precise missile trajectory measurements
[NASA-CR-81707] 07 p1042 N67-18045
Simultaneous observations of lower atmosphere by lidar and microwave radar
[AFCRL-67-0013] 12 p2140 N67-24771
Synoptic relationship between concurrent radar precipitation patterns and Tiros IX cloud photographs
[AD-649003] 16 p2925 N67-29971
Radar measurements of meteors, meteor stream and comet connection, and orbital distribution of meteors 18 p3331 N67-32056
Application of radar to measurement of surface precipitation
[REPT.-3] 19 p3485 N67-32661
Relationship between radar signal estimators and dynamic processes, and statistical method of meteorological radar
[FTD-MT-65-94] 21 p3882 N67-35416
K-band radar remote sensor agricultural study of surface soils in western Kansas
[NASA-CR-66268] 21 p3949 N67-36003
Bistatic radar measurement for determining permeability and dielectric constant of smooth spherical target material
[NASA-CR-66062] 21 p3901 N67-36421
Radar measurements of wake scattering from blunt and slender hypersonic velocity projectiles in ballistic range 22 p4000 N67-37526
Temperature and density measurement of F layer by Millstone Hill ionospheric radar
[ESD-TR-67-479] 24 p4448 N67-40377

RADAR NAVIGATION
Conference on radar techniques for detection, tracking, and navigation
[AGARDOGRAPH-100] 04 p0511 N67-13921
Airborne Doppler navigation techniques 04 p0572 N67-13924
Scanning beam guidance system for aircraft approach and landing 04 p0572 N67-13925
Pilot identification instruments and sea surface roughness effect for radar navigation of small ships
[FTD-MT-65-35] 10 p1673 N67-20531
Portable pilot instruments for identifying ships from shore stations, using ultrashort wave and harbor radar frequency ranges 10 p1673 N67-20532
Sea roughness effects on dispersion of radar for small ship navigation 10 p1674 N67-20533
Ground mapping airborne radar for helicopter navigation
[RD-66-74] 14 p2572 N67-27192
Analysis of costs and benefits of relaying airport surveillance radar data to general aviation aircraft via television equipment
[RD-67-54] 22 p3998 N67-37184

RADAR OBSERVATION
Doppler radar spectroscopy of Mars surface - elevation differences between bright and dark areas
[NASA-CR-80134] 02 p0300 N67-12271
Radar observations of Caribbean hurricanes
[ML-66299] 04 p0571 N67-13611
Joint clear sky radar and aerological observations in lower 1.5 km layer of atmosphere for establishing relationships of radar reflections to tropospheric meteorological processes
[TG-230-T496] 06 p0995 N67-15411
Statistical characteristics of meteor radio echo in epoch of 1963 Geminids 06 p0000 N67-15448
Inclination angle and right ascension of nodal crossing of near earth satellite orbital plane from radar observation data
[RISO-1-66] 06 p0842 N67-16260
Cross polarization technique for radar exploration of surface properties of rough targets such as moon
[NASA-CR-83401] 08 p1348 N67-18074
Optical radar sensing of meteorological variables in atmosphere and ionosphere
[NASA-CR-83868] 13 p2351 N67-25823
X-band radar observations and analyses of rainfall associated with trade winds at Hawaii 14 p2495 N67-27735
General relativity theory and effects on planetary orbits and interplanetary radar observations - Propagation of electromagnetic waves according to general relativity - Doppler effect
[ESD-TR-66-444] 16 p2966 N67-29180
Doppler radar vertical incidence observations of turbulence in thunderstorm
[AFCRL-67-0015] 16 p2925 N67-29605
Seasonal variation, interstellar meteors, and sporadic meteor activity observed with radar 18 p3330 N67-32048
Visible distribution of sporadic meteor radiants according to azimuth radar

observations 19 p3439 N67-32894
Radar measurements, and observed meteor phenomena in earth atmosphere 19 p3537 N67-33568
Soviet geophysical studies, and radar observations of meteors 19 p3537 N67-33652
Comparison of experimental lidar observations of snow, clouds, fog conditions, and air stratification changes, with meteorological and radar data 20 p3672 N67-34516
Radar, photographic, and meteorological methods for forecasting bird migration intensities to reduce aircraft hazards 21 p3758 N67-36069
Lunar thermal emission theory, and instrumentation for radar observations of moon
[NASA-CR-88478] 22 p4145 N67-37982
Radar observations of Hurricane Inez, October 1966
[ML-67291] 23 p4281 N67-39151
Radar observation of lunar surface properties
[NASA-CR-89585] 24 p4530 N67-40153
RADAR RANGE
Quality estimation for radar range calibrator backscattering cross section measurements
[ESD-TR-66-417] 01 p0038 N67-10512
Theoretical and experimental evaluation of radar boresight range on Merrit Island
[NASA-CR-80430] 03 p0981 N67-13025
Pulse train modulation, range measurement, and transmitter-receiver choice for radar systems 04 p0511 N67-13922
Methods for obtaining velocity and range information from continuous wave radars 04 p0513 N67-13939
Range gating in transportable moving target indication radar set for elimination of delay line loss effect
[ECOM-2750] 06 p0844 N67-16489
Idealized meteorological radar range equation
[P-5] 12 p3050 N67-23831
RADAR RECEIVER
S-band bistatic planetary radar receiver 05 p0673 N67-14452
Computer program for analysis or design of carrier tracking or clock tracking loops of Deep Space Instrumentation Facility receiver 06 p0839 N67-15917
S-band receiver exciter ranging subsystem Blocks IIB and IIIB 06 p0839 N67-15921
Application of transversal equalizer to radar receiver with emphasis on Doppler sensitivity
[TR-420] 07 p1036 N67-17237
Statistical determination of optimum devices for detecting radar signals in presence of Gaussian interference
[FTD-HT-66-256] 15 p3868 N67-28532
Direct and heterodyne detection laser receiving systems for optical radar and communications systems 16 p3902 N67-29366
Detection of modulated Gaussian signals and noise with application to fast digital simulation of continuous wave radar receivers under multiple target conditions
[WRE-TN-SAD-173] 17 p3925 N67-30679
Reducing effects of parametric amplifier on weather clutter of surveillance radar receivers
[RD-67-41] 23 p4212 N67-38306
RADAR REFLECTOR
Comparison of reflective properties of corner reflector clusters and Luneburg lens reflectors
[AFCRL-66-626] 09 p1494 N67-19548
RADAR RESOLUTION
Statistical methods for radio detection 04 p0512 N67-13926
Capabilities and limitations of radar for target resolution 04 p0513 N67-13927
Angular resolution beyond Rayleigh limit in statistical decision theoretic context
[P67-3] 14 p3494 N67-27463
Waveform design and resolution of multiple radar targets in clutter
[IDA/HQ-67-6117] 18 p3229 N67-32023
RADAR SCANNING
Radar sensor tests of effects of vegetation on detection and measurement of subsurface properties
[NASA-CR-70924] 02 p0234 N67-11854
Ocean wave generation by wind observed with airborne wave profiling radar 04 p0536 N67-12485
Radar scatterometry used as active remote sensing tool for determining surface properties 04 p0548 N67-13494
Techniques for electronic beam scanning applicable to phased array radars 04 p0514 N67-13943
Real time system to evaluate surveillance radar signals for automatic tracking of air targets 04 p0514 N67-13949
Optimization of scan pattern of search radar
[TG-844] 10 p1583 N67-20526
Radar location for complete scanning coverage of representative threat volume and application to target acquisition and terminal defense
[TR-422] 10 p1586 N67-21452
Overall false alarm probability for radar scanning over a wide interval of target ranges
[RAE-TR-66495] 17 p3927 N67-31168
Integrated electronic digital-to-analog converter for driving cathode ray tube display of electronic scanner radar set
[ECOM-2823] 20 p3690 N67-34134
Construction and operation of indicators used for scanning radar stations
[FTD-MT-65-254] 22 p3998 N67-37230
RADAR SCATTERING
Pulsed microwave radar backscattering used in model tests of clear air turbulence detection
[NASA-CR-79922] 02 p0234 N67-11852
Mathematical model for calculating radar scattering from cone-sphere
[ESD-TR-66-556] 13 p3283 N67-26345
Thin film and semiconductor microelectronics, radar scattering, radome thermal stress, boundary layer phenomena, guided missile parts, turbulent mixing, antenna systems, and plasma dynamics
[NASA-CR-87081] 19 p3557 N67-33361
Radar scattering by conducting hemispherical shell
[ESD-TR-67-331] 24 p4405 N67-39714
RADAR SIGNATURE
Radar signature of single birds in flight 19 p3405 N67-33357
RADAR SYSTEM
SA TRADEX RADAR SYSTEM
Simulation studies of interim common terminal radar facility to control air traffic in New York metropolitan area
[RD-66-42] 01 p0103 N67-10448
Development of sideways looking airborne radar 04 p0513 N67-13922
Basic considerations in designing airborne early warning system 04 p0513 N67-13923
Very high power and low noise Cassegrain feed system for planetary radar in Deep Space Instrumentation Facility /DSIF/ 04 p0513 N67-13941
High power continuous wave radar transmitter for use as planetary radar system and as proving ground for equipment NASA space program 04 p0514 N67-13944
Duplexer for radar system using dual-mode transmitter tube
[ECOM-2765] 06 p0840 N67-15979
Design, development, and acceptance testing of radar system for Apollo spacecraft
[NASA-CR-83517] 11 p1817 N67-22221
Systems analysis of fire control radar systems
[ORD-RM-2167-1] 11 p1823 N67-22643
Experimental radar installation using 4mm magnetron and 4mm reflex klystron 11 p1841 N67-23415
Amplitude measurement of noise-masked periodic waveforms
[NEL-1400] 14 p3488 N67-26879
Integrated circuit control and timing system of high altitude rocket radar 18 p3245 N67-31595
Synoptic measurements of field aligned data associated with radio aurora, shower meteor detection, and ionospheric electron content used for evaluating satellite radar system
[NRL-MEMO-1798] 19 p3490 N67-33877
Nonpulsed radar guidance and detection systems, and urban development
[JPRS-41156] 20 p3749 N67-34255
Negative, FM, and Doppler radar systems for detection and guidance 20 p3690 N67-34256
Improved radar system performance using random signal as transmitted waveform
[NASA-CR-86269] 21 p3790 N67-35915
Characteristic features, main merits and deficiencies of continuous-wave radar systems
[FTD-MT-65-521] 24 p4403 N67-39493
Integrated meteor radar system for wind and density measurements in upper atmosphere
[SEL-67-046] 24 p4449 N67-39949
Radar techniques developed for generating, radiating, receiving and processing of large bandwith signals
[NEL-1453] 24 p4496 N67-40019
Spacecraft trajectories, aerospace systems analysis, launch vehicle capabilities for Jupiter flyby, and radar system for detection asteroids
[NASA-CR-89536] 24 p4534 N67-40599
RADAR TARGET
Modulation and detection processes for analysis of uncooperative radar targets 04 p0513 N67-13924
Validity boundaries examined of radar waveform concepts for multiple target resolution
[IDA/HQ-66-5066] 06 p0843 N67-16449
Radar signature analysis of extended targets
[RM-5134-PR] 07 p1098 N67-17552
Radar waveforms for clutter suppression in target recognition
[TR-669/6320-66/-10] 09 p1419 N67-20864
Mathematical model for deriving ambiguity function used to study signals from radar and sonar targets
[NRL-6471] 11 p1819 N67-22539
Integral equation eigenfunction problem concerning ability of radar to distinguish between two targets
[RAE-TR-66348] 15 p3871 N67-28697
Pulse radar system at 70 Gc for target signature studies
[RRL-TN-1637] 16 p3862 N67-29582
Solution of geometrical problem of inverse diffraction theory
[ESD-TR-67-92] 17 p3925 N67-30673
Performance evaluation techniques for surveillance sensors applied to airborne radar
[USAEPG-FR-299] 19 p3400 N67-32682
Specular analysis of reflections from flat region and smooth surface tangent to plane along curve to obtain data on radar target geometry
[MTR-262] 22 p3996 N67-38972
Pareto probability density distribution used to find the statistical probability of detecting radar target signals of unknown frequency
[RM-5426-PR] 24 p4496 N67-39716
RADAR TRACKING
Stochastic differential games using missile and radar with controllable statistical parameters
[TR-501] 01 p0097 N67-11097
Theoretical influence of wake on leading edge of radar return from Sparta reentry vehicle
[WRE-TN-PAD-124] 02 p0235 N67-11677
Conference on radar techniques for detection, tracking, and navigation
[AGARDOGRAPH-100] 04 p0511 N67-13881
Alphanumeric display of primary and secondary radar tracking data in expanding air traffic control system capacity 04 p0515 N67-13958
Orbit determination of two spacecraft using earth based multiple link Doppler tracking data 05 p0671 N67-14421
Satellite trajectory data from TRADEX radar system
[ESD-TR-66-554] 05 p0676 N67-15114
Orbit determination and data processing programs for satellite radar range and tracking computer
[ESD-TR-66-346] 09 p1415 N67-19724
Geometric factors affecting trilateration solutions for position and velocity
[RISO-3-66] 09 p1416 N67-19832
Method for approximating unguided rocket drag coefficients from radar beam tracks
[ECOM-5004] 10 p1551 N67-21337
Radar tracking of moving targets
[FTD-MT-64-554] 12 p3051 N67-23063
Tracking system error model regression analysis results from Apollo-Saturn tests
[NASA-TM-X-53385] 12 p3063 N67-24633
Radar tracking of meteors at very high frequencies
[T-R-626] 17 p3157 N67-30199
Equations of motion of body under influence of earth gravity and atmospheric drag using radar polar coordinates
[ESD-TR-67-276] 19 p3398 N67-32708
Radar warning systems
[FTD-HT-66-164] 19 p3494 N67-33269

Boresight calculations and mutual coupling considerations in polarization control effort to reduce boresight error in radar tracking systems
[REPT.-2187-1] 21 p3796 N67-35982
Modern control theory application to solution of nonlinear parameter estimation problem associated with radar point target tracking
[TN-1967-3] 21 p3799 N67-35985
Mathematical model for computing noise variance matrices for radar tracking systems
[RO-S-67-2] 21 p3799 N67-35987
Video tape recorder evaluated for recording radar data to reconstruct air traffic situations
[RD-67-34] 21 p3848 N67-35922
Comparison of automatic tracking pilot balloon wind measuring radar system with double theodolite systems
[ECOM-5121] 21 p3850 N67-36034
Wind measurements with sounding balloon and radar technique 21 p3901 N67-36531
Dynamic evaluation of radar and photo-tracking systems
[ECOM-5128] 23 p3997 N67-37033
Computation of wind velocity data from high speed radar or photo trackers
[ECOM-5133] 24 p4484 N67-39453
RADAR TRANSMISSION
Pulse train modulation, range measurement, and transmitter-receiver choice for radar systems 04 p0511 N67-13922
Survey of electronics research with devices and techniques for pulsed radar transmitters 04 p0514 N67-13945
First order radome boresight error theory derived and applied to prediction and design problems
[REPT.-1804-6] 06 p0943 N67-16335
KU-band pulsed magnetron for radar transmitter
[ECOM-01317-F] 11 p1837 N67-22560
Ambiguity characteristics of high resolution radar waveforms
[RRE-TN-731] 17 p3028 N67-31469
Physical properties of carbon dioxide laser radar transmitter - Gain and saturation in dc excited amplifiers
[S-970] 20 p3653 N67-34421
On-a-pulse frequency measurement technique for carrier frequency of radar pulse
[DSL-R-170] 21 p3795 N67-35978
Two frequency investigation of lunar surface properties using phase modulated radar transmissions
[NASA-CR-80019] 21 p3930 N67-35460
Comparison of experimental radar data with theoretical analysis to determine Doppler effects due to lunar libration
[NASA-CR-80013] 21 p3796 N67-35462
RADIAL DISTRIBUTION
Radial voidage distribution measurement in two-phased flow by isokinetic sampling
[AEEW-M-650] 01 p0059 N67-10075
Expansions in spherical harmonics - integral form of radial dependence
[NASA-CR-79830] 01 p0114 N67-10426
Radial loss of E layer caused by negative mass instability during electron injection phase of Astron reactor
[UCID-15618] 06 p1332 N67-18530
Radial position survey for electron accelerator magnets distorting equilibrium orbits
[CEAL-1004] 13 p2303 N67-25939
Approximation method for calculating distribution of masses in galaxies according to data on radial velocities
[NASA-CR-85240] 16 p2971 N67-30015
Expansion theorems, radial time functions, and other solutions of radial heat equation
[NASA-CR-87809] 20 p3746 N67-34703
Sensitivity analysis of radial distribution model in terms of weapon yield, fission type, and difference in solidification temperature of carrier material
[USNRDL-TR-67-70] 24 p4498 N67-39448
RADIAL FLOW
Radial-inflow turbine performance over range of specific speeds
[NASA-TN-D-3742] 01 p0009 N67-10799
Effect of Reynolds number on performance of 4.59-inch tip diameter radial inflow turbine
[NASA-TN-D-3825] 07 p1066 N67-17626
Design and fabrication of high performance Brayton cycle radial flow gas generator
[NASA-CR-700] 09 p1395 N67-19894
Stress analyses of radial flow impeller wheels 15 p2639 N67-28804
Nonstationary radial motion of infinitely long cylindrical column of conducting gas considered in time-variable longitudinal magnetic field
[NASA-TT-F-11018] 16 p2952 N67-29010
Turbine diffuser and delivery system efficiency increased with involute volute and peripheral grid to ensure radial outflow
[TIL/T-5681] 20 p3623 N67-34245
Stress analyses on radial flow impellar wheels 20 p3740 N67-34973
Similarity solutions for viscous transonic spiral and radial flow
[REPT.-07148-2-T] 22 p4024 N67-37088
Efficiency evaluation of radial-axial turbine with low blade heights and large clearances 23 p4336 N67-39186
RADIANT ENERGY
Optimal temperature for growing single cell algae with varying artificial illumination intensities
[JPRS-38731] 02 p0213 N67-12009
Radiant energy effect on body resistance to ionizing radiation 03 p0338 N67-12396
Measurements of total illuminance of Strobonar flash units 04 p0547 N67-13486
Spectral absorption coefficients of carbon, nitrogen, and oxygen atoms tabulated for use in radiant energy transfer calculations
[NASA-CR-73049] 06 p0935 N67-15684
Radiative unit and critical energy in xenon
[JINR-P-2806] 07 p1150 N67-17491
Ignition of solid propellants by radiant energy
[RPE-TR-66/4] 08 p1504 N67-19972
Radiance measurements of infrared horizon of earth in three infrared spectral regions during Aerobee sounding rocket flights
[AFCRL-66-631] 10 p1620 N67-26599
Role of dispersion in processes of radiant energy exchange
[FTD-HT-66-303] 12 p2238 N67-24776
Laboratory measurement of meteor luminous efficiency
[NASA-CR-787] 13 p2397 N67-25851
Generalized formulation of radiant heat exchange in case of closed finite radiating systems consisting of gray bodies separated by diathermal medium 13 p2427 N67-26433
Approximation for radiant energy transfer in nongray, nonscattering gases, using mean absorption coefficient in gray-gas transport equation
[NASA-TN-D-4001] 15 p2806 N67-28737
Instrument errors in measurement of radiant energy for correlation with primary productivity in ocean
[SIO-REF.-67-11] 17 p3054 N67-30647
Use of nuclear photoactivation by X-rays as analysis method
[EUR-3296.F] 17 p3131 N67-30749
Metalloceramic thermoemissive converters for conversion of solar radiant energy 21 p3760 N67-35472
Phenomena affecting voltage and collection efficiency of p-i-n germanium thermophotovoltaic converter diodes
[ECOM-01978-2] 22 p3963 N67-36909
Surface roughness and surface oxidation affecting radiant properties of platinum and stainless steel
[REPT.-6-77-67-27] 23 p4073 N67-37706
Critical analysis of arc image ignition and radiant energy effects on solid propellants
[AFOSR-67-1534] 23 p4234 N67-38150
RADIANT HEATING
Approximation method for calculating temperature field in solids heated by convective and radiant fluxes
[TG-236-T498] 06 p0979 N67-15348
Temperature field of thin wall satellite surfaces in radiant heat transfer 10 p1767 N67-20893
Computer program written in Fortran IV for computing orbital variation in incident and reflected solar and planetary emission radiant heat flux on plane surface elements
[NASA-CR-65583] 16 p2988 N67-30165
Surface temperature measurement technique application to thermal insulators under transient, radiant heat inputs - literature survey
[RAE-TN-STRUCT-340] 18 p3353 N67-31523
Ground temperature data for predicting temperatures of survival shelters heated by earth radiation
[AAL-TR-67-2] 18 p3206 N67-32261
Space vehicle radiant heat transfer applications of graphic estimation method for absorptance to emittance ratio
[NASA-CR-87322] 19 p3584 N67-33489
Radiant heat fluxes for 15-micron carbon dioxide band in mesosphere determined by single line approximation method
[P-3596] 20 p3627 N67-34119
Ceramic composite thermal insulations for launch vehicle radiant heating environments
[NASA-TM-X-53646] 21 p3875 N67-35981
Radiant heat effects on glass fiber reinforced plastic laminated aircraft structures
[NAEC-ASL-1112] 22 p4078 N67-37481
Test equipment and instrumentation, and data acquisition for radiant heat facility
[SC-RR-67-438] 24 p4425 N67-39081
RADIATION
SA ACOUSTIC RADIATION
SA ALPHA RADIATION
SA ATMOSPHERIC RADIATION
SA BACKGROUND RADIATION
SA BETA RADIATION
SA BLACK BODY RADIATION
SA CERENKOV RADIATION
SA COHERENT RADIATION
SA CONTINUUM RADIATION
SA CORPUSCULAR RADIATION
SA COSMIC RADIATION
SA CYCLOTRON RADIATION
SA DIFFUSE RADIATION
SA ELECTROMAGNETIC RADIATION
SA ELECTRON RADIATION
SA EXTRAGALACTIC RADIATION
SA GALACTIC RADIATION
SA GAMMA RADIATION
SA GRAVITATIONAL RADIATION
SA INCIDENT RAY
SA INFRARED RADIATION
SA IONIZING RADIATION
SA IRRADIATION
SA LONG WAVE RADIATION
SA LUNAR RADIATION
SA MICROWAVE RADIATION
SA MONOCHROMATIC RADIATION
SA NONEQUILIBRIUM RADIATION
SA NUCLEAR RADIATION
SA PHOTON
SA PLANETARY RADIATION
SA PLASMA RADIATION
SA POLARIZED RADIATION
SA PULSED RADIATION
SA RADIO FREQUENCY RADIATION
SA REFLECTED RAY
SA REFRACTED RAY
SA SHORT WAVE RADIATION
SA SKY RADIATION
SA SOLAR RADIATION
SA SPACE RADIATION
SA STELLAR RADIATION
SA STRATOSPHERE RADIATION
SA SYNCHROTRON RADIATION
SA TERRESTRIAL RADIATION
SA THERMAL RADIATION
SA TRAPPED RADIATION
SA TROPOSPHERIC RADIATION
SA ULTRASONIC RADIATION
SA ULTRAVIOLET RADIATION
SA VISIBLE RADIATION
SA VOLTERRA EQUATION
SA WAVE RADIATION
SA X-RAY
Location of radiation pattern disturbing structures in vicinity of satellite antenna
[NASA-CR-79729] 03 p0367 N67-12981
Precise airborne radiation thermometry for sea surface observations 04 p0538 N67-13328
Uranium atom emission from uranium dioxide and uranium metal surfaces for radiation damage by fission fragments 04 p0560 N67-13501
Research summaries and bibliography on radiation phenomena in ionic crystals
[FTD-TT-65-1734] 05 p0783 N67-15976
Radiation hardening and embrittlement in metals and alloys
[ORNL-4020] 07 p1100 N67-17469
Radiation and propagation problems related to antennas and probes in magnetoionic plasma
[NASA-CR-71378] 07 p1039 N67-17779
Radiation physics
[188-66/27] 08 p1344 N67-19185
Nuclear and atomic physics, thermodynamic properties of matter, and radiation and plasma physics
[UCRL-14744] 11 p1934 N67-22139
Radiation and plasma physics 11 p1938 N67-22139
University research in nuclear physics

lasers, thermodynamics, hydrodynamics, radiation physics, and programming
[UCRL-50001-66-1] 12 p2333 N67-25400
Material entry into plasma and excitation of spectra under effect of laser radiation 12 p2367 N67-25438
Electric field distribution in gas discharge meters at moment of radiation recording 15 p3710 N67-28103
Ecology of small mammals, and radiation tests with iodine 131 under natural environments
[NYO-3579-14] 15 p3648 N67-28206
Computer program for plotting antenna radiation amplitude and phase patterns 15 p3669 N67-28734
Computer programs for numerically evaluating scalar far field radiation pattern integral, and obtaining secondary radiation pattern of large paraboloidal antenna 15 p3670 N67-28734
Computing zenith antenna temperature from antenna radiation patterns and antenna environment brightness temperatures 15 p3670 N67-28735
Interaction of matter and radiation, and radiation stability and damage 16 p3846 N67-29485
Ionization of water by mixed radiation from nuclear reactor 17 p3104 N67-29176
Spatial and temporal distribution of radiation balance components in Soviet Arctic 20 p3674 N67-34854
Polar ocean energy budget analysis of possible radiation changes 20 p3674 N67-34855
High pressure, radiation, high vacuum, and high temperature chemistry of space environment
[AFOSR-67-1494] 21 p3792 N67-36497

RADIATION ABSORPTION
Radiation attenuation effects upon relativistic particle motion in uniform magnetic field
[NASA-CR-80179] 02 p0291 N67-12203
Computer analysis of thermal characteristics of liquid hydrogen storage vessel on moon - thermal conductivity of insulation, solar absorptance and emittance ratio, and vessel characteristics
[NASA-TN-D-3785] 05 p0774 N67-14937
Molar extinction coefficients of hydrogen iodide in Schumann region to determine radiation absorption characteristics 06 p0818 N67-15741
Particle counter for absolute measurements of beta activity, and measurements of radiation absorption in aluminum foil 06 p0937 N67-16323
Liquid density meter based on gamma radiation from cesium 137 06 p0880 N67-16231
F-center formation by fundamental absorption of potassium iodide
[REPT.-545] 09 p1501 N67-19767
Particle emission measurements on metal surface absorption of radiation pulses from Q-switched ruby laser
[AD-645473] 11 p1894 N67-22727
Martian surface determined by solar radiation absorption by carbon dioxide, and balloon sounding of earth radiance 16 p2966 N67-29156
Viscometric dosimeter to determine total energy absorbed in mixed radiation field around accelerators
[CERN-67-14] 20 p3645 N67-35275
Absorption and refraction changes in radiation from Jupiter and radio stars
[LTIRF-263/IP] 21 p3928 N67-35701
Absorption corrections for absolute beta radiation measurements with end window counters 23 p4311 N67-38976
Monoenergetic and beta spectrum electrons absorption in aluminum 23 p4311 N67-38977

RADIATION BELT
SA ARTIFICIAL RADIATION BELT
SA INNER RADIATION BELT
SA OUTER RADIATION BELT
SA PROTON BELT
SA TRAPPED RADIATION
SA VAN ALLEN BELT
Sensitive particle detectors aboard Mariner IV indicate absence of Martian radiation belts 02 p0461 N67-12750
Emission intensity in radiation belts of earth with Cosmos XVII artificial earth satellite 05 p0756 N67-14870
Coulomb relaxation process of fast particle distribution in earth radiation belts
[NASA-CR-81275] 08 p0958 N67-16507
Behavior of particles of radiation belts during magnetic storms
[NASA-CR-81271] 08 p0958 N67-16508
Unstable electromagnetic drift wave having quasi-linear behavior and related to auroral bombardment by particles from radiation belt
[IC/66/102] 11 p1985 N67-23294
Behavior of radiation belts and anomalous absorption of cosmic radio noise in zone of polar aurora during magnetic storms
[FTD-HT-66-384] 12 p2301 N67-23834
Calculations regarding trapping, retention, transfer, and acceleration of charged particles in earth radiation belt
[NASA-CR-84092] 13 p2316 N67-26414
Research summaries of work in plasma physics, quantum electronics, radio science, solid state electronics, and systems theory
[SEL-67-030] 19 p3497 N67-32749
Omnidirectional electron intensities in the outer belt at earths magnetic equator
[NASA-CR-82359] 21 p3923 N67-36658
Radiation damage to orbiting solar cells and transistors - degradation of radiation
[TG-896] 23 p4189 N67-38181

RADIATION CONTROL
Radiological aspects of Hanford production reactor deactivation
[DUN-SA-14] 10 p1689 N67-20977
Diode-iris controlled waveguide slot radiators
[NASA-CR-763] 12 p2067 N67-23718
Radiological control of refueling of pressurized water reactor shippingport atomic power station with core 2 and modifications on other reactor systems to accommodate new core characteristics
[WAPD-298] 19 p3496 N67-33982

RADIATION COOLING
Selection of diagram for spacecraft cooling system
[FTD-MT-66-30] 07 p1020 N67-17235
Superheater fuel thermocouple calibration tests and radiation cooling tests
[ACNP-66570] 13 p2359 N67-25523
Day-night high resolution infrared radiometer using two-stage radiant cooling
[NASA-CR-87907] 20 p3641 N67-34871

RADIATION COUNTER
SA GEIGER COUNTER
SA IONIZATION COUNTER
SA SCINTILLATION COUNTER
Detector for bursts of neutrons by measurement of silver beta decay
[LA-3498-MS] 01 p0130 N67-10530
Solid state counters for immediate determination of actinide and lanthanide elution peak positions during separation of rare earth and transplutonium elements
[UCRL-16869] 01 p0228 N67-10534
Bevatron operation during bubble chamber and counter experiments
[UCRL-16741] 01 p0186 N67-10535
Operational performance of gas discharge counters used on Luna-10 for measuring soft corpuscular radiation in earth magnetospheric tail
[JPRS-38795] 02 p0360 N67-12007
Neutron-proton differential cross section measurements, using shielded counter to record recoil angle distribution 08 p1342 N67-18870
Solid state plug in circuits as instrument building blocks
[DP-1079] 14 p2590 N67-26549
Anticoincidence shield multidimensional gamma ray spectrometers for low level counting
[BNWL-SA-927] 15 p2709 N67-27912
Low energy beta counts of labeled compounds with liquid scintillators
[CEA-R-3967] 15 p2647 N67-27918
Circuitry, construction, and performance of portable wide range radiac instrument using solid state electrometer for measuring gamma radiation dose rates
[ECOM-2905] 17 p3092 N67-30769
Linear-log radiation instrument to monitor gamma dose rates
[ORNL-TM-1764] 17 p3070 N67-31321
Radiation dosimeter with time readout for space experiments and personnel protection
[RE-293] 22 p4047 N67-37426
End losses in gas filled radiation counters 23 p4312 N67-38978
Optimal size of scintillator for single crystal fast neutron spectrometer 23 p4254 N67-38982

RADIATION DETECTOR
SA PARTICLE DETECTOR
SA SILICON RADIATION DETECTOR
New method of using sodium iodide thallium crystals in detecting high energy gamma rays
[IEA-168] 01 p0124 N67-10524
Gamma rays measured from nuclear reactions on vibrational nuclei
[INSJ-98] 01 p0130 N67-10902
Solid state electrometer for portable radiation detector using metal oxide semiconductor field effect transistor in high impedance input stage
[ECOM-2736] 02 p0256 N67-11286
Design, fabrication, and field testing of basic electronic package for portable multipurpose radiation detector
[DP-998] 02 p0259 N67-11711
Monte Carlo calculation for simulation of scintillation detector response to underwater gamma rays
[NOLTR-66-140] 02 p0290 N67-11869
Evaluation of crystals, thin films, and ceramic materials for pyroelectric radiation detectors
[NASA-CR-629] 02 p0296 N67-11949
Titanium oxide thin film capacitor with large temperature dependence for detecting infrared radiation 02 p0294 N67-12105
Energy level of gold 199 determined by lithium drifted germanium and surface barrier detector 02 p0427 N67-12502
Holmium 164 decay, and radiation detector technique 02 p0428 N67-12507
Generation-recombination noise and its influence on energy resolution of diffused silicon p-n junction radiation detectors 02 p0432 N67-12512
Two-parameter analyzing facility for coincidence experiments in nuclear reactions 02 p0434 N67-12515
Advanced alpha beta gamma hand and shoe contamination monitor
[BNWL-250] 03 p0397 N67-12869
Development, properties, and performance of lithium-drifted germanium detectors in high resolution studies of gamma ray spectra
[AECL-2697] 03 p0397 N67-12898
Research on large volume lithium drifted silicon and germanium radiation detectors
[NASA-CR-80671] 03 p0454 N67-12900
Characteristics and circuit diagrams of new electronics instruments for radiation detectors and control systems
[EUR-3063.E] 03 p0399 N67-12151
Detectors and techniques for obtaining energy spectra of high energy accelerator radiation
[UCRL-16768] 04 p0553 N67-14023
Charge sensitive preamplifier for semiconducting nuclear radiation detector stability 06 p0854 N67-16290
Coupled scintillation counters as whole-body radiation detectors 06 p0863 N67-16291
Digitized spark chamber for charged particle and gamma radiation detection during balloon and satellite sounding
[NASA-TM-X-55643] 06 p0863 N67-16546
Fission product determination by gamma spectroscopy 07 p1127 N67-17148
Light sources and detectors for vacuum ultraviolet radiation between 1000 and 100 angstroms 07 p1085 N67-17795
Research summaries in nuclear physics, solid state studies, solid state radiation detector development, and computation 08 p1238 N67-18346
Algol computer program for detection efficiencies around cylindrical scintillation crystal
[SFL-A5] 08 p1281 N67-18611
OGO-E cosmic radiation detectors
[NASA-TM-X-55692] 08 p1236 N67-18781
Totally absorbing gamma ray detector measurements of neutron capture cross sections on tungsten isotopes 08 p1315 N67-18785
Improved gamma ray detector of Micron-Rae type
[UCRL-50126] 08 p1262 N67-19039
Methods for studying low energy fission of heavy nuclei
[AERE-TRANS-1057] 08 p1241 N67-19211
Neutron spectrometry, isotropically responding fast neutron dosimetry, and instrument-response unfolding methods for radiation detection 08 p1264 N67-19227
Detectors of ionizing particles and radiation 09 p1444 N67-19421
Radiation monitoring, warning, and communication systems 09 p1444 N67-19422
Electron-neutrino interaction measured by neutron scattering by rare gases, computer

method, gamma ray coincidence method using germanium detector, and lifetime measurements by Doppler shift
[ANL-7198] 09 p1487 N67-19474
Coincidence technique using high resolution lithium drifted germanium detectors to measure complex gamma ray spectra following capture by slow neutrons 09 p1486 N67-19477
Lifetime measurements by Doppler shift method using lithium drifted germanium detectors 09 p1488 N67-19478
Nucleonic experiment fundamentals, nuclear detector types, synchronous detector applications, and experimental data reduction
[FTD-TT-65-552] 10 p1697 N67-20663
Physical properties and personnel dosimetry application of radiation detectors
[SZS-6/1966/] 10 p1563 N67-20747
Emission telescope for studying light intensity versus time of scintillators and Cerenkov radiators in subnanosecond time domain
[EGG-1183-2122] 10 p1701 N67-20789
Equipment for processing information from gamma detectors
[CEA-R-3034] 10 p1707 N67-20838
Surface contouring applied to semiconductor radiation detector
[NYO-3246-6] 10 p1749 N67-20984
Surface contouring as applied to semiconductor radiation detectors
[NYO-3246-7] 10 p1749 N67-20985
Characteristics and detection capabilities of contoured detector-tunnel diode circuits
[NYO-3246-8] 10 p1749 N67-20986
Thickness gauge with radiation detector for measuring hot-rolled products 10 p1632 N67-21271
U-junction lithium drifted germanium detectors
[UCRL-14926] 10 p1752 N67-21496
Temperature dependence of lithium-drifted germanium detector response to gamma radiation
[NASA-CR-83250] 10 p1753 N67-21803
Fission fragment damage in glass and mica studied with uranium foil detector systems for application to neutron flux measurement
[AECL-2837] 11 p1936 N67-22478
Sensitive low noise preamplifiers for semiconductor radiation detectors
[INR-682/I-A/PL] 11 p1839 N67-22958
Application of solid state amplifying radiation detectors in health physics
[AECL-2837] 11 p1885 N67-22969
Radiation monitoring results of small nuclear emulsion packs worn by astronauts on Gemini VII
[NASA-CR-83543] 11 p1795 N67-23370
Masers, radiation detectors, ferroelectric and antiferroelectric compounds, polymers, space biology and medicine, radiobiology and oceanography 11 p1894 N67-23449
Nuclear spectroscopy with semiconductor detector coincidence system
[IS-1478] 12 p2099 N67-23700
Relative detection sensitivities of chemical elements in nuclear activation with isotopic neutron-sources
[ANL-7242] 13 p2371 N67-25423
Optical and radio equipment for detecting pulses from cosmic ray showers
[UCD-CR12] 13 p2397 N67-25441
Detection of neutron capture gamma rays produced in sea water 13 p2371 N67-25443
Lithium-drifted silicon detector used to measure beta spectra 13 p2319 N67-25465
Bibliography on infrared detectors, radiation, applications, systems, scanners, and photography
[AECL-PAK/LIB-13] 13 p2367 N67-25562
Charge sensitive amplifier design using N-channel field effect transistor input for use with solid state radiation detectors
[NASA-CR-83921] 13 p2394 N67-25897
Secondary emission detector for electron beams of high intensity and energy
[LNF-66/66] 13 p2322 N67-26122
Planar retarding-potential analyzers examining photoelectron emission from solid tungsten, nickel, and semitransparent aluminum cathodes exposed to extreme ultraviolet radiation
[AFCRL-66-718] 14 p2601 N67-26658
Scintillation-type detector for measuring low energy and low activity beta radiation
[NP-16534] 13 p2711 N67-26982
Neutron radiation detector and air contamination monitoring systems
[ORNL-TM-1669] 15 p2687 N67-28341
Avalanche type semiconductor radiation detectors obtained through surface contouring
[NYO-3246-9] 15 p2684 N67-28484
Design and calibration with strontium 90 and yttrium sources of high beta dose rate detector
[AERE-M-1830] 15 p2714 N67-28854
Detection sensitivity for monitoring krypton 85
[NYO-841-5] 16 p2893 N67-29265
Modified stethoscope acceptability and effectiveness for use in areas of high noise levels on aircraft carrier
[AFCRL-66-538] 16 p2896 N67-29638
Epithermal neutron spectra in materials testing reactor determined by resonance detectors
[WAPD-TM-642] 16 p2931 N67-29723
Semiconductor detectors for gamma transient detection
[UCRL-12272] 16 p2897 N67-29863
Noise performance and circuitry of charge sensitive field effect transistor preamplifier used in high resolution solid state radiation detectors
[AFWL-TR-67-39] 17 p3035 N67-30462
Soviet open literature on optical, radiation, electrical and electronic, and mechanical sensors and devices - bibliography
[ATD-67-1] 17 p3069 N67-31231
Radiation detectors for recording nuclear reactor shielding, and measuring gamma ray and neutron spectra 17 p3116 N67-31273
High altitude balloon magnetic-core digitized spark chamber detector system for determining point sources of cosmic gamma radiation
[NASA-TM-X-55831] 17 p3164 N67-31421
Lithium-drift germanium radiation detectors
[GSP/PH/66-13] 18 p3269 N67-31503
Effects of spontaneous fluctuations in application of semiconductor diodes as detectors of nuclear radiation
[DISS-3845] 18 p3312 N67-32469
Gamma radiation detection system using coincidence anticoincidence spectrometer
[AFOSR-67-1215] 19 p3450 N67-32702
Applications and optimization of lithium-drifted germanium detector system as spectrometer for gamma and other radiation detection
[UCRL-50156] 19 p3454 N67-33417
Scintillation detector for gamma ray spectrometry
[ISO-495] 19 p3393 N67-33452
Full energy peak efficiencies of three gamma radiation detectors used in sweep-capsule fission product release experiments
[AAEC/TM384] 20 p3639 N67-34298
Computer program for activation analysis with germanium lithium drifted detectors
[EUR-3469.E] 20 p3594 N67-34639
FET preamplifier developed for gamma ray spectrometry, and radiation detector data
[IDO-17222] 20 p3700 N67-34930
Fabrication of germanium detectors for gamma spectrometry - electric contacts prepared for lithium drifted germanium detectors
[ORNL-TR-1651] 21 p3850 N67-36051
Fabrication and applications of high resolution lithium drifted gamma ray detectors
[USNRDL-TR-67-55] 22 p4045 N67-37055
Sensitivity of photoelectric diode detector for soft fluorescent X-rays
[UCID-15164] 22 p4046 N67-37225
Absolute measurement of standard thermal neutron flux using gold detector activation
[CEA-R-3168] 22 p4110 N67-37937
Accuracy of very high energy radiation monitoring of particle accelerators
[UCRL-17412] 23 p4301 N67-38430
Properties of germanium-lithium detectors as gamma ray spectrometers measured over 5 deg to 230 deg K temperature range
[AECL-2762] 23 p4252 N67-38634
Natural gamma ray logging method - theory, detectors and measuring circuits, and applications in geophysical surveys
[NSJ-TR-94] 23 p4245 N67-38928
Spontaneous fluctuations in application of semiconductor diodes as nuclear radiation detectors
[NP-16827] 23 p4228 N67-39206
Behavior of irradiated photomultiplier in gamma flux in storage well, and in EL 2 reactor channel
[CEA-R-3154] 23 p4228 N67-39207
Single channel scintillometer to detect gamma radiation for radiobiological application
[AECL-2767] 24 p4450 N67-39722
Integrated set of three detectors for galactic and solar ray studies of OGO-E and OGO-G
[NASA-TM-X-55989] 24 p4526 N67-40679
Gamma ray resolution variation of germanium-lithium detectors based on irradiation position
[AECL-2764] 24 p4455 N67-40582

RADIATION DISTRIBUTION
Macroscopic and microscopic distribution of dose deposited in tissue by high energy protons - spherical proportional counters and silicon Au-i-Al detectors
[NASA-CR-73040] 02 p0213 N67-11981
Primary feed radiation patterns for communications satellite ground station antenna 03 p0364 N67-12311
Radiation accumulation and consumption in plane parallel layer with separated mirrors
[FTD-TT-65-1379] 05 p0738 N67-14680
Radioactivity measurements around Iodine 131 emission site to verify meteorological dispersion calculations
[BNL-10527] 06 p1205 N67-18526
Radiation patterns and gains measured for short backfire antenna as function of antenna dimensions
[NASA-TM-X-55880] 06 p1247 N67-18698
Antenna measurements at superhigh frequencies - radiation patterns, gain, errors, electric impedance, phase diagrams, polarization, and test equipment
[FTD-MT-65-394] 09 p1416 N67-19610
Subreflector support structure effects on radiation patterns of Cassegrainian antenna
[TR-416] 11 p1821 N67-22896
Radiation pattern calculated for Rosman I 85 foot paraboloidal dish 11 p1822 N67-22756
Calculations on spectral distribution of solar radiation in space 12 p2306 N67-24447
Radiation intensity field in measurements with wide angle apparatus 13 p2370 N67-26438
Coupling infinite regular, and regular and irregular finite antenna arrays, and effects of mutual coupling on radiation patterns of multiple beam optical antennas
[TR-424] 14 p2487 N67-26817
Soviet meteorological research on radiation distribution, flux measurement devices, random error of pyrgeometer, and related topics 14 p2594 N67-27106
Measuring methods and instrumentation for study of long wave radiation fluxes 14 p2535 N67-27112
Operation of Yanishevsky double balancemeters with stable forced ventilation 14 p2535 N67-27113
Modernization of Yanishevsky thermoelectric balancemeter by application of massive receptor plates 14 p2536 N67-27115
Random errors of Laikhtman Kucherov differential net pyrgeometer 14 p2536 N67-27117
Relationship of upward flux of radiation to surface temperature measurements 14 p2536 N67-27119
Incident radiation flux distribution over walls of cylindrical cavity solar receiver examined by means of energy equations 15 p2645 N67-28162
Computer program on theoretical radiation patterns of horn antenna excited by combined cylindrical waveguide modes 15 p2669 N67-28722
Mathematical model for representing action of radiation on simple biological systems
[BNWL-SA-1632] 17 p3005 N67-31099
Fast neutron and gamma radiation flux distribution from isotropically radiating sources 17 p3114 N67-31259
Three-dimensional distribution of scattered gamma radiation from point unidirectional source 17 p3127 N67-31368
Linear energy transfer and quality factor of radiation imparted to tissues determined by recombination methods
[INR-786/XIX/D] 18 p3210 N67-31978
Spacecraft cabin radiation distribution measurements for fourth and sixth Gemini

flights
[AFWL-TR-65-149] 18 p3347 N67-32674
Helicopter measurement of rhombic and cophasal antenna radiation patterns
[FTD-MT-65-411] 19 p3399 N67-32759
Simulated Raman scattering and radiation distribution in lasers
[FTD-MT-65-144] 19 p3466 N67-32812
Luminous effectiveness of lasers determined by radiation distribution inside cylindrical illuminator of elliptic section 19 p3466 N67-32814
Distortion of radiation pattern of 96-element phased array with matching dielectric sheet at each face of phase shifter matrix 19 p3465 N67-33381
Computer program for calculating radiation from nonisothermal, nonisobaric, inhomogeneous, multicomponent rocket exhaust plume
[NASA-TM-X-53622] 22 p4162 N67-37263
Frequency distributions for energy deposition of protons passing through gases, water, and plastic materials - depth dosimetry
[NASA-CR-73146] 23 p4198 N67-38907
Simple electromagnetic models for describing behavior of lasers in axial magnetic fields, and distribution of radiation of plane diffraction gratings
[AFOSR-67-1766] 24 p4462 N67-39919
RADIATION DOSE
Gamma radiation dose rate measurements on Kiwi B-4D-202 and Kiwi B-4E-301 reactors
[LA-3447] 01 p0105 N67-10523
Irradiation effects on superconducting magnets - dose rates
[RHEL/R-118] 01 p0116 N67-10713
Spatial distribution of absorbed doses of high energy protons behind shield 02 p0299 N67-11507
Spatial distribution of absorbed dose and X-ray radiation injury to dogs 02 p0205 N67-11632
Mathematical models for calculation of radiation dose equivalents in Clinch river - safety analysis of radionuclide release to river
[ORNL-3721, SUPPL. 3] 03 p0348 N67-13253
Wood-plastic composite development program - commercialization problems, thermoplastic monomers, impregnation, dose rate effects on polymerization, properties, and testing 04 p0565 N67-13374
Tissue dose-equivalent rates from cosmic ray neutrons and in low level environment of nuclear power station
[PG-734/CC/] 04 p0539 N67-13542
Computer program for calculation of radiation dose to various body organs from inhalation ingestion of soluble radionuclides
[IDO-13064] 04 p0489 N67-13636
Tables of dose rate surveys and derived decay relations resulting from Kiwi transient nuclear test
[LA-3519-MS] 04 p0574 N67-13657
Observation of gamma ray background dose rates in Warsaw with scintillation static monitor
[CLOR-50/D] 04 p0542 N67-13920
Differential recombination chamber using volt-ampere characteristics of ionization for radiation detection and dosimetry
[INR-739/XIX/D] 04 p0592 N67-14127
Material for manufacturing ionizing chambers that measure dose of X-ray radiation
[FTD-TT-65-1302] 05 p0727 N67-15058
X-ray dose and energy determination by personal film badge monitoring 06 p0814 N67-16243
Measurements of gamma and neutron dose distributions in core of thermal tungsten nuclear rocket experiment
[NASA-CR-72031] 07 p1128 N67-17181
Apparatus for handling uranium dioxide specimens irradiated with different neutron flux doses for releasing fission gases from samples
[EURAEC-1667] 07 p1134 N67-17575
Monte Carlo transport calculations estimating solar flare proton radiation dose received by travelers during supersonic flight
[NASA-CR-81727] 07 p1185 N67-18016
Galactic radiation during quiet sun and expected tissue dosage in space systems of low shielding
[NASA-CR-83918] 08 p1357 N67-18510
Circuit design of gamma radiation dosimeter for continuous monitoring of accumulated radiation dosage
[UCRL-14925-T] 09 p1450 N67-20148
Calculation of radiation dose due to high energy protons
[ORNL-P-2568] 10 p1721 N67-21531
Dose measurements of beta beams, radiation effects on electric conductivity, radiation induced polymerizations, and other aspects of radiation research on polymers
[AEC-TR-6806] 11 p1804 N67-22223
Radiation dosimetry and shielding effects 11 p1790 N67-22423
Radiation dose, and effect of radioactive isotopes on metabolism 11 p1791 N67-22434
Surface contamination, radiation dose, and other health physics study topics 11 p1791 N67-22435
Silicon surface barrier detector used as extrapolation parallel plate ionization chamber to measure beta radiation dose rate
[CLOR-57/D] 11 p1938 N67-22915
Relative biological effectiveness of radiations to induce response of definite strength at given absorbed dose
[JPRS-39774] 11 p1796 N67-23408
Computer program for calculating flux, energy flow, and radiation dose due to solid or toric cylindrical source
[ORNL-TR-1373] 12 p2159 N67-23575
Tissue dose equivalent rates from cosmic ray neutrons and in low level environment of reactor
[PG-734] 12 p3021 N67-23754
Manned spacecraft radiation dosimetry experiment on Gemini spacecraft
[SSD-TR-66-115] 12 p2307 N67-24435
Point-kernel radiation shielding computer program to evaluate propellant heating and dose to crew during engine operation
[NASA-TM-X-1397] 14 p2579 N67-27615
Radiation dose received from gamma particles and inhaled radioactive matter by aircrew flying through fallout region
[MBL-1967-2] 15 p2647 N67-27816
Establishment of neutron fluxes and doses using multi-sphere technique and thermal neutron detectors
[NP-TR-1406] 15 p2765 N67-28464
X-ray irradiation of Escherichia coli B to determine sensitivity to minimum dosages 15 p2650 N67-28517
Threshold irradiation dose for retinal burn, and model of enzyme destruction in retina 16 p2831 N67-29343
Health physics aspects of supersonic transport passengers exposed to cosmic radiation
[ORNL-P-2597] 16 p2835 N67-29818
Method for estimating fission and thermal neutron flux dosages in irradiated pieces of nickel and cobalt wire
[AERE-R-5314] 17 p3127 N67-30418
Mixed radiation measurements for dose equivalence and quality factor
[REPT.-777/XIX/D] 17 p3129 N67-30645
Effects of various X-ray doses during infancy on development of nervous system of rats
[COO-1201-10] 17 p3005 N67-31071
Dosimetry of radiations for radiolysis of terphenyl in liquid organic loops Orgel reactor
[CONF-651154-4] 17 p3112 N67-31073
Field doses and angular distribution of gamma radiation from surface of isotropic sources at boundary separating two media 17 p3127 N67-31287
ISOSHLD-II shielding code for calculating dose rate from shielded bremsstrahlung and/or decay gamma rays emitted by radioisotope sources
[BNWL-236, SUPPL. 1] 19 p3503 N67-33903
Numerical values of dose limits for workers and public exposed to radioactive material
[AHSB/RP/-R-78] 22 p3968 N67-36735
Proton penetration codes for dose calculation through aluminum and iron shielding
[NASA-CR-88380] 22 p4107 N67-37621
Primary and secondary particle radiation doses shielded from solar flare and Van Allen belt protons by aluminum and polyethylene slabs
[NASA-CR-88879] 22 p4137 N67-37629
Correlations between chromosome aberrations and dose in subjects irradiated for therapeutic purposes
[EUR-3499.I] 23 p4187 N67-38446
Computer code to estimate gamma radiation dose from cloud of radioactive gases
[DP-1098] 23 p4310 N67-38873
ACOF IBM 7044 orthonormal expansion code for analysis of neutron spectra and dosimetry
[JAERI-1140] 23 p4221 N67-39285
Cosmic radiation tissue dose measurements by nuclear emulsions 23 p4194 N67-39186
Radiation effect of ultrashort, ultraviolet, and X-rays on automatic nervous system of man measured by changes in achromatic visual thresholds
[SAM-TT-R-000-0867] 24 p4381 N67-39546
RADIATION EFFECT
Bone marrow transplantation in irradiated animals and production of specific pathogen free animals for radiobiology applications
[EUR-3122.E] 01 p0016 N67-10356
Tracer studies on nucleic acid and protein synthesis control mechanisms, and relation to radiation damage
[NYO-2643-22] 01 p0016 N67-10532
Radiation effects on host-parasite relationships
[TID-23114] 01 p0017 N67-10908
Transistor quality statistics in pulsed ionizing radiation environment
[FR-66-17-158] 02 p0242 N67-11250
Functional disturbance of rabbit cardiovascular system subjected to penetrating radiation in orthostatic position
[FTD-TT-65-53] 02 p0170 N67-11280
Space radiation effect on MOSFET devices
[NASA-TM-X-55597] 02 p0243 N67-11373
Biosatellite A - weightlessness, radiation, and general biological experiments, Delta Launch Vehicle, tracking and recovery, and flight sequence
[NASA NEWS RELEASE-66-313] 02 p0313 N67-11390
Experimental investigations of biological, physiological, and psychological factors in aviation and space flight environments
[JPRS-38272] 02 p0178 N67-11401
Biological proton and gamma radiation effects on potato seeds and plants 02 p0178 N67-11402
Effect of vestibular apparatus under stress on organisms response reaction to radiation effects 02 p0181 N67-11423
Pharmacological protection of vestibular apparatus from radiation effects 02 p0181 N67-11424
Combined effects of acceleration, vibration, and radiation on mitotic activity of bone marrow cells of mice 02 p0181 N67-11425
Influence of gamma radiation on physiological and organoleptic value of food 02 p0185 N67-11451
Biological effect of 12-time repeated gamma radiation treatment of white mice 02 p0196 N67-11523
Problems involved in modeling various types of space radiation effects on biological subjects 02 p0194 N67-11543
Radiation sensitivity of white rats under conditions of hypothermia 02 p0196 N67-11551
Multiple vibration and fractionated irradiation effect on latent period of unconditioned defensive motor reaction 02 p0198 N67-11571
Cytogenetic effects of high energy protons 02 p0201 N67-11581
Gamma radiation effects determined on silver and zinc battery electrodes and silver-cadmium cells
[NASA-CR-79489] 02 p0175 N67-11722
Morphological changes of various peripheral nervous system components of rats, rabbits, and guinea pigs under influence of cobalt 60 irradiation
[NASA-TT-F-10605] 02 p0214 N67-12152
Electrical conductivity and electron spin resonance experiments in study of radiation effects on silicon
[NASA-CR-80136] 02 p0196 N67-12164
Effects of ionizing radiation on oxidation states of biological systems
[SRI-65-1758] 02 p0214 N67-12198
Communications and radiation experiments with Telstar II satellite 02 p0265 N67-12280
Reaction of tin with 1-bromobutane in radiation field and radiation induced reaction relative to production of organotin compounds
[BMI-1753] 03 p0356 N67-12662
Effects of ultraviolet radiation on thermal control surfaces, structural plastics, elastomers, polymeric films and solar cell

covers, coatings, and adhesives 03 p0459 N67-13238
Effect of radiation quality on thermoluminescence of lithium fluoride /TLD-100/ [COO-1105-117] 03 p0455 N67-13264
Radiation research projects - liquid phase argon sensitized radiolysis of ethylene, competitive electron capture, decolorization of blue cellophane films, and ESR spectra [RRL-2310-103] 03 p0363 N67-13337
Radiation-induced oxidation of methyl alcohol [UJV-1457] 03 p0362 N67-13338
Synthesis of steroid labeled radioisotopes, automation of steroid analysis, steroid biogenesis and metabolism, and radiation effects on steroid metabolism [NYO-918-15] 03 p0349 N67-13339
Engineering and metallurgical evaluation of irradiated control rod [WCAP-6074] 04 p0373 N67-13390
X-irradiation effects and radionuclide toxicity in dogs - clinical observations, reproductive ability, survival, and pathology [UCD-472-113] 04 p0490 N67-13651
Response of silicon diode dosimeters to fast neutrons [NDL-TM-31] 04 p0552 N67-13775
Mutagenic and genetic effects of alkylating compounds, and ethyleniminе on barley seeds exposed to gamma radiation [JPRS-39158] 04 p0493 N67-13906
Molecular and radiation genetics relating to DNA, mutations in Drosophila, and cultured mammalian cells [EUR-2963.E] 04 p0493 N67-13956
Synergistic effect of weightlessness and radiation on white blood cells during Gemini 3 mission [NASA-CR-80621] 04 p0493 N67-14035
Effects of doping type, resistivity, and crystal type on response of silicon diode fast neutron dosimeter [NDL-TR-83-I] 04 p0601 N67-14161
Radiation effects on reactor structural materials [NRL-MEMO-1719] 05 p0735 N67-14727
Facilities, capabilities, equipment, and instrumentation at accelerator laboratory that conducts radiation effects studies for space vehicles and components [ESD-TR-66-430] 05 p0690 N67-14733
Abstracted reports on isolated and combined effects of acceleration and radiation on central nervous system functions of mammals [ATD-66-99] 05 p0652 N67-14961
Ceramics and ceramic engineering - zirconium oxygen carbon system, solid state ceramics, surface phenomena, radiation effects, and processing [NASA-CR-81163] 06 p0896 N67-15390
Purpose and role of Cosmos 110 biosatellite in investigating effects of inner radiation belt of earth [NASA-TT-F-10650] 06 p0799 N67-15700
Optical studies of radiation damage and excitation de-excitation processes [GA-7140] 06 p0946 N67-15962
Linear accelerator operation and radiation effects on silicon and insulators [AFCRL-66-681] 06 p0961 N67-16185
Chromosomal damage in humans produced by X-rays [AD-641505] 06 p0804 N67-16346
Radiation induced behavior of tantalum oxide, mica, ceramic, mylar, glass, and polystyrene capacitors [IBM-66-521-13] 06 p0856 N67-16492
Model calculations and measurements of electrical and radiation responses for semiconductor devices and integrated circuits [ARD-66-49R] 06 p0857 N67-16600
Radiation decrease effect on relativistic particle motion in uniform magnetic field [NASA-CR-81270] 06 p0941 N67-16607
Transient radiation damage in silicon [ECOM-01788-3] 06 p0950 N67-16842
Defect structures from bombardment of copper and gold thin films with heavy particles 07 p1169 N67-16733
Impurity nucleation of radiation damage in graphite 07 p1170 N67-16739
Electron microscopic study of influence of irradiation temperature on damage structure in neutron irradiated molybdenum 07 p1173 N67-16756
Electron microscopic studies on effect of irradiation temperature on cluster formation in neutron irradiated copper 07 p1173 N67-16758
Krypton ion irradiation damage in thin foils of zirconium 07 p1173 N67-16761
Electron microscopic studies of influence of irradiation temperature on defect structures in stainless steel 07 p1121 N67-16762
Cavity formation in neutron irradiated magnesium oxide 07 p1173 N67-16763
Formation of radiation defect clusters in iron during post irradiation heating 07 p1121 N67-16764
Performance of rhesus monkeys during continuous low-level gamma radiation [ARL-TR-66-18] 07 p1006 N67-17017
Transient gate current produced in metal oxide semiconductor integrated circuit by ionizing radiation pulse [MND-3264-4] 07 p1050 N67-17092
Stainless steel used in testing irradiation effects on high temperature mechanical properties of structural materials [ORNL-TM-1544] 07 p1100 N67-17422
Radiation-induced cationic polymerization studied emphasizing kinetic aspects [ORO-2968-21] 07 p1026 N67-17428
Influence of noncircular geometrical shapes on irradiation induced stresses in graphite columns [ORNL-TM-1574] 07 p1131 N67-17457
Theory of ion and atom penetration in solids [ARL-66-0149] 07 p1179 N67-17654
Energy dependence of neutron and gamma radiation damage in silicon transistors [NAA-SR-MEMO-11887] 07 p1052 N67-17725
Effect of tensile restraint on graphite specimen irradiated in BR-2 reactor [TRG-1279/C/] 07 p1136 N67-17956
Reliability of electronic components in nuclear radiation environment [NASA-CR-81652] 07 p1053 N67-17969
Growing of silicon nitride films, and radiation induced etch rate enhancement in silicon nitride films [NASA-CR-83020] 08 p1350 N67-18414
Design considerations in radiation hardening of spacecraft telemetry and control circuitry [NASA-TM-X-57092] 08 p1246 N67-18431
Influence of radiation on metallurgical processes [BNL-10543] 08 p1333 N67-18585
Possibility of irradiation damage affecting rate controlling mechanism for slip in body centered cubic metals and solid solutions [ORNL-3993] 08 p1291 N67-18914
Improved postirradiation stress-rupture properties of Hastelloy X-280 by thermomechanical treatment [BNWL-231] 08 p1291 N67-18915
Irradiation behavior of unalloyed hypostoichiometric uranium carbide [NAA-SR-11440] 08 p1320 N67-18916
Radiation effect on oxidasic activity of human serum in presence of paraphenylene diamine [LFEN.57/ALPHA/] 08 p1290 N67-19207
Decreased cellular recovery rate after irradiation of mice in hypoxic environment [USNRDL-TR-1086] 08 p1231 N67-19231
In-pile performance of platinum-rhenium and tungsten-rhenium thermocouples exposed to long term irradiation at high temperatures 09 p1477 N67-19623
Metallographic observations of hot junction systems of commercial thermocouples exposed to reactor irradiation 09 p1445 N67-19624
In-pile performance of refractory metal thermocouples 09 p1478 N67-19642
Microstructure, refining and heat treatment history, and nickel content influences on radiation embrittlement sensitivity of structural steels [NRL-6430] 09 p1461 N67-19755
Pulse method to determine temperature and reactor radiation effects on elastic constants of solids [FTD-HT-66-466] 09 p1479 N67-19848
Heat annealing tests of Luster rocket collected micrometeorites to determine whether radiation damage can distinguish extraterrestrial from terrestrial particles [NASA-CR-82941] 09 p1512 N67-19956
Physics of cellular synthesis, growth, and division - centrifugation of E. coli cells, CsCl density gradient centrifugation of bacterial cells, and radiation effects [NASA-CR-82923] 09 p1483 N67-19994
Automatic device for determination and measurement of form changes of electrically conducting spheres exposed to reactor radiation [JUL-257-RG] 09 p1481 N67-20212
Particle size, additive, and radiation effects on thermal decomposition of ammonium perchlorate [TIL/T-5597] 09 p1412 N67-20309
Radiation effects on gyroscope silicone damping fluid [RAE-TR-66300] 09 p1466 N67-20327
Equilibrium radiation effects on flow of supersonic airstream past spherical body 10 p1605 N67-20999
Continuous low-level gamma irradiation effects on circulating and peritoneal mononuclear leukocytes of mice [USNRDL-TR-1085] 10 p1561 N67-20999
Radiation effects in silicon and germanium [ARD-66-56R] 10 p1746 N67-20042
Hugoniot data from shock induced polarization experiments with gamma irradiated polyethylene [BRL-TN-1628] 10 p1660 N67-20634
Theoretical study of radiation damage in crystals using computer techniques [AI-66-252] 10 p1747 N67-20668
Gamma radiation effect on dielectric properties of vacuum dense ceramics [FTD-HT-66-37] 10 p1660 N67-20699
Oxidation, thermal cycling, and irradiation effects on silicon carbide coated graphite [BNWL-242] 10 p1660 N67-20723
Ionizing radiation effects in solid amino acids, peptides, and proteins [TID-23265] 10 p1562 N67-20779
Radiation induced shrinkage and cracking in pyrolytic carbon samples [ORNL-TR-1347] 10 p1661 N67-20995
Mechanical properties of reactor materials - neutron induced changes in body centered cubic metals [GA-7233] 10 p1653 N67-21005
Radiation effects in semiconductors [ORNL-P-2515] 10 p1753 N67-21619
Aberrant corneal epithelial cells produced in rats by ruby laser irradiation [AMRL-698] 10 p1566 N67-21879
Radiation effect on self-resonance acceleration of wave particle exposed to magnetic field 11 p1949 N67-21899
High-temperature materials program for reactor applications - radiation effects, mechanical properties, refractory metal alloy research, cladding and fuel elements, and pressure vessels [GEMP-61] 11 p1919 N67-22081
Radiation effects on fast reactor cladding and structural materials 11 p1919 N67-22083
Irradiation tests on Hastelloy and ferritic pressure vessel steels 11 p1895 N67-22089
Radiation effects on physical properties and microstructure of BeO 11 p1901 N67-22092
Solar cell calibration and radiation effects experiments 11 p1784 N67-22149
Small angle X-ray scattering of polyoxymethylene obtained by radiation-induced polymerization of trioxane and formaldehyde 11 p1902 N67-22227
Radiation effects on tensile strength and elongation of polyoxymethylene fibers 11 p1902 N67-22229
Oxygen effect on radiation-induced graft copolymerization of styrene on cotton 11 p1902 N67-22231
Radiation-induced polymerization of styrene in extremely dry system at room temperature 11 p1895 N67-22234
Radiation-induced polymerization of styrene in extremely dry system in methylene chloride and toluene solutions at room temperature 11 p1895 N67-22235
Radiation-induced solid state polymerization of 3,3-bis/chloromethyl/oxetane 11 p1895 N67-22237
Electron spin resonance study of radiation-induced 3,3-bis/chloromethyl/oxetane polymerization 11 p1895 N67-22239
Gaseous products resulting from radiolysis of triacetin, glycerin, and acetonyl acetone 11 p1907 N67-22249
Radiation damage, interaction of radiation with solids and liquids, and physics of tissue damage 11 p1790 N67-23482
Forced convection and nonisothermal irradiation effects on sublimation and mass transfer from snow surface [CRREL-SR-90] 11 p1870 N67-23559
Goddard Summer Workshop technical

papers on information systems, structural dynamics, magnetic fields, plasma studies, atmospheric research, and radiation simulation problems
[NASA-TM-X-55742] 11 p2006 N67-22741
Solid state scattering theory for localized defects
[U-3926] 11 p1834 N67-22143
Neutron irradiation induced defects in molybdenum studied by transmission electron microscopy and field-ion microscopy
[UCRL-17078] 11 p1899 N67-22185
Quantum mechanical methods used to study radiation induced defects in lithium hydride
[NYO-3657-1] 11 p1944 N67-22212
Nucleotide metabolism in repair of radiation injury
[NASA-CR-83540] 11 p1795 N67-22267
Gamma radiation effects on silver and zinc battery electrodes
[NASA-CR-83552] 11 p1757 N67-22280
Radiation effects on mica, Mylar, and polystyrene dielectrics
[REPT.-7] 11 p1841 N67-22360
Radiation effects on dielectric materials
[ECOM-01412-F] 11 p1841 N67-22373
Transient radiation effects on reactor thermocouples
[NASA-CR-83079] 11 p1927 N67-22465
Effect of radiation and gas concentration on rare gas diffusion in solids
[ORO-3506-1] 12 p2161 N67-23898
Hexitol and sugar effect on carbon dioxide production by irradiated and unirradiated starved yeast cells
[REPT.-682] 12 p2021 N67-23933
Nuclear and space radiation effects on materials and components used in space vehicles
[NASA-TM-X-53556] 12 p2168 N67-24547
Electromotive force deviation of Chromel-Alumel thermocouples caused by neutron irradiation
[EUR-3257.E] 12 p2102 N67-24585
Radiation damage and radiosensitivity experiments with glycerol, trypsin, hydroxide radicals, amino acids, proteins, adenine, thymine, and uracil
[NP-16309] 12 p2027 N67-24667
Metabolic changes in humans following total-body irradiation
[DASA-1844] 12 p2028 N67-24764
Models for analyzing CN violet radiation effects behind shock waves in air contaminated with carbon-bearing compounds
[NASA-TN-D-3935] 12 p2175 N67-25057
Neutron irradiations of silicon diodes to determine energy dependence and degradation of electrical parameters
[NDL-TR-83-IV] 13 p2389 N67-25236
Radiation effects in thin-film transistors
[REPT.-1] 13 p2392 N67-25417
Analytical reactor chemistry, radiation effects on methods, electron microscopy, mass spectrometry, biochemistry, radiochemistry, and inorganic and organic preparations
[ORNL-4039] 13 p2387 N67-25439
Electron radiation effect on silicon integrated microcircuits
[NASA-CR-83801] 13 p2292 N67-25461
Transient and quiescent electric conductivity in silicon after electron irradiation at room temperature
[NASA-CR-83818] 13 p2391 N67-25672
Radiation retardation effect on angular and energy distribution of charged particle flow across magnetic field
[NASA-CR-83866] 13 p2385 N67-25825
Premack theory applied in rat experiments of classically conditioned sucrose aversion induced by X-ray exposure
[USNRDL-TR-67-2] 13 p2259 N67-25971
Radiation effects on RIFT vehicle guidance and control system
[NASA-CR-84041] 13 p2363 N67-26294
Relation of radiation induced respiration deficiency to cell survival in yeast Saccharomyces cerevisiae
[RM-949] 13 p2390 N67-26353
Solar cell radiation damage experiment on Applications Technology Satellite-1
[NASA-TM-X-55772] 14 p2448 N67-26566
Pulsed ionizing radiation effects on monkey equilibrium function
[SAM-TR-66-106] 14 p2458 N67-26895
Radiation effects on thin film microelectronics
[ECOM-01467-F] 14 p2505 N67-26905
Behavioral response experiment on monkey equilibrium function after pulsed gamma-neutron radiation exposure 14 p2459 N67-26923
Radiation effects on fast reactor cladding and structural materials 14 p2575 N67-26983
Radiation effect on heat resistant metals and alloys 14 p2552 N67-26988
Nuclear radiation effects on reverse breakdown voltage, reverse leakage current, series resistance, transition time, storage time, and carrier lifetime of step recovery diodes
[HDL-TR-1239] 14 p2506 N67-27002
Effects of ionizing radiation on concentration of amino compounds in rat plasma
[SAM-TR-67-8] 14 p2461 N67-27009
Radiation effects following irradiation of aluminum
[SORIN-107] 14 p2604 N67-27249
Influence of cobalt 60 gamma irradiation on bulk and surface recombination rates in n-type and p-type semiconductors
[NASA-CR-84446] 14 p2604 N67-27425
Radiation effects on junction-isolated microcircuits
[RADC-TR-66-718] 14 p2508 N67-27472
Advanced test reactor beryllium surveillance program
[IN-1043] 14 p2579 N67-27586
Electron microscope study of proton irradiated metal surfaces
[NASA-CR-84422] 14 p2558 N67-27701
Production mechanisms of radiation induced defects in semiconductors
[NASA-CR-84436] 14 p2605 N67-27705
Theoretical investigations of radiation effects in ionic crystals to account for optical and electron spin resonance absorption spectra of radio-induced defects
[NYO-3682-3] 15 p2760 N67-28204
Masses of meteors calculated from radiation, velocity, composition, and structural measurements
[NASA-TT-F-10690] 15 p2657 N67-28231
Research program on effect of substructure on irradiation stability of ASTM A302 steel
[GA-7463] 15 p2725 N67-28311
Radiation effects on thin film integrated circuit elements
[C7-420/501] 15 p2685 N67-28699
Bipolar transistor model and integrated circuit element used for prediction of semiconductor radiation response
[ECOM-00423-7] 15 p2782 N67-28881
Radiation damage in silicon solar cells and annealing or compensation of damage by impurities
[NASA-CR-83860] 15 p2646 N67-28927
Irradiation effects on reactor structural materials
[NRL-MEMO-1758] 15 p2751 N67-28949
Time constant of and radiation effects on bead thermistor from high altitude environmental testing
[AD-645050] 15 p2716 N67-28961
Gamma radiation damage in uranium doped calcium fluoride laser crystal
[AD-650121] 16 p2901 N67-29006
Nuclear and gamma radiation effects on electronic equipment 16 p2867 N67-29149
Electron spin resonance and nuclear magnetic resonance studies of radiation damage in solids
[NYO-3024-10] 16 p2941 N67-29238
Nuclear radiation effects on semiconductor materials, device surfaces, and devices
[AFCRL-67-0068] 16 p2868 N67-29514
Inviscid radiating flow over blunt body
[SUDAAR-278] 16 p2976 N67-29612
Radiation effects on crystal structure of molybdenum, nickel, and rhenium
[BNWL-361] 16 p2960 N67-29782
Helium gas diffusion and aggregation in beryllium during high temperature irradiation and effects on mechanical properties, swelling, stress rupture, and metallography
[IN-1057] 16 p2930 N67-29789
Dependence of irradiation behavior of tempered nickel chromium iron alloy on precipitation state
[ANL-TRANS-421] 16 p2911 N67-29830
Neutron radiation induced changes in electrical properties of junction field effect transistors
[SC-RR-66-2664] 16 p2970 N67-29839
Radiation effects seen in solids of metal oxides, alkali azides, and bifluorides by electron spin resonance
[NYO-3047-38] 16 p2853 N67-29876
Electronic equipment for measuring nuclear radiation effects in silicon p-n junctions
[COO-1634-6] 17 p3035 N67-30220
Atmospheric limitations on propagation of laser beams
[AD-651366] 17 p3075 N67-30383
Effect of radiation on hereditary characteristics and radiobiological problems involved in space flight planning
[JPRS-40446] 17 p3001 N67-30401
Radiation effects on hereditary characteristics - mutation, genetic damage, and use in improving organism characteristics 17 p3001 N67-30402
Q-switched neodymium laser simulation of transient radiation effects in integrated silicon circuits
[TRW-06414-6001-R000] 17 p3035 N67-30444
Influence of various factors on radioinduced changes in characteristics of solids
[ZFK-WF-29] 17 p3148 N67-30859
Annotated bibliography on radiation damage in solids
[ATD-67-14] 17 p3149 N67-30949
Electron spin resonance methods used to study radiation effects and basic processes in plastic materials and polymers
[JPRS-41116] 18 p3230 N67-31308
Phenomenological study of radiation damage and recovery of metal oxide semiconductor field effect transistors 18 p3246 N67-31661
Space radiation equivalences for permanent damage to silicon transistors by measuring changes in transistor parameters after exposure to proton, electron, and gamma ray irradiation
[NASA-CR-914] 18 p3249 N67-32026
Effect of optical radiations and water vapor on trapping spectrum of cadmium sulfide
[NASA-TN-D-3974] 18 p3261 N67-32122
Satellite measurements and trapped corpuscular radiation, and radiation damage on satellite component materials 18 p3223 N67-32187
Uranium plutonium nitride fuels, radiation effects in reactor cladding materials, coated particle fuels, uranium dioxide plutonium dioxide fuels, and high burnup effects on ceramic fuels
[BMI-1791] 18 p3294 N67-32354
Radiation effects on mechanical properties of reactor cladding materials and stainless steel thermostability 18 p3295 N67-32356
Photoconductivity and electric conductivity of polycrystalline zinc oxide thin film under low intensity irradiation
[NASA-CR-87157] 19 p3521 N67-32746
X-ray effects on electric behavior of dielectric materials
[REPT.-1] 19 p3521 N67-32772
Steel, iron, and niobium samples examined for effects of radiation on mechanical properties and crystal structure
[ORNL-4097] 19 p3470 N67-32802
Energy transfer and radiation effects on optical, mechanical, and electrical properties of ionic solids
[COO-1052-7] 19 p3534 N67-33244
Survival of selected microorganisms exposed to high ultraviolet flux equivalent to Martian surface
[NASA-TM-X-53853] 19 p3370 N67-33408
Subcooling and radiation effect on film-boiling heat transfer from flat plate
[NASA-TN-D-3925] 19 p3452 N67-33443
Experiments to study radiation effects on thermocouples
[RT/ING/66/14] 19 p3493 N67-33738
Combined effects of radiation and oxide catalysts on low temperature dehydrogenation of cyclohexane
[NASA-TT-F-11109] 19 p3297 N67-33860
Materials research projects in solid state physics, electronics, cryogenics, and radiation effects
[AD-650265] 19 p3536 N67-33897
Radiation effects on semiconductors, and recombination lifetimes in gamma-irradiated, boron-doped silicon
[NASA-CR-87410] 20 p3711 N67-34822
Radiation effects on high purity molybdenum single crystals
[BNWL-SA-777] 20 p3654 N67-34974
Semiconductor device radiation response prediction using lumped model technique

[ARD-67-21R] 20 p3610 N67-34253
Electric resistance measurements to determine radiation effect on crystal structure and aging of aluminum-copper alloy
[JUL-448-RW] 20 p3680 N67-34273
Radiation effects on mica and polystyrene capacitor conductivity
[REPT.-9] 20 p3611 N67-34305
Thermocouple failures during irradiation in graphite rigs
[EUR-3491.E] 20 p3681 N67-34394
Radiation damage to human eyes, especially laser radiation, and effectiveness of protective devices
[RAE-LIB-TRANS-1238] 20 p3572 N67-34386
Surface properties of oxidized silicon 20 p3713 N67-34495
Calculations and measurements of radiation induced charge in thin aluminum film deposited on 0.032 inch insulating substrate
[REPT.-7] 20 p3611 N67-34530
Radiation effects on mammalian cells and bacteria
[NASA-CR-87813] 20 p3577 N67-34791
X-irradiation effect on mammalian retina
[AD-653643] 20 p3579 N67-35189
Determination of radiation damage function gamma in gold
[JUL-464-RW] 20 p3705 N67-35271
Annotated bibliography on radiation graft copolymerization
[PA-TR-3567] 21 p3774 N67-35377
Physical characteristics of UO2 fuel specimens for Army PM reactor fuel experiments to study radiation effects in pressurized water reactor
[ORNL-TM-1783] 21 p3885 N67-35388
Sorption of biphosphate ions by radioactive and irradiated barium sulfate precipitates 21 p3778 N67-35566
Gamma radiation induced ionic polymerization of vinyl monomers
[BNL-11344] 21 p3782 N67-35843
Electromechanical weighted-area integrator, radiation configuration factors, and thermal similarity of models
[NASA-CR-86135] 21 p3849 N67-36017
Degradation and branching of polyvinyl acetate in acetone solution under influence of cobalt 60 gamma irradiation
[BMWF-FBK-67-24] 21 p3784 N67-36096
Description of Van de Graaff irradiation facility, fluorescent properties of doped gallium phosphide, radiation damage in gallium phosphide, and other recombination studies
[SR-3] 21 p3917 N67-36161
Self-irradiation effects in lattice of cerium alloy containing 15 atomic percent plutonium 21 p3871 N67-36354
Radiation problems associated with high energy accelerators
[UCRL-17141] 21 p3825 N67-36455
Radiation induced charge migration in metal oxide semiconductor, field effect transistors
[BNWL-SA-11015] 21 p3819 N67-36481
Deformation and fracture, surface properties, radiation effects, and chemical engineering of materials - summaries of research activities 21 p3864 N67-36575
Postirradiation examination of PM-3A reactor control rod
[AD-654745] 21 p3892 N67-36587
Digital computer program for calculating time-temperature histories and predicting injury to skin exposed to thermal radiation
[NADC-MR-6623] 22 p3907 N67-36683
Ionizing radiation effects in silicon dioxide passivated bipolar transistors
[NASA-CR-88482] 22 p4089 N67-36726
Ionizing radiation effects on oxidized silicon semiconductor surfaces
[AFCRL-67-0391] 22 p4124 N67-36754
Role of nucleotide metabolism in repair of radiation injury
[NASA-CR-86379] 22 p3968 N67-36769
Nuclear science research on thermodynamics, radiation damage, and kinetics
[AEC-TR-6646/2] 22 p4169 N67-36954
Radiation damage in iron and steel with medium and high carbon content 22 p4061 N67-36935
Radiation effects on reactor structural materials
[NRL-MEMO-1780] 22 p4091 N67-37323
Mathematical model for hematopoietic recovery after irradiation
[RM-5272-PR] 22 p3971 N67-37462
Irradiation effects on reactor structural materials - radiation damage rates, effects on superalloys and refractory metals, and fission track dosimetry
[BNWL-CC-1053] 22 p4092 N67-37483
Radiation induced ultrasonic cavitation effects in organic liquids
[AERE-R-5486] 22 p4032 N67-37728
Ionizing radiation effects on deoxyribonuclease and phosphatase distribution in subcellular fractions of guinea pig epidermis
[NYO-3445-13] 22 p3974 N67-37890
Ionizing radiation effects on processes of cellular proliferation, megasporogenesis, and embryo sac development in orchids
[UH-235P6-3] 22 p3974 N67-37895
Reactor neutron irradiation of semiconductor single crystals at low temperatures and influence on Hall effect and resistivity
[BMWF-FBK-67-27] 22 p4130 N67-37959
Radiation enhanced diffusion in germanium, low temperature annealing of n-type germanium, fast annealing of pulse irradiated germanium, and photoconductivity of electron irradiated silicon
[AD-657365] 23 p4327 N67-38121
Trajectory and experiments for Mariner V Venus flyby mission
[NASA-CR-89073] 23 p4185 N67-38325
Surface effects of radiation on metal oxide silicon field effect transistors 23 p4224 N67-38476
Temporary effect of neutron bombardment on various transistors 23 p4234 N67-38479
Radiation testing of linear microcircuits to determine reliability 23 p4224 N67-38480
Neutron irradiation effects on resistivity of binary alloys
[ORO-2291-6] 23 p4264 N67-38577
Physiological regeneration of cornea epithelium and intestine under conditions of fractional irradiation by fission neutrons 23 p4191 N67-38914
Chlorella development during space flight 23 p4194 N67-39162
Effects of radiation, high temperature, and vacuum on Rene 41 and tantalum alloy spring for SNAP
[NAA-SR-11519] 23 p4293 N67-39296
Preliminary analysis of Biosatellite II space flight effects on variety of plant and animal species under weightlessness
[NASA NEWS RELEASE-67-239] 23 p4196 N67-39316
Notch strength of irradiated A302-B steel measured in simulated reactor pressure vessel walls
[NRL-6575] 24 p4463 N67-39485
Numerical analysis of radiation effect on hypersonic flow near stagnation point
[NASA-TT-F-11274] 24 p4429 N67-39506
Crystallite orientation and impregnation level effect on radiation induced bulk contraction in polycrystalline graphite
[BNWL-280] 24 p4471 N67-39582
Threshold computed for laser cutoff effect in rare earth doped crystals used in solid state lasers
[AFAL-TR-67-213] 24 p4461 N67-39604
Radiation damage and substitutional chemical impurity effects in single crystal germanium subjected to 40 keV ion bombardment
[ORNL-4142] 24 p4515 N67-39623
Effect of X-ray irradiation on condition reflex action of dogs
[JPRS-43077] 24 p4384 N67-39961
Conference on space radiation biology
[NASA-CR-89561] 24 p4384 N67-39963
Reactor pile radiation effects on thermoelectric properties of compound semiconductors
[USNRDL-TR-67-83] 24 p4518 N67-40203
Cosmic and experimental radiation effects on sphere gap and rod-plate spark discharge voltage potential and intensity
[DISS-2933] 24 p4425 N67-40463
Theoretical and clinical studies on human and animal vestibular apparatus - radiation and space flight effects, functions of otolithic formations, and astronaut selection
[JPRS-42843] 24 p4387 N67-40569
Damaging radiation effects on vestibular apparatus in rabbit 24 p4388 N67-40572
RADIATION EMISSION
Solar absorptance and emittance of candidate zinc oxides/silicone and zinc oxide/potassium silicate coatings measured at room temperature for application to space radiators
[NASA-CR-72068] 05 p0726 N67-14914
Transition radiation associated with passing charge between two regions with different electric properties 07 p1160 N67-16842
Transition radiation and Cerenkov effect 07 p1160 N67-16843
Hissing and choruses observed in natural ultralow frequency radiation at magnetically conjugate points in USSR and at Kerguelen Island in Indian Ocean - ionospheric storm prediction
[JPRS-39458] 07 p1075 N67-16115
Interplanetary scintillation in Jupiter decametric radiation
[NASA-CR-82374] 08 p1359 N67-19045
Spectrographic analysis of radioactive sources containing two alpha-gamma emitters or two beta-gamma emitters
[CEA-R-3033] 10 p1700 N67-20772
Radiation from dipole antenna immersed in half space of uniaxial anisotropic plasma 11 p1822 N67-22782
Resonance radiation emission by alkali artificial cloud and measurement of ionospheric temperature 11 p1946 N67-23339
Radiation leakage from TM mode in circular dielectric rod aerial waveguide
[RT-27] 14 p2563 N67-27545
Variations of alpha emission and distribution of hydrogen in upper atmosphere and geocorona 15 p2898 N67-27891
Electron temperature from X-ray continuum radiation emitted from high temperature plasmas determined from calculations of bremsstrahlung radiation passing through absorption foils
[NRL-6541] 15 p2774 N67-28543
Emission of gigahertz radiation from magnetic field free electron hole plasmas in indium antimonide at very low temperatures
[D1-82-0606] 17 p3147 N67-30502
Ballistic range firing of spherically blunted models to calculate measured and predicted ablating material radiation emission in near wake 22 p4164 N67-37832
Passive microwave radiometry studies for rough sea
[DAC-60786] 23 p4344 N67-38705
Enhanced radiation from interaction of nonthermal electrons with dense magnetized plasma 23 p4530 N67-38742
Activation of cadmium 111 by cobalt 60 gamma ray scattering
[ISS-67/22] 24 p4503 N67-40456
RADIATION EXPOSURE
Olfactory disturbances in man following exposure to radiation
[NASA-TT-F-10353] 01 p0014 N67-10227
Uranium process material characteristics and correlation with industrial personnel lung damage due to radiation exposure
[Y-1544-A] 04 p0494 N67-14130
Elastoplastic properties of vessels and hemodynamic characteristics of human circulatory system after exposure to super high frequency electromagnetic fields
[ATD-66-123] 05 p0639 N67-14373
Damaging neutron exposure criteria for evaluating embrittlement of reactor pressure vessel steels
[NRL-6415] 05 p0737 N67-14999
Neutron flux measurements for reactor pressure vessel, and exposure limit calculations for preventing radiation embrittlement
[NRL-6474] 06 p0914 N67-16479
Transient radiation effects on power reactor thermocouples determined at various levels of nuclear radiation
[NASA-CR-81333] 06 p0915 N67-16622
Low temperature irradiation of steels for reactor pressure vessels to determine radiation damage
[RCN-57] 07 p1125 N67-17043
Test procedures for program to determine reliability of electronic components in nuclear radiation environment
[NASA-CR-81607] 07 p1053 N67-17066
Autonomic and cardiovascular disorders from chronic exposure to super high frequency electromagnetic fields
[ATD-T-66-124] 07 p1018 N67-18186
Astronaut radiation exposure on Mercury missions MA-8 and MA-9 measured with nuclear emulsion
[NASA-CR-82574] 08 p1229 N67-19149
Mechanical resistance measurements of

Montivel film exposed to gamma rays
[ISS-68/34] 13 p2364 N67-36081
Radioactive contamination, time measuring techniques, nucleic acid structure, and other topics discussed at conference on physics, of Instituto Superiore di Sanita
[ISS-66/29] 13 p2359 N67-36095
Nuclear research and radiation physics technological developments 17 p3129 N67-36555
Dielectric leakage current from capacitors exposed to nuclear radiation
[SC-TM-66-2625] 17 p3039 N67-31319

RADIATION FIELD
Optimization of reradiated field from linear Van Atta reflector consisting of four equispaced parallel half-wave dipoles
[R-52] 01 p0038 N67-10506
Dielectric losses in ionizing radiation field
[FTD-TT-65-396] 01 p0131 N67-10962
New method of analyzing radiation characteristics of equally spaced spherical antenna arrays
[AFCRL-66-532] 01 p0041 N67-11028
Propagation of electromagnetic waves through nuclear detonation produced radiation field
[GUO-2250] 04 p0546 N67-14219
Current distribution, input admittance, and radiation field pattern of dipole antenna with nonreflecting resistive loading
[NASA-CR-81331] 06 p0845 N67-16634
Multisphere neutron detector for dosimetry of mixed radiation fields
[PPAD-506E] 07 p1021 N67-17551
Electrical properties of dielectric liquids in radiation field
[UCRL-70022] 08 p1325 N67-18462
Waveguide dispersion effects on radiation pattern and directivity of linear antenna arrays
[REPT.-6400-67-R] 09 p1414 N67-19572
Perfluoroalkanes as gamma dosimeters in mixed radiation fields
[SGAE-CR-37/1966] 10 p1582 N67-21814
Measured radiation patterns of two short wave rhombic antennas
[IIB-18] 11 p1824 N67-23063
Formation of ionizing radiation field in space 12 p2206 N67-24432
Harmonic analysis of thin half-wave dipole and director parallel to reflecting plane antenna configuration - radiation field characteristics
[ITR-4] 14 p2466 N67-26615
Power assessment of radiation from metal waveguide aperture - radiation pattern of uniform dielectric rod aerial
[RT-31] 14 p2583 N67-27548
Vector Kirchhoff law for solving radiation field of dielectric rod
[RT-30] 14 p2582 N67-27632
Shock layer and frontal ionization effects on radiation field of ELDO launch vehicle third stage telemetry antennas
[ELDO-TR-3] 15 p2665 N67-27926
Log periodic antenna techniques
[EDL-M1616] 16 p2861 N67-29582
Plasma sheath inhomogeneity and nonuniform effects on antenna radiation patterns and input impedance
[AFCRL-67-0360] 20 p3599 N67-34046
Radiation sound field of rectangular panel set in infinite wall and excited by turbulent boundary layer
[ARC-R+M-3491] 20 p3690 N67-35179
Orientation of elements of circular antenna arrays of radial and tangential dipoles
[AFCRL-67-0206] 21 p3795 N67-35405
Linear accelerator radiation field measurements by gamma detection, gamma ray spectroscopy, and neutron detection methods
[AFCRL-67-0301] 21 p3906 N67-36493
Eigenelements of finite Fourier transform and application to antenna radiation field synthesis
[P67-92] 22 p3995 N67-36719

RADIATION HAZARD
Destructive factors of small and high power nuclear explosions
[FTD-TT-64-1369] 01 p0168 N67-10274
Health physics technician radiation safety training manual
[IDO-17182] 01 p0023 N67-10527
Solar flare radiation hazard during lunar flight 02 p0187 N67-11466
Radiation hazards to space plants, and gamma and proton radiation effects on crops 02 p0188 N67-11478
Ionizing radiation doses and their hazards in relation to lunar exploration 02 p0190 N67-11491
Radiation hazards of interplanetary space and related shielding problems
[NASA-CR-78511] 02 p0200 N67-11986
Operational radiation hazards of Agesta nuclear power plant 02 p0423 N67-12469
Role of radiation in origin and early development of life, and possibilities of planetary and other extraterrestrial life 03 p0543 N67-13741
Potential hazard and movement through food chain of methyl iodide - test sampling, meteorological conditions, deposition on grass, milk analyses, and human uptake
[IDO-12053] 04 p0490 N67-13852
Handling of collimator system and betatron induced radiation hazards in personnel
[NYO-2364-7] 05 p0746 N67-14681
Study and conclusions for developing safe-distance charts for eye and retina from nuclear explosions - mathematical model
[AD-641191] 06 p0805 N67-16451
High temperature radiation damage in graphite exposed to fast neutron flux
[BNWL-237] 07 p1121 N67-17484
Ferrite-filled transmission line filters used as dissipative radio frequency attenuators to reduce electromagnetic radiation hazards
[W-11/66] 07 p1068 N67-17671
Generalized mathematical model for semiconductor radiation response prediction
[QPR-6] 07 p1052 N67-17743
Increasing height of active zone, changes in auxiliary systems, and radiation stability of materials used in SM-2 research reactor
[JPRS-39447] 07 p1137 N67-18111
Linear energy transfer spectra and dose equivalents of galactic radiation exposure in space
[NASA-CR-82999] 09 p1507 N67-20341
Transient radiation vulnerability of monolithic binary circuits
[ARD-66-45R] 10 p1590 N67-20545
Safeguard procedures for nuclear fuel processing plants having flowsheets
[BNWL-301] 10 p1606 N67-20820
West German interpretation of burden of proof problems connected with cause in radiation damage litigation
[JUL-143-JU] 10 p1778 N67-21771
Possible hazard due to restricted release of plutonium
[RFP-799] 11 p1920 N67-22304
Fission fragment damage in glass and mica studied with uranium foil detector systems for application to neutron flux measurement
[AECL-2657] 11 p1936 N67-22478
Electromagnetic radiation hazards in modern naval technology
[TM-3] 11 p1799 N67-22697
Transient radiation damage in semiconductor materials
[ECOM-01783-F] 11 p1968 N67-23152
Neutron dosimetry using fission fragment damage principle
[BNWL-332] 12 p2029 N67-24566
Transient radiation effects on electric properties of dielectric materials
[GA-7560] 13 p2[illegible] N67-25416
Instrumentation, techniques, and material testing for control of radiation hazards
[PR-25] 13 p[illegible]439 N67-25461
Discussion of several mechanical configurations of LiF and BeO for application to personnel dosimetry 13 p2362 N67-25468
Human behavior toward and social ethics of using nuclear energy and radiations
[EUR-2772.E] 1[illegible] p2441 N67-26104
Radiation safety of manned space flights - radiobiological aspects 1[illegible] p2627 N67-29317
Toxic and radiation hazardous materials handling facility
[SCL-DC-67-5] 1[illegible] p2673 N67-29326
Radiation damage to silica structures
[COO-1255-4] [illegible] p2915 N67-29719
Fast reactor technology, radiation safety problems pertaining to corrosion and activation of reactor structural materials, and interaction of tetravalent U with chloride-fluoride melt
[JPRS-40624] 17 p3107 N67-30396
Radiation safety problems in case of corrosion and activation of reactor structural materials 17 p3107 N67-30396
Heating equipment to control radiation hazards, and for improved space vehicle design 17 p3176 N67-30861
Instruction course in radiation hazards and their control through industrial safety
[AECL-2[illegible]] 17 p3004 N67-30941
Statistical analysis of long-term radiation damage and life shortening in man and animals
[RM-5[illegible]-PAR] 17 p3096 N67-31147
Bibliography of biological effects and hazards resulting from use of microwave generating equipment
[AD-65[illegible]] 18 p3113 N67-32364
Hazard analysis computer program for determining specimen and irradiation capsule component temperature distribution 18 p3297 N67-32413
Radiation hazards of thulium-170, thulium-171 oxide as fuel for thermoelectric generators
[SC-RR-[illegible]-2879] 19 p3377 N67-32563
Radiation laboratory experiments on hazards control, safety measures, decontamination, and radiation detection
[UCRL-[illegible]-66-3] 19 p3469 N67-33829
Monte Carlo method for evaluation of high energy neutron exposure hazards
[NASA-CR-[illegible]-67480] 20 p3578 N67-34951
Ophthalmic hazards of microwave and laser environments
[AD-6587[illegible]23] 21 p3765 N67-35537
ATS-1 solar cell radiation damage during first 120 days
[NASA-TM-X-55908] 21 p3762 N67-35794
Use of research reactors in radiation damage studies and in solid state and metal physics
[ORNL-P-1036] 21 p3886 N67-36009
Radiological monitoring of SNAPTRAN-2 reactor destructive test
[IDO-17203] 23 p4236 N67-38606
Air cleaning filters and systems for reactor control and environmental safety, contamination prevention, aerosol exhaust, and fission product confinement and containment
[CONF-660904, VOL. 1] 23 p4237 N67-38680
Sources, effects, and radiation aspects of sodium coolant spill and aerosol transport in nuclear power plant 23 p4238 N67-38682
Calculation of fission product release from irradiated fuel elements under normal transportation conditions and after thermal accident during transportation
[EUR-3623.F] 24 p4404 N67-40454

RADIATION INDICATOR
Grid modifications in radio telemetered meteorological and radiation observation network 07 p1117 N67-17316
Triplet sampled radiation damage in single crystal anthracene for wide range dosimeter
[CONF-660612-4] 10 p1713 N67-21010
Temperature of water surface and other natural surfaces measured by radiation method 11 p1884 N67-23088
Personnel radio frequency radiation monitor
[LA-3723] 22 p3978 N67-37356

RADIATION INTENSITY
Neutron monitor and telescopic recordings of diurnal and semidiurnal variations of cosmic ray intensity during 1965 - tables
[AFCRL-66-523] 01 p0147 N67-10897
Intensity and spectral composition of lunar gamma radiation
[JPRS-38798] 02 p0200 N67-11986
Centaur rocket photometric and spectrometric measurements of intensity and spectral distribution of solar soft X-ray flux
[ESRO-SN-55 /ESLAB/] 07 p1105 N67-17003
Production of recombination continua in spark discharge for absolute intensity measurement in vacuum ultraviolet
[JUL-368-PP] 07 p1107 N67-17006
Capsule reactor irradiation experiments on fission electric devices under high radiation intensity to determine electrical properties and materials problems
[NASA-CR-83876] 09 p1481 N67-20172
Radiation of magnetosound waves by ions and electrons of nonisothermal magnetoactive plasma 09 p1497 N67-20864
Pulse counting time automatic radiometers to record radiation intensities of any size 10 p1623 N67-21270
Radiation balance and measurements by actinometry and meteorological radiometer in Arctic region 11 p1884 N67-23084
Radiation intensity determination of pulsed photon beams by pulse height measurements
[NSJ-TR-4, REV.] 11 p1939 N67-23973
Absolute measurements on continuum

intensity of theta-pinch plasma in visible and X-ray regions
[NP-TR-1499] 12 p21 79 N67-23862
Balloon and satellite measurements of low energy galactic cosmic ray
[NASA-TM-X-55761] 12 p22[illegible] N67-23905
Linear-log counting-rate meter using silicon planar transistor for measuring radiation intensity
[ANL-6968] 13 p2211 N67-25598
Radiation intensity field in measurements with wide angle apparatus 13 p2370 N67-28435
Eliminating short period optical wind and temperature variations in radiometer readings of radiation intensity 14 p2535 N67-27110
Annual variations and intensity variations of cosmic radiation as function of earth heliolatitude
[NASA-CR-84673] 15 p[illegible]787 N67-28607
Lunik X spectrometric determination of gamma radiation intensity of lunar rocks 16 p20[illegible] N67-29842
Electron beam kinetic power transformation into radiation power during target bombardment in vacuum
[CEA-R-3139] 17 p3126 N67-30323
Primary radiation attenuation in heterogeneous medium and monoenergetic neutron scattering 17 p3114 N67-31254
Quenching of resonance radiation of sodium by molecular nitrogen
[F-904] 19 p3386 N67-32775
Radiation safety levels at Los Alamos tandem accelerator facility
[LA-3641] 19 p3436 N67-3[illegible]506
Radiation induced polymerization of vinyl monomers impregnated in wood
[ORO-2945-8] 20 p3666 N67-356[illegible]
Intensity of radiation transfer in Doppler broadened resonance line expressed in terms of appropriate H-functions assuming semi-infinite atmosphere
[NASA-TT-F-11108] 20 p3704 N67-35210
Geographical distribution and intensity measurement of solar radiation scattered from earth-atmosphere system
[NASA-TM-X-56233] 21 p3891 N67-35315
X-ray intensity measurements by adiabatic calorimetry
[UCID-15136] 21 p3938 N67-35455
Intensity beats in resonance radiation and absorption due to coherent excitation of atoms by electron impact
[UCRL-17445] 21 p3903 N67-36066
Interference of earth surface properties through satellite measurements of infrared emission
[NASA-TM-X-55910] 21 p3845 N67-36612
Thermodynamic equilibrium curves from spectral radiation intensities emitted by free-burning argon arc plasma
[ARL-67-0060] 23 p4315 N67-38127
Spatial and temporal variations in intensity, energy spectrum, and chemical composition of primary cosmic radiation 23 p4337 N67-38206
Increasing brightness of discharge column using underwater electrical explosion of wire
[NASA-TT-F-11266] 24 p4497 N67-40373
Radiation emission intensities of dense thetatron plasma near plasma frequency
[IPP-1/65] 24 p4513 N67-40534

RADIATION LAW
S KIRCHHOFF LAW
S QUANTUM THEORY

RADIATION MEASUREMENT
Solid angle measurements on radionuclide activity by Geiger counter
[IEA-115] 01 p0074 N67-10857
Pegasus measurements of temperature, radiation, and rigid body motion 02 p0312 N67-11587
Cosmic radiation measurements at 200 to 400 km altitudes on polyethylene 02 p0179 N67-11466
Lunar-10 measurements of soft corpuscular radiation
[NASA-CR-86174] 02 p0301 N67-12306
Flux of primary cosmic radiation from Luna-10
[NASA-CR-86173] 02 p0303 N67-12238
Gamma radiation measurements of lunar surface by Luna 10
[NASA-CR-86147] 02 p0456 N67-12908
Planetary radiation measurement from satellite in elliptical orbit
[REPT.-66-7] 02 p0459 N67-13053
Environmental radiation measurement including cosmic ray ionization in first 10,000 feet, ultralow ionization from terrestrial sources, and beta component on ground
[NYO-1704-13] 03 p0459 N67-13328
Radon 222 concentration in air measured by electrostatic precipitation process
[CLOR-47/D] 04 p0582 N67-13872
Radiative corrections to bremsstrahlung and pair production at high energies
[DESY-66/16] 04 p0591 N67-14080
Slitless absolute spectral photometry method for atmospheric entry and astronomical radiation measurements
[NASA-TN-D-3765] 04 p0653 N67-14103
Radiation measurements of some industrial brass, steel, and aluminum alloys in infrared spectrum
[FTD-TT-65-1796] 05 p0719 N67-15295
Temperature of surface water and radiation components of Hudson Bay surveyed by airborne instruments
[TR-28] 06 p0870 N67-15350
Quantitative interpretation of dynamic log anomalies from borehole gamma radiation measurements 06 p0874 N67-16341
Moon radiation flux measurements in infrared and visible spectral regions from Luna 10
[NASA-CR-83438] 08 p1366 N67-18956
Solar radiation measurements at 430 megacycles
[CRSR-256] 09 p1506 N67-19770
Cosmos III measurements of radiation particles trapped in Earth geomagnetic field after 1962 thermonuclear test at Johnston Island 10 p1617 N67-20401
Estimation of curie content of radioactive materials transported under International Atomic Energy Agency regulations
[TRG-1287/D/] 10 p1597 N67-20406
Radiation measurements, atmospheric chemistry, sea ice physics, and carbon dioxide in surface water
[AR-6] 10 p1617 N67-20453
Atmospheric research - radiation measurements, sea ice physics, atmospheric chemistry, ocean boundary layer, wind-blown snow, and tundra lakes 10 p1618 N67-20454
Passive method of obtaining low level atmospheric temperature profiles using ground based measurements of radiation
[TR-66-11] 10 p1619 N67-20543
Simulation of emission characteristics of entry vehicles, and radiation measurements of high speed flows over cylinders and spheres
[BR[illegible]L-TN-1607] 10 p1551 N67-21380
Radiation monitoring and dosimetry with integrating pulse discharge ionization chamber detectors
[BNL-9693] 10 p1723 N67-21570
Geometrical error in beta-gamma coincidence measurements on decay rates of radioactive nuclides
[JUL-22[illegible]-CA] 11 p1877 N67-22136
Geometric errors absolute measurements determined by beta gamma coincidence method for decay rates on radioactive nuclides 11 p1877 N67-22137
Statistical error absolute measurement by beta gamma coincidence method 11 p1878 N67-22138
Radiation studies, development of irradiation devices, and operation of BR 2 test reactor by Belgian EURATOM center in 1965
[EUR-3138.E] 11 p1923 N67-22921
Sphere techniques for measuring flux densities and dose rates of thermal, intermediate, and fast neutrons
[JUL-313-ST] 11 p1941 N67-23075
AES Proton Experiment measurement of primary cosmic ray energy spectrum in high energy range
[NASA-CR-83581] 11 p1972 N67-23257
Fluxes and spectra of electrons and protons in atmosphere measured by spectrometer experiments on Gemini spacecraft
[NASA-CR-65604] 11 p1973 N67-23326
Methods used to infer atmospheric water vapor content from Tiros satellite measurements in absorption band of water vapor 13 p2139 N67-24301
Diffusion semiconductors for measuring ionizing space radiation 13 p2200 N67-24433
ESRO spacecraft technology - launch vehicle effect on spacecraft design, ESRO construction and scientific payload program, spacecraft orbit mechanics, and composition of space radiation
[ESRO-SP-9] 12 p2214 N67-24451
Space radiation and measurement techniques 12 p2206 N67-24452
Whole-body counter used to measure Zn-65 in cyclotron workers 13 p2355 N67-25469
Phillips radiation monitors type PW 4012 to measure surface contamination levels in military workshops
[MBL-1966-8] 13 p2330 N67-25592
Solar and terrestrial optical radiation measurements for determining heat loads of second stage fuel and oxidant tanks and equipment of European I launch vehicle
[WRE-TN-PAD-123] 13 p2314 N67-26196
Intensity and spectral composition measurements of lunar surface gamma radiation by spectrometer mounted on lunar probe 13 p2404 N67-26382
Electron-gamma and electron-electron coincidence spectrometers with Li-drifted Si detectors 14 p2533 N67-26958
Three conversion coefficients in decay of gold with semiconductor counters
[LR-15] 14 p2587 N67-27120
Large surface proportional counters for activity determination of low specific radioactives, energy determination of measured radiation, and dose determination
[KFK-411] 14 p2538 N67-27343
Dual detector facility for measuring scattered gamma or X-radiation
[USNRDL-TR-67-14] 15 p2689 N67-28947
Theoretical analyses, laboratory and field tests to determine which equipment yields most precise measurements of solar irradiance
[AFCRL-67-0154] 17 p3061 N67-30677
ESRO sounding-rocket payload experiments - total stellar flux measurement and primary cosmic radiation measurement
[ESRO-SN-43] 17 p3168 N67-31465
Detection of medium intensity solar flares by Mariner V spacecraft
[NASA NEWS RELEASE-67-209] 18 p3322 N67-32304
Error assessment and correlation for pre-irradiation and post-irradiation measurements 18 p3297 N67-32415
HF field antenna impedance and radiation pattern measurements recorded in conifer forest
[AD-653165] 19 p3406 N67-33469
Measurement and interpretation of spectral sky radiation and other atmospheric optical radiation transmission data
[AFCRL-67-0207] 19 p3444 N67-33509
Tabulated values of experimentally determined differential energy and angle spectra for cesium 137 gamma rays in water and air
[HASL-187] 22 p4106 N67-37497
Absolute activity measurements of molybdenum 99 and 4 pi-gamma ion chamber measurement of technetium 99m, and molybdenum 99 with ingrown technetium 99m
[AAEC/TM374] 22 p4107 N67-37632
Electromagnetic radiation characteristics of loop antennas excited by transients
[ESD-TR-67-238] 22 p4001 N67-37761
Atmospheric chemical constitution measurements at Mount Olympus, Washington
[SR-1] 23 p4243 N67-38322
System for measurement and detection of insoluble plutonium 239 in lungs
[AEEW-R-494] 23 p4185 N67-38336
Radiation measurements on cesium plasma column of increasing density 23 p4320 N67-38737
Heat balance over polar regions obtained by Nimbus II radiation measurements
[NASA-TM-X-55954] 23 p4345 N67-38789
Neutron flux measurements near lunar surface for determining chemical composition of surface layer
[NASA-CR-89297] 23 p4340 N67-38923
Measurement techniques and data on atmospheric radiation activity 23 p4281 N67-38944
Cosmic radiation measurements obtained by Soviet Zond and Luna space probes
[NASA-CR-88982] 23 p4341 N67-39322
Track registration technique in polymer charged particle detectors based on restricted energy loss rate concept
[USNRDL-TR-67-80] 24 p4499 N67-39451
Radiation dosimetry measurements in center of WR-REACTOR fuel assemblies to determine rates of energy absorption from

fast neutrons and gamma rays
[AECL-2783] 24 p4494 N67-40527
RADIATION MEDICINE
Experimental study of radiation injury treatment with kallicreine
[EUR-2477.F, VOL. 3] 01 p0011 N67-10032
Problems of radiation sickness prevention and treatment
[JPRS-39391] 04 p0495 N67-14339
Radiobiological and radiation medical studies on biological cell
[NASA-CR-81246] 06 p0800 N67-15941
Bibliography on nuclear sciences, reactor technology, physics, and radiation medicine
[JUL-BIBL-7] 10 p1731 N67-21748
Scintillation camera system with three-stage image intensifier for radiation medicine diagnostic tests 22 p4850 N67-37782
RADIATION METER
Thermal neutron source for calibration of neutron radiation meters in diffuse flow
[REPT.-7] 01 p0074 N67-10021
Similarity method applied to radiation fields during calibration of neutron radiation meters
[NP-16393] 03 p0400 N67-12360
Empirical method for correcting airborne infrared radiation thermometer readings for environmental factors 04 p0548 N67-13486
One-factor model for comparing performance of neutron monitors
[SN-3] 19 p3530 N67-33233
RADIATION PRESSURE
SA LIGHT PRESSURE
Dynamic behavior of spinning solar pressure stabilized satellite with precession damping
[NASA-CR-80062] 02 p0305 N67-13664
Fluid mechanic and radiation pressure effects on satellite orbits and orbital decay, and space rendezvous maneuvers - mathematics conference
[NASA-CR-80673] 05 p0691 N67-14401
Solar radiation pressure effect on motion of artificial orbiting satellite using approximation method 05 p0758 N67-14408
Solar pressure perturbation effects on orbit of flat reflecting satellite 09 p1513 N67-20273
Solar radiation pressure effects on heliocentric orbits in encounters between interplanetary dust and planets 18 p3332 N67-32059
RADIATION PROTECTION
Spleen oxygen tension and radiation protection in mice
[AD-638372] 01 p0015 N67-10417
Thermoluminescence, solid state track detection, and activation analysis approaches to problem of personnel neutron dosimetry
[BNWL-SA-537] 01 p0034 N67-10769
Modification of radiation-induced increase in adenosine triphosphatase activity of spleen by various chemical agents
[AD-637575] 01 p0018 N67-10944
Problems of calculating protection against space radiation 02 p0187 N67-11497
Radiation shelter, on-board dosimetry, therapeutic measures, and ground radiation safety service as means of providing protection from radiation hazards encountered in space 02 p0190 N67-11492
Negative influence of radiation-protective preparations on motor-evacuatory functioning of gastrointestinal tract of nonirradiated rats 02 p0196 N67-11559
Use of paraffin as material for local protection in radiobiological experiments 02 p0197 N67-11564
Influence of radiation-protective cysteamine on functional state of humans 02 p0201 N67-11596
Reduction of effectiveness of chemical protection with smaller doses of radiation 02 p0207 N67-11648
Latina nuclear power plant
[EUR-3115.I] 04 p0575 N67-13739
Development reviewed of neutron detection and monitoring devices for personnel radiation protection
[ORNL-P-2467] 07 p1021 N67-17427
Chemical radioprotective agents
[EUR-2902.F] 07 p1018 N67-17423
Radiation dosimetry concepts for protection of biological systems
[BNWL-SA-816] 07 p1015 N67-17887
Instrumentation program and component development for radiation protection application 09 p1445 N67-19433
Bibliographic review of biological and chemical radioprotective agents
[SZS-5/1966/] 09 p1483 N67-20145
Radiation protection practices for handling reactor fuel elements
[CEA-R-3019] 09 p1486 N67-20149
Biological effect of proton radiation and radioprotective agents on survival rate and average survival time of mice 10 p1550 N67-20403
Canadian radiation protection programs - fallout and reactor environment monitoring
[NP-16325] 10 p1571 N67-20740
Operational safety and radiation protection for isochronous cyclotron personnel
[ORNL-TM-364, REV.] 10 p1660 N67-21470
Photochromic eye protective device based on triplet absorption
[TRW-05465-6003-R000] 10 p1567 N67-21716
Data for health physics considerations of plutonium and americium
[RFP-768] 11 p1789 N67-22303
Radiation protection by Frascati linear accelerator method
[LNF-66/44] 11 p1940 N67-23018
Virus growth, gene repression hypothesis of radiation protection by auxin analogs
[DOUGLAS PAPER-4138] 12 p2021 N67-23970
Heat capacity, attenuating effect on shock waves, moisture capacity, protection capacity for toxic vapors, and protection capacity for aerosol and fallout particles tests of sand filter
[TDCK-47068] 13 p2265 N67-26158
Space radiation doses absorbed by Voskhod I and Voskhod II spacecraft crews
[NASA-TT-F-10469] 14 p2451 N67-28561
Biological and physiological problems in aviation space medicine - decompression sickness, enzyme changes, weightlessness, fatigue, and radiation protection
[NASA-TT-F-10557] 14 p2464 N67-27611
Using magnetic fields to protect manned spacecraft from ionizing radiation
[FTD-HT-66-717] 15 p2681 N67-28892
Soviet articles on theoretical and experimental analyses of nuclear reactor shielding against penetrating radiation
[NASA-TT-F-411] 17 p3113 N67-31241
Preparation of biocides, physiologically active materials, and polymers as alloimplant or radiation-protective materials, and correlation of chemical structure with biological activity 18 p3221 N67-31877
Mechanism of action of AET - protection of DNA against ionizing radiation by GED
[SAM-TR-67-7] 19 p3274 N67-33143
Multiple scattering of gamma rays in medium with low atomic number
[BMWF-FBK-67-09] 19 p3509 N67-33239
Feasibility and effectiveness of partial body shielding for personnel protection against hazards of radioactive fallout
[USNRDL-TR-67-39] 20 p3581 N67-34113
Radiation damage to human eyes, especially laser radiation, and effectiveness of protective devices
[RAE-LIB-TRANS-1228] 20 p3572 N67-34196
Insulation suit with air regeneration system for human protection against radioactive environment
[JPRS-41816] 21 p3770 N67-35365
Flat ionization chamber for portable vibrating condenser electrometer for beta dose rate measurements in radiation protection
[ZFK-DOS-5] 21 p3848 N67-35797
Dosimetry and radiation protection - shielding, neutron spectrometry, diffusion, materials and instrumentation
[AEC-TR-6719] 23 p4310 N67-38981
Problems connected with development of spacecraft radiation protection system and associated ground support equipment 23 p4190 N67-39066
Plasma radiation shield - concept and applications to space vehicles
[NASA-CR-81176] 23 p4353 N67-39237
RADIATION PYROMETER
Variable wavelength pyrometer measurements on surface brightness temperature of glowing ablating materials
[NASA-TN-D-4107] 21 p3847 N67-35737
RADIATION RESISTANCE
Pilot line production for nuclear radiation resistant electron tubes
[AD-639610] 01 p0054 N67-10932
Level of muscular working ability gained through physical training related to radiation resistance in white rats 02 p0189 N67-11484
Influence of immunization on resistance of organisms to ionizing radiation 02 p0199 N67-11575
Antiradiation drugs to increase space radiation resistance 02 p0200 N67-11622
Temperature measurements in free atmosphere by thermistors with antiradiation coatings of silver, aluminum, and caromium 05 p0722 N67-14336
Design guidelines for monolithic circuits resistant to transient radiation effects
[REPT.-3] 06 p0800 N67-15899
Design effects on radiation resistance of silicon planar power transistor
[FR-66-17-367] 06 p0882 N67-15899
Irradiation stability of uranium oxide-zirconium oxide in comparison to uranium oxide and uranium oxide-beryllium oxide fuels
[BMI-1782] 08 p0914 N67-16885
Design, fabrication, and evaluation of silicon solar cell for near sun mission
[NASA-CR-72062] 08 p0795 N67-16825
Microorganism strain resistance to critical doses of ultraviolet rays
[NASA-TT-F-10720] 08 p1237 N67-18508
Radiation resistance of long lived lymphocytes and plasma cells in mouse and rat lymph nodes
[USNRDL-TR-1074] 10 p1565 N67-21725
Increased radiation resistance of potato under anoxia 16 p2826 N67-29211
Diffusion process for lithium doping of solar cells, and electrical characteristics and radiation resistance of solar cells
[NASA-CR-83955] 24 p4377 N67-39711
RADIATION SHIELDING
SA HEAT SHIELD
SA SPACECRAFT SHIELDING
Interpolation formula for neutron self-shielding factor
[KFK-364] 01 p0134 N67-10681
Spaceflight experiment to assess radiation shielding calculations
[NSL-65-158] 01 p0149 N67-10689
Local radiation shielding design problems of astronaut 03 p0219 N67-11895
ISOSHLD /Isoshield/ computer code for performing gamma ray shielding calculations for isotope sources
[BNWL-236] 03 p0436 N67-12600
Performance analysis of spherical and cubical multilayer iron and water enclosure shields in real fallout field using Monte Carlo method
[BRA-T55] 04 p0584 N67-13695
Nuclear technology progress in power density, radiation shielding, nuclear reactor core, IBM 9040 computer program, and related topics
[IDO-17191] 04 p0576 N67-13984
Thermal radiation shielding from metal foils
[ALO-3623-4] 04 p0561 N67-14025
Nomogram for determining shield thickness for point and line sources of gamma rays
[AE-252] 05 p0742 N67-14547
Shielding against radioactive materials used as energy source 06 p0911 N67-15565
Bibliography of computer codes on radiation and nuclear shielding
[NASA-CR-81301] 06 p0941 N67-16540
Anticontamination clothing as protection against radiation damage or injury
[CONF-660831-1] 07 p1031 N67-17544
Calculations and reactor experiments to improve shielding materials, geometry, and radiation measuring devices
[EUR-2980.D] 07 p1126 N67-18005
Neutron physics studies in high energy radiation shielding and detection
[NASA-CR-77961] 08 p1333 N67-19708
Neutron physics researches dealing with nuclear reactors, radiation detection and shielding, and mathematics and computer programs for data processing
[ORNL-3975, VOL. I] 08 p1323 N67-19821
Thermal neutron flux calculations by Monte Carlo and other codes, experiences with SNAP power plants, and applications of discrete-ordinate transport theory to radiation shielding problems 08 p1323 N67-19824
Literature reviews on reactor and weapons shielding, space and accelerator shielding, and related computer codes - Radiation Shielding Information Center programs 08 p1324 N67-19825
Attenuation of nitrogen-capture gamma rays in concrete
[NDL-TR-82] 09 p1481 N67-20179
Handling procedures and design for high level alpha gamma boxes at laboratory for

radioactive solids in Germany
[JUL-251-RW] 10 p1885 N67-21305
Calculated gamma radiation exposure field from point isotropic sources of cobalt 60 and cesium 137 near surface of semiinfinite concrete slab
[REPT.-2] 11 p1936 N67-22528
Experimental analysis of large fallout shelter management, environmental threat, and small shelter habitability under conditions of stress
[AIR-D98A/1AND2/-9/66-FR] 11 p1798 N67-22615
Shielding effectiveness of permanent structures of Test Cell C complex of rocket facility during full power run of Kiwi B4D-302 nuclear reactor - gamma and neutron radiation doses
[LA-3623-MS] 12 p2150 N67-24585
History of two-mile linear accelerator, including radiation shielding, site, accelerator housing, auxiliary systems, and use in elementary particle physics
[SLAC-62] 13 p2301 N67-25986
Slant thickness calculations between successive quadric surface representations of space vehicle and shield configurations
[RM-345] 13 p2490 N67-26355
Shielding properties of pharmaceutical chemical agents to proton radiation determined in rats and mice
[NASA-CR-84009] 13 p2261 N67-26407
Satellite instrument performance and flight data processing for radiation shielding experiment
[AFWL-TR-66-94] 14 p2618 N67-26879
Motions of low density crossed field electron beams studied on computer in plasma radiation shielding investigation
[NASA-CR-84403] 14 p2597 N67-27362
Plasma radiation shield concept and applications to space vehicles
[NASA-CR-84430] 14 p2600 N67-27709
Computer program, radioisotope thermoelectric converter shielding, and thermionic energy conversion for spacecraft power supply systems 16 p2821 N67-29144
Optimization of shield against mixed radiation
[ORNL-TR-1499] 16 p2941 N67-29280
Nuclear electric spacecraft configurations effects on mass of spacecraft radiation shield, heat rejection radiators, booster adapter, and aerodynamic shroud subsystems
[NASA-CR-84998] 16 p2974 N67-29431
Neutron danger functions in analysis of reactor radiation shielding 17 p3113 N67-31242
Method of removal of neutron absorption, elastic scattering, and inelastic scattering cross sections, and application to heavier shielding media 17 p3113 N67-31245
Experimental verification of multiple group method for calculating three-dimensional neutron energy distribution for radiation shielding 17 p3007 N67-31246
Neutron absorption and scattering cross section method for radiation shielding calculations 17 p3113 N67-31247
Radiation shielding calculated by approximation method using conjugate equations and perturbation theory 17 p3114 N67-31250
Fast neutron attenuation in nonhydrogen moderators for radiation shielding of reactor vessels 17 p3114 N67-31251
Primary radiation attenuation in heterogeneous medium and monoenergetic neutron scattering 17 p3114 N67-31254
Monte Carlo method for computing particle and gamma radiation transfer for radiation shielding 17 p3114 N67-31259
Three-dimensional energy distribution of fast and intermediate neutrons in iron shielding 17 p3115 N67-31260
Fast neutron spectra in concrete and water used as shielding 17 p3115 N67-31261
Neutron and gamma attenuation cross sections in concretes with additives for shielding material 17 p3115 N67-31262
Dose buildup factors of gamma radiation for heterogeneous media, for shielding calculations 17 p3115 N67-31263
Buildup dose factors with inclined incident gamma radiations, for radiation shielding design 17 p3115 N67-31265
Spectral energy and angular distributions of gamma radiation through single and double layered shielding barriers 17 p3115 N67-31266
Gamma radiation transmission through shielding with slit 17 p3116 N67-31270
Research project on plasma radiation shielding for spacecraft application
[NASA-CR-86014] 18 p3212 N67-31654
Radiation levels in area of external proton tunnel of Argonne Zero Gradient Synchrotron, and shielding protection
[ANL-7273] 18 p3306 N67-31706
Gamma radiation properties of cylinder placed behind and axially perpendicular to slab - evaluation of effectiveness of radiation shielding on ships
[USNRDL-TR-67-42] 19 p3467 N67-32857
ISOSHLD-II shielding code for calculating dose rate from shielded bremsstrahlung and/or decay gamma rays emitted by radioisotope sources
[BNWL-236, SUPPL. 1] 19 p3503 N67-33063
Experimental and theoretical studies in spectroscopy and transport problems of electron shielding
[NASA-CR-87143] 19 p3506 N67-33567
Glove box for preparation of thorium-boron sources
[UUIP-517] 19 p3427 N67-33736
High voltage electron microscope construction guidelines on flexibility, radiation shielding, remote control operation, and horizontal mounting 19 p3459 N67-33815
Critical evaluation of Markov matrix method for treating neutron diffusion through slabs of materials such as shield or inside wall of fallout shelters
[R-529] 20 p3691 N67-34115
Remote maintenance techniques considered in determining main ring enclosure size for 200 GeV accelerator
[UCRL-17195] 20 p3621 N67-34389
Buildup of charged radiation component in shielding
[JINR-P-2269] 21 p3981 N67-35906
Radiation shielding calculations for conceptual design of fast test reactor sodium cooling
[BNWL-388] 22 p4094 N67-37667
Neutron and gamma ray shielding, heat transfer problems and physics theory for thermionic reactors as power supply for spacecrafts
[BMWF-FBK-67-46] 22 p4095 N67-37907
Neutron dose composition in shielding materials 23 p4310 N67-38963
Solution of neutron age equation for plane cosine law source 23 p4311 N67-38965
Fission chambers for study of neutron shielding 23 p4311 N67-38969
Anticoincidence scintillation shield gamma spectrometer 23 p4254 N67-38970
Spectral angular radiation distribution from channel walls in shielding 23 p4311 N67-38974
High energy proton shielding properties of lead, polyethylene, titanium hydride and aluminum 23 p4311 N67-38975
Radiation shielding protection calculations for electron accelerators 23 p4233 N67-38979
Techniques for measuring neutron energy spectra in photographic emulsions
[NDL-TR-92] 24 p4499 N67-39651
RADIATION SICKNESS
X-ray gamma ray irradiation effect on auditory apparatus
[NASA-TT-F-10852] 01 p0013 N67-10236
Influence of vibration on radiation injury in mice and dogs 02 p0090 N67-11566
Problems of radiation sickness prevention and treatment
[JPRS-39291] 04 p0495 N67-14219
Pathological process of X-ray injuries to skin
[NASA-TT-F-10830] 06 p0798 N67-15550
Changes in peripheral division of auditory analyzer in acute radiation sickness
[NASA-TT-F-10361] 08 p0798 N67-15553
Autonomic and cardiovascular disorder during chronic exposure to superhigh frequency electromagnetic fields
[ATD-66-124] 09 p1398 N67-19534
Drugs for prevention of disease and radiation damage, stimulation of adaptive mechanisms, and treatment of disease during space flights
[NASA-TT-F-10410] 14 p2452 N67-26632
RADIATION SOURCE
SA POINT SOURCE
Stellar X-ray radiation source observation from rockets, and rocket instrumentation
[ESRO-SM-59] 03 p0464 N67-12651
Commercial possibilities of irradiated wood-plastic materials in flooring, furniture, veneers, and plywood shapes, and suggested use of cesium 137 as radioactive source 04 p0564 N67-12971
Design of radiation source and shield for application to studies of effect of gamma irradiation on natural populations of rodents
[CEX-63.10] 04 p0490 N67-13020
Construction and operation of mobile irradiator with cesium 137 05 p0737 N67-14842
Cosmic X-ray emissions in energy range 20 to 180 keV detected during balloon flights 10 p1758 N67-21772
Method to determine content of relativistic protons and electrons in synchrotron radiation sources
[NASA-CR-83534] 11 p1973 N67-22280
Solution to problem of multiple scattering in slab illuminated by parallel rays of radiation expressed in terms of problem with isotropic radiation sources
[RM-5295-PR] 14 p2561 N67-26911
Unidirectional radiation sources for determining neutron distribution through nuclear reactor shielding 17 p3116 N67-31272
Production of far infrared radiation source by mixing two laser generated frequencies
[FE-TR-6779] 18 p3278 N67-32886
Strong X-ray source in vicinity of constellation Crux 19 p3538 N67-33720
Cobalt 60 source arrangement and room dimensions for low exposure rate total body irradiation facility for man
[NASA-CR-87796] 20 p3586 N67-35130
High power plasma radiation source developed for operation at 150 kW and 1000 A in radiative heating system
[NASA-CR-73133] 23 p4165 N67-37618
Angular energy distribution of gamma radiation from semi-infinite medium with uniformly distributed isotropic sources 23 p4311 N67-38973
Fluid transpiration arc radiation source for solar simulation
[NASA-CR-89738] 24 p4513 N67-40848
RADIATION SPECTRUM
Calculating integral generation multiplicity factor for neutron detector and ionization chamber to determine solar cosmic ray spectrum in high energy region
[NASA-CR-80157] 03 p0457 N67-12913
Incident and reflected ultraviolet and infrared electromagnetic background at Saturn complex and in area of hydrogen flame
[NASA-CR-86987] 05 p0708 N67-14817
Spectra and angular correlations of gamma rays emitted in neutron capture to resonance levels in tungsten, platinum, xenon, and silver 06 p0933 N67-15645
Fortran program for computing degradation by beta spectra emerging from particulate debris
[USNRDL-TR-1008] 09 p1479 N67-19782
Auger, internal conversion, and gamma ray spectra from protactinium 233 decay and photoelectron scattering effect on internal-external method
[TID-23362] 10 p1726 N67-21613
Gamma spectrum of tantalum 182 for energy range 50 to 1500 keV studied by using semiconductor spectrometer
[JINR-P6-2979] 11 p1942 N67-22196
Comparison of Tiros VII 15-micron band radiometer temperature measurements with data from radiosonde measurements 12 p2139 N67-24388
Spectral radiance measurements of scale model rocket engine exhaust gases at simulated altitude using high speed scanning spectrometer
[NASA-CR-83237] 13 p2302 N67-25891
Beta radiation spectra uranium 235 fission products at selected times after fission
[NASA-CR-84001] 13 p2300 N67-26119
Earth atmospheric radiation spectral influences on infrared measurements of planetary atmospheres
[NASA-CR-84157] 14 p2610 N67-26597
Spectrum of electromagnetic radiation in 1 to 16 Hz frequency range observed with east-west and north-south horizontal wire antennas from January - July 1965
[SR-3] 14 p2486 N67-26746
Spectrum composition of radiation, radiativity, and absorptivity of air at high temperatures 15 p2892 N67-28669
Gamma and conversion electron spectra from rhenium 184 decay
[ORNL-TR-1442] 16 p2941 N67-29275
Method for calculating infrared radiation from planetary atmospheres

[BMWF-FB-W-67-62] 17 p3159 N67-30793
Gamma radiation spectrum of experimental water moderated reactor 17 p3115 N67-31284
Spectral differences of gamma rays during radiation capture of thermal neutrons and of neutrons with reactor spectrum 17 p3116 N67-31269
Noise spectral and directional characteristics of air stream escaping from conical nozzle under excess pressure [FTD-HT-66-396] 21 p3894 N67-25291
Short lived beta and gamma spectra of short lived isotopes in 2s 1d shell [P-79] 21 p3899 N67-25684
Mathematical model of monopulse excitation for maximal gain antenna radiation patterns with sidelobe constraints [AFCRL-67-0823] 22 p4061 N67-37859

RADIATION THERAPY
Conference papers on radioactive isotopes, power reactors, nuclear propulsion, radiation therapy, and related topics [DP-1066, VOL. I] 06 p0089 N67-15525
Radioprotective activity and properties of selected chemical compounds in large animals [USAMR+DC-6007] 06 p0804 N67-16340
Isotopic cesium radiation equipment for diagnostic and therapeutical treatment [JUL-194-ST] 11 p1793 N67-23029
Irradiation facility and equipment for therapeutic tumor treatment of very small animals [JUL-356-ME] 11 p1925 N67-23033
Experimental review on negative pion application in radiotherapy [UCRL-17441] 21 p3907 N67-26620

RADIATION TOLERANCE
General radiation sensitivity of organisms [NP-16258] 18 p3210 N67-31904

RADIATION TRANSFER
Atmospheric effects, equations, and computed results considered in comparison of long wave radiation charts [EMM-65-35] 06 p0073 N67-16130
Theory of radiation transfer in inhomogeneous medium 06 p1358 N67-18907
Radiation transfer and radiant heat exchange in spherical and cylindrical radiating systems 06 p1394 N67-19169
Asymptotic properties of approximate solutions for integral equations of radiative transfer in strongly absorbent media [MRC-662] 06 p1469 N67-19766
Problems relating to use of satellite observations on aerosol layers and cirrus clouds in upper troposphere and lower stratosphere, and radiative transfer theory 12 p3139 N67-24965
Interdisciplinary aspects of radiative energy transfer in which radiation field acts as diagnostic probe [DOC.-67SD5223] 15 p2754 N67-32639
H functions for transfer of radiation in Doppler broadened resonance line [CLM-TRANS-9] 15 p2771 N67-32948
Radiation transfer in spectral line and properties of transfer equation solutions to facilitate numerical solution and improve accuracy of approximation method [CLM-TRANS-10] 15 p2771 N67-32949
Radiation transfer in spectral lines, and applications to plasma kinetics and diagnostics [FTD-MT-65-531] 18 p3357 N67-32683
Inverse problem of radiative transfer as applied to remote measurements of infrared radiation from planetary atmospheres [NASA-TM-X-55857] 19 p3549 N67-32949
Numerical method for computing equation of radiative transfer for plane parallel atmospheres [R67SD22] 19 p3497 N67-32894
Monte Carlo code for solving one-dimensional nonlinear radiation transport problems in real materials [UCID-15133] 19 p3507 N67-33628

RADIATIVE HEAT TRANSFER
Radiative heat transfer effects on shock wave structure [TG-230-T499] 01 p0060 N67-10854
Approximate method for calculating thermally insulated layer in system radiating heat to ambient medium [TG-230-T498] 01 p0166 N67-10943
Transient radiative heat exchange at moon surface [D1-82-0559] 01 p0155 N67-11060
Transient radiative heat exchange calculated for arrays of cubes and thin parallel plates [D1-82-0547] 01 p0167 N67-11046
Total equilibrium shock layer radiative heat transfer for entry body configurations in simulated Mars atmosphere 02 p0318 N67-12109
Radiative transport effects in corner flow - solution to diabatic flow problem found as perturbation on adiabatic Prandtl Meyer solution [TR-124] 06 p0090 N67-15414
Volumetric absorption coefficient effect on Rosseland radiative heat transfer [P-3061-1] 06 p0981 N67-16380
Vacuum system apparatus for experimental determination of radiative heat transfer between parallel flat metal plates [ARL-66-0103] 06 p0981 N67-16455
Convective and radiative heat transfer to entry vehicles with ablative heat shield [NASA-CR-72060] 06 p0982 N67-16567
Convective and radiative heat transfer to blunt bodies at angle of attack [NASA-CR-72061] 06 p0983 N67-16571
Comparative study of total equilibrium shock layer radiation for three potential Mars entry body shapes [NASA-CR-61075] 07 p1210 N67-17948
Theory of radiant heat exchange for nongray nondiffuse surfaces in space environment [NASA-CR-61053] 07 p1210 N67-17996
Radiative heat transfer in solid with simultaneous transmission, absorption, and re-radiation [FS66-2] 11 p2000 N67-23127
Light and heat radiation in stratus clouds [TT-66-51014] 11 p1873 N67-23418
Methods for analyzing spectral and directional effects in radiative heat transfer [SC-CR-66-2134] 12 p2234 N67-23773
Variations of radiation with large scale circulation and possible feedback of radiative heating on circulation 12 p2136 N67-24398
Fundamentals of thermal radiation [NASA-TT-F-10069] 14 p2690 N67-29577
Approximate method for calculating temperature field in infinite plate heated simultaneously by radiation and convection [NASA-TT-F-10060] 14 p2833 N67-27312
Mathematical model for analyzing damage to phenolic honeycomb spherical impact limiter, and shock layer radiative heat transfer for Mars entry body shapes 16 p2976 N67-29148
Radiative heat transfer for large body at meteoric speeds in earth atmosphere assuming gray gas radiator [NASA-TN-D-4051] 16 p2977 N67-29168
Infrared radiative heat transfer in nongray nonisothermal gases [ARL-67-0015] 16 p2984 N67-29234
Fortran IV program for computing radiation configuration factors for various three-dimensional geometrical shapes - subroutines [NASA-CR-65504] 16 p2988 N67-30166
Heating equipment to control radiation hazards, and for improved space vehicle design 17 p3176 N67-29681
Radiation diffusion without redistribution by frequencies, equations for radiative transfer, and stellar spectrum 17 p3143 N67-31623
Randomized problem of diffuse reflection, and radiative transfer in presence of both scattering and absorption 17 p3134 N67-31624
Carbon radiant heat transfer from plume mixing region to base of rocket vehicle [NASA-CR-85835] 17 p3152 N67-31182
Ionization method of measuring radiative heat transfer in water moderated reactor vessels 17 p3116 N67-31271
Limitations of theory of radiative transfer in lunar surface, and modified version for prescribing behavior of infrared radiation recorded on earth 18 p3238 N67-31948
Radiation from absorbing scattering conical dispersion with nonuniform density [SSD-66571R] 18 p3285 N67-32668
Integro-differential equation of radiative heat transfer 18 p3285 N67-32684
Gebhart method applied to calculate radiative heat transfer of satellite exposed to solar simulator radiation in vacuum chamber [ESRO-TN-13] 19 p3428 N67-32643
Heat and mass transfer characteristics of axial-flow liquid-core nuclear rocket engine employing radiation heat transfer [NASA-TN-D-4127] 19 p3494 N67-32877
Computer program for calculating radiation diffusion and hydrodynamic motion used for describing explosion, shock wave, nuclear fireball, and other dynamics problems [RM-5187-PR] 20 p3622 N67-34669
Qualitative evaluation of combustible materials based on temperature and radiation measurements [ISL-T-21/66] 20 p3591 N67-34849
Low temperature communications satellite cooled by passive radiative heat transfer [RADC-TR-67-130] 21 p3895 N67-25649
Diffusion analysis on radiant heat transfer from gaseous nuclear fuel container to annulus of flowing hydrogen [NASA-TN-D-4164] 21 p3947 N67-25764
Restricted variational principle and solution of radiative transfer equation for gray gas [PIBAL-1029] 21 p3947 N67-25925
Analysis and measurement of radiative heat transfer between simply arranged surfaces [AFFDL-TR-67-94] 22 p4158 N67-26717
Optical system for radiative heat transfer for thermal protection of reentry vehicle [NASA-CR-72122] 22 p4159 N67-26726
Analytical determination of shutter type temperature control system effective radiative properties [REPT.-65SD229] 22 p4160 N67-26869
Computer program for calculating radiation from nonisothermal, nonisoberic, inhomogeneous, multicomponent rocket exhaust plume [NASA-TM-X-53823] 22 p4160 N67-27263
Solution to radiative heat transfer equation for gray gas enclosed between two plane surfaces using moment method [PIBAL-1024] 23 p4164 N67-27457
Collisional and radiative energy transfer process effects on population distribution in expanding gas flows 23 p4236 N67-28686
Radiative heat flux and frequency averaged absorption coefficients calculated for plane parallel radiating gas slab [RIAS-TR-67-8C] 24 p4349 N67-29628
Radial heat transfer at wall in packed beds of reactor system [AAEC/TM369] 24 p4389 N67-29645

RADIATIVE RECOMBINATION
Production of recombination continua in spark discharge for absolute intensity measurement in vacuum ultraviolet [JUL-300-PP] 07 p1167 N67-17985
Stimulated recombination radiation from p-n junctions in indium arsenide 16 p2961 N67-30059
Nonlinear problems of theory of radiative transfer, and determination of diffuse reflection for forbidden and other transitions 17 p3194 N67-31699
Theory of radiative diffusion in gases 17 p3161 N67-31821
Pressure effect on optical absorption, radiative recombination, and resistivity of gallium antimonide [HP-19] 22 p4128 N67-27590

RADIATOR
SA CONDENSER RADIATOR
SA HEAT REJECTION DEVICE
SA SPACE RADIATOR
SA SPACECRAFT RADIATOR
Sensitivities of condenser, radiator, and pump bypass temperature controls to control flow [NASA-CR-72217] 11 p1999 N67-23042
Radiator design evaluation of L/C coolant loop for SNAP-8 - digital computer evaluation [NASA-CR-72216] 11 p1923 N67-23047
Size and weight evaluation of insulated cylindrical radiators used in SNAP-8 heat rejection system [NASA-CR-72218] 11 p1923 N67-23049
Weight-area tradeoff evaluation of radiator used in SNAP-8 [NASA-CR-72299] 11 p1923 N67-23050
Size and temperature approximation analysis of cylindrical radiator with internal heat rejection use for SNAP-8 [NASA-CR-72211] 11 p1999 N67-23057
Diode-iris controlled waveguide slot radiators [NASA-CR-783] 12 p2027 N67-25718
Channeling systems for linear array antennas having special radiating surface and location 15 p2776 N67-26119
Liquid metal radiator and condenser test

facility
[NASA-TM-X-1396] 16 p2872 N67-29169
Top capacity electrically small antenna study with emphasis on radiator-transistor integration
[SR-1] 19 p3405 N67-33458
Total and differential detection efficiencies for circular detector viewing circular radiator of finite thickness
[AE-292] 23 p4103 N67-37066
Threshold Cerenkov counter with Perspex radiator
[JINR-P13-3228] 23 p4253 N67-38900
RADICAL
SA FREE RADICAL
Ultraviolet and visible absorption spectra of electrons, unstable radicals, and ions
[UUV-1625] 15 p2659 N67-23411
RADIO
Elementary theory on radio guidance and tracking stations
[ELDO-TM-F-17] 03 p0235 N67-11971
Progress reports on data processing, radio physics, engineering, and solid state physics
[ESD-TR-67-345] 21 p3803 N67-35859
RADIO ALTIMETER
Interference effects in FM/CW radio altimeter installations for automatic landing control
[RD-67-21] 23 p4254 N67-38952
RADIO ANTENNA
SA RHOMBIC ANTENNA
Modified root-mean-square computer program used to evaluate distortion of reflective surface of paraboloidal antenna - Deep Space Instrumentation Facility /DSIF/
03 p0237 N67-12136
Wullenweber antenna arrays
05 p0365 N67-12640
Radio antenna and radioelectric liaison of weightlessness laboratory
[TP-374/1966/] 04 p0510 N67-13644
Construction and operation of tower antenna structures for radio communications, radio broadcasting, and television
[JPRS-39965] 04 p0510 N67-13701
Noise temperature calibrations of Venus Deep Space Station radio frequency cone antenna
05 p0672 N67-14443
Efficient antenna systems - aperture blockage and surface tolerance loss calculations for nonuniform illumination and error distribution
05 p0673 N67-14445
Composite thermoplastic-glass filament reinforcement developed for buoyant submarine cables and antennas
[IR-3] 06 p0899 N67-16128
Effects of atmosphere on maximum-size radio telescope variable-profile reflector antenna
[JPRS-39710] 11 p1826 N67-23404
Tabulated radio antenna noise measurements
[IER-18-ITSA-18-27] 13 p2091 N67-23837
Expandable directive high gain spacecraft antenna
[NASA-CR-83787] 13 p2378 N67-25497
Spectrum of electromagnetic radiation in 2 to 16 Hz frequency range observed with east-west and north-south horizontal wire antenna from January - July 1966
[SR-3] 14 p2466 N67-26746
Shock layer and frontal ionization effects on radiation field of ELDO launch vehicle third stage telemetry antennas
[ELDO-TR-3] 15 p2665 N67-27926
Algorithm constructed for numerical calculation of structure of electromagnetic field of arbitrary antenna system located above earth surface
15 p2667 N67-28151
Communications antenna heaters to prevent icing
[RD-66-101] 15 p2671 N67-28606
Radio antenna, transponder, multipacting in coaxial transmission, and radar beam geometry for spacecraft guidance and telecommunication
16 p2855 N67-29164
Soviet textbook on theory of long lines, radio wave propagation and electromagnetic waves, antenna engineering, and feeder devices
[FTD-HT-66-300] 16 p2860 N67-29429
Antenna breakdown in presence of plasma sheath and effects of forced convection
[TR-135] 17 p3023 N67-30468
Telemetry and command antennas for atmospheric composition satellite
[SR-6] 17 p3025 N67-30620
Structural stress and deflection and electrical performance analyses of boom antenna configurations for spinning navigation satellite
[NASA-CR-85001] 17 p3103 N67-31479
Applications Technology Satellite F and G project analytical report including description of 30 foot diameter, deployable spacecraft antenna with good RF performance up to 10 GHz
[NASA-TM-X-55837] 18 p3342 N67-32118
Design and evaluation of composite thermoplastic and glass filament reinforcement for buoyant submarine antenna cables
[IR-5] 19 p3476 N67-32837
Very high frequency and ultrahigh frequency communication antennas effect on performance of VOR/VORTAC facility
[RD-66-89] 20 p3691 N67-34423
Electrical parameters of antenna and soil for design of linear near ground and buried antennas
[JPRS-41131] 21 p3795 N67-35386
Limitations and improvement of HF and VHF small radio antennas for tactical communications
[AIL-1748-1] 22 p3996 N67-36906
RADIO ASTRONOMY
Radio astronomy observations of solar activity
[AR-23] 01 p0147 N67-10029
Radio astronomical studies in OH interferometry, discrete radio sources, and spectrum measurements of Venus and Jupiter
[NASA-CR-79923] 02 p0304 N67-11853
Narrow band studies of solar bursts using high resolution radio spectrographs
[AFCRL-66-590] 02 p0304 N67-11933
Frequency dependence of cosmic radio noise attenuation during solar flares studied by radio astronomy method
[T-38] 03 p0456 N67-12454
Research reports in theoretical physics, plasma dynamics, spectroscopy, radio astronomy, and communication sciences and engineering
[NASA-CR-80695] 05 p0779 N67-14621
Radio astronomy studies in 18-cm line emission sources, fringe visibility of bright radio sources, and spectral features of Venus and Jupiter
05 p0759 N67-14623
Radio interferometric measurements of flux densities, positions, and angular widths of planetary nebulae
[AD-642165] 06 p0959 N67-15417
Position of radio source 3C 17 derived from 9 occultation events
[REPT.-101966] 06 p0819 N67-15960
Radio astronomical data smoothing by means of analog filtering and sampling at uniform intervals
[CRSR-251] 06 p0967 N67-16122
Radio and radar studies of space plasmas, lunar and planetary surfaces, communication theory, and spacecraft instrumentation
[NASA-CR-81306] 06 p0969 N67-16602
Instrumentation used to detect and analyze spectral line radio astronomy signals
07 p1192 N67-17787
Instrumentation and antenna development, solar observations, and lunation observations in study of millimeter wave radiometry for radio astronomy
[NASA-CR-81644] 07 p1040 N67-17979
Interplanetary scintillation observations from solar wind inhomogeneities
[NASA-CR-82481] 08 p1306 N67-18989
Astronomical observations through X-ray, ultraviolet, and radio astronomy
08 p1366 N67-19023
Programming system development for analysis of galactic and extra-galactic emission observations
[PR-3] 09 p1509 N67-19539
Research summaries in general areas of electronics, materials science, and general sciences
[PB-172681] 09 p1485 N67-19930
General physics - molecular beams, molecular collisions, microwave spectroscopy, radio astronomy, plasmas, energy conversion, noise in electronic devices, and neutron neutrality
[RLE-QPR-82] 10 p1693 N67-20832
Radio physics and astronomy research
[ESD-TR-66-446] 11 p1976 N67-23542
Radio astronomy - Haystack-Millstone OH interferometer, K-band spectrum measurements of sun, inference of atmospheric attenuation from balloon flights, and microwave emission
11 p1976 N67-23545
Research projects in radio wave propagation, noise levels, equipment, radio astronomy, and radio and space research
[CSIR-TEL-60] 11 p1823 N67-23900
Ionospheric physics, radio propagation, aeronomy, radio astronomy, space research, and interdisciplinary studies in International Quiet Sun Year
11 p1871 N67-23939
Low frequency radio astronomy in space
12 p2211 N67-24275
VLF propagation and solar microwave radio emission measurements at Brazil radio astronomical observatory
[GRAM-33] 13 p2276 N67-25141
Personnel and equipment at radio astronomical observatory, and VLF measurements during 20 May solar eclipse
13 p2276 N67-25142
Very low frequency tracking stations for radio astronomy, and initial signal analyses
13 p2277 N67-25143
Scientific research in atomic physics, solid state physics, and radio and X-ray astronomy
[NASA-CR-84299] 14 p2884 N67-26616
Radio and X-ray astronomy research on X-ray polarization, X-ray telescope and planetary atmosphere
14 p2611 N67-26620
Observations of galactic and extragalactic emission, accurate positions of radio sources by lunar occultation technique, and observations of emission from flare stars
[PR-1] 14 p2699 N67-27013
Radio astronomical studies of microwave spectrum, radial velocity, dielectric constants, and emissions
14 p2612 N67-27065
Neutral hydrogen studies of galaxies with single spacing interferometer
[AD-649852] 16 p2969 N67-29544
Toxicity of metal surface to biological cultures, and millimeter-wave astronomy
[PB-173834] 16 p2969 N67-29577
Millimeter-wave radio astronomy and observatory equipment
16 p2969 N67-29579
Radio astronomy and interplanetary communication
17 p3021 N67-30236
Data systems, radio physics, radar microwave component development, mechanical engineering, and solid state research
[ESD-TR-66-173] 17 p3025 N67-30710
Radar and radio astronomy methods for satellite, ionospheric, auroral, and lunar surveillance
17 p3026 N67-30712
Electronic systems integration plan for radio astronomy Explorer satellite
[NASA-TM-X-55855] 19 p3542 N67-33053
Metastable atoms and ions, atomic and molecular spectroscopy, radio astronomy, solid state physics, collision, and laser excitation
[PR-15] 22 p4099 N67-37381
Solar radiation analysis using radio astronomy observations
[NASA-CR-83889] 22 p4138 N67-38038
RADIO ASTRONOMY EXPLORER /RAE/ SATELLITE
Current distributions and radiation patterns of resistively loaded V-antenna at quarter scale for radio astronomy Explorer satellite
[NASA-CR-82906] 09 p1418 N67-19934
Variable ratio dc transformer regulator used to process main vehicle power from solar array battery power system in radio astronomy explorer spacecraft
[NASA-TM-X-55758] 12 p2018 N67-23970
Quality control assurance for coatings used on satellites, and getter-ion sublimation pumps with controls and power supplies
18 p3282 N67-32060
Photographic recording and strain gage transducer techniques for observing RAE satellite extendible antenna boom motions during damping tests
19 p3403 N67-33128
RADIO ATTENUATION
Radio refractive index of atmosphere, tropospheric refraction, and synoptic radio meteorology
[NBS-MONOGRAPH-92] 01 p0096 N67-10341
Ferrite-filled transmission line filters used as dissipative radio frequency attenuators to reduce electromagnetic radiation hazards
[W-11/66] 07 p1052 N67-17971
Signal attenuation, signal distortion, and radio noise generation due to ion engine exhaust beam
[NASA-CR-81651] 07 p1041 N67-17998
Low frequency and very low frequency ionospheric attenuation calculated on basis of wave theory
[RM-5196-PR] 16 p2855 N67-29131

RADIO AURORA
Auroral electric fields in magnetosphere, visual and radio aurora and currents in ionosphere
[REPT.-66-15] 03 p0449 N67-13654
Synoptic measurements of field aligned data associated with radio aurora, shower meteor detection, and ionospheric electron content used for evaluating satellite radar system
[NRL-MEMO-1768] 19 p3400 N67-32877
RADIO BEACON
Radio beacons on drifting ice and drifting automatic radiometeorological stations in Arctic Ocean 03 p0388 N67-12906
RADIO BLACKOUT
SA IONOSPHERIC BLACKOUT
Daily indices of ionospheric blackout incidence in polar cap and in auroral zone for years 1957 through 1965
[NASA-TM-X-55635] 05 p0765 N67-15156
Admittance of wedge excited coaxial antenna with plasma sheath
[NASA-CR-66265] 07 p1041 N67-17989
Bibliography of technical reports on plasma sheath phenomena and communications blackout during vehicle atmospheric reentry
[NASA-CR-66280] 08 p1251 N67-19139
Planetary entry blackout, instrumentation and data reduction for lunation experiment, spacecraft communications system, and low noise transponder preamplifier 20 p3603 N67-34779
RADIO BURST
SA SOLAR RADIO BURST
Definition and classification of solar flare X-ray bursts 12 p2306 N67-24464
RADIO COMMUNICATION
SA DOUBLE-SIDEBAND RADIO COMMUNICATION
SA GROUND-AIR-GROUND COMMUNICATION
Nomograph for calculating signal-to-noise ratio for given set of parameters on single path line-of-site radio link
[RAE-TR-66001] 02 p0235 N67-11878
Evaluation of short form of radio code aptitude test
[SRR-67-2] 03 p0352 N67-12363
Maximum usable frequency computation for short wave radio transmission, and communication at higher frequencies in presence of E-layer scattering
[JPRS-39413] 06 p0632 N67-15367
Accuracy of maximum usable frequency computations for short wave radio communication links 06 p0632 N67-15368
Short wave radio communication at frequencies exceeding maximum usable frequency caused by E-layer scattering 06 p0632 N67-15369
DeepSpace Network Research and Development
[NASA-CR-81209] 06 p0637 N67-15991
Nuclear method for detecting sulfur in thin films, atmospheric absorption by oxygen dimer complex, and problem notes in chemistry, metallurgy and ceramics, radio communications, and mechanics
[PB-173468] 09 p1486 N67-19964
Extraordinary Administrative Radio Conference to regulate space radio communications, and role of International Astronautical Federation as fact-finding body 13 p2436 N67-25284
International cooperation to establish radio communication frequencies for outer space 13 p2438 N67-25307
Radio communication system instrumentation for Mariner IV space probe, and received spectrograms
[NASA-CR-83957] 13 p2409 N67-25098
Mathematical model for atmospherics, and application to radio communication channels with additive atmospherics
[SEL-66-052] 14 p2485 N67-26489
Selection of optimal working communication frequencies through radio wave reflection from F-2 layer
[JPRS-39977] 14 p2495 N67-27740
Frequency differential phase-shift keyed digital data modem for operation over long range HF paths
[ESD-TR-66-639] 16 p2860 N67-29497
Frequency control of Navy very low frequency stations 16 p2861 N67-29575
Interplanetary radio communication with extraterrestrial civilizations - conference
[NASA-TT-F-438] 17 p3157 N67-30330
Radio communication with distant galactic planets 17 p3021 N67-30332
Interplanetary radio communication, and signal transmission 17 p3021 N67-30339
Soviet open source abstracts on communication and data transmission systems and equipment for industrial and railroad applications
[ATD-66-86] 19 p3299 N67-32796
Fundamental theory and construction of parametric amplifiers
[FTD-HT-66-425] 19 p3416 N67-33465
Transmission loss predictions for tropospheric communication circuits
[NBS-TN-101] 19 p3497 N67-33640
Foreshortened quarter-fed VHF antenna installed on military vehicle for radio communication
[AD-652943] 20 p3599 N67-34657
Fixed capacitor type antennas for long wave and ultra long wave radio communication systems
[JPRS-42199] 21 p3802 N67-36659
RADIO DIRECTION FINDER
Fixed and multiple frequency angle measurements with 35-GHz microwaves
[REPT.-33-TR] 10 p1584 N67-20656
Transistorized receiving-transmitting apparatus for radio direction finding of hydrological buoys and data transmission from buoy to vessel 11 p1818 N67-22373
Time correlations of medium and high frequency signal short samples received at separated stations
[AFCRL-66-696] 11 p1826 N67-23350
Design principles, antenna systems, and instrumental errors of radio directional finding systems
[JPRS-40256] 14 p2491 N67-27392
Radio direction finder data as backup source for meteorological detection of thunderstorms and related atmospherics centers
[T-R-573] 19 p3483 N67-32841
RADIO ECHO
Statistical characteristics of meteor radio echo in epoch of 1963 Geminids 06 p0660 N67-15448
Radio echo technique applied to measurement of electron line density in ionization trains of intermediate type 06 p0660 N67-15449
Design, construction, shielding, and performance data of 120-ft. anechoic chamber for testing radiation patterns
[NASA-CR-83947] 09 p1431 N67-19052
Ionospheric absorption loss data obtained by echo amplitude soundings at Freiburg, West Germany, for July - December 1966 11 p1871 N67-23095
Radio echo duration distributions and underdense shower meteor trains 18 p3281 N67-32055
RADIO ECHO OBSERVATION
Turbulence in upper atmosphere according to radio echo observations of meteor trains 06 p0671 N67-15454
RADIO ELECTRONICS
Canadian radio and electrical engineering bulletin articles on electronics, equipment, punched tape, navigation aids, and related subjects 03 p0366 N67-12527
Low noise amplifiers, laser radar optics, gas lasers and holography, and microminiaturized solid state devices for radio electronics 08 p0852 N67-16089
Design and performance characteristics of radio electronic, electric measurement, automatic control, and computer instruments in U.S.S.R.
[JPRS-39906] 15 p2719 N67-28101
Universal radio electronics device for studying and photographing electromagnetic superhigh frequency fields 15 p2719 N67-28105
Optimal tolerance selection for checkout of radioelectronic systems 18 p3230 N67-32304
Computer engineering methods for reliability estimation of complex radio electronics system 18 p3275 N67-32396
Rf system high power components and accelerating structures in interlaced-beam injector synchrotrons for use as possible component of injection system for 200-BeV accelerator
[UCRL-17451] 20 p3520 N67-34709
RADIO EMISSION
Decameter-wave monitoring system for synoptic observations of radio emission from planet Jupiter
[NASA-TM-X-55611] 02 p0259 N67-11394
Coherent radio emission mechanism in quasars and remains of supernovae
[NASA-CR-80577] 03 p0466 N67-13236
Radio receiving system used to sense electromagnetic emission from convective clouds to study cloud behavior 04 p0538 N67-13489
Observations of Jupiter sporadic radio emission 04 p0542 N67-13909
Solar radio flux during International Quiet Sun Year (IQSY)
[SR-006] 04 p0606 N67-13970
Methods of radio-astronomical observation and description of radio emission phenomena 03 p0896 N67-15492
Ionosphere model to explain spectrum of brightness temperatures found in radio emission from Venus 07 p1137 N67-16804
Atmospheric model compared with astronomical observations to determine effect of cloud cover and resulting high effective temperature of radio emission from Venus in centimeter range 07 p1137 N67-16805
Polarization studies of radio emission from upper layer and surface covering of planets 07 p1138 N67-16817
Theory of radiation transfer in inhomogeneous medium 08 p1208 N67-18907
Systematic observation programs for decametric radio emission from Jupiter
[NASA-CR-82376] 08 p1370 N67-19047
Kilometer cosmic radiosignal emission measurements in interplanetary space from Zond II, Zond III, and Venera II probes
[NASA-CR-83834] 11 p1971 N67-23280
Lunar and planetary studies dealing with Coude facility with 24-inch telescope, Michelson-type radiometer to measure emission from Venus, and emission spectra of silicates 13 p2380 N67-25660
Resonances at harmonics of gyrofrequencies, and influences of magnetic fields in solar active regions on cosmic radio emission 13 p2385 N67-25821
VLF propagation and solar microwave radio emission measurements at Brazilian radio astronomical observatory
[GRAM-23] 13 p2378 N67-25141
Microwave polarimeter for radio emission measurements during 12 November 1966 solar eclipse 13 p2315 N67-25144
Radio astronomical studies of microwave spectrum, radial velocity, dielectric constants, and emissions 14 p2512 N67-27985
Mechanisms of whistler propagation and very low frequency emission generation
[AFOSR-67-0461] 15 p2702 N67-28154
Radio emission from quasi-stellar galaxies
[REPT.-3] 16 p2969 N67-29578
Radio emission spectra for optically thin planetary nebulae 17 p3162 N67-31982
Thermal measurements on lunar surface at radio wavelengths
[NASA-CR-83656] 17 p3164 N67-31997
Sporadic radio emission intensity measurements in ionosphere by Elektron II satellite
[T-494-R] 20 p3637 N67-35449
Relationship of solar radioemission flux from local sources and optically observed structure of active regions of sun
[NASA-CR-80278] 21 p3809 N67-36517
Solar corona above active regions - comparison of extreme ultraviolet line emission with radio emission
[NASA-TM-X-55923] 22 p4128 N67-37191
RADIO ENERGY
Energy characteristics of scattered electromagnetic field calculated for convex uneven surfaces of arbitrary shape 15 p2758 N67-28149
RADIO EQUIPMENT
SA ULTRA-SHORT-WAVE RADIO EQUIPMENT
SA VERY HIGH FREQUENCY RADIO EQUIPMENT
Effects of daily gain setting on code receiving performance and attitudes of radioman
[AD-642784] 09 p1484 N67-19780
Automatic remote control systems for radio engineering devices
[FTD-HT-66-559] 09 p1885 N67-20731
Lightweight portable microphone antitelegraph key used with military man pack radio equipment
[ECOM-01542-F] 11 p1819 N67-22849
Spacecraft radio studies of impedance between coaxial electrodes, S-band ranging, radar beam guidance, and rectangular cup

radiator for high impact antenna 12 p2050 N67-23684
Criteria for selecting radioactive isotopes for space propulsion systems and auxiliary power generation and synthesis of radio guidance and tracking stations 12 p2360 N67-23911
Synthesis of radio guidance and tracking stations 12 p2651 N67-23913
Generalized function of time distribution in radioelectronic equipment failure [FTD-HT-66-526] 12 p2653 N67-24489
Optical and radio equipment for detecting pulses from cosmic ray showers [UCD-CR13] 12 p2397 N67-25441
Magnesium/magnesium perchlorate batteries for field radio applications [ECOM-01763-F] 15 p2643 N67-29007
Technical handbook for radio engineering students [FTD-HT-66-265] 15 p1985 N67-29436
Geodetic radio range finding equipment containing high precision tellurometer, phase recorder, and phase difference measuring unit [FTD-HT-66-[illegible]4] 16 p2812 N67-29071
Multiple-frequency oblique-incidence very low frequency ionospheric sounder [NOLC-722] 17 p3025 N67-30655
Failure probability of radio equipment components 18 p3230 N67-32211
Reliability control and failure probability in accelerated tests of radio components 18 p3276 N67-32213
Soviet open source abstracts and bibliography on radio, loudspeaker, telephones, telegraph, and facsimile equipment 19 p3299 N67-32797
Soviet-source abstracts from 1965-66 articles on radio, telegraph, telephone, teletypes, and facsimile equipment and systems stressing railroad communications [AD-FTD-(T)-5, PT. I-II] 19 p3402 N67-33026
VHF and UHF 200-watt transmitter design and evaluation for radio communication system [RD-(T)-16] 20 p3400 N67-34337
Radio component reliability and aluminum electrolytic capacitor manufacturing [JPRS-41564] 21 p3815 N67-35605
Radio component reliability 21 p3815 N67-35606
Mathematical models of multichannel radio engineering devices affected by radio noise 21 p3796 N67-35834
Environmental testing of radio refractometers - transient response measurements [TP-3] 22 p4044 N67-36814
High temperature high power radio frequency coaxial cables for aircraft, missiles, and spacecraft [AD-656068] 22 p4013 N67-37329
RADIO FILTER
Design and production engineering measures for ceramic electric wave filters and resonators [QR-14] 09 p1425 N67-11733
RADIO FREQUENCY
SA FREQUENCY BAND
Radio frequency spark source spectrometer for analysis of high purity solids [NBS-TN-286] 01 p0072 N67-10449
Accurate phase length measurements of large microwave networks used to feed radio frequency energy to two-mile linear accelerator [SLAC-PUB-181] 01 p0036 N67-10718
Microwave correlation radiometer without RF switching [AFCRL-66-534] 01 p0054 N67-10066
Computer programming of accelerating voltage amplitude of model of circular proton phasotron radio frequency system [JINR-P-2732-1] 04 p0583 N67-13353
Radio frequencies used to probe glacial ice and determine structure and thickness 04 p0536 N67-13514
Summary reports on accelerator structures, radio frequency power sources, accelerator control and instrumentation, accelerator physics, and building and site planning [LA-3567-MS] 04 p0536 N67-13640
Traveling wave linac radio frequency system for advanced 200 BeV accelerator [BNL-10559] 04 p0529 N67-14886
Frequency drift and flash bursts connected with solar storms [AFCRL-66-[illegible]] 05 p0757 N67-15165
Improved radio frequency calibration techniques - refinement of daily system noise temperature calibration technique 06 p0838 N67-15909
Improved calibration techniques - weekly noise temperature calibrations for Mars and Venus Deep Space Stations 06 p0838 N67-15910
X-band cone radio frequency instrumentation 06 p0879 N67-15914
International conference on scientific radio propagation - time synchronization by radio frequency standard [NASA-CR-81249] 06 p0985 N67-16001
Clock synchronization by satellite, and radio frequencies from space 06 p0916 N67-16002
Radio standards and frequency measurements - radio waves, atomic time standards, international time unit, and optical radio frequency measurement techniques 06 p0916 N67-16003
Radio frequency dispersion for three-frequency dispersive Doppler receiver for use in upper atmosphere research [BRL-MR-1756] 06 p0840 N67-16072
Conference papers on radio frequency measurement techniques and equipment 07 p1056 N67-17566
Radio frequency spectrum of Sun [AFCRL-66-533] 09 p1506 N67-19627
Azimuth angle measurement errors contributed by atmosphere, using short baseline microwave antenna systems [IER-4-ITSA-4] 10 p1584 N67-20588
Radio frequency injector system for linear accelerator [BNL-10665] 10 p1711 N67-20985
Wideband, variable frequency nuclear magnetic resonance spectrometer for frequency range from 2 to 90 MHz [IS-1477] 10 p1595 N67-21624
Radio frequency chopping and klystron type bunching system for generation of ion bursts in Van de Graaff accelerator [AWRE-O-53/66] 10 p1726 N67-21627
Radio frequency perturbation measurements in long linear accelerator standing wave cavities [MURA-723] 10 p1605 N67-21828
Radio frequency energy absorption by dense plasma near ion cyclotron resonance 11 p1947 N67-21885
Absorption of radio frequency energy by plasmoid penetrating through magnetic mirror surrounded by radio frequency field 11 p1954 N67-21928
Medium energy physics program quarterly report emphasizing linear accelerator, radio frequency power sources, and instrumentation [LA-3624-MS] 11 p1854 N67-22337
Predicted median values for ordinary ionospheric ray critical frequencies and maximum usable frequencies for 4000 km for eastern zone [RRC-B128] 11 p1870 N67-22899
Predicted mean usable and critical radio frequencies in F-2 layer, Dehli, March 1967 - graph [RRC-B126] 11 p1870 N67-22967
Predicted mean usable and critical radio frequencies in F-2 layer, Dehli, February 1967 - graph [RRC-B125] 11 p1871 N67-22968
Radio frequency perturbation measurements in long linear accelerator cavities 12 p2077 N67-24082
Radio frequency manifold system model, and cavity resonance 12 p2077 N67-24083
Linac with 805 MHz radio frequency power source 12 p2081 N67-24128
Radio frequency system for AGS 200 MeV linac 12 p2081 N67-24129
Fast closed loop control of radio frequency phase and amplitude 12 p2081 N67-24130
Theoretical and experimental analyses of optimally loaded and overdriven radio frequency power amplifier [ESD-TR-66-564] 12 p2072 N67-24482
Space laws and international cooperation to regulate traffic, allocate radio frequencies, and establish legal liability 13 p2435 N67-25278
Self-contained laboratory power source providing output of 150 to 800 MHz [NASA-CR-84018] 13 p2251 N67-26369
Spontaneous radio frequency emission from hot electron plasma, and enhanced cyclotron radiation from electron cyclotron resonance discharge 14 p2596 N67-27096
Radar radio frequency filters for reduction of radar interference [RD-66-59] 14 p2489 N67-27191
Broadband, low noise, phase shift, radio frequency amplifier [AD-634663] 15 p2665 N67-27946
Results and evaluation of test instrumentation for measuring selectivity, sensitivity reduction, bandwidth limited time response, and pulse spectra [REPT.-53-5309.03] 15 p2667 N67-28250
Calibration standards and procedures for RF field intensity measuring apparatus [RADC-TR-66-687] 15 p2712 N67-28400
Microwave systems for superconducting radio frequency separators [BNL-11081] 15 p2668 N67-28423
Fast automatic phase and amplitude control of high power radio frequency systems for proton linear accelerator [LA-DC-8344] 16 p2868 N67-29263
Proton linear accelerator requiring high duty factor RF sources [LA-DC-8343] 16 p2822 N67-29699
Radio frequency bonding impedance [REPT.-300.A-744] 17 p3025 N67-30653
Installation, debugging, and testing of radio frequency beam separator in synchrotron 17 p3066 N67-30906
Ion cyclotron wave generation in uniform and nonuniform plasma including electron inertia effects - radio frequency power transfer [NASA-TN-D-4058] 17 p3145 N67-31235
Radio frequency mass spectrometer for determining composition and content of gas mixtures by ionizing gases and determining ion mass number [FTD-HT-66-690] 19 p3451 N67-32866
Satellite scintillation studies 19 p3401 N67-32901
Cyclotron-synchronous wave rf to dc power conversion - design of Pierce-type electron gun and 3 GHz Cuccia cavity [UTEC-MD-67-000] 19 p3417 N67-33577
Pole-zero analysis of input impedance in radio frequency acceleration systems [UCRL-17446] 20 p3693 N67-34351
Artificial reverberation for radio and television broadcasting rooms 20 p3602 N67-34707
Circuitry of radio frequency pulse amplitude flip-flop based on tunnel diodes [FTD-HT-66-701] 21 p3814 N67-35845
Maximum usable radio frequency over Bangkok [TR-28] 22 p3998 N67-37063
System for distributing radio frequency energy to linear accelerator from adjacent manifold [UCRL-17508] 23 p4232 N67-38309
Measurement and analysis of radio frequency spectrum of cesium fluoride and design, construction, and operation of high resolution molecular beam electric resonance spectrometer [COO-1112-112] 23 p4303 N67-38539
Operation of ion cyclotron wave generation apparatus in radio frequency self-sustained mode [NASA-TM-X-52365] 24 p4510 N67-40128
Radio frequency test console for deep space communications system simulation and telemetry and ranging system evaluation [NASA-CR-89665] 24 p4409 N67-40251
Radio frequency and dc plasma probe research [NASA-CR-89781] 24 p4511 N67-40588
RADIO FREQUENCY DISCHARGE
SA ELECTRON EMISSION
Electron oscillation observed in radio frequency study of Penning plasma discharge 03 p0394 N67-12633
Measurements of steady-state amplitude, pulsation, and excited modes on model radio frequency manifold system [UCRL-17130] 16 p1600 N67-20611
Turbulent structure and drift motions in ionosphere measured by radio frequency pulses [LTIRF-254/IP] 12 p2095 N67-24787
Superconducting radio frequency devices for use in electron linear accelerators and separators 17 p3045 N67-30965
Parameters of superconducting radio frequency filters for momentum range extension 17 p3133 N67-30997
Radio frequency losses on airframes due to high electrical resistivity of titanium and titanium alloys

[LR-30846] 23 p4972 N67-37661
Collisionless plasma generation by radio frequency discharge in mirror-geometry magnetic field 23 p4330 N67-38741
RADIO FREQUENCY HEATING
Radio frequency heating of collisionless plasmas
[ORO-3110-8] 17 p3143 N67-31034
Theoretical and experimental studies on plasma generation and confinement - stellarator design, power electronics and instrumentation systems, and magnetic field induction methods
[MATT-Q-34] 23 p4318 N67-38725
Density profile, fluctuations, and loss process in plasma produced by radio frequency heating in multipole device 23 p4319 N67-38732
Modified radio frequency coupling system for ion cyclotron resonance heating 23 p4232 N67-38772
Wavelength range of radio frequency excited nitrogen spectrum in nozzle exhaust flow jet
[CARDE-TR-574/67] 24 p4433 N67-40117
Ohmic power dissipation and energy storage in radio frequency heated low pressure helium plasma
[NASA-TN-D-4306] 24 p4511 N67-40223
RADIO FREQUENCY IMPEDANCE PROBE
Radio frequency impedance probe for electron density measurement in ionosphere
[CM-R28-10.2] 07 p1040 N67-17846
Radio frequency current injection probe developed for high power level filter analysis
[CR-67-913] 11 p1838 N67-22379
RADIO FREQUENCY RADIATION
Relation between diameter of lightning streamer and its radiated radio frequency spectrum
[NASA-CR-83475] 09 p1278 N67-19036
Radio frequency beam separator and transport system for alternating-gradient synchrotron
[BNL-10565] 10 p1711 N67-30078
Simulation of radio frequency radiation environment for susceptibility testing
[NASA-CR-83966] 13 p2381 N67-26063
RADIO FREQUENCY SHIELDING
Electromagnetic interference measurement methods for shielded enclosures
[ECOM-02351-1] 14 p2467 N67-36824
Insulation for transformer, pothead, and coaxial cable in low radio frequency system 23 p4295 N67-38773
RADIO GALAXY
Radio galactic emission and cosmic X-radiation
[NASA-CR-80681] 04 p0611 N67-13579
Quasi-stellar objects analyzed stressing theory of local versus cosmological phenomenon
[NASA-CR-80679] 04 p0612 N67-13678
Energy sources, energy amounts, and relativistic particle components of radio galaxies 05 p0761 N67-14856
Supernova and radio galaxy formation and implosion 05 p0761 N67-14858
RADIO INTERFERENCE
Development of radio interference guard squib that is combination attenuator and electroexplosive device
[NWL-TM-W-9/66] 01 p0010 N67-11102
Electromagnetic interference measurements for NASA building sites to obtain shielding design criteria
[NASA-CR-80005] 09 p1417 N67-19869
Electromagnetic noise environment at ultrahigh frequency on board aircraft
[ESD-TR-66-237] 09 p1419 N67-20194
Corona loss and radio interference levels in high voltage transmission lines under different weather conditions and choice of conductor 11 p1835 N67-22191
Pulse coding to reduce effect of ground clutter on airborne search radars
[NRL-6589] 15 p2868 N67-32323
Electromagnetic interference measurements in shielded enclosures
[ECOM-02361-2] 16 p2855 N67-29124
Interference predictions for VHF Omnirange, Tactical Air Navigation, and Instrument Landing System air navigation aids
[IER-26-ITSA-26] 17 p3102 N67-31234
Radio interference produced by recurrent thyristor switching of ac supplies
[RAE-TR-67013] 20 p3569 N67-34734
Historical analysis of electromagnetic interference and susceptibility limits as used in military specifications
[TR-1001/2307/-13] 23 p4212 N67-38122
Electromagnetic interference measurements in shielded enclosures
[A-945-3] 24 p4404 N67-39578
System noise figure and signal-to-noise ratio improvement factor proposed as criteria for comparing one array antenna system to any reference system
[DSD-R-177] 24 p4488 N67-40017
RADIO INTERFEROMETER
Interferometric effect with semiconductors in millimeter wave region
[ECOM-2774] 07 p1176 N67-17244
Direct phase reading X-band radio interferometer for attitude control of Applications Technology Satellite-4
[NASA-CR-81768] 12 p2317 N67-34610
High frequency aircraft attitude meter, and differential counting radio interferometer
[REPT.-3] 20 p3644 N67-35256
RADIO METEOR
Interplanetary particle study involving zodiacal clouds, meteoritic complex, and radio meteors
[NASA-CR-88986] 23 p4347 N67-39210
Space-density distribution of dust in solar system observed from radar meteor orbits 23 p4348 N67-39213
RADIO METEOROLOGY
Transhorizon radio-meteorological turbulence parameter combining concepts of refraction and atmospheric stability 01 p0099 N67-10247
Radio meteorological charts, graphs, tables, and sample computations 01 p0100 N67-10250
Synoptic and Nimbus I infrared radiometer data used to investigate peripheral subsidence in hurricane outflow
[NASA-CR-80333] 03 p0419 N67-12974
Microwave radiometer, horn antenna system, and techniques for collecting and analyzing meteorological data 04 p0570 N67-13487
Radio meteorology and ultrahigh frequency wave propagation, atmospheric circulation, and radar antenna design
[FTD-HT-66-40] 15 p2741 N67-28325
RADIO NAVIGATION
Very low frequency long range hyperbolic radio navigation technique for air and sea transport requirements
[TDCK-45074] 01 p0103 N67-10030
Propagation velocity correction factors broadcast from monitor stations in radio navigation system
[NRL-MR-1716] 05 p0734 N67-14994
Deep Space Network Inherent Activities Project 06 p0837 N67-15902
Electronic aids to aircraft navigation
[FTD-MT-65-94] 11 p1918 N67-23046
Experimental long range VLF relative navigation system used on research vessel Atlantis II
[AD-646056] 11 p1918 N67-23139
Advanced range and orbit determination system for radio navigation and tracking 17 p3101 N67-30830
RADIO NOISE
Ground based observations of VLF ionospheric radio noise or hiss at 8 kc/sec in Arctic
[REPT.-39] 01 p0025 N67-10078
Decision theory and binary detection of signal transmission in noisy channel, and determination of noise caused by tape in magnetic recording system 05 p0674 N67-14632
Diurnal variations of atmospherics, electron density, electric field measurements, and radio noise in magnetosphere 06 p0873 N67-16006
Airborne instrumentation and procedures for sensing and recording radio noises from clouds
[NCAR-TN-7] 07 p1072 N67-17640
Theory of linear noisy systems 11 p1834 N67-23690
External noise and antenna noise temperature calculations for 136 and 400 MHz satellite frequency bands
[DLR-FB-67-12] 14 p2490 N67-27260
Analytical sonar and radar signal processing techniques in reverberation and fluctuation noise
[RE-363] 14 p2496 N67-27734
Galactic radio frequency noise emission from protons orbiting around charged intergalactic dust particles
[NASA-CR-85063] 17 p3155 N67-31652
Atmospheric radio noise data from station near Bankok, Thailand
[SRI-4340] 19 p3491 N67-32963
Diffusion model for radio frequency noise effects of particle motion in storage ring of synchronous particle accelerator
[CERN-67-1] 20 p3696 N67-34832
Irregular pulsations of diminishing period events and generation in magnetosphere
[D1-82-0616] 21 p3830 N67-35749
Mathematical models of multichannel radio engineering devices affected by radio noise 21 p3799 N67-35834
Noise and beam investigations in crossed field electron devices
[ECOM-0069-1] 23 p4012 N67-37287
Design and construction of miniaturized wideband amplitude-modulated noise generating circuit
[ECOM-2829] 22 p4001 N67-37985
Reducing effects of parametric amplifier on weather clutter of surveillance radar receivers
[RD-67-41] 23 p4212 N67-38306
Noise model for simulating effect of tropospheric turbulence on measurements of range, range rate, angles, and angular rate associated with radio guidance and tracking stations
[ELDO-TM-F-4] 23 p4216 N67-38168
VLF radio noise at low altitudes near magnetic equator from Injun III satellite observations
[NASA-CR-89280] 23 p4349 N67-39248
RADIO OBSERVATION
Instrumentation and antenna development, solar observations, and lunation observations in study of millimeter wave radiometry for radio astronomy
[NASA-CR-81644] 07 p1040 N67-17979
Graphical methods of calculating satellite orbits for radio observation
[DLR-FB-67-93] 11 p1977 N67-22965
Rocketborne radiation detector observations of 16 cps periodicity in auroral electron precipitation
[NASA-TM-X-55611] 16 p2889 N67-30229
Radioelectrical observations of meteor trails 13 p2370 N67-25944
Radio observation of meteor incidence on earth 16 p2839 N67-29360
Radar observations of meteor deceleration when encountering atmospheric drag 18 p3331 N67-32061
Structure of major Northern Hemisphere meteor streams producing regular annual showers observed by radio 18 p3331 N67-32063
Catalog of radio observations of Jupiter for 1965-1967 - tables
[NASA-CR-89269] 23 p4345 N67-39796
RADIO PROPAGATION
SA IONOSPHERIC PROPAGATION
SA MAGNETOIONICS
Ionospheric telecommunication studies in radio wave propagation and information theory
[ITSA-TM-4] 01 p0089 N67-10879
Calculation of signal to noise ratio for HF propagation prediction
[NEL-1383] 01 p0040 N67-10031
Ionospheric radio propagation charts with predicted median foF2 and MUF/4000/F2 values in Mc/s for December 1966
[RRC-B123] 09 p1278 N67-19185
Ionospheric radio charts with predicted median foF2 and MUF/4000/F2 values in Mc/s for January 1967
[RRC-B124] 09 p1279 N67-19197
Long range propagation studies, and step frequency oblique soundings in northern Norway
[E-91] 09 p1281 N67-19215
Ground station integrated in satellite-to-satellite radio propagation experiment
[LITRF-253/IP] 09 p1414 N67-19586
Very low frequency pulse sounding system for receiving lower ionospheric radio signals
[AD-646755] 10 p1868 N67-21052
Ionospheric physics, radio propagation, aeronomy, radio astronomy, space research, and interdisciplinary studies in International Quiet Sun Year 11 p1871 N67-22029
Telemetry propagation characteristics of test track operated at L and S-band frequencies
[MDC-TR-66-114] 11 p1825 N67-23367
Total field intensity magnetometer, cosmic ray neutron intensity monitor, riometer, oblique high frequency propagation, solar

observations and radio emission, and ionospheric soundings
[AD-646064] 12 p2891 N67-23589
On apparent coincidence between radio propagation and celestial mechanics 12 p2205 N67-24354
Electric and magnetic field components produced by vertical and horizontal dipoles derived for near field range
[USL-786] 12 p2055 N67-24832
20 May 1966 annular solar eclipse effects on VLF radio propagation 13 p2377 N67-25146
Tables and graphs of eigenvalues for layered ground propagation
[IER-5-ITSA-5] 14 p3486 N67-27650
Manual on short term prediction of ionospheric geomagnetic storms, and radio propagation forecasting service 14 p2527 N67-27550
Determination of D-region nitric oxide density distribution by VLF radio propagation
[SR-1] 15 p2707 N67-28979
Transmission loss of LF and VLF radio waves in lower ionosphere due to absorption in nuclear explosion environment
[RM-5349-PR] 16 p2882 N67-29113
Spread-F effects on radio propagation and communication, ionospheric irregularities, and scintillation and radio propagation
[AGARDOGRAPH-95] 16 p2856 N67-29281
Spread-F effect on radio propagation near equator in Africa 16 p2859 N67-29307
Characteristics of Atlantic trade wind system significant for radio propagation
[IER-29] 17 p3023 N67-30250
Asymptotic method for determining dipole radiation in presence of lossy slab lying on conducting half-space - radio propagation through and over heavily vegetated terrain
[SR-38] 17 p3036 N67-30738
Signal degradation and reception of dispersed Barker codes due to coronal plasma analyzed for Sunblazer radio propagation experiment
[NASA-CR-85561] 17 p3037 N67-31109
Radio wave propagation experiments for measuring electron density of earth magnetosphere
[NASA-CR-85845] 17 p3156 N67-31164
Spacecraft cabin atmospheres, tropospheric radio propagation, glass fiber laser, thermal stability of polymers, and biologically active organotin and organolead compounds and polymers 18 p3358 N67-31672
Tropospheric radio propagation over dry land regions in central U.S.S.R. studied by systematic monitoring of refractive index of air 18 p3361 N67-31674
Manual on short range radio propagation prediction services and principles of predicting ionospheric and magnetic disturbances
[JPRS-41851] 19 p3406 N67-33561
Geomagnetic and radio data for polar upper atmosphere conditions 20 p3629 N67-34220
Electric conductivity measurements of soil in U.S.S.R. for mapping radio wave propagation routes
[JPRS-41790] 20 p3636 N67-35094
Ionospheric propagation predictions for August 1967 and related maximum usable frequency and optimum traffic frequency data
[RRC-B131] 21 p3840 N67-36052
Ionospheric propagation predictions for September 1967 and related maximum usable frequency and optimum traffic frequency data
[RRC-B132] 21 p3841 N67-36054
Digital data processing system for very low frequency radio noise and propagation experiment aboard OGO-I
[NASA-CR-88618] 22 p3997 N67-37021
Ionospheric radio propagation studied with normal wave resolution involving calculation of Hankel function
[JPRS-43998] 23 p4215 N67-39032
Lower ionosphere research, rocketborne ac conductivity probes, and radio wave propagation experiments, with bibliography
[AFCRL-67-0425] 24 p4436 N67-39454
Numerical analysis of phase refractive indicies for reducing virtual height at frequency curves to electron density profiles 24 p4442 N67-39970
RADIO RANGE
S OMNIDIRECTIONAL RADIO RANGE
RADIO RECEIVER
General-case equations for application to mismatch errors in Y-factor measurements for calibration of receiver - radio frequency technique for noise temperature measurement errors 02 p0237 N67-12138
Clock-jitter calculation for ranging receiver system - digital communication and tracking 02 p0238 N67-12148
Wideband receiver system frequency divider 05 p0672 N67-14436
Modification of Mod V programmed oscillator 05 p0672 N67-14437
Operational improvements in equipment containers for microwave receiver and display kit system
[DSL-R-148] 05 p0677 N67-15328
High frequency, single-sideband radio receivers
[AD-641030] 06 p0840 N67-16040
Amplifier design evaluations in study to provide wideband receiver front end for radio astronomy purposes
[NASA-CR-81346] 06 p0857 N67-16635
Sensitive S-band noise receiver for Mariner Mars 1964 spacecraft program
[NASA-CR-81637] 07 p1039 N67-17824
Cross modulation frequency response of very high frequency preselector
[ECOM-3756] 10 p1585 N67-21053
Ultrahigh frequency flight termination receivers used at missile testing ranges
[IRMFSG-306-64] 12 p2051 N67-23926
Adaptive receivers for digital signaling over random or unknown channels
[TR-516] 13 p2056 N67-24880
Radio receiver used in satellite communications phased array
[REPT.-1963-8] 13 p2057 N67-24943
Calibration curves for very low frequency radio receivers 13 p2377 N67-25145
Receivers for VHF omnidirectional range signals and localizer portion of instrument landing system signals
[SRDS-RD-67-4] 14 p2495 N67-27759
Feasibility of parametric upconverter technique as ultrahigh frequency communications receiver preselector
[AD-651806] 17 p3024 N67-30517
RF intermodulation characteristics of VHF telemetry preamplifiers and receivers
[SC-DR-67-298] 20 p3601 N67-34429
Signal enhancement techniques involving voltage-tunable receivers and low-noise frequency converterscivers and low-noise frequency
[REPT.-4] 21 p3800 N67-36141
Sunblazer phase modulation communication system performance for noisy dispersive channel with regard to signal detection
[NASA-CR-88614] 22 p3907 N67-37033
System performance of phase coherent receivers preceded by bandpass limiters
[NASA-CR-88523] 22 p3908 N67-37072
Radio receiver with degenerate parametric synchronous mode input amplifier
[FTD-HT-66-275] 24 p4402 N67-39443
RADIO REFLECTION
Ground reflection problems in tellurometer measurements
[FTD-TT-65-900] 01 p0077 N67-11200
Comparison of Mars reflection characteristics in optical and radio bands
[NASA-CR-80145] 03 p0463 N67-12905
Aeronomy field station antenna systems to operate with instruments for measuring ionospheric drifts, vertical incidence absorption, and partial reflections 05 p0689 N67-14648
Theory for shortening of metallic tape carrying tensile load by transverse crease
[NASA-CR-83969] 13 p2343 N67-26061
Grating and networks of ribbons as radio reflectors
[NASA-CR-972] 22 p3999 N67-37260
RADIO RELAY
Soviet-source abstracts from 1965-66 articles on telephone, telegraph, teletype, and facsimile equipment and radio relays and miniature transceivers 19 p3402 N67-33027
Soviet-source abstracts from 1965-66 articles on radio relay, telecommunication, telegraph, telephone, and cable facilities for U.S.S.R. cities and railroads 19 p3402 N67-33028
Exponential bound on error rate for peak limited binary coherent channels at low signal to noise ratios
[P-341] 23 p4213 N67-38523
RADIO SCATTERING
Nature, size, and velocity distribution of random scatterers gathered by pulse radar on two wavelengths using vertical fixed beams 04 p0512 N67-13929
RADIO SIGNAL
SA WHISTLER
Dipole radio signal from nuclear explosion computed using Maxwell equations
[RM-4966] 01 p0118 N67-11041
Coupling wave equations for interaction field between whistler modes and electron cyclotron waves 02 p0231 N67-11287
Frequency, phase, and amplitude changes of Mariner IV radio signal through atmosphere and ionosphere of Mars observed before and after planetary occultation 03 p0462 N67-12754
Automatic measurement of signal frequency by system of detuned resonators and amplitude detectors 03 p0378 N67-12783
Selection of high accuracy radio guidance and tracking systems among interferometer, range and range rate and multichannel transponder systems
[ELDO-TM-F-36] 04 p0516 N67-14291
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A112] 07 p1075 N67-18174
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A114] 07 p1075 N67-18175
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A115] 07 p1075 N67-18176
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A117] 07 p1076 N67-18177
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A121] 07 p1076 N67-18178
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A122] 07 p1076 N67-18179
Computer program for amplitude average propagation effects of very low frequency radio signals 13 p2377 N67-25147
Stationary and nonstationary strict solutions to problems involving propagation of radio pulse signal in Epstein ionospheric layer 15 p2668 N67-28146
Statistical analyses on spread-F and radio signal scintillation data in middle latitude 16 p2857 N67-29278
Night luminescence, sporadic E layer, and spread F effect on radio signal transmission 16 p2858 N67-29284
Satellite radio signal scintillations during descending half of solar cycle 16 p2858 N67-29286
Correlation analysis on nighttime scintillation of satellite radio signals and F-layer at equator 16 p2858 N67-29300
Statistical properties of radio signal scintillation pattern and ionospheric diffracting layer 16 p2858 N67-29301
Scintillation measurements on radio signals from Discoverer XXXVI satellite 16 p2858 N67-29302
Reception, analysis, and detection of radio signals from space 17 p3022 N67-30240
High power moderate Q transmitting antenna for shore station use and permitting improved utilization of space
[NEL-1450] 18 p3234 N67-32511
Deduction of reentry near wake plasma properties for Mercury and Gemini manned orbital spacecraft from radio signal attenuation data
[NASA-TN-D-4118] 19 p3517 N67-33462
Periodic fading of very low frequency radio signals received from transmitter over polar path during sunset and sunrise
[KGO-672] 20 p3600 N67-34251
Amplitude distribution of scintillating radio signals from artificial satellites
[REPT.-671] 20 p3633 N67-34637
Spectral analyzer for radio signal frequencies
[EUR-3446.F] 23 p4228 N67-38231
Statistical reduction of satellite effective radio cross section of reflected radio signal power measurements made on Echo I passive satellite
[NASA-CR-89569] 24 p4407 N67-39984
RADIO SIGNAL ABSORPTION
Weather radar and radio signal absorption for cloud physics data
[FTD-TT-65-1899] 01 p0102 N67-11468
Shipboard instrumentation of vertical incidence ionospheric absorption
[NASA-CR-89783] 24 p4443 N67-39979
RADIO SIGNAL PROPAGATION
Radio wave propagation in ionized media -

signal amplification by self-oscillation, coupled wave equations in magnetoionic plasma, and transient response of isotropic medium
[AFCRL-66-894] 02 p0231 N67-11363
Coupled wave equations with variable coefficients for magnetoionic vertical signal propagation analysis 02 p0231 N67-11365
Coupling wave equations for magnetoionic signal propagation in stratified medium 02 p0231 N67-11366
International conference on scientific radio propagation - time synchronization by radio frequency standard
[NASA-CR-81349] 06 p0685 N67-16001
Radio propagation in atmosphere, and planetary radio and radar astronomical studies 06 p0849 N67-16004
Communication system research on hydrogen maser, solid state image converter, and telemetry signal propagation
[NASA-TM-X-53535] 07 p1033 N67-16724
Method for increasing accuracy of telemetry signal strength predictions 07 p1033 N67-16727
Tropospheric and ionospheric effects on radio frequency communications
[NASA-TM-X-55709] 08 p1250 N67-19054
Polar propagation of high frequency radio signals
[REPT.-67-166] 12 p2053 N67-24400
Observations of whistler mode signal propagation by OGO satellites from very low frequency ground station transmitters
[NASA-CR-84869] 17 p3055 N67-30031
RADIO SOURCE
SA QUASI-STELLAR RADIO SOURCE
/QSO/
Galactic and stellar evolution, radio sources, and cosmology - conference 05 p0760 N67-14848
Photomeric red shift corrections and magnitude-red shift relations for radio sources 05 p0761 N67-14857
Linear polarization properties and Faraday rotation measurements on extragalactic radio sources
[AD-642106] 06 p0057 N67-15499
Position of radio source 3C 17 derived from 9 occultation events
[REPT.-101966] 06 p0619 N67-15980
Lunar occultation and identification of radio source MSH 21-23
[NASA-TM-X-55666] 06 p1364 N67-18744
Lunar occultation of radio source 3C 132
[NASA-TM-X-55745] 11 p1977 N67-23873
Interferometer measurements of positions for radio sources
[AD-645526] 12 p2307 N67-23615
Catalog of east-west visibility functions for extraterrestrial radio sources
[AD-645538] 12 p2308 N67-23622
Two-aerial east-west interferometers used to observe positions and radiointensity of solar active centers 12 p2305 N67-24353
Very low frequency sferics of very large virtual source strength
[AFCRL-66-829] 12 p2094 N67-24710
Observations of galactic and extragalactic emission, accurate positions of radio sources by lunar occultation technique, and observations of emission from flare stars
[PR-1] 14 p2809 N67-27012
Status of rocket and balloon borne galactic X-ray observations
[NASA-TM-X-55795] 14 p2809 N67-27565
Phase swept interferometer analysis on scintillating radio source in Cassiopeia constellation 16 p2966 N67-29297
Statistical analysis of interferometer data on scintillating radio source in Cassiopeia constellation 16 p2967 N67-29298
Lunar occultations of radio sources, and emission from flare star Ross
[PR-4] 16 p2969 N67-29642
Interferometric determination of radio sources in declination ranges minus 7 to 20 degrees and 40 to 80 degrees - tabular listing of positions and flux densities 16 p2972 N67-30107
Radio sources CTA 21 and CTA 102 and possibility of extraterrestrial life 17 p3157 N67-30333
Artificiality criteria for radio sources, variable star emission, and background 17 p3157 N67-30334
Space environmental and earth atmospheric effects on apparent size of radio sources 17 p3157 N67-30341
Dispersion of proton whistler phenomena detected by Injun III and Alouette I satellites
[NASA-CR-85586] 17 p3055 N67-30891
East-west brightness distribution of radio sources at 1425 MHz using twin element interferometer
[REPT.-77] 18 p3336 N67-32236
Search for high energy photons from celestial radio sources 23 p4337 N67-38205
Position and flux density of radio sources
[REPT.-6] 23 p4343 N67-38310
RADIO SPECTROSCOPY
Radio astronomy techniques and telescopes, solar and galactic radio spectroscopy, and cosmic radio signal observations 06 p0685 N67-16007
Radiospectrometer electromagnet for observing nuclear magnetic and electron paramagnetic resonance, and instability of electron flow in dielectric or semiconductor media
[FTD-TT-65-1548] 17 p3037 N67-30795
Radiospectrometer electromagnet for observation of nuclear magnetic and electron paramagnetic resonance 17 p3037 N67-30796
RADIO SPECTRUM
Optimization of electromagnetic spectrum utilization in telecommunications 20 p3601 N67-34514
RADIO STAR SIGNAL
Soviet analytical survey on extraterrestrial life detection and highly developed communication systems in space
[ATD-66-57] 01 p0152 N67-10433
Statistical phase and amplitude characteristics of scattered radio star signals observed interferometrically
[D1-82-0675] 11 p1818 N67-23394
Geophysical aspects of radio star and satellite signal scintillation 16 p2883 N67-29296
Radio star scintillation and spread-F in auroral zone 16 p2883 N67-29299
RADIO TELEMETRY
Low data rate telemetry radio frequency solid state transmitter for telecommunication system capable of surviving high impact on lunar or planetary surface 02 p0237 N67-12159
Radiation patterns of high impact coaxial cavity radiator antenna before and after impact 02 p0237 N67-12160
Grid modifications in radio telemetered meteorological and radiation observation network 07 p1117 N67-17316
Telemetry, command and beacon antennas for rockets, probes, and satellites
[PT90500] 14 p2486 N67-26753
Soviet research in bioinstrumentation and physiological telemetry systems for prolonged space flight
[SAM-TT-R-814-1166] 16 p2940 N67-29493
Integrated antenna-transmitter developed to telemeter data from inflight artillery fuze and shell
[HDL-TR-1343] 18 p3235 N67-32568
RADIO TELESCOPE
Radio telescope, rhombic antenna, and sensors studied for feasibility of kilometer wave orbit telescope program
[NASA-CR-79734] 02 p0261 N67-12053
Sky temperature measurements made at 90-Gc with radio telescope system consisting of 60-inch millimeter searchlight antenna and superheterodyne radiometer 02 p0237 N67-12137
Radar coordinate correction program of Haystack pointing system
[TN-1966-56] 05 p0675 N67-14962
Effects of atmosphere on maximum-size radio telescope variable-profile reflector antenna
[JPRS-39710] 11 p1836 N67-23404
Technical characteristics of radio telescope polarimeter for 4.28 cm solar radiation observation 13 p2318 N67-25149
Vibration mode shape and frequencies of orbiting radio telescope
[NASA-CR-83973] 13 p2419 N67-26163
Radio telescope for recording radio frequency emission in universe from stars, quasars, and other sources
[JPRS-40433] 14 p2614 N67-27384
Fabrication, deployment, control, and system configuration of orbiting 1500 meter radio telescope using parabolic reflector formed by network of aluminum ribbon
[NASA-CR-792] 14 p2620 N67-27620
Ring radio telescope and antenna array for interplanetary communication 17 p3031 N67-30337
Feasibility study for rerigging Haystack antenna
[SGH-668-1] 17 p3023 N67-30476
Engineering design studies for planetary radar box and advanced radar and radio telescope research facility 17 p3028 N67-30714
RADIO TRACKING
Radio-tracking data from Ranger lunar missions for estimated physical constants of earth and moon
[NASA-CR-83113] 10 p1586 N67-21444
Masses of Venus and Moon, and astronomical unit determined by Mariner II radio tracking data
[NASA-CR-84978] 16 p2966 N67-29189
Decoupled shifting memory filter method for radio tracking of boosted and ballistic phases of space vehicle flight
[ELDO-TM-F-35] 23 p4217 N67-39237
Entry acquisition and radio visibility computer program for optimization of tracking station locations - blackout prediction
[NASA-TM-X-55986] 24 p4409 N67-40185
RADIO TRANSMISSION
SA SHORT WAVE RADIO TRANSMISSION
Stipulations of international telecommunications agreement concerning military radio stations serving national defense purposes
[NASA-TT-F-8463] 01 p0036 N67-10186
Theory, mathematical model, and computer simulation of randomly time-variant channels applied in tapped delay line development
[NASA-CR-80356] 03 p0367 N67-12976
Radio wave interaction equations extended to finite width of wanted pulse
[SR-374] 06 p0673 N67-16157
Measured meteorological parameters related to radio signal characteristics in ground to ground link transmission - troposcatter system
[RADC-TR-66-609] 06 p0845 N67-16526
Propagation of VLF waves below anisotropic stratified ionosphere with transverse static magnetic field
[RR-515] 07 p1037 N67-17354
Electromagnetic wave propagation in conducting media of sea water - annotated bibliography
[TG-250-B6] 10 p1585 N67-20707
Technical requirements and area applicability for television and ultra-shortwave radio satellite transmissions
[RF-78-O] 11 p1823 N67-23919
Transmission loss and space diversity measurements over mountain diffraction path
[IER-12-ITSA-12] 11 p1825 N67-23159
Time correlations of medium and high frequency signal short samples received at separated stations
[AFCRL-66-896] 11 p1826 N67-23350
Signal to noise ratios for high frequency radio transmission
[NEL-1439] 13 p2382 N67-26226
Radio links in unbounded or bounded lossy media, two parallel plate antenna immersed in lossy media, and impedance, directivity and efficiency of thin linear antennas
[AFCRL-67-0187] 16 p2956 N67-29961
Phase characteristics of incoherent multipath reflection between airborne and ground based radio transmission systems
[TM-67-9] 16 p2961 N67-29967
Semiautomatic system for measuring and recording phase and amplitude of very low frequency transmissions
[NRL-MEMO-1773] 17 p3022 N67-30468
Role of sky and lateral waves on electromagnetic propagation in forest environments
[AD-651639] 17 p3054 N67-30720
Mohitz 1 satellite communication system and radio transmission 18 p3238 N67-31648
Horizontal VLF radio transmitting antennas for efficient operation near earth
[NOLC-731] 20 p3589 N67-34068
Technical and economic aspects of communications satellites for radio and television broadcasts
[JPRS-42194] 21 p3901 N67-36283
Demonstration of successful operation of 2400-baud HF AUTODIN data transmission using Common User Radio Transmission /CURTS/ Phase II automatic frequency selection system
[AD-657366] 23 p4211 N67-39069
Transmission loss measurements over irregular terrain - height gain, location gain

and correlation
[IER-35-ITSA-35] 23 p4211 N67-38126
Tabulated data of VHF propagation obtained over irregular terrain at 20, 50, and 100 MHz
[IER-36-ITSA-38] 23 p4212 N67-38146
Measurement and prediction of group velocity at very low radio frequencies
[TR-535] 24 p4403 N67-39511
Statistical prediction of ground irregularity influence on radio transmission bearing error
[RAE-LIB-TRANS-1227] 24 p4406 N67-40115
Explorer-22 satellite recordings on electron content values of upper atmosphere
[RPU-533] 24 p4448 N67-40643
RADIO TRANSMITTER
Method of determining safe distance from RF transmitter at which specified field strength is produced
[RE-TR-66-9] 01 p0036 N67-10377
Continuous wave operation of spark transmitters
[AD-639656] 01 p0040 N67-10091
Solid state high power low frequency telemetry transmitters 01 p0042 N67-11123
Very high frequency radio set operating from single crystal source
[PD-5536] 03 p0365 N67-12388
Implementation and testing of Deep Space Network Manned Space Flight Network transmitters 05 p0673 N67-14449
Testing of high voltage power supply and linear exciter for Mariner transmitter noise amplitude modulation 05 p0673 N67-14451
Double square directional antenna for ultrahigh frequency transmission by radio station
[FTD-TT-65-1816] 08 p1244 N67-18300
Shipboard radar instrumentation and transistor buoy radio transmitter for locating anchored buoy stations 11 p1889 N67-22372
Industrial hygiene problems of working with ultra-short-wave transmitters used in radio and television broadcasting
[ATD-66-125] 12 p2623 N67-34410
Dual channel VHF-UHF transmitter for Gemini experiment to measure ionosphere electron density
[NRL-6484] 13 p2277 N67-35178
Five-watt solid state S-band telemetry transmitter
[NASA-CR-83326] 13 p2279 N67-35747
Research on radio frequency systems and millimeter waves
[NASA-CR-83973] 13 p2282 N67-25165
Techniques for designing solid state broadband transmitters in very high frequency range
[EDL-M1023] 16 p2861 N67-29582
Crystal oscillator, phase modulator, frequency multiplier, and power amplifier modules used in design telemetry transmitter for satellite applications
[TG-887] 18 p3234 N67-32561
VHF and UHF 2000-watt transmitter design and evaluation for radio communication systems
[RD-67-16] 20 p3600 N67-34337
Very high frequency closed ring magnetic dipole spark transmitter development
[TN-1967-34] 22 p4014 N67-37547
RADIO WAVE
SA COSMIC RADIO WAVE
SA GALACTIC RADIO WAVE
SA SOLAR RADIO WAVE
Attenuation of radio waves by raindrops, gaseous oxygen, and water vapor 01 p0036 N67-10248
Zonal harmonics in low frequency terrestrial radio wave propagation
[NBS-TN-335] 03 p0367 N67-12948
Soil layering effects on use of VHF radio waves for remote terrain analysis 04 p0538 N67-13514
Quantitative estimates of variation of reflection coefficient with angle of incidence for low frequency radio waves using ionospheric model
[RAE-TR-66221] 04 p0546 N67-14310
Propagation mechanism of radio waves radiated by artificial earth satellite 05 p0674 N67-14866
Intensity of field of short radio waves emitted by artificial satellite of earth 05 p0674 N67-14867
Radio propagation in atmosphere, and planetary radio and radar astronomical studies 06 p0840 N67-16004
Ionospheric dynamics and properties, structure of D and F regions, global wind circulation, and radio wave absorption 06 p0873 N67-16005
Diffraction and scattering of electromagnetic waves, radio wave propagation in ionized media, radio antennas, and signal processing in communications systems 06 p0916 N67-16006
Simulated dosimeter motivated by radio waves developed for use in large area radiac trainer device
[NAVTRADEVCEN-IH-61] 06 p0882 N67-16448
Effects of collision frequency on plasma measurements by longitudinal radio waves 11 p1967 N67-21957
Research projects in radio wave propagation, noise levels, equipment, radio astronomy, and radio and space research
[CSIR-TEL-69] 11 p1823 N67-22950
High frequency antenna array scanned in elevation for ionospheric propagation studies of vertical angle of arrival radio waves
[IER-11-ITSA-11] 11 p1825 N67-23158
Measurements of radio wave absorption during vertical sounding of ionosphere
[FTD-TT-65-2040] 12 p2093 N67-24011
Model study of ionospheric perturbations and propagation between two sites - excitation of curved model waveguide, scattering coefficients, surface impedance, and volume loading
[QR-20] 13 p2276 N67-35128
New theory of transequatorial very high frequency radio wave propagation anomalies
[WRE-TN-CPD/T/-121] 13 p2282 N67-26191
Automatic system for analyzing amplitude data from studies of troposphere, radio waves in troposphere, and interference environment
[IER-9-ITSA-9] 14 p2534 N67-27051
Influence of earth magnetic field on backscattered signal
[JPRS-40256] 14 p2491 N67-27353
Changes in tigroid substance of neurons of cats subjected to superhigh frequency field
[ATD-67-3] 14 p2463 N67-27381
Radio wave propagation over earth surface, electromagnetic wave impedance and behavior, and reflection of radio waves from anisotropic layers
[JPRS-40869] 15 p2665 N67-28141
Series expansion with respect to beams used to solve problem concerning propagation of long radio waves over surface of earth 15 p2666 N67-28142
Planar, spherical, and Greenberg models used for determining properties of normal waves and eigenvalues in problems of radio wave propagation in earth ionosphere channel 15 p2666 N67-28144
Strict and approximate boundary conditions used in mathematical solutions to problems involving electromagnetic wave propagation over earth surface 15 p2666 N67-28147
Factors influencing subterranean radio wave propagation - geological formations, earth surface curvature, rock electrical parameters, and noise 15 p2667 N67-28150
Equivalent sources calculated for replacement of reflection interface in magnetic dipole field in two-layer medium - radio wave propagation 15 p2667 N67-28152
Theory on propagation of very long radio wave propagation around earth
[FTD-MT-65-297] 16 p2962 N67-29680
Earth magnetic field effects on propagation of ultralong waves around earth
[NASA-CR-85244] 18 p3239 N67-30001
Reflection and scattering of meter radio waves by lunar surface - dielectric constant of lunar rocks
[NASA-CR-86662] 18 p3326 N67-31836
Semiconductor field intensity meters and radio wave mapping technique for geological surveys and geophysical investigations
[FTD-MT-65-369] 19 p3402 N67-33007
Polarization and phase characteristics of radio waves propagating through lower ionosphere
[NRL-6523] 21 p3797 N67-35704
Demodulation of amplitude modulated radio frequency waves in plasma at resonance
[NASA-TM-X-55917] 22 p4002 N67-37881
Effect of off-path ionospheric reflections on very low frequency radio waves
[NEL-1467] 23 p4213 N67-38266
Radio wave effect of F-layer region of ionosphere
[JPRS-43151] 24 p4440 N67-39697
High frequency radio wave ducting review for earth magnetosphere
[NASA-TM-X-1457] 24 p4510 N67-40122
RADIO WAVE REFRACTION
Radio frequency refractometers and standard weather observations used in measuring atmospheric radio refractive index 01 p0099 N67-10243
Surface variation of radio refractive index in reduced-to-sea-level form 01 p0099 N67-10245
Angular and range refraction corrections due to ionosphere 05 p0671 N67-14427
Radio emission temperatures of atmosphere at small angles above horizon, and refraction attenuation of antenna amplification
[NASA-CR-82094] 08 p1246 N67-18491
Shear wave refraction for ultrasonic detection of residual stress in cold-worked aluminum 12 p2105 N67-23670
Atmospheric radio emission temperature, radio wave refraction, and antenna gain refraction attenuation measurements at low angles over horizon using radio astronomy methods 13 p2314 N67-26182
Atmospheric radio wave refraction - maps and graphs
[ESSA-MONO-1] 14 p2521 N67-26974
Absorption and refraction changes in radiation from Jupiter and radio stars
[LTIRF-283/IP] 21 p3928 N67-35795
Radio wave propagation experiments for measurements of extended solar corona 22 p4137 N67-37821
RADIOACTIVE CONTAMINATION
Rate and extent of plutonium reaction in natural sea water and in sea water solutions containing added salts - radioactive contamination
[USNRDL-TR-1050] 03 p0357 N67-12881
Advanced alpha beta gamma hand and shoe contamination monitor
[BNWL-250] 03 p0397 N67-12369
Cesium and strontium distribution beneath liquid waste disposal sites 04 p0503 N67-13781
Radiotoxicological analysis of radioactive contamination
[JPRS-39318] 05 p0658 N67-15117
Polymerized resin varnish for surface protection against radioactive contamination 06 p0899 N67-16291
Reduction of reactor effluent process water radionuclides by addition of sodium silicate
[BNWL-282] 07 p1130 N67-17481
Radioactivity measurements around iodine 131 emission site to verify meteorological dispersion calculations
[BNL-10527] 08 p1305 N67-18151
Measurements to determine radioactivity in air exhaust and cooling loop of water cooled reactor
[JUL-111-RE] 10 p1682 N67-21851
Tailing erosion control to prevent radioactive contamination by wind and air transport
[RMO-3005, SUPPL.] 10 p1733 N67-21891
Steam-detergent gun with interchangeable nozzles for decontaminating radioactive surface 13 p2301 N67-25651
Gas cleaning methods for removing radioactive substances from air
[ORNL-NSIC-13] 13 p2356 N67-25881
Maximum permissible levels of ionizing radiations, biological effectiveness, and contamination of clothing and environment
[JPRS-41249] 17 p3006 N67-31111
Cesium 137 radioactive body burden in civil pilots
[NYO-3944-32] 19 p3378 N67-33751
Portable instrument design for measuring radioactive contamination in foodstuffs after nuclear accident
[EUR-3265.F] 20 p3638 N67-34951
Insulation suit with air regeneration system for human protection against radioactive environment
[JPRS-41816] 21 p3770 N67-35551
Characteristics of radioactive pollution from ground testing of nuclear propulsion reactors
[LA-DC-8524] 21 p3888 N67-36811
Radioactive contamination measurements during 1966 at Ispra, Italy, performed on waters, herbage, air, soil, foods, and animal bones
[EUR-3554.E] 23 p4242 N67-38511
Air cleaning filters and systems for reactor control and environmental safety contamination prevention, aerosol exhaust

and fission product confinement and containment
[CONF-660904, VOL. 1] 23 p4287 N67-38880
Trapping of iodine compounds released during gas cooled reactor accident 23 p4288 N67-38883
Impregnated charcoal filter efficiency in methyl iodide removal from reactor system 23 p4288 N67-38890
Aerosol formation and iodine removal by reaction with hydrazine 23 p4307 N67-38892
Radioactive methyl iodine removal from reactor environment by hydrazine spray 23 p4307 N67-38893
Radioactive methyl iodide removal from flowing steam-air by impregnated charcoal filter 23 p4307 N67-38894
Performance of air filtration and adsorption system in ventilation exhaust of nuclear power plant 23 p4289 N67-38895
Evaluation of plutonium reactor confinement system for radioactive material collection from exhaust air stream 23 p4289 N67-38897
Design of portable vent gas treatment plant for radioactive contaminant removal and fission product control 23 p4289 N67-38900
Gaseous waste disposal and monitoring system for radioactive contaminant removal from nuclear plant exhaust 23 p4290 N67-38903

RADIOACTIVE DATING
Criteria for chronological dating and reconstruction of prehistoric structures on basis of astronomical alignment
[SAO SPECIAL REPT.-226] 02 p0229 N67-12025
Remotely controlled rare gas analyzer with chemical reaction as energy source considered for radioactive dating of lunar surface
[NASA-CR-80730] 04 p0611 N67-13643
Hemodynamic response measurements on carbon monoxide production in rats after injection of labelled glycine 06 p0901 N67-15942
Geologic dating by electron spin resonance measurement of trapped charge induced in minerals by radioactive impurities
[BNL-11000] 15 p2703 N67-28417
Radioactive dating of meteorites and tektites, cosmic dust and radiation studies, and mass spectrometry of atmosphere conducted in German facility 18 p3336 N67-32343
Argon activation analysis with application to rock dating using potassium-argon method
[CEA-R-3100] 19 p3444 N67-33467
Nuclear physics, radioactive dating and fallout, radiation and isotope applications, and isotope geochemistry research and instrumentation
[DNS-229] 20 p3693 N67-34390
Neutron activation analysis of Roman copper coins dating 250 to 500 A.D.
[NAEM-35] 23 p4210 N67-39219

RADIOACTIVE DEBRIS
SA SAND PROJECT
SA STAR DUST PROJECT
Large scale transport processes carrying radioactive debris from stratosphere to troposphere
[COO-1340-8] 10 p1631 N67-20839
Recovery of actinides produced by nuclear explosion in volcanic tuff or desert alluvium
[DP-1055] 10 p1580 N67-21691
Flight data and results of radiochemical analyses of radioactive debris air filter samples from stratosphere and troposphere
[HASL-176] 11 p1806 N67-22306
Analysis of debris from simulated destruction system test of full scale Rover/NERVA reactor
[NASA-CR-84600] 13 p2363 N67-26172
Radiochemical and physiochemical studies of Kiwi-TNT debris
[USNRDL-TR-1160] 15 p2743 N67-27902
Clear air turbulence measurements during radioactive debris flights in Midwest area on 23 and 24 April 1962 17 p3055 N67-30886
Mechanical design and sampling performance of Cleansweep IV vehicle
[UCRL-13275] 21 p3864 N67-36588
Radioactive debris analyses from SNAP-9A satellite failure
[TLW-3547-4] 23 p4042 N67-38059

RADIOACTIVE DECAY
SA VECTOR CURRENT
PHOEBE computer code for calculating decay properties of uranium 235 fission products
[ORNL-3931] 01 p0120 N67-10826
Excited states of arsenic 75 following decay of selenium 75
[NP-492/PL] 04 p0584 N67-13598
Decay of neutral pions into three photons
[JINR-P-2763] 04 p0588 N67-14014
Electron spectra for decay scheme of terbium 152
[JINR-P-2762] 04 p0588 N67-14021
Half life of 453.1 KeV level in tungsten 183 measured by delayed coincidence method to determine absolute transition probabilities
[AE-251] 06 p0936 N67-15767
Slow coincidence spectrometric analysis of neodymium isotope decay scheme
[INR-637/IA/PL] 07 p1147 N67-17337
Energies and intensities of gamma ray transitions from decay of terbium 155 yielding gadolinium 155
[JINR-E-2966] 07 p1157 N67-17895
Isotopic battery using strontium 90 decay for energy source 08 p1308 N67-18250
Small ion and radioactive decay product attachment to aerosols
[BMWF-FB-K-66-11] 08 p1333 N67-18597
Nuclear chemistry studies of isotope neutron cross sections, nuclear charge distribution in fission, gamma radiation, energy levels, and decay properties and schemes 08 p1343 N67-19342
Disintegration of radioactive tin 113
[LR-10] 09 p1488 N67-19660
Levels of osmium 188 populated by rhenium 188 and iridium 188
[UCRL-16996] 10 p1698 N67-20730
Radiative decay of neutral bosons studied in xenon bubble chamber exposed in pion meson beam
[JINR-P1-2948] 10 p1701 N67-20782
Nuclear chemistry - radioactive decay, energy levels, separation processes, charged particles, and emission spectroscopy
[PPAD-593E] 10 p1703 N67-20824
Two-channel system of jointly operating spark chambers and Cerenkov gamma spectrometer for investigating resonance radiative decays
[JINR-E13-2971] 10 p1727 N67-21642
Electron and gamma transition energies and intensities in decay of neodymium 147
[AE-265] 11 p1946 N67-23396
Transitions in radioactive decay of tantalum 182 isomer
[AE-264] 11 p1948 N67-23397
Electromagnetic properties of excited states of nuclei - Radioactive decay and nuclear recoiling
[NYO-3525-13] 12 p2159 N67-23569
Three conversion coefficients in decay of gold with semiconductor counters
[LR-15] 14 p2587 N67-27120
Decay characteristics of deformed nuclei with uneven nucleon numbers
[ZFK-PHA-23] 15 p2763 N67-28415
Gamma and conversion electron spectra from rhenium 184 decay
[ORNL-TR-1442] 16 p2941 N67-29272
Determination of conversion coefficients in decay of barium 133 by lithium drifted semiconductor scintillation counters
[LR-11] 16 p2944 N67-29509
Differential equation for parent and daughter decay influence on radioactive tracer diffusion profiles
[NASA-TN-D-4099] 18 p3318 N67-32370
Computer program for analyzing nonlinearities of pulse-height analyzers and for examining smooth spectra of radioactive decay
[ORNL-TM-1845] 21 p3846 N67-35440
Tables of maximum energies of beta decay
[NASA-TT-F-11303] 21 p3899 N67-35648
Decay of terbium 160 to dysprosium 160
[JINR-P6-3312] 22 p4100 N67-37900
M/L orbital electron capture ratio in argon 37 decay
[ORO-3246-10] 23 p4306 N67-39072
Unitarity and radiative decay processes
[TH/206] 23 p4312 N67-39938

RADIOACTIVE ELEMENT
SA ACTINIDE
SA ACTINIUM
SA CURIUM
SA MENDELEVIUM
SA NEPTUNIUM
SA NOBELIUM
SA PLUTONIUM
SA POLONIUM
SA PROTACTINIUM
Solid state counters for immediate determination of actinide and lanthanide elution peak positions during separation of rare earth and transplutonium elements
[UCRL-16869] 01 p0038 N67-10834
Intensity and spectral composition of lunar gamma radiation
[JPRS-38793] 02 p0300 N67-12006
Summary reports on research in radioelements and analytical instrumentation - half-life determination, gamma spectra, spectroscopy, gas chromatography, and nuclear magnetic resonance
[MLM-1325] 04 p0581 N67-13627
Spark source mass spectroscopic analysis of radioactive metallic elements
[RFP-690] 04 p0586 N67-14027
Geometric effects on deposition of radioactive molecules from stagnant gas to vessel walls
[TID-23351] 10 p1707 N67-20900
Radioactive methods of process control and for automatic measurements in sheet stamping 10 p1640 N67-21234
Radioactive methods used to automate, control, and inspect blast furnace operations and steel production 10 p1644 N67-21251
Radioactive instruments and measuring devices that have practical applications in blast furnace operations 10 p1644 N67-21252
Radioactive radiation instruments for automation and control of coal and ore mining processes 10 p1645 N67-21262
High efficiency apparatus with slow neutron scintillation counter and low activity polonium-beryllium source for analyzing elementary composition of mineral raw materials 10 p1577 N67-21305
Mathematical model to determine deposition of radioactive molecules on containment vessel for three vessel geometries
[ORO-3414-2] 14 p2589 N67-27223
Coprecipitation and adsorption of radioactive elements
[AEC-TR-6716] 21 p3776 N67-35408
Accelerator requirements for production of very heavy ions and of super elements with atomic number greater than 101
[UCRL-17295] 21 p3906 N67-36458
Sorption of radioruthenium in colloidal and ionic state on ferrous hydroxide formed by electrodissolution of iron anode
[UJV-1733] 22 p3992 N67-37942

RADIOACTIVE FALLOUT
Formation of radioactive fallout and isotope fractionation after underground nuclear shot
[JPRS-38744] 02 p0257 N67-12012
Performance analysis of spherical and cubical multilayer iron and water enclosure shields in real fallout field using Monte Carlo method
[RRA-T55] 04 p0584 N67-13595
Beta and gamma radioactivity in samples of atmosphere particulates and precipitation measured
[LA-3516-MS] 04 p0540 N67-13635
Radioactive fallout determinations, radiation effects, and concentrations of cesium 137, strontium 90, and plutonium 238 in atmosphere
[HASL-172] 04 p0490 N67-13638
Sampling, analyses, and mathematical model of stratosphere contamination and radioactive fallout from nuclear explosions - Star Dust project
[DASA-1821] 06 p0876 N67-16598
Canadian radiation protection programs - fallout and reactor environment monitoring
[NP-16335] 10 p1571 N67-20740
Exposure rate from products of fast neutron fission of U-235 and U-238
[USNRDL-TR-1106] 11 p1907 N67-22674
Equipment to obtain atmospheric stability data to determine capacity of atmosphere to dilute and disperse contaminants 13 p2311 N67-25464
Climatology, hydrology, and atmospheric diffusion of radioactive fallout over southern Lake Maggiore, Italy
[EUR-2166.E] 13 p2353 N67-26135
Stratospheric concentration of radioactive debris from nuclear weapon tests - Stardust project
[DASA-1908] 19 p3467 N67-33734
Feasibility and effectiveness of partial body shielding for personnel protection against hazards of radioactive fallout
[USNRDL-TR-67-39] 20 p3581 N67-34113
Collection of models to simulate

atmospheric transport of local fallout from nuclear detonations
[TO-B-66-90] 20 p3832 N67-34570
Sensitivity analysis of radial distribution model in terms of weapon yield, fission type, and difference in solidification temperature of carrier material
[USNRDL-TR-67-70] 24 p4496 N67-39448
RADIOACTIVE ISOTOPE
SA AMERICIUM 241
SA CALIFORNIUM 252
SA CESIUM 137
SA COBALT 60
SA CURIUM 242
SA CURIUM 244
SA HELIUM 3
SA IODINE 131
SA IRON 57
SA MANGANESE 56
SA PHOSPHORUS 32
SA PLUTONIUM 238
SA PLUTONIUM 239
SA PLUTONIUM 241
SA POTASSIUM 40
SA SODIUM 24
SA STRONTIUM 90
SA THULIUM 171
SA URANIUM 232
SA URANIUM 233
SA URANIUM 235
SA URANIUM 238
Merits of radioisotope and machine sources of X-radiation for aerospace applications
[ORO-647] 01 p0123 N67-10646
Gamma ray scintillation spectra of bromine 86, bromine 87, and bromine 88 decay
[IFA-NR-24] 01 p0033 N67-10616
Fibrous thermal insulation materials for radioactive isotope power supply system
[ALO-3633-1] 01 p0110 N67-10827
Interaction of diethyl phosphite with glass surfaces studied by radioisotope techniques to determine factors affecting use of organophosphorus compounds in reinforced plastic
[AD-638753] 03 p0414 N67-13455
Food processing measures to lessen radioactive contamination of milk - cheese making
[LFEN.-69] 03 p0440 N67-13638
Incorporation of isotopically labeled nucleotides and amino acids studies in planaria
[NASA-CR-80357] 03 p0346 N67-13979
Radioactive tracers used to measure exchange rate of water vapor at snow surface
[AECL-2576] 04 p0562 N67-14034
Cathodic etching using argon ion bombardment for cleaning radioactive metal samples prior to oxygen determinations
[UCRL-14059] 04 p0562 N67-14136
Uses of radioisotopes and ionized radiation in biology, agriculture, and medicine
[JPRS-39418] 05 p0640 N67-14397
Conference on large scale production and applications of radioisotopes in power reactors
[DP-1066, VOL. II] 05 p0735 N67-14821
Production and indifference pricing of transuranium isotopes produced by simulated power reactors 05 p0735 N67-14822
Hot presses for glove box and manipulator cell radioisotope applications 05 p0690 N67-14836
Application of radioisotope heat source interior to tubular thermoelectric generator 05 p0726 N67-14838
Curium 244 radioisotopic heat source applications 05 p0736 N67-14839
Heat transfer in design of large radioisotope heat sources in thermoelectric generators 05 p0737 N67-14840
Development of radioactive isotope powered thermoelectric generators 05 p0737 N67-14841
Large scale applications of radioisotopes for thermal energy production 05 p0737 N67-14844
Conference papers on radioactive isotopes, power reactors, nuclear propulsion, radiation therapy, and related topics
[DP-1066, VOL. I] 06 p0909 N67-15525
Isotope power for nuclear propulsion and reactor fuel applications 06 p0909 N67-15527
Plutonium, and radioactive isotopes as energy sources 06 p0909 N67-15528
Production engineering for radioactive isotopes 06 p0909 N67-15529
Production of radioisotopes in power reactors 06 p0909 N67-15530
Production of radioisotopes in commercial reactors 06 p0910 N67-15531
Large scale processing and source preparation of neutron produced isotopes 06 p0910 N67-15532
Canadian program on large-scale production and application of radioisotopes 06 p0910 N67-15535
Large-scale production and utilization of radioisotopes in United Kingdom 06 p0910 N67-15536
Reactor technology, production and utilization of radioisotopes in Europe 06 p0910 N67-15537
Radioactive isotope application to hydrology, and assessment of tritium in world rain water - Atomic Energy Agency international programs 06 p0910 N67-15539
Radioactive isotopes used in connection with food preservation and storage 06 p0904 N67-15541
Radiation chemistry advancements, and applications of large energy sources 06 p0911 N67-15542
Large-scale application of radioactive isotopes to medical product sterilization 06 p0911 N67-15543
Isotopic radiography for industrial and commercial applications 06 p0886 N67-15544
Radioactive isotopes as medical therapy 06 p0796 N67-15545
Atomic Energy Commission isotopic power applications 06 p0911 N67-15546
Projected large-scale use of radioisotopes by NASA 06 p0911 N67-15547
Shielding against radioactive materials used as energy source 06 p0911 N67-15548
Safety device for isotopic power sources in terrestrial applications 06 p0911 N67-15549
Behavior of neutron radiative capture cross sections for specified isotopes 06 p0933 N67-15647
Determination of lead-210 and bismuth-210 in biological material 06 p0834 N67-16287
Radioisotopic gauge for measuring water level in deep wells 06 p0881 N67-16278
Equidensitograph design for autoradiographic study of radioisotope concentration in alloy samples 06 p0881 N67-16302
Radiometric flow velocity measurements on sand, and water in mining pipelines 06 p0906 N67-16317
Neutron multiplication values for plutonium 238 dioxide storage capsule submerged in water, and in air medium
[MLM-1340] 06 p0828 N67-16393
Preparation of xenon 131, xenon 129, and krypton 79 from radioisotopes of inert gases
[ORNL-3839] 06 p0941 N67-16522
Reactor yield calculations for radioisotopes using computer program ISOTOPES
[ORNL-IIC-8] 06 p0915 N67-16537
Calculated production of curium 242 by high flux irradiation of plutonium oxide-aluminum target
[DP-1046] 07 p1126 N67-17075
Nondestructive radionuclide analysis by neutron counter
[DP-1035] 07 p1078 N67-17077
Application of activable tracers, including bibliography
[EUR-3138.F] 07 p1024 N67-17119
Use of sealed radioactive isotopes in industrial measuring methods
[EUR-2776.D] 07 p1128 N67-17351
Computer program for constructing tables of gamma peaks and calculating specific activities of radioisotopes formed by neutron gamma reaction
[EUR-3154.E] 07 p1147 N67-17354
Vacuum foil type insulation for radioisotope power systems
[ALO-3634-2] 07 p1131 N67-17485
Engineering scale studies of boron isotope separation
[K-1653] 07 p1089 N67-17726
Sedimentation, and bed-material movements in waterway studied by luminescent and radioactive tracers
[EUR-3139.F, VOL. IV] 07 p1068 N67-17921
Space physics, beta-ray spectroscopy, radioisotope standardization, and counter development studies 08 p1329 N67-18348
Improved computer program for determining radioisotopes by least squares resolution of gamma ray spectra
[ORNL-3975] 08 p1254 N67-18778
Data analysis of total neutron cross section measurements on radioactive isotopes 08 p1313 N67-18795
Techniques for determining eta for thermally fissionable isotopes 08 p1341 N67-19081
Comparison of multilevel and single level fission cross section effects for fissionable isotope 08 p1341 N67-19082
Fortran IV program SHADRACH to calculate nuclear reaction Q-values for certain radioactive isotopes
[UCRL-16864] 08 p1344 N67-19011
Chemical analyses, Raman and infrared spectra determinations, and nuclear magnetic resonance spectroscopy involving boron, carbon, oxygen, and nitrogen isotopes 08 p1242 N67-19040
Mixing and spraying methods for radioisotope labeling of refractory material in casting process
[EUR-3169.F] 09 p1455 N67-20200
Radioisotope heating of ionizers in contact ionization thrustor in primary electric propulsion systems 10 p1755 N67-20811
High temperature fibrous insulation for radioisotope power systems
[ALO-3633-3] 10 p1660 N67-20950
Analytical applications of monoenergetic X-rays from alpha emitting isotopes
[NYO-3491-1] 10 p1700 N67-20978
Alpha decay of hydrogen and other radioactive isotopes
[JINR-P-2907] 10 p1708 N67-20981
Proton inelastic scattering from C-12, Ni-58, Ni-60, and Ni-64 studied by measuring de-excitation gamma radiation along axis perpendicular to scattering plane
[RLO-1388-14] 10 p1713 N67-20997
Thallium isotope production by irradiation of thallium oxide
[DP-1033] 10 p1574 N67-21088
Improved method avoiding wall adsorption in alpha radiation counting of plutonium isotopes with liquid scintillators
[JUL-127-PC] 10 p1576 N67-21127
Conference on Soviet industrial applications of radioactive isotopes and nuclear radiations
[AEC-TR-6466/3] 10 p1640 N67-21351
Applications of radioisotopes to quality control and inspection of industrial processes, and to wear studies aimed at increasing machine component and cutting tool service lives 10 p1640 N67-21352
Radioisotopes used in automobile manufacturing for establishing optimum operating conditions, for controlling and checking operations, and for flaw detection and quality control 10 p1640 N67-21353
Higher productivity, lower rejection rates, and closer tolerances in metal rolling processes through use of measuring devices with radioisotopes 10 p1640 N67-21354
Use of radioisotopes in inspection of automobiles and their subassemblies 10 p1642 N67-21355
Wear in upper compression rings of diesel engine studied by radioactive isotopes 10 p1642 N67-21356
Radioisotopes used to determine effect of heat treatment on hardness and wear of steel machine tools 10 p1642 N67-21357
Radioisotopes and nuclear radiation methods in metallurgy and mining operations and research 10 p1654 N67-21358
Radioisotopes used in blast furnace, coking plants, production of refractories and agglomerates, and chemical analysis of steel 10 p1643 N67-21359
Radioisotope methods to determine amount and effect of slag on quality of smelted steel 10 p1645 N67-21360
Radioisotopes to study contamination from nonmetallic inclusions in rail steel production processes 10 p1646 N67-21361
Conference papers on U.S.S.R. uses of radioactive isotopes and nuclear radiation in locating, prospecting, and exploiting mineral resources
[AEC-TR-6466/4] 10 p1621 N67-21362
Petroleum industry use of radioactive isotopes for technical control of wells, and development of producing reservoirs 10 p1623 N67-21363
Radioactive isotope technique for checking results of hydraulic fracturing of petroleum reservoirs 10 p1775 N67-21364
Application of radioactive tritium isotope to water movement in oil deposit reservoirs 10 p1775 N67-21365
Highly sensitive apparatus for record

tritium isotope for exploiting petroleum deposits - hydrogeology and hydraulic engineering problems 10 p1634 N67-21290
Radioactive isotopes and nuclear radiations for studying geological section and technical condition of wells 10 p1635 N67-21308
Gamma ray and neutron-gamma ray logging, and radioactive isotope methods used in oil fields 10 p1635 N67-21309
Economic importance of gamma ray and neutron-gamma ray logging, and radioactive isotope methods in solving oil well problems 10 p1635 N67-21310
Radioactive isotopes for analyzing concentration of microcomponents in natural waters 10 p1577 N67-21314
Survey data on use of radiometric methods and radioactive isotopes in industrial-geophysical studies of oil and gas wells 10 p1636 N67-21319
Reliability and efficiency of low input voltage inversion/conversion from radioisotopic thermoelectric generator power sources
[NASA-TM-X-55727] 10 p1558 N67-21390
Spin resonances and thermal neutron cross sections for samarium 149, neodymium 148 reaction
[INR-755/IA/PL] 10 p1717 N67-21411
Half-life and energy of alpha particles for nobelium 255, and energy of alpha decay of nobelium 256
[JINR-F-2938] 10 p1718 N67-21483
Radioactive isotope techniques and instrumentation for hydrometeorological measurements 11 p1911 N67-21996
Method and computer program for calculating creep and optimizing dimensions of capsules filled with alpha-emitting radioisotopes and exposed to varying stress and temperature
[NASA-CR-72172] 11 p1919 N67-22067
Compilation of neutron induced fission cross sections from Petrel event
[LA-3566] 11 p1934 N67-22313
Radiation dose, and effect of radioactive isotopes on metabolism 11 p1791 N67-22434
Bed material transport study by radioactive tracers, and measurement techniques
[KAB-95216-R-5] 11 p1971 N67-22622
Isotopic cesium radiation equipment for diagnostic and therapeutical treatment
[JUL-194-ST] 11 p1793 N67-22629
Fermium isotope synthesis with mass numbers 246 and 247
[JINR-P7-3623] 11 p1945 N67-22196
Heat transfer from radioisotopic heat sources buried in ocean floor - SNAP program
[USNRDL-TRC-86] 11 p1926 N67-22377
Seawater corrosion measurement of SNAP container alloys using radioactive tracer techniques
[USNRDL-TR-1062] 11 p1927 N67-22380
Nuclear reactors, nuclear weapons, and radioactive isotopes - Bibliography
[ORNL-RSIC-5, REV. 1] 12 p2144 N67-23549
Spectra and angular distributions of alpha particles from interaction of accelerated neon 22 and argon 40 ions with gold and thorium nuclei
[JINR-P7-3041] 12 p2163 N67-23722
Values for spontaneous and neutron induced fission of fissile isotopes
[NP-16440] 12 p2165 N67-23889
Criteria for selecting radioactive isotopes for space propulsion systems and auxiliary power generation and synthesis of radio guidance and tracking stations 12 p2209 N67-23911
Criteria for selecting radioactive isotopes for space propulsion systems and auxiliary power generation 12 p2148 N67-23912
Design and construction features of alpha-gamma metallographic facility for handling nuclear fuels and radioactive isotopes 12 p2149 N67-24252
Application of radioactive isotopes and nuclear radiation to construction of building materials industry, light industry, and medicine in U.S.S.R. - Conference
[AEC-TR-6466/2] 12 p2150 N67-24557
Diffusion coefficients in solids obtained by radioactive tracers, and mathematical models for diffusion in grain boundaries 12 p2235 N67-23345
Whole-body counter used to measure Zn-65 in cyclotron workers 13 p2255 N67-25469
Oxydation rates and high temperature diffusion in noble metal alloy claddings for radioisotope capsules
[STL-517-9049, VOL. III] 13 p2258 N67-25517
Industrial applications for radioisotope power generators - conference review with bibliography
[NP-16437] 13 p2260 N67-25540
Radioactive xenon 133 used in determining inequality of ventilation and perfusion in flying personnel studies
[FPRC/1236] 13 p2255 N67-25590
Posture effect on distribution of ventilation and perfusion within lung measured with xenon 133
[FPRC/1238] 13 p2256 N67-25600
Silver diffusion in cuprous oxide and cupric oxide by radioactive silver 110 isotope
[NASA-TT-F-10842] 13 p2270 N67-25602
Radioactive isotope abundance estimation using least square analysis of time dependent set of gamma ray pulse height spectra
[USNRDL-TR-67-3] 13 p2281 N67-24231
Angular distributions of elastic and inelastic scattering of 42-MeV alpha particles measured for even tellurium isotopes
[NASA-TN-D-3991] 14 p2568 N67-27225
Compatibility tests of lead telluride formulations and fibrous insulation candidates for higher temperature silicon-germanium systems for radioisotope power systems
[ALO-3632-3] 15 p2723 N67-28219
Radioisotopes used in polarography to study electrode reactions
[COO-256-65] 15 p2880 N67-28496
Nuclear reactions for producing tungsten 189 and rhenium 190 radioisotopes, and decay characteristics
[CNEA-175] 16 p2951 N67-30098
Manufacture of radioisotopes, closed sources, and labelled compounds pn Czechoslovakia
[AERE-TRANS-1068] 17 p3003 N67-30416
Radioactive isotopes used as tracers in genetics, physiology, entomology, immunology, ecology, cytology, and nutrition research - annotated bibliography
[TID-3565] 17 p3003 N67-30478
Radioactive tritium isotope used to measure thin oil film in ultrahigh vacuum systems
[SGAE-PH-53/1967] 17 p3109 N67-30892
Radioactive tracer isotope applications in industrial production and processing
[SGAE-IB/IA-15/1967] 17 p3109 N67-30894
Radioactive isotope tracers used to measure bituminous material injected below concrete surface
[SGAE-IB/IA-14/1967] 17 p3110 N67-30914
Ground handling and support equipment for 250 watt radioactive isotope thermoelectric power supply system
[GEMS-3048-I, VOL. III] 17 p3046 N67-31074
Monoisotopic ion beams used in electromagnetic isotope separators for production of highly enriched stable radioactive isotopes
[SGAE-PH-51/1967] 17 p3139 N67-31483
Photolysis studies utilizing radioactive tracers
[AFOSR-67-1079] 18 p3220 N67-31502
Radiative neutron capture cross sections for europium 151, 152, 153, 154, and 155
[LA-3643] 18 p3308 N67-31715
Alpha branching ratios and partial half-lives of alpha decay determined for Tb 151 and Tb 149 nuclei
[REPT.-535/PL] 18 p3308 N67-31723
Release of fission products from plutonium fuels and concentration of uranium, plutonium, and hazardous isotopes
[LA-3656-MS] 19 p3487 N67-32065
Tritium and other environmental isotopes in hydrological cycle 19 p3444 N67-32449
Tritium content in precipitation for Canada 19 p3444 N67-32470
Major pulse history of tritium in stratosphere 19 p3444 N67-32472
Elastic and inelastic fast neutron scattering from tungsten 182, 184 and 186 isotopes
[ANL-7289] 19 p3506 N67-32568
Fibrous insulation for radioisotope power systems
[ALO-3632-4] 19 p3474 N67-32897
Production, economic aspects, and non-fuel application of heavy element alpha-emitting nuclides
[EUR-3498.E] 20 p3478 N67-34042
Excitation of first and second sound waves in superfluid solutions of helium isotopes
[ANL-TRANS-455] 20 p3486 N67-34288
Five-year radioisotope production plans based on present trends, facilities, and personnel
[AAEC/TM360] 20 p3490 N67-34291
Independent yields in thermal fission of uranium 235, plutonium 239, plutonium 241, and uranium 233
[AERE-R-5488] 20 p3497 N67-34499
Electromagnetic isotope separator for separation of radioactive isotopes and of stable isotopes for isotope-pure target preparations
[KFK-511] 20 p3521 N67-34873
Structural and temperature stress tests on radioisotope source capsules
[ORNL-4092] 20 p3523 N67-34878
Radioisotope heated thruster development and evaluation
[NASA-TM-X-55963] 20 p3718 N67-35190
Radioactive isotope method for cathode sputtering of polycrystalline tungsten target
[FTD-HT-66-558] 21 p3914 N67-35492
Use of radioisotopic generators as electric power sources
[JPRS-42391] 21 p3893 N67-36636
Brayton cycle radioisotope heat source design
[NASA-CR-72151] 23 p4089 N67-36712
Nuclear properties of 102 isotopes with mass numbers 255 and 256
[NASA-TT-F-11231] 22 p4101 N67-36728
Radioisotope zero visibility taxi guidance system for aircraft
[RD-67-35] 23 p4088 N67-36869
Isotopic cobalt fuel capsule heating test data for design, fabrication, and operation of reactor
[DP-1105-I] 23 p4090 N67-37211
SNAP-21 program deep sea radioisotope-fueled thermoelectric conversion system
[MMM-3691-17] 23 p4091 N67-37376
Design, fabrication, and test of thermoelectric converter for SNAP-23A terrestrial radioisotope power supply system
[MMM-3824-6006] 23 p4091 N67-37418
Feasibility of radioisotope taxi guidance system
[RD-67-18] 23 p4096 N67-37544
Methods of labelling sand with radioactive isotopes for studying particle movement in river and sea beds
[PAECL/CHEM/MISCELL-1] 23 p4039 N67-37570
Titanium 48, titanium 49, chromium 50, and iron 54 studies using triple angular correlation measurements
[TID-23654] 23 p4109 N67-37889
Electromagnetic separation and chemical refinement of lead isotopes, series LU
[ORNL-4107] 23 p3992 N67-37698
High temperature thermal insulation development for radioisotope power systems
[ALO-3634-5] 23 p4096 N67-38012
Computer code for identification and quantitative determination of isotopic components producing complex germanium/lithium/ spectrum
[UCID-15140] 23 p4112 N67-38068
Feasibility study of aircraft taxiing guidance system using buried radioactive isotopes and avionic gamma ray detector
[SRDS-RD-67-18] 23 p4252 N67-38160
Neutron cross sections of several isotopes with charged particle detection by CsI/Tl/ scintillator coupled to photomultiplier - fast coincidence /nHe3/ in /d,d/ reactions
[CEA-R-3134] 23 p4298 N67-38239
Vacuum foil-type insulation for radioisotope power systems
[ALO-3634-04] 23 p4383 N67-38542
Conference on new principles and techniques for isotope applications
[CONF-661203] 23 p4397 N67-38828
Construction of reactor radioisotope facilities - health physics and safety statistics - administration, operation, and maintenance
[JAERI-5016] 23 p4196 N67-38817
Radioactive taxi guidance system for ground guidance equipment
[RD-67-9] 24 p4426 N67-39732
Radiation characteristics, chemical, mechanical, and thermophysical properties of thulium metal and thulium oxide
[DP-1114] 24 p4491 N67-39957
Technology and economics of radioisotopic fuel cells containing radioisotopes
[BNL-TR-142] 24 p4279 N67-40402

Activation of cadmium 111 by cobalt 60 gamma ray scattering
[ISS-67/22] 24 p4503 N67-40456
RADIOACTIVE MATERIAL
Radioactive auxin to study axial curvature in terrestrial plants, retarded growth of internodes on horizontal clinostats on seedlings, and plant growth without gravity 01 p0017 N67-10897
Radioactive sources survey for thermoelectric and thermionic converters
[CEA-R-2788] 03 p0428 N67-13302
Standard method for testing packaging of radioactive materials for radiation leakage
[NP-16172] 04 p0556 N67-13906
Determination of radioactive lead and cesium concentration in glacier ice samples 06 p0874 N67-16324
Remotely operated equipment for fabricating high flux isotope reactor target elements
[ORNL-P-2410] 07 p1092 N67-17453
Tracer method to determine bed material transport in water way
[EUR-3130.F, VOL. I] 07 p1075 N67-18060
Development, purpose, and status of various analytical facilities for handling and processing radioactive samples 08 p1235 N67-18386
Estimation of curie content of radioactive materials transported under International Atomic Energy Agency regulations
[TRG-1287/D/] 10 p1697 N67-30406
Handling procedures and design for high level alpha gamma boxes at laboratory for radioactive solids in Germany
[JUL-251-RW] 10 p1685 N67-31205
Protective coating applied to magnetic pellets containing cobalt 60 by electroplating method leaving no residue
[AD-644620] 10 p1847 N67-31427
Facility for carrying out chemical analyses of radioactive products
[CEA-R-2887] 10 p1582 N67-21606
Cascade impactor for determining hazards and inertial characteristics of radioactive material
[UCRL-14440, REV. 1] 11 p1877 N67-22096
Technical criteria for prevention of criticality in chemical processing of fissile materials
[ISO-523] 13 p2089 N67-23695
Efficiency of two estimators for Poisson distribution
[TR-519] 16 p2944 N67-29667
Application of Harwell 2000 series adaptor units to detection and measurement of radioactivity
[AERE-M-1832] 16 p2890 N67-30013
Measurement of neutron attenuation in several reactor materials and radioactive neutron sources
[JUL-435-ST] 20 p3693 N67-34360
Irradiation of hydrocarbons with 70-MeV bremsstrahlung and yield of c11-labeled products produced by c12/gamma, neutron/c11 process
[IS-T-118] 20 p3594 N67-34677
High resolution autoradiographic method for locating radioactive materials
[AECL-2764] 20 p3598 N67-34901
Collection efficiency of fiber filter during filtration of radioactive aerosols
[DLR-FB-67-35] 20 p3652 N67-35363
Radioactive material analyses using spark source mass spectrometry
[ORNL-P-3651] 21 p3775 N67-35442
Numerical values of dose limits for workers and public exposed to radioactive material
[AHSB/RP/-R-78] 22 p3988 N67-36735
Automatic programed scaler for measuring and processing data on radioactive materials 23 p4219 N67-38234
Computer code to estimate gamma radiation dose from cloud of radioactive gases
[DP-1096] 23 p4310 N67-38873
RADIOACTIVE NUCLIDE
Multichannel beta spectrometer with uniform magnetic field for studying decay schemes of short lived nuclides
[CEA-R-2960] 01 p0073 N67-10642
Solid angle measurements on radionuclide activity by Geiger counter
[IEA-115] 01 p0074 N67-10657
Computer program for radionuclide migration in soil columns 04 p0662 N67-13756
Proton pairing and binding energies of two proton radioactive nuclei ranging in atomic number from 4 to 50 - angular energy correlation of protons emitted in two proton radioactive decay 06 p0929 N67-15621
Low background beta scintillation counter for measuring radioactive nuclides 06 p0681 N67-16308
Secondary standardization using digital computer to normalize multiple gamma ray spectra for direct efficiency determinations
[ORNL-P-3433] 07 p1149 N67-17433
Reduction of reactor effluent process water radionuclides by addition of sodium silicate
[BNWL-282] 07 p1130 N67-17454
Gamma scintillation spectrometry of neutron deficient radio active nuclide decay
[IDO-17188] 07 p1151 N67-17528
Spatial distribution measurements of fluorine and sodium nuclide activation products from irradiated aluminum target
[NASA-CR-81796] 08 p1238 N67-18340
Spectrographic analysis of radioactive sources containing two alpha-gamma emitters or two beta-gamma emitters
[CEA-R-3033] 10 p1700 N67-20773
Geometrical error in beta-gamma coincidence measurements on decay rates of radioactive nuclides
[JUL-227-CA] 11 p1877 N67-22136
Geometric errors absolute measurements determined by beta gamma coincidence method for decay rates on radioactive nuclides 11 p1877 N67-22137
Internuclear cascades in solid body - Radionuclid production cross sections in copper - Meson spallation of copper - Angular distribution of nuclear reaction fragments
[COO-1107-1] 13 p2271 N67-25984
Content and distribution of natural alpha-radiating nuclides Ra 226, Th 228, and Po 210 in bones and soft tissues of human body 15 p2884 N67-26108
Radioactive nuclide technology and methods applied to industrial and manufacturing processes
[SGAE-IB/IA-10/1966] 13 p2363 N67-26117
Computer program to calculate maximum available energy per disintegration for radionuclides
[UCRL-50164] 15 p2702 N67-28357
Review of theory and investigations of nuclear reaction mechanism and isomeric relationships
[INR-776/I/PL] 17 p3134 N67-31061
Cosmic ray produced radio nuclides as tracers of atmospheric processes
[BNWL-SA-1146] 19 p3484 N67-32957
Neutron activation analyses of trace elements in petroleum and long-lived nuclides
[SGAE-CH-46/1967] 20 p3592 N67-35244
RADIOACTIVE PARTICLE
Table to evaluate potential radioactive nuclei production occurring in accelerator laboratory
[NASA-TM-X-55577] 02 p0290 N67-11350
Hygiene effects and control of dusts, aerosols, and radioactive particles for clear air maintenance 11 p1796 N67-22440
Measuring equipment for angular distribution of nitrogen 17 produced in heavy ion transfer reactions
[JINR-P13-2965] 12 p2164 N67-23760
Washout coefficients for selected gases and radioactive particles as function of precipitation rate
[BNWL-SA-657] 15 p2657 N67-28218
Attachment of radioactive small ions and of neutral radioactive substances to aerosols, based on solution of diffusion equation
[NASA-TT-F-11631] 16 p2942 N67-29615
Characterization of radioactive particulate aerosols by filtration process response
[ORNL-4047] 16 p2944 N67-29234
Radioactive aerosol and dust collectors for industrial safety and reduced air pollution 20 p3650 N67-35191
Radioactive aerosol filter seat leakage testing 20 p3651 N67-35111
Air shower experiments - data processing and preliminary results of scintillation counter data
[BMWF-FBK-67-43] 23 p4248 N67-39140
Air shower experiments - testing of apparatus, and studies of angular distribution of air shower particles recorded on stereoscopic cloud chamber photographs
[BMWF-FBK-67-45] 23 p4256 N67-39142
Technical dust control and air filtering systems for industrial plants - particle pollution density measurement in asbestos processing, and radioactive aerosol filters in nuclear plants
[TT-66-31159/10] 24 p4556 N67-40418
Radioactive iodine deposition and separation in fiber - charcoal air filter 24 p4557 N67-40835
RADIOACTIVE WASTE
Environmental monitoring of discharged radioactive waste materials
[AHSB/RP/-R-73] 01 p0023 N67-10400
Stress corrosion cracking of carbon steel in simulated radioactive waste solutions
[DP-1023] 01 p0085 N67-10775
Materials for fixation of radioactive waste in glasses
[AEET-350] 02 p0236 N67-11178
Uranium sorption on peat from dilute solutions and reactor waste waters 06 p0823 N67-14261
Technological progress reported for radioactive waste disposal, radiation physics, ecology, and internal dosimetry
[ORNL-4007] 11 p1700 N67-22429
Radioactive waste disposal of cesium 137 in soil 11 p1790 N67-22440
Packaging of fuel elements and radioactive wastes in plastic bags by remote welding and in metal containers by argon arc welding, electromagnetic closing, and cold pressure welding
[JUL-349-RW] 11 p1926 N67-22900
Centrifuge method of reducing volume of sludges emanating from decontamination of radioactive waste water by coprecipitation
[EUR-3175.E] 11 p1814 N67-22902
Environmental monitoring program to determine plant radioactive waste released in river water and surroundings
[DPST-66-30-3] 11 p1794 N67-22903
Reactor fuel reprocessing, waste management, and reactor technology
[IDO-14680] 14 p3476 N67-28040
Programmed recording spectrophotometer used as analytical and control instrument in recovery by ion exchange of promethium 147 and americium 241
[BNWL-337] 17 p3060 N67-30078
Decontamination of effluents by zeolite
[EUR-3452.F] 17 p3020 N67-31305
Performance evaluation of radioactive waste incinerator 23 p4289 N67-38901
Steam-boiler incinerator for burning low level radioactive waste 23 p4290 N67-38902
Active and passive reactor disposal media evaluation for SNAP reactor
[NAA-SR-12433] 24 p4492 N67-39830
RADIOACTIVITY
SA FISSION PRODUCT
Air sampling measurements of radioactivity in Finland
[REPT.-5] 02 p0283 N67-11199
Filling and covering for potassium, rubidium, and cesium vapor absorption chambers of radiooptical resonance magnetometers
[NASA-CR-81874] 06 p1236 N67-18381
Radioactivity methods for prospecting petroleum, gas, coal, and ore deposits 10 p1621 N67-21181
Radioactivity logging with gamma and neutron radiation sources on ore and coal deposits 10 p1622 N67-21182
Gamma ray, gamma-gamma ray, and neutron-gamma ray logging radioactivity methods of prospecting for coal deposits 10 p1622 N67-21183
Radiometric equipment for radioactivity studies of coal and ore boreholes 10 p1622 N67-21184
Borehole charged particle accelerators for improved radioactivity logging efficiency in prospecting coal, ore, and petroleum deposits 10 p1623 N67-21185
Critical dimensions of reservoir model for simulating radioactivity methods for studying wells 10 p1775 N67-21186
Radioactivation method for determining beryllium based on gamma irradiation of samples 10 p1577 N67-21187
Induced radioactivity in collimator system of 31 MeV Brown Boveri betatron
[WYO-3264-21] 10 p1564 N67-21188
Lunar crust radioactivity studies using Luna-12
[NASA-CR-83523] 11 p1978 N67-22889
Methods for measuring natural radioactivity at high altitudes
[NP-16439] 12 p2091 N67-23211
General engineering studies on radioactive environmental conditions, weather control, cantilever deformations, and other general

areas 14 p2541 N67-26007
Static gas counters for radioactive gases [BNL-50030] 14 p2534 N67-27047
Thickness measuring device based on radioactive sources for automatic gauging of films and sheets during production [NP-TR-1477] 15 p2709 N67-27906
Radioactivity concentration measurements in air and precipitation over Hawaii [SU-326-P-16-3] 17 p3009 N67-31468
Electromagnetic interactions, and analog resonance modulation of radioactive nuclear reactions [NYO-3525-16] 19 p3511 N67-33927
Suitability of filter materials for measurement of radioactive aerosols [EUR-3178.D] 20 p3652 N67-35273
Monitoring of radioactive rare gases in air by gamma ray spectrometry [AECL-2696] 23 p4383 N67-38119
Gamma radiation reflection from semi-infinite active water medium by air 23 p4311 N67-38972
Nuclear reactor sites global distribution in relation to air pollution 23 p4291 N67-38980
Foamed nonrigid plastic use as seal of sleeve-type penetrations into cells maintained under negative pressures in radioactive processing [ORNL-TM-1638] 23 p4270 N67-39090
Radioactivity observations - fractions of aerosol beta activity 24 p4488 N67-40101

RADIOBIOLOGY
Bone marrow transplantation in irradiated animals and production of specific pathogen free animals for radiobiology applications [EUR-3122.E] 01 p0010 N67-10556
Nuclear research activities - reactors, equipment, fuel processing, isotopes, theory, chemical and biological studies, electronics, health and radiation medicine, and atmospheric radiation [NP-16171] 01 p0128 N67-10805
Problems involved in modeling various types of space radiation effects on biological subjects 02 p0194 N67-11542
Use of paraffin as material for local protection in radiobiological experiments 02 p0197 N67-11564
Effects of ionizing radiation on oxidation states of biological systems [SRI-66-1735] 02 p0214 N67-12192
Radiorecovery effect of deoxyribonucleic acid on cultured mouse fibroblast cell [EUR-2765.F] 03 p0348 N67-13153
Fortran IV program for computer reduction of data on thyroid uptake and effective half-life of radioiodine ingested in different mammalian species and in same species with different diets [UCLA-12-592] 03 p0348 N67-13251
Radiobiological and radiation medical studies on biological cell [NASA-CR-81246] 06 p0800 N67-15941
Inactivation and recovery of Escherichia coli and DNA after treatment with ultraviolet, X-rays, and nitrogen mustard 06 p0802 N67-15952
Radioprotective activity and properties of selected chemical compounds in large animals [USAMR+DC-6007] 06 p0804 N67-16340
Radiobiological effects and variability of responses in monkeys and humans [REPT.-12026-FR1] 10 p1560 N67-20659
Calculation of radiation dose due to high energy protons [ORNL-P-2568] 10 p1721 N67-21531
Masers, radiation detectors, ferroelectric and antiferroelectric compounds, polymers, space biology and medicine, radiobiology and oceanography 11 p1894 N67-23449
Space psychology and physiology, life support systems, radiobiology, acceleration tolerance, medical diagnostics by computer, astronaut selection, and hypokinesia prevention [NASA-TT-F-11100] 16 p2825 N67-29205
Radiation safety of manned space flights - radiobiological aspects 16 p2827 N67-29217
Effect of radiation on hereditary characteristics and radiobiological problems involved in space flight planning [JPRS-40446] 17 p3001 N67-30481
Radiation effects on hereditary characteristics - mutation, genetic damage, and use in improving organism characteristics 17 p3001 N67-30482
Radiobiological problems involved in space flight planning 17 p3001 N67-30606
Mathematical model for representing action of radiation on simple biological systems [BNWL-SA-1622] 17 p3005 N67-31039
Feasibility and effectiveness of partial body shielding for personnel protection against hazards of radioactive fallout [USNRDL-TR-67-39] 20 p3581 N67-34113
Water content and losses measured by tracer methods in human body under physiological and some pathological conditions [JUL-471-ME] 20 p3571 N67-34294
Activity summaries and bibliographies on physical and environmental biology, exobiology, space bioscience, radiobiology, and quarantine and sterilization techniques [NASA-CR-89313] 23 p4192 N67-38983
Single channel scintillometer to detect gamma radiation for radiobiological application [AECL-2767] 24 p4450 N67-39722

RADIOCHEMISTRY
Application of ion exchange resins to separation of carrier free fission products [IEA-101] 01 p0031 N67-10734
Radiochemical cyclomerization - comparative study with optical and ionizing radiation [NP-16150] 01 p0034 N67-10916
Energy transfer processes in photochemistry and radiation chemistry - triplet-triplet transfer in polybutadiene [AFML-TR-66-292] 01 p0035 N67-11190
Modified Fortran evaporation program used for calculating radiochemical cross sections and particle multiplicities for protons on carbon and aluminum targets [NASA-CR-80437] 03 p0442 N67-13116
Radiation chemistry of selected fluorocarbons and mechanism and reaction kinetics of radioinduced fluorination process [COO-578-5-22] 04 p0500 N67-13631
Separation and radiochemical determination of fission element activities [KFK-367] 04 p0505 N67-13995
Radiochemical investigation of leaching of chromium from chemically chromated aluminum surfaces [NAEC-AML-2478] 05 p0667 N67-15051
Chemonuclear and radiation chemical process research and development 06 p0817 N67-15534
Present status of radiation chemistry in Japan 06 p0817 N67-15538
Radiation chemistry advancements, and applications of large energy sources 06 p0911 N67-15542
Primary processes in radiation chemistry studied by mass spectrometry, and distribution of primary decomposition products of tetrahydronaphthalene in liquid phase 06 p0885 N67-16288
High energy internuclear cascades studied by Monte Carlo calculation and radiochemical experiments 07 p1147 N67-17265
Ionizing radiation induced isotope exchange in gaseous nitrogen [RPI-321-9] 07 p1029 N67-17641
Tracing of capillaries in glass fiber reinforced polyester resins by radiochemical and electrical methods [RAE-LIB-TRANS-1180] 07 p1107 N67-17922
Chemical analysis - analytical development, radiochemistry, electroanalysis, facilities, spectroscopy, equipment and methods, and standards and quality control [IDO-14079] 08 p1234 N67-18381
Radiochemical methods of separation and analysis 08 p1234 N67-18383
Radiochemical analytical procedures, including applicability, safety precautions, apparatus and reagents, calculations, and references 08 p1236 N67-18398
Methods for studying low energy fission of heavy nuclei [AERE-TRANS-1057] 08 p1241 N67-18211
Research progress reported for studies in nuclear, isotope, radiation, organic, and physical chemistry, electrochemical kinetics, and aqueous and nonaqueous systems [ORNL-3994] 08 p1242 N67-18341
Diffusion model used in studies on radiolysis of aqueous solutions [CALT-522-5] 10 p1571 N67-20734
General principles in radiation chemistry of organic compounds [BNL-10693] 10 p1574 N67-20975
Scintillation counter for field emanation surveys, radiochemical analyses, and alpha radiation recording 10 p1622 N67-21316
Atmospheric radiochemistry [ORO-2523-4] 12 p2091 N67-23728
Ozone and nitrous oxide formation by gamma irradiation of nitrogen oxygen gas mixture in flowing system at elevated pressure [BNL-50017] 13 p2267 N67-25422
Analytical reactor chemistry, radiation effects on methods, electron microscopy, mass spectrometry, biochemistry, radiochemistry, and inorganic and organic preparations [ORNL-4039] 13 p2267 N67-25429
Symposium on hot atom chemistry - annotated bibliography [AFOSR-67-0838] 13 p2269 N67-25430
Basic experiments in radiation chemistry [NP-TR-1489] 13 p2270 N67-25923
Radiochemical determination of fission product release from coated fuel particles after in-pile irradiation [EUR-3271.D] 14 p2576 N67-27195
Activation, and reactor technology at SORIN nuclear research center [SORIN-105] 14 p2480 N67-27347
Trypsin enzyme interaction with electromagnetic fields [AD-646845] 14 p2484 N67-27640
Chemical analytic methods using glucose and ferrosulfate for dosimetry of nuclear reactor radiation 14 p2485 N67-27729
Radiochemical and physiochemical studies of Kiwi-TNT debris [USNRDL-TR-1160] 15 p2743 N67-27962
Radioactive tracer procedure for investigating effect of elevated temperatures on chromium quantities dissolving from chemically chromated aluminum surfaces [NAEC-AML-2589] 15 p2809 N67-28235
Parameters of radiochemical apparatus, gamma radiation interactions, and radiochemical synthesis of gamma-chloropropylsilane [BNL-TR-56] 15 p2680 N67-28422
Radiation chemistry technology - radiolysis of ammonia, oxygen, and olefin systems, and development of vacuum gas handling systems high pressure facility, and instrumentation [JLI-2901-75] 15 p2681 N67-28562
Radiochemical oxidation of cyclohexane and related hydrocarbons [UJV-1703] 16 p2844 N67-29220
Radiochemical yield of triplet molecules in gamma radiation of benzene [KFK-TR-213] 16 p2845 N67-29940
Nuclear physics and chemistry experiments conducted in German tandem accelerator and cyclotron research facilities [AR-3] 18 p3311 N67-32341
Temperature effects on radiochemical separation of alkali metals on sulfonic and phenolsulfonic ion exchangers [INR-909/VII/C] 20 p3596 N67-34907
Radiochemical methods of determining nuclear fuel burnup [UJV-1633] 20 p3685 N67-35119
Classification of deviations from Henry law in radiochemical sorption systems 21 p3776 N67-35369
Radiocolloids in sorption systems with variable mass of sorbent 21 p3776 N67-35510
Literature review on high energy radiation chemistry of acetylene [AAEC/TM373] 22 p3987 N67-37909
Radiation chemistry of polypropylene oxide and various high polymers [COO-1063-27] 22 p3993 N67-37998
Positive and negative ion motion in thermal oxide on silicon by radiochemical and MOS analysis 23 p4366 N67-38472
Burnup determination in low enrichment fuels based on cesium 137 radiochemical analysis [EUR-3669.F] 23 p4366 N67-38968
Colorimetric and paperchromatographic methods for purity control of radioactive chromium-51 [INR-811/XIII/C] 24 p4368 N67-39438
Computer methodology for calculating the unimolecular reactions of excited polyatomic molecule ions [ARL-67-0114] 24 p4396 N67-39727
X-ray irradiation effects on potassium chloride crystals containing potassium hydrosulfite impurities [AD-657036] 24 p4399 N67-40244
Activation analysis from thallium 203 neutron two neutron reaction [CNAEM-39] 24 p4400 N67-40323
Technology and economics of

radiocatalysis of fuel cells containing radioisotopes
[BNL-TR-142] 24 p4379 N67-40403
RADIOGRAPHY
SA AUTORADIOGRAPHY
SA PHOTOGRAPHY
SA X-RAY PHOTOGRAPHY
Isotopic radiography for industrial and commercial applications 06 p0886 N67-15544
Radiographic detection of flaws in hermetically sealed relays
[NASA-CR-83535] 11 p1840 N67-23261
Surveillance of in-pile tests using neutron radiography 18 p3200 N67-32437
Low voltage radiography and microradiography of graphite
[ORNL-P-3019] 20 p3664 N67-34442
Neutron radiography to determine condition of charge in explosive devices 20 p3647 N67-34477
Radiographic and ultrasonic testing of welds in steel thicknesses up to 300 mm
[EURAEC-1859] 23 p4259 N67-38915
Intensification of front lead screen for gamma ray radiography
[NSJ-TR-86] 23 p4312 N67-39042
RADIOLOGY
IBM 7040 computer program for computing potential radiological doses resulting from release of radioactive fission products into atmosphere - nuclear safety
[IDO-17151] 03 p0427 N67-13248
Radioactive isotopes as medical therapy 06 p0798 N67-15545
STEP project research on SNAPTRAN-1 reactor, LOFT core design and radiological studies and instrumentation testing
[IDO-17145] 06 p0914 N67-16521
Radiological aspects of Hanford production reactor deactivation
[DUN-SA-14] 10 p1680 N67-20977
Radiophysics, radiation chemistry, and radiological chemistry research projects
[BNWL-235-3] 18 p3201 N67-31644
Full-face respirator masks for radiological protection and relation of efficiency to pressure drop
[HOHF-3] 19 p3385 N67-33843
RADIOLYSIS
Carbon monoxide influence on radiolytic reaction between graphite and carbon dioxide
[AERE-R-4989] 01 p0029 N67-10386
Kinetics of hydrogen formation in radiolysis of liquid methanol and ethanol
[UJV-1553] 01 p0033 N67-10823
Primary chemical processes in radiolysis of liquids
[NYO-3668-13] 03 p0363 N67-13336
Radiation research projects - liquid phase argon sensitized radiolysis of ethylene, competitive electron capture, decolorization of blue cellophane films, and ESR spectra
[RRL-2316-182] 03 p0363 N67-13337
Uranium and cesium ion separation from fission products, isotope effects, and radiolysis
[AE-232] 04 p0500 N67-13563
Radiolysis of heterogeneous n-hexane/silicon oxide gel system 04 p0500 N67-13567
Rapid tracer method for determining radiolytic carbon dioxide produced in liquid systems during radiolysis of carbon 14 labelled compounds by gas counting
[AERE-R-5253] 04 p0501 N67-13712
Water radiolysis effects on electrochemical potential of steel and plutonium
[EURAEC-1702] 06 p1311 N67-18601
Electron, fast neutron, and gamma radiolysis of terphenyls - thermal decomposition of terphenyls
[AECL-2841] 08 p1321 N67-19178
Hydrogenated biphenyls synthesized for use as reference compounds in identification of radiolysis products obtained from benzene and diphenyl - phenylcyclohexenes
[EUR-3168.F] 08 p1241 N67-19193
Radiation studies and gamma radiolyses to determine properties of nitrous solutions and compounds 08 p1243 N67-19344
Radiolysis of ortho-terphenyl and meta-terphenyl with mixture of fast neutrons and gamma rays
[AECL-2655] 10 p1576 N67-21211
Gaseous products from radiolysis of aliphatic hydrocarbons 11 p1807 N67-22251
Pulse radiolytic experiments and spectrograms of transient absorption in alpha-methylstyrene 11 p1807 N67-22252
Fissiochemical nitrogen fixation, fission fragment radiolysis of carbon dioxide, new chemical systems selection, technology, and irradiation, and process design and application analysis
[AGN-8198, VOL. 2] 12 p2039 N67-23696
Fast neutron and radiolysis effects from reactor irradiation on Santoway UR
[MIT-334-70] 12 p2151 N67-24669
Radiolysis of alkenes
[NP-16442] 13 p2267 N67-25526
Relaxation and radiolysis methods in chemistry
[INR-758/XVII/C] 13 p2268 N67-25554
Gas chromatograph for analysis of products formed during radiolysis of gas mixtures
[ORO-3106-21] 14 p2482 N67-27442
Radiolytic and pyrolytic decomposition of organic coolants
[EUR-3172.E] 15 p2655 N67-27875
Mechanism of hydrogen formation in gamma radiolysis of low temperature glassy methanol
[UJV-1739] 19 p3387 N67-32783
Radiolysis of water effect on electrochemical corrosion of platinum and steel
[EURAEC-1784] 19 p3488 N67-33014
Gas phase radiolysis of dichlorodifluoromethane in presence of tritium
[AWRE-O-99/66] 19 p3394 N67-33554
Gamma irradiation of carbon dioxide methane gas mixture to form labelled acetone and methyl ethyl ketone products
[EUR-3496.F] 20 p3587 N67-34615
Measurements of radiolysis, radio iodine, induced activities, and water qualities of Japan Power Demonstration Reactor system
[JAERI-1135] 23 p4290 N67-38905
RADIOMETER
SA DICKE TYPE RADIOMETER
SA MICROWAVE RADIOMETER
Microwave correlation radiometer without RF switching
[AFCRL-66-534] 01 p0054 N67-10968
Design and development of high resolution nighttime cloud-cover radiometer
[NASA-CR-79366] 02 p0233 N67-11700
Radiometer instrumentation of 16-foot millimeter wavelength antenna system
[NASA-CR-80099] 02 p0239 N67-12159
Tuneable airborne L-band radiometer used as reconnaissance instrument 04 p0549 N67-13501
Method of showing what radiometer sees during surface temperature survey by aircraft 04 p0549 N67-13506
Interpretation of surface characteristics from both radar and radiometer sensors 04 p0550 N67-13522
Microwave thermal emission properties of materials examined with superheterodyne radiometer 04 p0550 N67-13529
Variable range reflector method for measuring effective power patterns of millimeter wave radiometric antennas
[BRL-R-1322] 05 p0875 N67-15053
Method for manual geographical referencing of direct readout infrared radiometer data from Nimbus C satellite
[NASA-CR-81132] 05 p0709 N67-15254
Cloud albedo measurements from airborne sol-a-meters, infrared radiometers, and Nimbus II radiometer
[NASA-TM-X-55705] 08 p1277 N67-18769
Bidirectional reflectance data obtained from balloon-borne medium resolution infrared radiometer, and IRIS interferometer calibration
[NASA-CR-82489] 08 p1279 N67-19097
Radiometric measurements of atmospheric attenuation at 600 GHz
[M67-4-1] 09 p1416 N67-19830
Construction and testing of two-stage radiant cooler for day and night high resolution infrared radiometer
[NASA-CR-82953] 09 p1450 N67-19946
Pulse counting time automatic radiometers to record radiation intensities of any size 10 p1632 N67-21270
Remote control automated radiometer with pulse attachment to improve pulp and loading parameters in ore dressing plant 10 p1646 N67-21275
Radiometric methods for studying geological sections in petroleum, gas, ore, and coal boreholes 10 p1622 N67-21284
Cone radiometer evaluation, and its application as measuring apparatus of incidence light flux 11 p1883 N67-22772
Correction equations for calibration shift observed in Nimbus Medium Resolution Infrared Radiometer aboard NASA Convair 990 aircraft
[NASA-TM-X-55741] 11 p1884 N67-22874
Response of airborne radiometer to microwave radiation from atmosphere and terrain
[NRL-MEMO-1717] 12 p2099 N67-23829
Comparison of Tiros VII 15-micron band radiometer temperature measurements with data from radiosonde measurements 12 p2139 N67-24302
Operation principles and parameters of infrared radiometric and spectrometric instrumentation used aboard Saturn vehicles for determining characteristics of exhaust plume and heat flux 12 p2237 N67-24647
Noise reduction, electrical modifications, radiant cone shield design, and simulator and radiometer calibrations for high resolution nighttime cloud cover radiometer
[NASA-CR-83814] 13 p2320 N67-25676
Soviet meteorological research on radiation distribution, flux measurement devices, random error of pyrgeometer, and related topics 14 p2534 N67-27166
Eliminating short periodical wind and temperature variations in radiometer readings of radiation intensity 14 p2535 N67-27110
Application of A-P algorithm to non-proportion damped vibration problems represented by non-self adjoint matrix differential equation 14 p2535 N67-27111
Spectral properties of radiometer with KRS 5 filter 14 p2536 N67-27116
Radiometer calibration methods and results, and conversion factors obtained 14 p2536 N67-27118
Nimbus breadboard microwave meteorological radiometer and scanning antenna evaluation
[NASA-CR-84485] 14 p2495 N67-27680
Fabrication and calibration of narrow field of view, high radiant heat flux sensor designed to operate in severe environs of rocket exhaust plumes
[NASA-CR-84625] 18 p3270 N67-32100
Cloud mapping by Nimbus I and II high resolution radiometers
[NASA-TM-X-55873] 19 p3486 N67-33961
Day-night high resolution infrared radiometer using two-stage radiant cooling
[NASA-CR-87807] 20 p3641 N67-34671
Temperature measurements of earth surface from aircraft infrared radiometers
[RAE-LIB-TRANS-1229] 20 p3633 N67-34744
Test programs for prototype and flight models of Nimbus high resolution infrared nighttime cloud cover radiometer
[NASA-CR-87963] 21 p3846 N67-35360
Development and testing of airborne equipment, including radiometers, for direct measurement of total heat flow from sea surface
[U-636] 21 p3839 N67-35694
Mechanical design and properties of Surveyor star tracking guidance system and Scanner project dual radiometer 21 p3852 N67-36213
Environmental test data for high resolution nighttime cloud cover radiometer
[NASA-CR-88759] 22 p4047 N67-37382
Meteorological measurements over southern California using airborne medium resolution infrared radiometer
[NASA-TM-X-55918] 22 p4051 N67-39049
RADIOMETRY
Observations of near infrared radiation from solar atmosphere, near infrared radiation from solar atmosphere during total eclipse, and radiometric observations of solar corona during eclipse
[AFCRL-66-274] 01 p0146 N67-10009
Infrared radiometric observations of solar corona during total solar eclipse of 20 July 1963 01 p0146 N67-10011
Radar studies of moon - theory of thermal emission, radiometric data analysis, input ephemeris accuracy, output mapping display, and progress on 3-mm radar system
[NASA-CR-80080] 02 p0206 N67-12071
Aircraft mounted radiometer used to measure anisotropy of reflected solar radiation from various surfaces 04 p0536 N67-13498
Evaluation of radio frequency characteristics of radome materials for Venus Deep Space Station antenna using radiometric

measurements 05 p0673 N67-14444
Radiometric method for automatic recording of kinetics and mechanism of gas condensed phase reaction 06 p0880 N67-16244
Radiometric determination of cesium 137 in water and urine by ion exchange on ammonium molybdophosphate mats 06 p0837 N67-16318
Extraction of copper, iron, uranium oxide, and nickel ions, and separation of uranyl ions from praseodymium ions by Schiff base metal chelates 06 p0837 N67-16321
Instrumentation used to detect and analyze spectral line radio astronomy signals 07 p1192 N67-17787
Radiometric transducers used for automatic control of level of molten metal for continuous steel casting machine 10 p1644 N67-21254
Radiometric density gauges for control of pulp density and corrosive liquids at nonferrous metallurgical plants 10 p1632 N67-21259
Radiometric instruments for control and automation of technological processes in coal industry 10 p1645 N67-21281
Radiometric control of fritting and wear of hearths in open hearth furnaces used in steel production 10 p1645 N67-21266
Radiometric equipment for radioactivity studies of coal and ore boreholes 10 p1632 N67-21286
Economic effects of radiometric methods in prospecting and exploiting oil and gas deposits 10 p1632 N67-21287
Radiometric techniques for quantitative evaluation of rock porosities 10 p1633 N67-21292
X-ray radiometric method and equipment for rapidly analyzing chemical composition of mineral substances 10 p1577 N67-21306
Gamma ray and neutron-gamma ray logging, and radioactive isotope methods used in oil fields 10 p1625 N67-21309
Induced neutron activation method to check flooding of oil deposits 10 p1625 N67-21311
Survey data on use of radiometric methods and radioactive isotopes in industrial-geophysical studies of oil and gas wells 10 p1626 N67-21319
Absolute radiance distribution of night sky in spectral region from 1.5 to 3.2 microns [DOUGLAS PAPER-4137] 11 p1872 N67-23355
Thermopile type radiometric calorimeters [UCRL-50145] 12 p2101 N67-24159
Spacecraft and balloon radiometry data, theories, and mathematical model of reflectance and scattering of solar radiation by earth [NASA-CR-83954] 13 p2313 N67-25962
Literature review in radiometric calorimetry [UCRL-50173] 14 p2839 N67-27585
Effective black body radiation of semitransparent materials for thermal calibrators in millimeter wave radiometry [HDL-TM-67-2] 17 p3175 N67-30198
Radiometric determination of solar flux densities and events - tables [SR-007] 17 p3156 N67-31321
Radiometric high resolution infrared measurements of sea-surface temperatures and ocean current by Nimbus II [X-623-67-435] 22 p4040 N67-37679
Passive microwave radiometry studies for rough sea [DAC-60786] 23 p4244 N67-38709
Radiometric boresighting using sequential lobing [NASA-TR-R-272] 24 p4406 N67-39791

RADIOPATHOLOGY
S RADIATION SICKNESS

RADIOPHYSICS
Rocket and satellite electron density measurements for radiophysics and planetary ionosphere study 06 p1278 N67-19024
Technological progress reported for radioactive waste disposal, radiation physics, ecology, and internal dosimetry [ORNL-4007] 11 p1790 N67-23429
Radiation damage, interaction of radiation with solids and liquids, and physics of tissue damage 11 p1790 N67-23432
Nuclear research and radiation physics technological developments 17 p3129 N67-30555
Thermophysics research on space environment, thermal control, infrared physics, and thermal flight experiments 17 p3155 N67-30556
Cryogenic technology research on propellant storage, fluid mechanics, and scientific instrumentation 17 p3150 N67-30557
Plasma and radio physics, solid state and electronic equipment, communication theory, and atmospheric science [SEL-67-007] 18 p3254 N67-32501

RADIOSENSITIVITY
Causes of radiosensitivity changes in embryonic tissues studied in barley and Tradescantia [COO-1469-10] 02 p0349 N67-13225
Radiosensitivity of Chlorella after medium energy accelerated electron irradiation [CEA-R-2984] 10 p1562 N67-20976
Radiation damage and radiosensitivity experiments with glycerol, trypsin, hydroxide radicals, amino acids, proteins, adenine, thymine, and uracil [NP-16309] 12 p2027 N67-24667
Detection sensitivity for monitoring krypton 85 [NYO-841-5] 16 p2893 N67-29265
Radio frequency sensitivity of squib electroexplosive devices used in Delta test vehicles [NASA-CR-88622] 23 p3963 N67-36868

RADIOSONDE
Advanced meteorological balloon and rocket sounding system and instrumentation [AFCRL-66-256] 01 p0040 N67-10972
Comparison of rocket sounding and radio sounding temperatures and verification of computed rocket sounding pressure and density [ECOM-5048] 01 p0102 N67-11618
Comparison of FPS-16 and GMD-1 radar tracking and radiosonde measurements and methods for processing wind data - time variability of atmospheric parameters [NASA-CR-61158] 02 p0256 N67-11904
Printouts and graphs of rocket winds, radiosonde observations and/or thermodynamics of February 1966 firings of Meteorological Rocket Network [NASA-CR-80854] 04 p0571 N67-13905
Radiosonde and radar sounding of troposphere and tropopause during clear weather, fall 1963 [T-R-629] 07 p1118 N67-17917
Radiosonde data used to study relationship between Richardson number and atmospheric turbulence [T-R-613] 09 p1474 N67-19729
Technical improvements in Soviet radiosonde station network for aerological observations 11 p1910 N67-21996
Improved versions of code type radiosondes for measuring temperature, pressure, and humidity 11 p1911 N67-22000
Random errors in radiosonde measurements of temperature and wind 11 p1911 N67-22001
Acoustic transducer for airborne radiosonde measurements of raindrop size 11 p1870 N67-23020
Comparison of Tiros VII 15-micron band radiometer temperature measurements with data from radiosonde measurements 12 p2139 N67-24502
Analysis of tracking, height, pressure, temperature, and wind measuring capabilities of FPS-16-RADAR, GMD-2 rawin system, and transponder radiosonde instrument [NASA-CR-61168] 12 p2162 N67-24480
Maintenance and operational analysis of ionospheric sounders used for selecting high frequency communications paths [AFCS-4-ORR-66] 14 p2821 N67-26816
Comparison of pilot balloon observations, radiosonde, and rawinsonde measurements of wind [ECOM-5116] 18 p3268 N67-32543
Radiosonde ascents data by aerological station in Berlin - temperature, pressure, winds, density, refractivity, and sound velocity 23 p4279 N67-38590
April 1967 daily radiosonde measurements and computed climatological data from aerological station, Berlin, Germany 23 p4279 N67-38680
Radiosonde measurement data of aerological studies during March, 1967, in Germany 24 p4489 N67-40441

RADIOSONDE THERMISTOR
Temperature measurements in free atmosphere by thermistors with antiradiation coatings of silver, aluminum, and ceromium 05 p0732 N67-14296

RADIUM
Half-life of radioactive elements, plutonium 238 valence instability, thorium 229 recovery, uranyl nitrate hydrolysis, and radium 223 decay [MLM-1343] 13 p2371 N67-25422
Calibration of radium-beryllium neutron source [NP-16854] 23 p4308 N67-38917

RADOME
Microwave antenna studies of polarization control and its effect on radome boresight error [REPT.-1804-7] 06 p0831 N67-15944
First order radome boresight error theory derived and applied to prediction and design problems [REPT.-1804-6] 06 p0843 N67-16235
Composite radome antenna system for aircraft, space vehicles, or guided missiles [HDL-TR-1237] 06 p0843 N67-16249
Matched inductive plate radome design for microwave and millimeter wave regions [REPT.-634161] 09 p1415 N67-19078
Computer determinations of convergent series and continuous functions in main-body thermal stress solution for radomes of interceptor missiles during hypersonic flight 19 p3547 N67-33269
Thin sheet and porous homogeneous cores of alumina sandwiches and monolithic fused silica constructions in connection with radome limitation program 19 p3546 N67-33273
Boresight calculations and mutual coupling considerations in polarization control effort to reduce boresight error in radar tracking systems [REPT.-2187-1] 21 p3796 N67-35602

RADOME MATERIAL
Fabrication of beryllium oxide radomes by pyrolitic deposition [AD-638219] 01 p0077 N67-10308
Evaluation of radio frequency characteristics of radome materials for Venus Deep Space Station antenna using radiometric measurements 05 p0673 N67-14444

RADON
Radon 222 concentration in air measured by electrostatic precipitation process [CLOR-47/D] 04 p0582 N67-13072
Sampling system using charcoal absorption technique for measuring concentrations of atmospheric radon 222 [UCRL-16952] 04 p0583 N67-14129
Radon transformation to extract informational invariant signs during automatic reading 08 p1254 N67-18574
Seasonal variations in concentration of airborne radon and thoron daughters 13 p2311 N67-25470
Calibration and use of dosimeters - miniaturized device for measuring radon concentration and gamma radiation dosimetry using glass [JPRS-40219] 17 p3068 N67-29889
Miniaturized device for measuring radon concentration 17 p3068 N67-29889

RAE SATELLITE
S RADIO ASTRONOMY EXPLORER /RAE/ SATELLITE

RAFT
Foam generator system to inflate PK-2 life raft [AD-647373] 12 p2239 N67-24758

RAIL TRANSPORTATION
Automatic data processing techniques and equipment applied to railroad traffic control and planning [JPRS-39496] 01 p0027 N67-10230
Optimization of man-machine functions in automatic railroad transportation systems [JPRS-39289] 01 p0022 N67-10099
Applied meteorology methods for preventing harmfuls effects of blizzards on railroad transportation [JPRS-39497] 01 p0101 N67-10499
Mechanized bookkeeping and accounting operations in railroad transportation [JPRS-39395] 01 p0045 N67-11158
Soviet open source abstracts on railroad radio, telecommunication, and data transmission systems and equipment 19 p3239 N67-32798
Digital computer program to solve equations derived from approximation model of various configurations for rail transportation catenary overhead contact wire system [RAE-TR-67050] 20 p3739 N67-34495

Effects of springs and suspensions on railroad car wheels running on straight tracks 21 p3895 N67-35851
RAIN
Rain production in summer, nonorographic, convective clouds and randomized seeding effects 01 p0101 N67-10442
Radioactive isotope application to hydrology, and assessment of tritium in world rain water - Atomic Energy Agency international programs 06 p0910 N67-15529
Computer programs to determine relation of hail, lightning, and rainfall to properties of mesoscale meteorological patterns, and accuracy of short-range lightning counter [PR-1] 09 p1471 N67-19517
Computer programs for study of relation of lightning, rainfall, and hail to properties of mesoscale meteorological patterns 09 p1472 N67-19518
Weather forecasting based on studies of cloud physics and seasonal variations during monsoon period in Arizona [ECOM-2761] 09 p1473 N67-19736
Aerial reconnaissance facilities and instruments, and resolving power, haze and rain effects, scanning devices, and optical and photographic media [TIL/T-5690] 09 p1451 N67-20319
Tropical rainfall patterns and associated mesoscale systems in Central America [ECOM-00202-F] 09 p1474 N67-20349
Atmospheric mesoscale and convective-scale of motion related to rainfall distribution 10 p1670 N67-20425
Spatial distribution of rainfall probability over Barbados based on 11-year sample stratified for climatic and synoptic regimes 10 p1670 N67-20426
Mesoscale rainfall in macroscale system - synoptic situations in southeastern Guatemala 10 p1670 N67-20427
Mean monthly and yearly diurnal variations of rainfall for El Salvador 10 p1672 N67-20437
Geophysical research in high magnetic fields and upper atmospheric physics, and study of relation between dust and rainfall 11 p1870 N67-22648
Coherent pulse transmission through rain [TN-1966-63] 12 p2057 N67-24951
Randomized convective cloud seeding tests conducted over southern Missouri - Project Whitetop 13 p2353 N67-26476
Microphysical mechanism of rain from warm clouds [JPRS-40617] 14 p2569 N67-27720
X-band radar observations and analyses of rainfall associated with trade winds at Hawaii 14 p2495 N67-27725
Pulse-to-pulse radar backscatter measurements of precipitation above and below bright band, orographic effects on rain, and radar view of lee-wave or rotor radar echo [ECOM-03712-4] 16 p2882 N67-29068
Background discussion of drought in Australia and maps of annual rainfall for years 1885 - 1965 17 p3056 N67-31178
Sounding and temperature data used to determine snow thickness patterns for use in forecasting of rain or snow [AD-653187] 19 p3484 N67-32878
Surface rain intensity measurements - time distributions [NOLC-729] 21 p3882 N67-35636
Continuity equations derived and applied to kinematic models of microphysical processes occurring in atmosphere - precipitation onset [IERTM-NSSL 33] 22 p4087 N67-37247
Physical-numerical model for inferring tropospheric structure from satellite radiation measurements - rain relationship to surface dew point, and atmospheric energetics 23 p4280 N67-38601
Equations derived for relating total precipitable water and surface dew point 23 p4280 N67-38603
Relationship between daily and annual rainfall mass distribution in Thailand, based on prediction equations and nomograms 24 p4487 N67-39023
Artificially produced space charge influence on electrification of clouds in lower atmosphere and formation of precipitation 24 p4446 N67-40183
RAIN EROSION
Whirling arm, air gun, and rocket sled used to study rain erosion and water drop impact [RAE-LIB-TRANS-1194] 15 p2686 N67-27789
Evaluation of rain erosion resistant materials for helicopter rotor protective covering [SEG-TR-65-53] 15 p2640 N67-28183
RAIN GAUGE
Airborne precipitation water content meter [FR-1004] 11 p1885 N67-23041
Normal values of precipitation highs in France [REPT.-55] 13 p2352 N67-26021
Rain gauge and quantitative radar observations for determining rain microwave attenuation [ESD-TR-67-341] 18 p3289 N67-31660
RAIN IMPACT DAMAGE
Uranium loss in mines subject to action of rain water [LFEN-NI.33/ALPHA/] 18 p3261 N67-31561
Multiple impact rain erosion of airframe materials studies at speeds up to 450 m/s in test facility [RAE-TR-67019] 20 p3657 N67-34413
RAIN REMOVAL SYSTEM
Mathematical expressions for washout of particulate matter in radioactive clouds produced by nuclear explosions - Sedan event [UCRL-14700] 03 p0392 N67-13252
RAINDROP
Simulation of raindrop impact on projectiles [NOLTR-65-181] 06 p0861 N67-16120
MIDAS computer program to evaluate evaporative losses of falling raindrops 07 p1070 N67-17314
Vertical motion of raindrops inside hurricane rainbands computed from airborne Doppler winds 10 p1671 N67-20434
Acoustic transducer for airborne radiosonde measurements of raindrop size 11 p1876 N67-22020
Microwave scattergrams of raindrop size distributions computed using Mie theory [TR-426] 12 p2056 N67-24924
Raindrop spectrometer and automatic liquid water content meter design and performance [AFCRL-66-782] 13 p2323 N67-26241
Correlation of rainfall distribution and drop size with climatic regions and type of rain [FA-F-1851] 21 p3882 N67-35414
Weather radar rainfall measurements at range of 75 miles and analysis of raindrop size data obtained from several locations [ECOM-02071-1] 21 p3882 N67-35690
Meteorological fluctuations in clouds, cirrus cloud seeding as trigger for storms, raindrop evaporation, natural ice crystals, and convective clouds - papers on cloud physics [TN-36] 22 p4087 N67-37344
RAINSTORM
Satellite data, vorticity, divergence, and Raeb, synoptic, and isohyetal analyses for two successive heavy rainstorms over south Florida [SAR-2] 01 p0100 N67-10290
Extreme rainfall and extensive flooding in southern Florida analyzed for synoptic aspects 10 p1670 N67-20424
Typhoons, heavy rainstorms, and anticyclones in China during summer [EMM-66-103/A/] 14 p2569 N67-27717
Moisture and radar analysis of heavy tropical storm in Florida [ML-67068] 16 p2924 N67-29441
RAMAN EFFECT
Experimental apparatus problems in intensity measurements of Raman effect [TIL/T-5657] 04 p0583 N67-14338
Raman effects, semiconductor oscillations, thin film electroacoustic amplifiers, acoustic microscope, geometrical optics of acoustic waves, and acoustic waves in semiconductors [ML-1515] 17 p3894 N67-30238
Electron and solid state physics - reflected light, Raman effects, solid and liquid optical properties, spectroscopy, Brillouin effects, and carbon dioxide laser 18 p3317 N67-32217
Experimental and theoretical developments in stimulated Raman scattering of light [TR-525] 21 p3865 N67-35811
RAMAN SCATTERING
Laser excited Raman scattering studied as means for investigating crystals containing impurities [AD-637256] 01 p0142 N67-11104
Raman generator for amplification of coherent radiation, and spectral characteristics of gas laser with one direction traveling wave propagation [FTD-MT-65-299] 02 p0267 N67-11313
Raman generator for amplification and generation of coherent radiation 02 p0267 N67-11314
Raman scattering using continuous wave optical masers [AD-650044] 17 p3120 N67-30726
Simulated Raman scattering and radiation distribution in lasers [FTD-MT-65-144] 19 p3466 N67-32812
Stimulated Raman scattering inside resonator of primary laser in steady state 19 p3466 N67-32813
Production of high brightness Raman devices in hydrogen and liquids [AD-653106] 19 p3467 N67-32644
Stimulated Raman scattering and mode selective techniques for giant pulse lasers, and studies of optical harmonic generation and bleachable dye lasers [P67-81] 21 p3815 N67-35619
RAMAN SPECTROSCOPY
SA INFRARED SPECTROSCOPY
Viscosity, Raman spectroscopy, and diffusion in molten salts [NYO-1769-68] 03 p0361 N67-12273
Optical properties of solids investigated by infrared and Raman spectroscopy 11 p1966 N67-22646
Design and construction of He-Ne laser Raman spectrophotometer [TR-32] 17 p3075 N67-30458
Angular distribution of stimulated Raman emission from diamond [SAR-1, 2, 3] 21 p3866 N67-35879
Raman gain measurements in diamond crystals [SAR-4] 21 p3866 N67-36071
Laser Raman scattering measurements of crystals [AD-656342] 24 p4513 N67-39425
RAMAN SPECTRUM
Infrared and Raman active lattice vibrations in zinc selenide 10 p1743 N67-20465
Interferograms interpreted in terms of molecular motion in infrared and Raman spectra [TR-669/9260-01/-5] 11 p1810 N67-22559
Calculation method for true profile of Raman lines [NASA-TT-F-10998] 15 p2856 N67-28288
Surface tension, viscosity, and Raman spectra of fused salts [ORO-2073-12] 19 p3394 N67-32559
Raman spectra of polycrystalline carbon dioxide and nitrogen oxide in lattice region at several temperatures [TR-34] 21 p3914 N67-35535
RAMJET ENGINE
Effects of air intake and exhaust nozzle properties on hypersonic ramjet power plant [TP-416] 06 p1219 N67-19350
Computing optimum parameters for supersonic ramjet engine with heat exchanger [FTD-TT-65-581] 09 p1505 N67-19682
Mathematical model for ramjet engine performance [WRE-SAD-162] 13 p2396 N67-26144
Critical problems in application of turboramjet turbomachines and ramjets at high speeds 16 p2962 N67-29188
Experimental investigation of engine dynamics and controls for 48-inch ramjet engine in free jet facility at Mach number 2.76 and altitudes 68,000 to 82,000 feet [NACA-RM-E55J12] 18 p3219 N67-31545
Flight regimes of ramjet engine vehicle permitting combustion chamber operation without flameout [FTD-HT-67-24] 19 p3528 N67-32275
Computer analysis for chemical kinetic processes and nozzle performance in rockets and ramjets [NASA-TN-D-4144] 21 p3926 N67-35731
External burning ramjet and external expansion ramjet engines [TG-892] 21 p3927 N67-35656
External burning in supersonic combustion engines [TG-912] 21 p3948 N67-36072
Airframe-propulsion system integration for hypersonic aircraft [NASA-TN-D-4128] 23 p4175 N67-38648
Chemical kinetics of combustion processes examined for application in supersonic

combustion ramjet engine design studies
[AEDC-TR-67-177] 24 p4523 N67-39035
RAMJET MISSILE
Flight tests of Mach 5 experimental ramjet missiles
[NASA-TT-F-10319] 07 p1181 N67-17399
RANDOM ACCESS DISCRETE ADDRESS /RADA/ SYSTEM
Methods for development of storage memory in mathematical models with search strategy similar to human brain 04 p0487 N67-13446
Hough-Powell Device /HPD/ minimum guidance off-line program development 21 p3610 N67-36274
RANDOM DISTRIBUTION
Probability of segment overlap by system of random segments investigated and applied to visual observation under cloudy conditions 03 p0376 N67-12507
Some nonparametric tests for randomness in sequences
[NASA-TN-D-3766] 04 p0567 N67-12533
Bayesian procedures for randomized block design, contingency tables, and missing observation distribution
[TR-62] 10 p1685 N67-39615
Random search and gradient method in optimization problems 11 p1907 N67-23406
Signal correlations in forward scattering of microwaves by two-component random distributions
[SESW-2121] 17 p3622 N67-39472
Randomized problem of diffuse reflection, and radiative transfer in presence of both scattering and absorption 17 p3134 N67-31094
Multiple scattering of acoustic waves by radom distribution of isotropic point scatters
[REPT.-85-40] 19 p3490 N67-33512
RANDOM ERROR
Least squares analysis and random computer code used for expressing experimentally derived data subject to random error by mathematical function 03 p0370 N67-13618
Random errors in radiosonde measurements of temperature and wind 11 p1911 N67-23001
Soviet meteorological research on radiation distribution, flux measurement devices, random error of pyrgeometer, and related topics 14 p2534 N67-27108
Random errors of long wave detectors 14 p2535 N67-27109
Random errors of Laikhtman Kucherov differential net pyrgeometer 14 p2536 N67-27117
Interpolating bivariant data influenced by random error
[UCRL-50219] 18 p3286 N67-33068
Random deviation altitude error study for cruising aircraft
[RD-67-8] 18 p3196 N67-33538
Random altitude deviations of commercial aircraft during cruise
[SRDS-RD-67-8] 20 p3564 N67-34025
Euclidean geometry cyclic codes for correcting relatively large numbers of random errors
[AFCRL-67-0178] 21 p3678 N67-35713
Bad features of Bose-Chaudhuri random error correcting codes
[AFCRL-67-0179] 21 p3796 N67-35719
Random error correcting codes for information retrieval
[AFCRL-67-0177] 21 p3801 N67-36182
Maximization of signal to noise ratio for antenna arrays subject to random errors
[SR-3] 22 p4212 N67-38328
Explicit formulas for data smoothing and trend estimation focusing on measures of random error effects, their interdependency, and consequences of systematic errors
[P-324] 23 p4274 N67-38454
Bose-Chaudhuri-Hocquenghem codes for correcting random errors
[NASA-TM-X-55947] 23 p4317 N67-39350
RANDOM LOAD
Fatigue of reinforced concrete due to sinusoidal and random loadings
[NASA-CR-79536] 02 p0214 N67-11084
Analysis and performance prediction of digital computer facility servicing nonpredictable, randomly varying load in flight simulation 06 p0613 N67-15880
Fatigue life prediction method for structural elements using data obtained under random loading conditions
[RAE-TR-66823] 07 p1204 N67-17844
Vibratory motion of flexible shells subjected to random forces 09 p1526 N67-20689
Probability density of extreme values of deflections and stresses of elastic shell nonlinear vibrations under random loads 09 p1527 N67-20806
Probability of fatigue breakdown during random stationary loading 12 p2210 N67-23826
Methods and equipment for fatigue tests of random loading 12 p2219 N67-23827
Approximation method for determining response of nonlinear dynamic systems to random disturbances
[NASA-CR-84007] 13 p2349 N67-26179
Influence of maximum stress, stress range, and sequence of programmed and random loads on fatigue crack propagation in 2024-T3 aluminum alloy
[D1-82-0553] 16 p2978 N67-29123
Quasi-static, adiabatic responses of viscous material to cyclic and random loading and straining
[NASA-CR-86554] 18 p3250 N67-31821
Actual and predicted fatigue behavior of 345-T and 21-85 alluminum alloy notched specimens under both symmetric and asymmetric random loading spectra
[ARL/SM-313] 20 p3963 N67-35278
Fatigue life characteristics of aluminum alloy specimens under random load to failure
[NASA-TR-R-266] 21 p3941 N67-35726
Excursions of random function beyond random level of known statistical characteristics for estimation of structural reliability 21 p3951 N67-36450
Dynamic responses of hemispherical shells subjected to dynamic, thermal, and random loadings
[NASA-CR-86612] 22 p4155 N67-37492
Stress induced in aircraft structures subjected to random acoustic loading from jet noise at takeoff
[AFML-TR-67-199] 24 p4548 N67-40553
RANDOM NOISE
SA GAUSSIAN NOISE
Low frequency noise generator for generating random noise
[DLR-MITT.-66-08] 03 p0173 N67-11885
Thermal, shot, random, and impulse noise reduction in amplifiers
[ECOM-2778] 10 p1504 N67-20631
Annotated bibliography on random noise and effect on signals
[NASA-TM-X-59057] 13 p2382 N67-26609
Low noise amplifier design with field effect transistors, random noise characteristics, and noise measurements on commercial devices
[NASA-CR-87235] 19 p3415 N67-32221
Statistical properties of random transient noise signals
[NOLTR-67-25] 22 p3906 N67-36929
RANDOM NUMBER
Green function and Fourier series used in linear eigenvalue problems of random order with dissociating boundary conditions
[JUL-176-MA] 11 p1906 N67-23006
Random number pulsed generator for obtaining binary data
[FTD-HT-66-90] 11 p1838 N67-22502
Random number generator circuit with pulsed amplified signal at gate output
[ISS-66/43] 14 p2509 N67-27134
Test program for pseudorandom numbers with uniform distribution for application to Monte Carlo methods
[EUR-3464.E] 17 p3095 N67-31306
Random number generators and their statistical properties for Sandia CDC 3600 computer
[SC-RR-67-65] 17 p3095 N67-31945
Methods for separating groups of unresolved signals from noise on basis of random point theory 20 p3605 N67-35237
Effects of faulty random number generators on Monte Carlo calculations
[ORNL-TM-1435] 23 p4275 N67-38654
RANDOM PROCESS
SA MARKOV PROCESS
SA POISSON PROCESS
SA STOCHASTIC PROCESS
Theoretical study of random process derived from Poisson process by division
[CEA-R-2907] 01 p0117 N67-10773
Theoretical basis for prognosis using transient statistics for random processes in form of mean square of Taylor series 02 p0266 N67-13519
Property equations for queues with servers, random arrivals, and exponential service times
[TRG-1153/S/] 02 p0417 N67-13155
Technical cybernetics problems of optimal control, queueing, random processes, speech and pattern recognition, and information processing
[JPRS-39981] 05 p0665 N67-14941
Information value theory applied to random process in finite automation systems 05 p0665 N67-14942
Approximation method for determining distribution moments of greatest values in random processes of finite length 05 p0666 N67-14239
Numerical operations on sampled-data representation of random functions
[TR-498] 05 p0730 N67-15022
Markov chain concept for treating random processes of neutron scattering and absorption in slabs
[TR-462] 05 p0743 N67-13292
Theoretical relationship between spectral density function and probability distribution of crossings for stationary random function with Gaussian distribution
[ARC-CP-834] 07 p1140 N67-16189
Random walk model for determining cycle slipping in phase locked loops 08 p1246 N67-12949
Analog computer method for approximating stationary Gaussian random process depending only on position parameter
[NASA-CR-83016] 08 p1299 N67-19415
Theorem proofs derived for stationary random process, differentiable with probability one, with zero mean and correlation function 08 p1302 N67-19188
Applicability of random phase approximation to collective excitation in spherical even nuclei - correction to two-phonon state
[RIFP-56] 09 p1245 N67-19247
Correction to random phase approximation for first 2-plus state in spherical even nuclei evaluated with perturbation theory
[RIFP-57] 09 p1245 N67-19257
Definitions of bandwidth for non-bandlimited random processes
[RADC-TR-66-531] 09 p1415 N67-19685
Random and systematic factors in scatter of creep data
[NGTE-R-339] 09 p1462 N67-19971
Information value and sufficient statistics in relation to observation of random process 11 p1818 N67-22462
Theory of random processes with independent increment
[FTD-TT-65-73] 11 p1907 N67-23452
Perceptron and pattern recognition systems for control of random processes 12 p2009 N67-23965
Construction and reliability characteristics of semi-Markov process systems operating in periodically alternating modes 12 p2070 N67-24207
Random prognosis parameter used to determine level for which repairs to automatic system is made - preventive maintenance 12 p2070 N67-24212
Reliability and maintenance control of complex automatic technical systems - scheduling theory 12 p2070 N67-24213
Random search process as means of determining global extremum of equations having several extremal points 12 p2071 N67-24220
Statistical procedure using random parameters to determine accuracy of nonlinear automatic control systems 12 p2071 N67-24222
Performance of control systems with random parameters - optimal stochastic control
[AFFDL-TR-66-83] 14 p2509 N67-27546
Mathematical models on stability of attitude control systems acted upon by random perturbation processes
[NASA-CR-731] 14 p2510 N67-27819
Maximum a posteriori estimate of random process state vector in interval 16 p2981 N67-29504
Probability statistics for optimal control of increasing random process 18 p3287 N67-32198
Mathematical analysis of noisy nonlinear devices by generalized random processes and comparison of quadratic and correlation detectors
[ARL-67-0048] 18 p3295 N67-32376
Random processes, filtering, and telemetry problems in space communications theory

[NASA-CR-87004] 18 p3234 N67-32534
Simple random phase approximation impurity screening in inhomogeneous electron gas for determining conduction band electron behavior in real metals 19 p3533 N67-33060
Nonstationary random processes in nonreal-time applications - theories for nonreal-time correlation and spectrum analysis
[NASA-CR-87289] 19 p3403 N67-32262
Device for computing correlation functions of continuous nonstationary random processes 20 p3606 N67-34228
Digital filtering, correlation function analysis, spectral smoothing, special functions, and spectrum analysis of nonstationary signals in random process theory research
[NASA-CR-61081] 20 p3607 N67-34668
Cybernetics research including automatic and optimal control, information processing, operations research, reliability, random process, and queueing systems
[JPRS-41786] 20 p3616 N67-35281
Orthogonal method for investigating nonlinear automatic control systems under random effects 20 p3617 N67-35300
Iteration method for finding optimal nonlinear filter for stationary random process 20 p3617 N67-35301
Digital simulation of Gaussian random process having exponential autocorrelation function
[AFFDL-TR-67-53] 21 p3638 N67-36506
Optimum quantization of random sequences
[TR-529] 22 p4001 N67-36952
Fluid behavior in cylindrical tank under relatively low frequency random longitudinal excitation
[NASA-CR-88533] 22 p4032 N67-37771
Random store and forward communication networks with applications to pattern recognition
[REPT.-58] 24 p4403 N67-39529
RANDOM SAMPLE
Statistical hypothesis testing procedure examined for statistical robustness - Student procedure
[RR-24] 07 p1014 N67-17748
Monte Carlo methods, Mie theory, and random walk and screen models for predicting reflective properties of paint films
[NASA-CR-61167] 08 p1328 N67-19078
Computer code for construction of statistical resonances in unresolved resonance region
[GA-7136] 10 p1588 N67-21553
Monte Carlo generation of random samples from Wishart distribution used in verification of asymptotic properties of estimation procedure
[AROD-4721-8-M] 14 p2563 N67-38945
Generation of random samples from Wishart distribution - matrix algebra
[AROD-4721-7-M] 14 p2563 N67-38946
Decision technique for use in noisy communication channels with small samplings based on game theory solution for non-regular random event problems
[SDC-SP-2756] 17 p3027 N67-30872
Optimum linear interpolation of sampled random processes for minimum mean-square error
[REPT.-7] 24 p4404 N67-39613
RANDOM SIGNAL
SA PSEUDORANDOM SIGNAL
Singular sequential detection of random signal and Gaussian noise with exponential autocorrelation functions
[RADC-TR-66-406] 01 p0037 N67-10234
Nonlinear system stability investigated with restriction of random signal at input 05 p0577 N67-12513
Quantization frequency of random speech signals in correlation and spectral analysis 13 p2279 N67-25789
Automatic measurement of normalized current mutual correlation and autocorrelation functions of random electric and acoustical signals 16 p2895 N67-29476
Electronic measurement of correlation functions of periodic signals 17 p3040 N67-30642
Algorithms for processing random signals using Monte Carlo method 20 p3605 N67-35297
Improved radar system performance using random signal as transmitted waveform
[NASA-CR-88209] 21 p3799 N67-35915
Technique for measuring pulse train jitter
[HDL-TM-67-4] 21 p3824 N67-36492
RANDOM VARIABLE
Random variables to use in modeling manual control performance 01 p0021 N67-10176
Theory, mathematical model, and computer simulation of randomly time-variant channels applied in tapped delay line development
[NASA-CR-80356] 03 p0367 N67-12978
Optimal control of systems with distributed parameters, and optimization of random search for extremum value of variables 05 p0587 N67-14363
Exchangeability preserved by weaking type of invariance usually assumed for exchangeable random variables - Stochastic processes
[TR-11] 05 p0723 N67-14708
Central limit theorem generalization for stochastic process involving weakly stationary sequences of random variables
[TR-1] 06 p0902 N67-16036
Suboptimal feedback control of systems with random parameters
[R-323] 07 p1054 N67-16930
Order statistics of exponential variate used in estimating scale of exponential distribution of know location
[NASA-CR-70346] 07 p1114 N67-17873
Chance-constrained programming with decision variables either bounded or restricted to zero or one
[NASA-CR-81875] 08 p1299 N67-18489
Multivariate analysis of random variables association, with reliability application
[D1-82-0567] 08 p1303 N67-19236
Saddle point method of approximating probability of extreme values of random variable
[TR-510] 09 p1467 N67-19692
Some problems in curve fitting
[ECOM-5078] 09 p1471 N67-20345
Multivariate notion of association for unrestricted random variables and application in set operations
[D1-82-0578] 10 p1665 N67-20802
Outstanding values in sequence of random variables
[AD-645831] 12 p2130 N67-23873
Nearest neighbor estimate in infinite parameter problem
[SEL-66-090] 12 p2132 N67-24973
Set theory for association of binary random variables
[D1-82-0444] 14 p2563 N67-36883
Renewal theorem for nonnegative random variables - probability distribution functions
[AD-648577] 14 p2564 N67-27073
Source encoding in presence of random disturbance
[NASA-CR-84656] 15 p2865 N67-28912
Sums and products of two Rayleigh distributed random variables and relationship between Rayleigh density and other probability densities
[NMC-TM-67-15] 15 p2735 N67-28557
Relationships among some notions of bivariate dependence - functional analysis
[D1-82-0597] 16 p2918 N67-29062
Error probability prediction based on statistical properties of random variables
[ECOM-0181-M1091] 16 p2918 N67-29115
Efficiency of two estimators for Poisson distribution
[TR-519] 16 p2944 N67-29067
Asymptotic distribution of eigenvalues of random matrices
[MRC-TSR-736] 17 p3069 N67-30379
Strong convergence of linear averages proven in sequences of random variables occurring in Monte Carlo sampling
[MRC-TSR-719] 17 p3091 N67-30436
Martingale version of dominated ergodic theorem for special case of independent identically distributed random variables with mean zero 17 p3092 N67-30735
Geometric treatment of source encoding Gaussian random variable for mean-square error
[NASA-CR-83396] 18 p3233 N67-32274
Tapped delay line simulation of randomly time-variant channels
[NASA-CR-87162] 19 p3396 N67-32758
Balanced incomplete block design and Bayesian analysis of linear models with two random components
[TR-162] 19 p3479 N67-33038
Topics related to effectiveness of distribution functions, transformations, and stochastic processes in mathematical and applied statistics
[ARL-66-0231] 19 p3479 N67-33066
Theorem generalization for asymptotic distribution of transformed normal random variable 19 p3480 N67-33067
Random variable transformations and compatibility of pairs of distribution functions analyzed 19 p3480 N67-33068
Generalization and definition of robustness of test in terms of metric on space of power functions and Kolmogorov metric on space of location parameter distributions 19 p3531 N67-33069
Sample characteristics and limit theorems of Ito stochastic integral
[FTD-HT-66-607] 19 p3481 N67-33268
Reconstructing patterns from sampled data
[TR-126] 20 p3669 N67-34200
Convergence rates and asymptotic behavior in law of large numbers for random variables
[RM-188] 21 p3677 N67-35412
Controlled random pulse generator for converting stationary Poisson flow into nonstationary linearly dependent flow 21 p3821 N67-35815
Limit theorems for additive-multiplicative random sequences
[ORNL-4144] 23 p4273 N67-38186
Density functions for some random sums of normal, sinusoidal, and Rayleigh variables
[NMC-TM-67-35] 23 p4273 N67-38200
Random binary sequences for codes with autocorrelation and cross correlation functions
[NWC-TP-4294] 23 p4230 N67-38561
Cauchy distribution of product and quotient of random variables from population characterized by probability density function 24 p4477 N67-39478
RANDOM VIBRATION
Joint acceptance equations for cylinder undergoing random vibration, and for simply supported beam in diffuse sound field
[NASA-CR-80359] 03 p0470 N67-13003
Random vibration of multi degree of freedom hysteretic structures
[AFOSR-66-2111] 05 p0773 N67-15103
Hand control designs and manual operator performance evaluated under random vertical vibration 06 p0811 N67-15870
Random vibration of submerged elastic plate related to Fourier transform and eigenfunction expansion methods 06 p1376 N67-18514
Far field sound radiation from randomly vibrating structure oscillating in acoustic medium
[TR-15] 09 p1519 N67-19788
Matrix of impulse response function with special reference to applications in random variable problems 11 p1991 N67-22827
Frequency spectrum method for analyzing ground motion data produced by single and multiple vibratory sources
[AD-645479] 11 p1856 N67-23180
Feasibility of force controlled spacecraft vibration testing using notched random test spectra 14 p2622 N67-26644
Transfer function used to calculate expected vibration levels at locations of Scout Launch Vehicle from noise levels during flight 14 p2625 N67-27062
Approximation method for determining maximum response of simple beams to stationary random excitation perfectly correlated in space and time
[NASA-CR-816] 17 p3042 N67-31430
Theoretical analysis of response of thin cylindrical shell to random vibratory loading
[NASA-CR-85077] 18 p3350 N67-31716
Coherent optical correlator for analyzing random vibration data 19 p3546 N67-33131
Optimal control in bounded phase-coordinate processes and for antenna pointing direction subject to random disturbances
[NASA-CR-89941] 23 p4230 N67-38618
RANGE
SA BALLISTIC RANGE
SA FREQUENCY RANGE
SA LONG RANGE
SA MISSILE RANGE
SA RADAR RANGE
SA SOUND RANGING
SA TEST RANGE
Range energy and dE/dx plots of charged particles in matter
[UCRL-3426, VOL. II, REV.] 08 p1343 N67-18906

Trajectory and range calculations for fanned and paired plane jets in restricted cross flow 23 p4239 N67-39183
RANGE AND RANGE RATE TRACKING
SA GODDARD RANGE AND RATE SYSTEM
Selection of high accuracy radio guidance and tracking systems among interferometer, range and range rate and multichannel transponder systems
[ELDO-TM-F-36] 04 p0516 N67-14291
Deep Space Instrumentation Facility two-way Doppler accuracy limitations - effect of charged particles 05 p0670 N67-14422
S-band receiver exciter ranging subsystem Blocks IIB and IIIB 06 p0639 N67-15921
Error analysis for selecting optimum rates for taking counted doppler rate and range data for tracking short arc of lunar satellite orbit
[NASA-CR-66345] 06 p0845 N67-16573
Error sources associated with Doppler radar tracking data of lunar satellite orbits taken by Deep Space Instrumentation Facility
[NASA-CR-66346] 06 p0845 N67-16574
Range accuracy of Goddard Range and Range Rate system /GRARR/ evaluated and compared to Sequential Collation of Range systems /SECOR/
[NASA-TM-X-55627] 08 p1247 N67-18740
Least squares analysis of unified S-band system high speed range rate and X-Y angular data from AS-202 mission
[NASA-TM-X-55783] 14 p3490 N67-37283
Statistical analysis of simulated upper sideband static Doppler tracking data to determine probability characteristics of error distribution
[NASA-CR-85846] 17 p3627 N67-31122
Sounding rocket free fall trajectory estimation from single station range measurements
[REPT.-67-19] 19 p3537 N67-33042
Noise model for simulating effect of tropospheric turbulence on measurements of range, range rate, angles, and angular rate associated with radio guidance and tracking stations
[ELDO-TM-F-4] 23 p4216 N67-39168
RANGE ERROR
Bounded range error model applied to evaluation of information content of single pass of Doppler data 05 p0671 N67-14430
Ranging errors studied in relation to navigation with high altitude satellites
[TN-1966-46] 19 p1674 N67-21867
Analysis of microwave radiometric technique for correcting range errors of tracking systems due to atmospheric refraction
[IER-30-ITSA-30] 17 p3023 N67-30471
Error sensitivity expressions for satellite orbital hyperbolic navigation system
[P-3636] 24 p4489 N67-39537
RANGE INDICATOR
Range indicator attachment to phototelegraphic recording instrument for depth measurement 11 p1881 N67-22378
RANGE MEASUREMENT
SA AIRBORNE RANGE AND ORBIT DETERMINATION /AROD/
Angular and range refraction corrections due to ionosphere 05 p0671 N67-14427
Helicopter design for range, endurance, payload, and hovering mission requirements 05 p0633 N67-15189
Ranging measurements and equipment for Mariner Venus space probe 06 p0838 N67-15915
Error acquisition probability in Mark 1 ranging subsystem as function of signal-to-noise ratio and integration time used in correlation 06 p0839 N67-15916
Range measurement improvement techniques for rawin set receiving system, and solid state receiver subsystem hardware design
[NASA-CR-81528] 07 p1042 N67-16038
Transmission of characteristic data and range measurement in air traffic control
[NASA-TT-F-10361] 08 p1507 N67-18445
Modified effective range formula for analyzing degenerate dipole coupling 11 p1923 N67-22116
Geodetic radio range finding equipment containing high precision tellurometer, phase recorder, and phase difference measuring unit
[FTD-HT-66-694] 16 p3592 N67-29071
Range performance of hypersonic aircraft
[ARC-CP-922] 20 p3566 N67-34663
Absolute errors in human visual distance estimation in relationship to acceleration rate of increasing size of solid angle representing target
[HUMRRO-PP-26-67] 21 p3771 N67-35603
Randle Cliff radar digital range measuring instrument
[NRL-6572] 23 p4213 N67-39532
RANGE SAFETY
Environmental monitoring of discharged radioactive waste materials
[AHSB/RP/-R-72] 01 p0023 N67-10480
Atlas-Centaur-Surveyor range safety data - trajectory characteristics, impact locations for jettisoned items, and destruct data
[NASA-CR-80093] 05 p0785 N67-14557
Airframe, pneumatic, hydraulic, propulsion, flight control, electrical, guidance, telemetry, and range safety command subsystems for Atlas launch vehicle
[GD/C-BGJ67-001] 21 p3936 N67-36061
Saturn IB launch vehicle AS-206 operational trajectory range safety analysis
[NASA-CR-80236] 23 p4345 N67-39231
Effect of wind variation at Western Test Range on instantaneous impact point of launch vehicles
[TR-0158(3261)-1] 24 p4536 N67-40393
RANGEFINDING
SA OPTICAL RANGEFINDER
Small laser radar applied to meteorological studies
[PMR-TM-66-6] 02 p0268 N67-12204
Advanced techniques for reduction of geodetic Sequential Collation of Range Satellite /SECOR/ observations
[AD-646238] 05 p0675 N67-15035
Gallium arsenide laser radar and rangefinding at room temperature
[HDL-TM-66-13] 06 p0639 N67-16144
Sound ranging technique for locating supersonic guided missiles during descent trajectory
[ECOM-5565] 06 p0968 N67-16656
Celestial navigation methods using satellite range and location data for determining position of observer
[NRL-MR-1750] 14 p3571 N67-26614
Jet aircraft detection, range estimation, and auditory tracking tests in desert environment
[TR-67-9] 16 p3841 N67-29630
Probability of target lock-on by tracking system using automatic rangefinder during automatic search
[JPRS-41244] 17 p3628 N67-31428
Geodetic laser system with specified photographic range and rangefinding distance capabilities
[B-3546] 19 p3467 N67-33166
RANGER VI LUNAR PROBE
Mission planning, launch operations, and performance of Ranger VI lunar probe and Atlas Agena launch vehicle - TV subsystem failure
[NASA-CR-81193] 06 p0971 N67-15682
RANGER VII LUNAR PROBE
Tables of computer generated photographic parameters necessary for detailed interpretation of Ranger VII television camera pictures - trajectory and time-to-impact data
[NASA-CR-79938] 02 p0259 N67-11817
Lunar mare data from color photographs of Ranger VII
[NASA-CR-81169] 06 p0956 N67-15466
Photographic measurements and Baldwin formula calculations of relative depths of lunar annular mountains and craters in Mare Nubium
[NASA-CR-84991] 13 p2405 N67-26415
Orbital trajectory analysis for Ranger VII lunar probe, and systems and thermal testing of Mariner spacecraft - deep space network, and Surveyor project
[NASA-CR-80687] 21 p3934 N67-35546
Summaries covering system development and operations of Ranger VII, Surveyor, and Mariner spacecraft, and engineering development at deep space network facilities
[NASA-CR-83105] 21 p3936 N67-36100
RANGER VIII LUNAR PROBE
Tables of computer program generated photographic interpretation of selected Ranger VIII television camera pictures
[NASA-CR-79939] 02 p0259 N67-11818
Performance evaluation of Ranger VIII Flight Model III-B television subsystem
[NASA-CR-83784] 13 p2407 N67-25491
RANGER IX LUNAR PROBE
Error correction in lunar slope angles and surface roughness of Ranger photographs 04 p0510 N67-13497
RANGER BLOCK III
Shock and vibration environment of Ranger Block III during surface transportation
[NASA-CR-71771] 09 p1520 N67-19856
RANGER PROJECT
Ranger and Mariner spacecraft hydraulic timers 07 p0907 N67-16918
Radio-tracking data from Ranger lunar missions for estimated physical constants of earth and moon
[NASA-CR-82112] 10 p1586 N67-21444
Ranger flight data for dynamic torsional modal synthesis to predict transient vibration of Surveyor spacecraft
[NASA-CR-82110] 10 p1762 N67-21448
Flight evaluation on Model III /RA-6/ of Ranger television subsystem - failure analysis
[NASA-CR-73783] 13 p2497 N67-25492
Chronology on systems design, test program, and Ranger/Atlas Agena launch vehicle integration
[NASA-CR-80066] 21 p3934 N67-35448
Lunar geologic analysis and mapping from Ranger photographs, Ranger photogrammetry, analysis of small lunar craters, and site reports made for Lunar Orbiter I mission
[NASA-CR-88522] 23 p4142 N67-37651
RANK TEST
Procedure for ranking diagnostic test inputs in digital computers
[NASA-CR-87362] 19 p3411 N67-33318
RANKINE CYCLE
Development status of SNAP-8 space power system using mercury Rankine cycle 01 p0104 N67-10267
Potassium working fluid and refractory alloys for Rankine cycle systems 01 p0105 N67-10268
Potassium vapor Rankine cycle turbogenerator power system 01 p0105 N67-10269
Boiler conditioning test in SNAP 2 mercury Rankine program
[NAA-SR-8222] 01 p0106 N67-10527
Lithium-boiling potassium Rankine cycle heat transfer data for application to spacecraft propulsion systems 02 p0236 N67-12117
Steady state operating and dynamic response characteristics of simulated three-loop Rankine cycle space power conversion system of SNAP-8 type
[NASA-CR-825] 03 p0334 N67-12757
Feasibility demonstration program for organic Rankine cycle using monoisopropylbiphenyl as working fluid
[U-3073] 04 p0483 N67-14083
Comparison of dynamic energy conversion systems for long duration space missions - Rankine cycle using mercury, water, and organic working fluids - Brayton cycle and Stirling cycle 07 p0909 N67-16866
Biphenyl and biphenyl ether working fluids to be used in organic Rankine cycle power conversion system for space operation
[SAN-651-1] 07 p0969 N67-17428
Measured elevations in wave train of Rankine ovoid compared with computed elevations for ideal source and sink
[NWL-2296] 07 p1066 N67-17713
Nonrotating Rankine cycle for liquid metal magnetohydrodynamic power conversion 08 p1354 N67-18321
Mercury Rankine program integrated system test - system operation
[NAA-SR-11945, VOL. I] 08 p1319 N67-18366
Boiling alkali metal corrosion research for Rankine cycle and thermionic power conversion systems 09 p1480 N67-19611
Test facility, program, instrumentation, and data acquisition system for evaluating power conversion loops for organic Rankine cycle
[SAN-650-3] 10 p1556 N67-20749
Organic Rankine cycle power conversion system
[SAN-651-3] 10 p1588 N67-21611
Feasibility of rotating boiler for high performance Rankine cycle power generator
[NASA-TM-X-52301] 11 p1790 N67-22313
Mercury Rankine Program integrated system test - data correlation
[NAA-SR-11945, VOL. II] 11 p1827 N67-22448
Mercury-Rankine program boiler

development
[NAA-SR-12333] 13 p2150 N67-24563
Conceptual and mechanical design analyses, and fabrication of noncondensing radiator for environmental testing of space power mercury Rankine system
[NASA-TM-X-1372] 12 p2663 N67-34625
Mercury-Rankine program for SNAP systems improvement
[NAA-SR-12256, VOL. I] 12 p2152 N67-24911
Liquid metal boiling mechanisms and parameters applicable to Rankine cycle systems
[SAN-677-3] 13 p2248 N67-25519
Organic Rankine cycle power conversion system for long term duration in space environment
[SAN-650-3] 13 p2248 N67-25556
Initial operations of lithium-boiling potassium Rankine cycle test loop, and operating characteristics
[NASA-CR-54294] 14 p2630 N67-36829
Feasibility studies of space radiators using vapor chamber fins 14 p2631 N67-36795
Spacecraft and radiator interrelations defined for nuclear Rankine systems using Saturn launch vehicles
[NASA-CR-72245] 14 p2619 N67-37221
Rankine cycle power conversion system for use in space environment
[SAN-651-16] 16 p2823 N67-29611
Fundamental mechanisms and parameters affecting steady state and transient performance of Rankine cycle liquid metal systems
[SAN-677-6] 17 p3177 N67-30641
Radiator condenser design manual for SNAP II mercury Rankine program
[NAA-SR-MEMO-12139] 19 p3487 N67-32766
Literature survey on corrosive effects of liquid and vapor cesium on structural materials, and compatibility of cesium as working fluid for Rankine cycle space power plant
[NASA-CR-87504] 20 p3600 N67-34838
Investigation results and test equipment and apparatus development for organic Rankine cycle technology program
[SAN-651-25] 23 p3902 N67-37936
Frequency response of forced flow single tube boiler with inserts
[NASA-TN-D-4189] 23 p4236 N67-38434
Direct condensing and indirect radiators for nuclear potassium Rankine systems
[NASA-CR-72318] 23 p4183 N67-38494
Parametric screening studies, system definitions, and experimental verification to determine electrical component technology for 0.25 to 10.0 megawatt space power system
[SAN-679-2] 24 p4377 N67-39752
Design study for electrical components for 0.25 to 10.0 megawatt space power systems using Rankine conversion cycle
[SAN-679-1] 24 p4377 N67-39754
Steady state performance of multitube, centrally finned, potassium condensing radiator
[NASA-TN-D-4227] 24 p4551 N67-40146

RARE EARTH
SA CERIUM
SA DYSPROSIUM
SA ERBIUM
SA EUROPIUM
SA EUXENITE
SA GADOLINIUM
SA HOLMIUM
SA LANTHANIDE
SA LANTHANUM
SA LUTETIUM
SA NEODYMIUM
SA PRASEODYMIUM
SA PROMETHIUM
SA PROTACTINIUM
SA SAMARIUM
SA THULIUM
Solid state counters for immediate determination of actinide and lanthanide elution peak positions during separation of rare earth and transplutonium elements
[UCRL-16869] 01 p0028 N67-16534
Magnetic relaxation in rare earth doped yttrium iron garnet
[AFCRL-66-994] 01 p0117 N67-16058
Rare earth ion influence on ferromagnetic resonance
[FTD-TT-65-901] 01 p0142 N67-11964
Chemical separation and spectrometric analysis of alkali metals, alkaline earths, rare earths, chromium, hafnium, lanthanum, manganese, silver, and scandium neutron-activated biology material
[AE-247] 02 p0227 N67-11864
Thermodynamic characteristics of dichlorides and trichlorides of rare earth elements 03 p0356 N67-12385
Infrared spectra of 32 metal oxides, including stable rare earth oxides
[NASA-TN-D-3750] 03 p0358 N67-12798
Ion exchange phenomena and solution chemistry of alkali metals and earth, transition elements, and rare earth
[NYO-2389-9] 03 p0362 N67-13308
Abstracts on solid state chemistry of rare earth oxides
[COO-1109-22] 03 p0362 N67-13309
Comparison of rotational M1 transition rates between high and low spin states of rare earth nuclei
[CONF-660906-11] 04 p0586 N67-13965
Rare earths, transition elements, and kinetics - physical and inorganic chemistry 05 p0663 N67-14613
Interactions between f-shell transition ions in rare earth chloride crystals
[COO-1533-3] 05 p0751 N67-14699
Fission product recovery process optimization studied for compact band ion exchange separation of individual light rare earth elements 05 p0736 N67-14838
Recovery and purification of rare earth fission products to produce promethium 147 05 p0665 N67-14839
Rare earth fractionation in Hawaiian volcanic rocks, neutron activation procedure to determine rare earth elements in rocks and minerals, and magnetic processes
[AD-642344] 05 p0705 N67-15104
Gamma ray spectra with energy up to 1.5 MeV investigated from Coulomb excitation of levels in rare earth elements 06 p0929 N67-15618
Collective magnetic g-factors of rotational levels and estimates for even nuclei of rare earth elements 06 p0934 N67-15652
Reversed phase chromatographic separation of trace amounts of rare earth elements from macroamounts of erbium 06 p0835 N67-16296
Direct spectrometric determination of rare earths in high purity thorium dioxide
[MCW-1495] 07 p1027 N67-17474
Synthesis of model compounds and intramolecular energy transfer for organic laser materials, and sensitive rare earth fluorescence in organic solvents
[NASA-CR-81780] 07 p1033 N67-18123
Pairing correlation effect on transitions in deformed nuclei of rare earths
[ZFK-PHA-21] 08 p1331 N67-18527
Spectrochemical method for determining individual rare earth elements in uranium ore concentrates and high purity uranium compounds
[MCW-1498] 08 p1236 N67-18773
Luminescence of rare-earth phthalocyanines
[T-1864-66] 09 p1408 N67-19649
Stability constants of rare earths with formate, acetate, chloro-acetate, and iodoacetate ligands
[IS-1450] 10 p1573 N67-20867
Pile neutron capture cross sections of rare earth isotopes determined by mass spectrometric analysis - tables
[SGAE-PH-47/1966] 11 p1959 N67-22978
Rare earth and barium abundances in Bununu howardite
[NASA-TM-X-55753] 12 p2092 N67-23920
Mass spectrometric stable isotope dilution technique for analysis of rare earth element abundance
[NASA-TM-X-55785] 12 p2092 N67-23945
Plots of chondrite normalized abundances of rare earths in anorthosite and mangerite
[NASA-TM-X-55755] 12 p2092 N67-23976
Ion exchange separation of kilocurie quantities of high purity promethium, for optimization of purification of light rare earth elements
[BNWL-318] 12 p2044 N67-24562
Angular correlation curves of positron annihilation in rare earth single crystals
[IS-T-112] 12 p2198 N67-24662
Rare earths, and their physical and chemical properties, isotopes, and place in periodic table
[AEC-TR-6625] 13 p2267 N67-25396
Investigations in system alkali fluoride lanthanide actinide fluoride, lithium, sodium, potassium, rubidium, lanthanum, rare earths, yttrium, neptunium, plutonium, americium
[KFK-431] 13 p2366 N67-25530
Hydrolysis products of rare earth silicides
[IS-T-135] 13 p2266 N67-25553
Charge conversion of irradiated rare earth ions in calcium fluoride
[TR-514] 13 p2272 N67-26257
Recovery of rare earths and strontium from acid solutions of fission products by means of organophosphorus derivatives
[EUR-3277.F] 14 p2477 N67-27060
Mass spectrometric determination of rare earth trace elements in aged sediments
[NASA-TM-X-55796] 14 p2528 N67-27977
Rotational states in deformed even-even, rare earth nuclei
[LR-14] 15 p2762 N67-28382
Sensitized fluorescence of rare earth ions in laser crystals
[REPT.-66-9C1-SXTLS-R1] 16 p2903 N67-29445
Unsteady flow of compressible media with shock waves, hydrocarbon microorganisms, diffusion theory of adhesion applied to elastomer bonding, and rare earth chalcogenides 16 p3358 N67-31606
Soviet research on rare earth chalcogenides 16 p3221 N67-31670
Rare earth elements separated by high voltage electrophoresis on paper strip
[CEA-R-2877] 19 p3366 N67-32630
Particle theory, and thermodynamic properties of matter 19 p3551 N67-33208
Low temperature electric and magnetic properties of rare earth monocarbides
[CEA-R-3043] 19 p3525 N67-33484
Comparison of rotation-vibration models with experimental data on rare earth even-even nuclei
[NP-16668] 21 p3905 N67-36290
Historical review of rare earth uses, industrial processes, and production statistics 21 p3785 N67-36304
Revised energy levels and wavelengths for M series X-ray emission lines of rare earths 21 p3919 N67-36316
Crystal chemistry of Au-rich alloy phases with heavy rare earths 21 p3786 N67-36320
Rare earth chemistry and laser output 21 p3787 N67-36330
Energy transfer in crystals doubly doped with rare earths 21 p3920 N67-36332
Cathodoluminescence of rare earth activated yttrium oxide 21 p3920 N67-36334
Magnetic properties and structures of cobalt intermetallic compounds containing rare earth metals or yttrium 21 p3920 N67-36336
Structure and coordinate bonding of complex rare earth metal ions 21 p3787 N67-36342
Tetrahedron linkages in rare earth oxides and oxysalt structures 21 p3788 N67-36343
Liquid-liquid extraction discrimination among rare earths 21 p3788 N67-36344
Rare earth oxides precipitated from anhydrous molten nitrate salts 21 p3789 N67-36350
Divalent state and crystal growth of lanthanides 21 p3789 N67-36351
Chemical, physical, and mechanical problems related to metallurgy of rare earths, and lack of high purity metals and phase diagrams for rare earths 21 p3871 N67-36353
Band structure, Fermi surface and physical properties of rare earth metals 21 p3921 N67-36363
Positron annihilation in rare earth single crystals 21 p3921 N67-36364
Low temperature heat capacity of rare earth metals 21 p3789 N67-36372
Optical and electrical properties of ytterbium thin films 21 p3922 N67-36373
Frequency dependence of magnetic losses in holmium at Curie temperature 21 p3922 N67-36377
Electrical resistivity and Seebeck effect of thulium single crystals 21 p3923 N67-36378
Chemical engineering for rare earth metal production 21 p3790 N67-36380
Cracking process for rare earth ores by direct chlorination at high temperatures 21 p3790 N67-36386
Production of rare earth metals by fused salt electrolysis 21 p3791 N67-36388
Compilation of rare earth products available from commercial suppliers
[IS-RIC-1] 22 p3967 N67-37401
Spectrographic determination of rare earth impurities in sodium chloride
[BARC-293] 23 p4292 N67-38414

Machining rare earth and refractory metals
[FTD-MT-65-584] 24 p4456 N67-39396
RARE EARTH ALLOY
Preparation of single crystals of rare earth tungsten bronzes and uranium tungsten bronzes - X-ray diffraction, and electrical and magnetic properties of samples 07 p1175 N67-16972
Magnetic susceptibility of lanthanum-rare earth alloys measured by ac mutual inductance technique
[IS-T-152] 20 p3659 N67-34710
Preparation, crystal structures, phase diagrams, and magnetic properties of rare earth manganese alloys
[AFML-TR-66-366] 21 p3868 N67-35720
Conference papers on properties of rare earth metals, alloys, and compounds and on industrial processes using such materials
[AFOSR-67-1214] 21 p3785 N67-36303
Pressure dependence of Neel and Curie temperatures and crystal structures of rare earth metals and alloys at high pressures 21 p3918 N67-36306
Unit cell constants for 10 ternary compounds formed when rare earths are alloyed with nickel and gallium 21 p3786 N67-36321
Magnon dispersion relation in pure terbium and in terbium-10 percent holmium alloy from inelastic neutron scattering 21 p3920 N67-36339
Electron exchange effect in dilute alloys of rare earth metals 21 p3921 N67-36363
Temperature dependence of hyperfine structure in rare earth-gold alloys 21 p3921 N67-36366
Preparation of high-purity rare earth metals and alloys by electrolysis of rare earth oxides in fluoride media 21 p3791 N67-36387
Magnetic susceptibility and Knight shift measurements in aluminum-rare earth alloys
[COO-1198-453] 23 p4330 N67-38531
RARE EARTH COMPOUND
Separation and determination of trace metal impurities in rare earth sesquioxides
[IS-T-88] 01 p0032 N67-10812
Ultraviolet light transmission of fluoberyilate glass with small additions of cerium group rare earth halides
[ERDL-T-1870-66] 02 p0278 N67-11892
Physical and chemical properties of rare earth compounds and crystals
[ECOM-01304-5] 06 p0819 N67-15039
Growth and characterization of rare earth compound single crystals
[AD-640214] 08 p0949 N67-16362
High temperature oxidation of silicides of rare earth metals
[NASA-TT-F-10663] 08 p1238 N67-18927
High temperature investigation of rare earth boron, carbon, nitrogen and related systems
[COO-716-023] 10 p1579 N67-21579
Effects of rare earth metal and oxide additions on tensile ductility and impact strength of carbon steel
[BM-RI-6907] 11 p1900 N67-23446
Mass spectrometric studies of scandium, yttrium, lanthanum, and rare-earth fluorides
[ORO-2907-16] 12 p2038 N67-23592
Microwave elements based on avalanche transit diodes - rare earth element chelates as active laser materials 12 p2154 N67-23961
Rare earth element chelates and adducts with organic bases considered as active laser materials 12 p2190 N67-23963
Electrowinning high purity neodymium, praseodymium, and didymium metals from oxides
[BM-RI-6957] 14 p2559 N67-27733
Magnetic susceptibilities of rare earth oxides
[AFCRL-67-0038] 15 p2702 N67-28568
Dissociation energies of gaseous monoxides of rare earths
[TR-1] 17 p3013 N67-30348
Calcium hydride-rare earth hydride solid solutions
[TID-22570] 17 p3017 N67-30029
Crystal structure and magnetic properties of rare earth-cobalt compounds
[AFML-TR-66-420] 19 p3386 N67-32770
Synthesis and characterization of volatile rare earth and Sc, Cr, and Al chelates of 1,1,1,2, 2,2,3-heptafluoro-7,7-dimethyl-4,6-octanedione
[ARL-67-0094] 19 p3391 N67-33223
Magnetic properties, crystal structures, and transformations of rare earth metals, compounds, and solid solutions
[REPT.-66-C-225] 20 p3713 N67-34344
Cold pressing and sintering of samarium and neodymium sesquioxides
[BNWL-386] 20 p3866 N67-34799
Optical and magnetic properties of rare earth compounds 21 p3918 N67-36305
Susceptibility and high field magnetization of rare earth compounds with singlet crystal field ground state 21 p3918 N67-36311
Phosphorus nuclear magnetic resonance measurements in NaCl-type rare earth group VA intermetallic compounds 21 p3919 N67-36313
Crystal structure of rare earth compounds with antimony, selenium, and tellurium 21 p3786 N67-36319
Equilibria, point defect nature, and kinetics in rare earth systems with divalent or trivalent oxides 21 p3787 N67-36327
Fluorescent inorganic rare earth compounds derived from orthovanadates 21 p3787 N67-36335
Hyperfine interaction in rare earth metals and compounds from polarized neutrons 21 p3921 N67-36365
Magnetostriction in dilute rare earth iron garnets 21 p3921 N67-36367
Electrical conduction and dielectric breakdown in rare earth oxide thin films 21 p3922 N67-36374
Electronic structure and magnetic susceptibility of rare earth carbides 21 p3923 N67-36379
Comparison of TBP and DZEHPA solvents in production of rare earth nitrate acid systems 21 p3790 N67-36381
Excitation spectra for fluorescence transitions of rare earth compounds
[HDL-TR-1350] 22 p3989 N67-37670
Electrostatic, exchange, and magnetic dipole interactions between F-shell transition ions in rare earth halide crystals
[COO-1533-6] 23 p4333 N67-38827
Threshold computed for laser cutoff effect in rare earth doped crystals used in solid state lasers
[AFAL-TR-67-213] 24 p4461 N67-39604
RARE GAS
SA ARGON
SA HELIUM
SA KRYPTON
SA NEON
SA RADON
SA XENON
Out of vacuum electron beam welding with X-ray shielding and auxiliary inert gas shielding 03 p0401 N67-12702
Release of noble gases from aqueous solution 04 p0503 N67-13764
Vacuum magnetic triodes, cesium diodes, and rare gas triodes - thermionic converter studies 04 p0483 N67-13895
Effect of low density inert gas flush on oxygen-niobium reaction
[NASA-CR-80960] 05 p0667 N67-14895
Uranium /VI/ and iron /III/ extraction from cations with electronic configurations differing from those of inert gases 06 p0836 N67-16304
Rare gas diffusion in solids
[EUR-2848.D] 07 p1128 N67-17352
Electromagnetic separation and collection of multimilligram quantities of noble gas isotopes
[SGAE-PH-44/1966] 08 p1345 N67-19264
Measurement of electron-neutron interaction by asymmetrical scattering of thermal neutrons by rare gases 09 p1487 N67-19475
Mechanisms for formation and decay of energetic species of rare gases
[AFOSR-66-2380] 09 p1488 N67-19563
Emission spectra of rarefied molecular gases excited by fast electrons 10 p1696 N67-20388
Multipole expansion of atom-atom interactions 11 p1934 N67-22126
Spectral distribution measurements of inert gas plasmas with vortex stabilized arc for source of solar simulation 11 p1958 N67-22143
Physiological factors of inert gases in space cabin atmospheres
[NASA-SP-117] 11 p1799 N67-22878
One-dimensional, frictionless, compressible flow of ideal gas flow with heat addition and area change in transonic regime
[DLR-FB-67-62] 11 p1869 N67-22968
Effect of radiation and gas concentration on rare gas diffusion in solids
[ORO-3562-1] 12 p2161 N67-23698
Effects of inert nitrogen, helium, and argon on oxygen consumption of yeast cells and rat liver
[SAM-TR-66-109] 12 p2028 N67-24810
Collision induced luminescence phenomena in irradiated noble gas systems
[ARL-66-0180] 12 p2174 N67-24912
Rare-gas magnetohydrodynamic generator - Plasma diagnostics
[NASA-CR-54667] 12 p2187 N67-25075
Quantitative relationship between weldment defects and atmospheric contamination in inert gas shielding medium
[NASA-CR-83044] 13 p2325 N67-25756
Operation of large inert gas magnetohydrodynamic power generator
[NASA-CR-83900] 13 p2350 N67-25942
Test program and statistical analysis of setup parameter transferability for inert gas welding
[NASA-CR-83948] 13 p2327 N67-25969
Determination of nitrogen in uranium nitrides by inert gas fusion
[AERE-R-5247] 15 p2654 N67-27814
Synthesis of rare gas compounds, and chemical and physical properties
[AEC-TR-6909] 15 p2660 N67-28430
Rare gas fusion-gas chromatographic method for precise rapid determination of oxygen content in curium oxide and other compounds
[DP-MS-66-41] 15 p2660 N67-28497
Accuracy of Poynting equation for predicting effect of inert gas pressure on vapor pressure of liquid
[MEL-456/66] 16 p2851 N67-29775
Contact angle hysteresis, wetting of solidified rare gases, and surface properties of mercury
[NASA-CR-72269] 18 p3224 N67-32280
Scattering of molecular gas beams from platinum and tantalum surfaces
[F910439-7] 20 p3691 N67-34246
Condensation in rapidly expanding metal vapor inert gas mixture
[ARL-67-0071] 22 p4024 N67-36966
Sorption pumps to remove inert gases and attain higher vacuum by periodic flushing with gaseous nitrogen
[FTD-HT-67-17] 22 p4033 N67-37227
Vacuum pumping unit for weakly absorbent inert gases
[FTD-HT-67-19] 22 p4056 N67-37727
Monitoring of radioactive rare gases in air by gamma ray spectrometry
[AECL-2698] 23 p4283 N67-38119
Model to compute migration of very short-lived noble gases into Molten-Salt Reactor /MSRE/ graphite
[ORNL-TM-1810] 23 p4286 N67-38587
Contents and isotopic composition of helium, neon, and argon in meteorites
[MPIH-1967/V/11] 23 p4349 N67-39235
Physics of metastable species of rare gases
[AFOSR-67-1983] 24 p4490 N67-39569
Radio frequency induced mechanisms for ionization wave formation and propagation are investigated in xenon, krypton, and argon gases
[AFCRL-67-0491] 24 p4510 N67-40179
RAREFACTION WAVE
Experiments for crater modeling in controlled soil media to determine effect of moisture content on ground shock velocities, residual displacements, and rarefaction wave
[REPT.-1082] 02 p0257 N67-12109
Molecular vibrational relaxation effect on structure of unsteady rarefaction waves in oxygen and oxygen/argon mixtures
[ARC-CP-720] 08 p1364 N67-18285
RAREFIED GAS
Correctives for readings of total head nozzles in supersonic flow of rarefied gas 01 p0068 N67-10051
Rarefied gas equipment and low density wind tunnel experiments 04 p0527 N67-13949
Mechanism of heat and mass exchange during vibrations of subliming body under free convection conditions in rarefied gas medium 05 p0773 N67-14307
Aerodynamic characteristics of rectangular plates in hypersonic flow of rarefied gas
[NASA-TT-F-10483] 06 p0795 N67-15823
Refined method of solving equations of slightly rarefied viscous gas motion 08 p1287 N67-18868
Free molecular flow of rarefied gas in plane channels and grids

[NASA-TT-F-10692] 08 p1265 N67-18934
Continuum and Boltzmann equation governing sound propagation in rarefied gas - molecular collision frequency, mean free path, and particle number density 12 p2155 N67-34237
Differential kinetic equation for expansion coefficients of distribution function in monatomic rarefied gas
[FTD-HT-66-645] 12 p2173 N67-34723
Drag measurements at low speeds in rarefied gases 13 p2343 N67-36193
Heat transfer and equilibrium temperature of sphere in supersonic rarefied gas flow
[TG-336-T522] 18 p3356 N67-33465
Heat transfer from cylinders during free movement of air in rarefied space, and X-ray analysis of surface layer of heat resisting alloys after heat treatment in various gas media
[FTD-MT-65-469] 19 p3550 N67-33101
Experimental study of heat emission from cylinders during free movement of air in rarefied space 19 p3550 N67-33102
Heat and mass transfer during evaporation of liquid with free surface in rarefied gas medium
[NASA-TT-F-11151] 19 p3555 N67-33864
Density disturbance ahead of sphere in rarefied nitrogen or argon supersonic flow, and stability of viscous three-dimensional disturbances in laminar compressible boundary layer 20 p3625 N67-34776
Hypersonic flow of rarefied rhenium gas around sphere
[NASA-TT-F-11194] 22 p4022 N67-36698
Wakes behind cylinders and wedges in rarefied gas flow, and surface and base pressurements at Mach numbers 2 and 4 22 p4030 N67-37609
Shock wave velocity measurement in rarefied gas, using counter to measure time between markers 23 p4238 N67-38788
Hypersonic wind tunnel for thermal and aerodynamic measurements of rarefied gases
[REPT.-67-3] 23 p4234 N67-39347

RAREFIED GAS DYNAMICS

Boltzmann equation, variational principle, and mathematical models of collision operator in relation to kinetic theory and rarefied gas dynamics
[TP-379/1966/] 02 p0251 N67-11910
Aerodynamic coefficients of wings and fuselages in rarefied gas flow 04 p0480 N67-13847
Shock wave structure in rarefied gas dynamics 05 p0692 N67-14403
Bhatnagar-Gross-Krook equation as approximation of Boltzmann equation in rarefied gas dynamics 07 p1062 N67-16853
Mechanics of rarefied gases - free molecular transfer, electron beam studies, and shock wave structure 09 p1433 N67-19404
Unsteady piston-generated flow in rarefied gas treated as initial or boundary value problem
[DAC-59160] 10 p1613 N67-21176
Numerical method for solution of nonlinear Boltzmann equation for hard sphere molecules - rarefied gas dynamics
[AFOSR-66-1923] 10 p1614 N67-21364
Newtonian hypersonic strong interaction theory for flow past flat plate leading edge
[USCAE-102] 10 p1553 N67-21734
Monte Carlo simulation of high speed flow of rarefied gas around cylindrical body
[TN-1967-7] 12 p2088 N67-34652
Linearized Rayleigh problem in rarefied gas flow formulated by using BGK model
[ARL-66-0186] 12 p2089 N67-34860
Experimental flow through annuli in study of rarefied internal gas dynamics
[NASA-CR-84410] 14 p2518 N67-27369
High speed gas dynamics research - kinetic theory approach to rarified flow calculations, hypersonic transition flow, ionized gas flows, and fluid mechanics
[ARL-66-0232] 16 p2878 N67-29456
Monte Carlo method, and radiant heat transfer to analyze impact pressure probes 17 p3047 N67-30582
Capture coefficient of highly directed flow of gaseous carbon dioxide and water vapor on cryogenic quartz crystal microbalance
[NASA-CR-88267] 21 p3831 N67-35892
Numerical analysis of rarefied flows considering detailed molecular motion
[TAE-69] 21 p3833 N67-36170
Weight coefficients of Luke applied to numerical evaluation of integral equation in linearized problem of impulsively-moving flat plate in rarefied gas flow
[ARL-67-0124] 24 p4432 N67-39736
Interaction between measuring instrument cavity and rarefied gas flow
[T-R-659] 24 p4432 N67-39845

RAREFIED PLASMA

Kinetic description of rarefied fully ionized plasma
[FTD-HT-66-399] 09 p1492 N67-19772
Cold plasma model for nonrelativistic hydromagnetic wave dissipation of finite amplitude
[IC/66/9, REV.] 09 p1498 N67-20289
Flow of strongly rarified plasma around charged body
[FTD-HT-66-290] 11 p1963 N67-23142
Electron energy distribution function for rarified plasma
[CEA-R-3165] 19 p3516 N67-33337
Nonlinear study of Vlasov equation for distribution function for one-dimensional rarefied plasma 22 p4119 N67-37745

RAT

Performance evaluation of electrostatic air filter for rat breeding unit
[TDCK-46285] 01 p0023 N67-10466
Impulse acceleration effects on ammonia content and other components of nitrogen metabolism in rat brains
[JPRS-38380] 01 p0019 N67-11111
Food values of yeast, microbacteria, and algae in rat diets 02 p0178 N67-11402
Glucose absorption in small rat intestine during hypercapnic and hypoxic conditions 02 p0180 N67-11416
Comparing hypoxia resistance of whole organism to individual tissues in rats 02 p0182 N67-11434
Increased resistance of hypothermally conditioned rats to decompression effects 02 p0183 N67-11438
Active and passive altitude acclimatization for increasing animal resistance to transverse directed loads 02 p0186 N67-11463
Adaptive reactions of human and animal blood systems during prolonged oxygen deficiency 02 p0187 N67-11468
Mitotic activity, destructive processes in brain cell nuclei, and disturbances in cell division processes of white rats subjected to whole body radiation with protons and gamma rays 02 p0189 N67-11482
Level of muscular working ability gained through physical training related to radiation resistance in white rats 02 p0189 N67-11484
Reaction of rat cerebellum to afferent stimulation during space flight 02 p0194 N67-11540
Determination of food value of protein of unicellular algae in rats for application to life support systems 02 p0194 N67-11541
Radiation sensitivity of white rats under conditions of hypothermia 02 p0196 N67-11551
Negative influence of radiation-protective preparations on motor-evacuatory functioning of gastrointestinal tract of nonirradiated rats 02 p0196 N67-11559
Biological effect of combined X-ray and superhigh frequency radiation on sensitivity and radiation resistance in rats 02 p0199 N67-11582
Influence of radial accelerations on conditioned reflex activity of rats 02 p0202 N67-11605
Functioning changes in central nervous system, pituitary gland, and adrenal cortex of rats due to oxygen deficiency 02 p0203 N67-11611
Relative effectiveness in rats of repeated X-ray irradiation and proton irradiation simulating solar flares 02 p0205 N67-11630
Hematopoietic changes in rats caused by proton and gamma radiations 02 p0206 N67-11637
Decompression rate and altitude acclimatization in rats 02 p0206 N67-11640
Radial acceleration and immunology in rats 02 p0209 N67-11670
Increased oxygen pressure effect on erythropoiesis in white mice and rats 02 p0209 N67-11672
Saccharin potentiation of insulin coma in rats
[NASA-CR-80197] 03 p0345 N67-12925
Space flight liquid diets tested for stability and effect on intestinal flora of rats
[NASA-CR-80069] 05 p0652 N67-14887
Nucleic acids used in evaluation of neurochemical changes in rat brains affecting conditioned response
[MPL-4] 06 p0799 N67-15660
Brain biochemistry of rats exposed to pure oxygen
[NASA-CR-81238] 06 p0800 N67-15883
Changes in acoustically evoked potentials during adverse conditioning of rats
[NASA-CR-81247] 06 p0800 N67-15923
Hemodynamic response measurements on carbon monoxide production in rats after injection of labelled glycine 06 p0801 N67-15942
Electron microscopic and morphometric study of rat lungs exposed to oxygen - pulmonary pathology of oxygen toxicity
[ASR-1] 07 p1009 N67-17106
Long term effects of space cabin simulated oxygen breathing on rat physiology and reproduction
[SAM-TR-66-90] 07 p1013 N67-17675
Acute effects of endrin and carbon tetrachloride poisoning on livers of rats
[AM-66-34] 07 p1016 N67-17934
Methods for determining iron content in frog embryos and ferritin in rat intestine sections
[NASA-CR-82653] 08 p1229 N67-19102
Adaptive cytochemical responses of hormone producing cells of rat anterior pituitary following exposure to simulated high altitude
[NASA-CR-82668] 08 p1229 N67-19103
Response rate of rats to qualitative change in liquid reinforcement
[TR-44] 09 p1299 N67-19565
Biological effect of proton radiation and radioprotective agents on survival rate and average survival time of mice 10 p1559 N67-20403
Rat experiments to determine effects of prolonged restraint on gastrointestinal tract function
[NASA-CR-73071] 10 p1563 N67-21434
Acoustically evoked potential in rat during conditioning
[NASA-CR-83248] 10 p1564 N67-21708
Aberrant corneal epithelial cells produced in rats by ruby laser irradiation
[AMRL-698] 10 p1566 N67-21879
Changes in osmotic erythrocyte resistance of rats adapted to hypoxia
[JPRS-39588] 11 p1796 N67-23409
Hunger level in rats during food consumption and effects on subsequent preference
[REPT.-681] 12 p2019 N67-23625
Ribonucleic acid injection effect on shock avoidance conditioning and brain chemistry in rats
[MPL-7] 12 p2021 N67-23927
Carbohydrate effect on amino acid diets of rats
[MRB20387] 12 p2023 N67-24413
Molecular neurochemistry of hippocampus and other brain sites during conditioned avoidance behavior
[MPL-8] 12 p2028 N67-24777
Effects of inert nitrogen, helium, and argon on oxygen consumption of yeast cells and rat liver
[SAM-TR-66-109] 12 p2028 N67-24810
Energy metabolism of rats born and raised in low pressure pure oxygen environment
[SAM-TR-66-113] 13 p2253 N67-25183
Premack theory applied in rat experiments of classically conditioned sucrose aversion induced by X-ray exposure
[USNRDL-TR-67-3] 13 p2250 N67-25971
Shielding properties of pharmaceutical chemical agents to proton radiation determined in rats and mice
[NASA-CR-84099] 13 p2261 N67-26407
Prolonged acceleration effect on gas exchange and resistance of rats to hypoxia
[NASA-TT-F-10406] 14 p2451 N67-26573
Mortality response of rats to environments of increased partial pressure of oxygen or decreased total pressure 14 p2452 N67-26720
Electron microscopic and morphometric studies of rat lungs after exposure to oxygen at atmospheric pressure and 238 torr 14 p2453 N67-26725
Biochemical aspects of oxygen toxicity in rats at cellular and mitochondrial level 14 p2456 N67-26728
Endogenous production of carbon 14 labeled carbon monoxide in rat, and in vivo technique for study of heme catabolism 14 p2456 N67-26782
Thymus and recirculating lymphocyte pool 14 p2457 N67-26787
Effects of ionizing radiation on

concentration of amino compounds in rat plasma
[SAM-TR-67-8] 14 p2461 N67-27008
Dietary modifications of cold-induced metabolic effects in rats
[AAL-TR-66-12] 15 p2650 N67-28323
Electron microscopic and morphometric study of rat lungs exposed to 97 percent oxygen at 258 torr in controlled environment chamber
[AMRL-TR-66-103] 15 p2650 N67-28505
Oxygen balance of human and white rat bodies during extended acceleration
[NASA-TT-F-10682] 16 p2824 N67-29002
Synthesis of tissue proteins in rats during hypodynamia 16 p2827 N67-29215
Effect of vertical vibration and noise on conditioned reflexes of rats 16 p2828 N67-29246
Functional significance of changes in bioelectric activity of rat brain during vibration 16 p2829 N67-29247
Oxygen consumption of brain in rats with partially destroyed auditory system and vestibular apparatus during repeated vibration exposure 16 p2829 N67-29248
Oxygen metabolism of brain, its bioelectric capacity, and conditioned reflexes of rats following vibration exposure 16 p2829 N67-29249
Respiratory changes and oxygen metabolism in rats exposed to vibration 16 p2829 N67-29250
Comparative effects of fast neutrons, protons, and gamma radiation on higher nervous activity of August rats 16 p2830 N67-29254
Comparison of effects of chronic and acute gamma irradiation by cobalt 60 and influence of time factor on higher nervous activity of white rats 16 p2830 N67-29255
Effect of vibration and vibrostand noise, both in combination with X-ray irradiation, on conditioned reflexes of rats 16 p2830 N67-29256
Influence of chronic heat exposure and prolonged starvation on excretion of magnesium, calcium, phosphorus, hydrogen ion, and ketones in rats
[SAM-TR-67-30] 17 p3000 N67-30183
High carbohydrate, fat, and protein diet and high altitude effects on body composition changes in growing albino rats
[REPT.-366] 17 p3003 N67-30707
Protein metabolism in rats exposed to industrial beryllium and its alloys
[JPRS-41254] 17 p3005 N67-31102
Brain amino acids and biogenic amines under various atmospheric mixtures
[NASA-CR-85833] 17 p3006 N67-31390
Age related characteristics in proportion of histones and nucleic acids in regenerating liver cell nuclei of white rats after partial hepatectomy 19 p3375 N67-33359
Fibrinogen deposition and taste thresholds in X-irradiated rats
[NYO-3359-3] 19 p3396 N67-33718
Vital staining of rat diaphragm muscle tissue during excitation
[JPRS-41938] 19 p3379 N67-33832
Histochemistry of Weil stain on rat liver - effects of chlorinated hydrocarbon insecticides and cold adaptation
[AM-66-26] 19 p3379 N67-33890
Cumulative effect of impact accelerations on rats
[NASA-TT-F-11134] 21 p3767 N67-36123
Chronic restraint effect on absorption from gastrointestinal tract
[NASA-CR-88512] 22 p3969 N67-36964
Behavioral changes in rats at ground level following gestation and growth in one hundred percent oxygen at reduced pressures
[SAM-TR-67-50] 23 p4186 N67-38366
Experiments on rats to study cumulative effect of impact accelerations 23 p4190 N67-39069
Effect of hypoxia on cellular and humoral immunity of mice 23 p4190 N67-39011
Dependence of altitude tolerance of rats on phosphorylation processes 23 p4194 N67-39105
Nitrogen metabolism in rats exposed to hypokinesia 23 p4194 N67-39107
Rat lung changes resulting from prolonged exposure to 100 percent oxygen at 550 mm mercury
[NADC-MR-6710] 24 p4382 N67-39680
Vibration effect on carbohydrate metabolism in rats
[NASA-TT-F-11234] 24 p4399 N67-40120
Chronic effects of subcritical temperatures and humidity on human, rat, and mice bone tissue of lower extremities
[NASA-TT-F-11351] 24 p4385 N67-40159
RATE
S BURNING RATE
S COLLISION RATE
S DECAY RATE
S DRIFT RATE
S EVAPORATION RATE
S HEART RATE
S LOADING RATE
S MASS FLOW RATE
S PULSE RATE
S RESPIRATORY RATE
S STRAIN RATE
S TIME MEASUREMENT
S VELOCITY
RATE METER
Circuitry, specifications, construction, and applications of transistorized gamma rate meter 06 p0880 N67-10236
Solid state device for sensing angular rate by detecting presence of coriolis forces
[NASA-CR-80006] 06 p1222 N67-18735
RATIO
S ASPECT RATIO
S FINENESS RATIO
S FUEL-AIR RATIO
S HEMATOCRIT RATIO
S LIFT-DRAG RATIO
S MASS RATIO
S PRESSURE RATIO
S PROPELLANT MASS RATIO
S PULSE RATIO MODULATION /PRM/
S SIGNAL TO NOISE RATIO
S STANDING WAVE RATIO
S SUBLATTICE DISTRIBUTION RATIO
S THICKNESS RATIO
S THRUST-WEIGHT RATIO
RATIONAL FUNCTION
Orthonormal bases for exponential and rational function approximations of network and signal characteristics
[RM-5177-PR] 11 p1547 N67-22738
Rational model to meet spacecraft sterilization requirements set by COSPAR
[NASA-CR-83799] 13 p2255 N67-25483
Numerical integration of nonlinear differential equations by use of rational approximation
[NASA-CR-85778] 17 p3094 N67-31175
RAWIN
Range measurement improvement techniques for rawin set receiving system, and solid state receiver subsystem hardware design
[NASA-CR-81538] 07 p1042 N67-16038
RAWINSONDE MEASUREMENT
Rawinsonde wind profile data from Santa Monica, California, used to compute percentage levels of wind speed differences
[NASA-TM-X-53528] 06 p0907 N67-16623
Analysis of tracking, height, pressure, temperature, and wind measuring capabilities of FPS-16-RADAR, GMD-2 rawin system, and transponder radiosonde instrument
[NASA-CR-61168] 12 p2102 N67-24480
Comparison of jimsphere and rawinsonde wind shears
[AD-656836] 17 p3096 N67-30309
Weekly synoptic analyses for 1964 of 5-mb, and 0.4-mb surface charts based on meteorological rocket network observations
[WB-3] 17 p3096 N67-30679
Comparison of pilot balloon observations, radiosonde, and rawinsonde measurements of wind
[ECOM-5116] 18 p3268 N67-32543
Rocket sounding data obtained at Natal, Brazil, from Nasp and Arcas launchings
[LAFE-47] 20 p3675 N67-35277
Statistical analyses of mesoscale rawinsonde measurement data to assess low level sounding variability and predictability 24 p4439 N67-39836
RAY
S COSMIC RAY
S INCIDENT RAY
S RADIATION
S REFLECTED RAY
S REFRACTED RAY
S SOLAR COSMIC RAY
S X-RAY
RAY TRACING
Numerical integration and approximation methods to evaluate bending angular tropospheric refraction of ray path between two points 01 p0099 N67-10244
Angular and range refraction corrections due to ionosphere 05 p0671 N67-14427
Class of radiation problems involving phased line distribution of electric and magnetic currents in presence of anisotropic half space 07 p1141 N67-16825
Ray-optical approach to class of boundary value problems involving compressible plasmas 07 p1161 N67-16945
Scalleron holography-ray tracing 09 p1456 N67-19485
Ionogram reduction and data smoothing for electromagnetic energy ray tracing studies
[FR-66-365, PT. I] 10 p1584 N67-20580
Source location problem and least squares solution for ray theoretical models
[TR66-22] 11 p1930 N67-23154
Digital computer technique for ray-tracing diagrams based on geometric optics of microwaves 12 p2184 N67-23482
Computer program for very low frequency ray tracing in model ionosphere
[NASA-CR-84425] 14 p2526 N67-27300
Mathematical method for approximating velocity depth profile with segmented curve having continuous first derivatives
[USL-905] 17 p3119 N67-30303
Oblique incidence ionospheric soundings
[AFCRL-67-0157] 17 p3089 N67-30312
Geometric efficiency of electroformed paraboloidal nickel solar energy concentrator calculated from optical ray trace data
[NASA-TN-D-4072] 18 p3199 N67-32383
Four-dimensional Hamiltonian formalism of ray tracing in anisotropic medium
[NASA-TT-F-11168] 21 p3896 N67-36180
Method of computing ray paths in ocean where velocity gradient varies continuously with depth
[USL-829] 22 p4098 N67-37052
Theory and design of glancing incidence X-ray telescope
[NASA-TM-X-55982] 23 p4296 N67-39127
Computer ray tracing techniques to determine effect of ionospheric tilts on maximum usable frequencies 24 p4407 N67-39814
RAYLEIGH DISTRIBUTION
Logarithmic receiver applicability to signal detection in nonstationary backgrounds
[NEL-1698] 11 p1819 N67-22529
Sums and products of two Rayleigh distributed random variables and relationship between Rayleigh density and other probability densities
[NMC-TM-67-15] 15 p2735 N67-28557
Density functions for some random sums of normal, sinusoidal, and Rayleigh variables
[NMC-TM-67-25] 23 p4273 N67-38300
RAYLEIGH EQUATION
Rayleigh method used to compute elastic stability of rectangular sandwich plates under biaxial compression
[ARL/SM-310] 08 p1370 N67-19062
Navier-Stokes equations for viscous compressible flow applied to Rayleigh problem
[R67SD18] 17 p3047 N67-30619
RAYLEIGH FADING
Communication systems, signal design, and Rayleigh fading 19 p3480 N67-33809
RAYLEIGH NUMBER
SA BUOYANCY
Angular resolution beyond Rayleigh limit in statistical decision theoretic context
[P67-3] 14 p2494 N67-27463
RAYLEIGH-RITZ METHOD
SA VARIATIONAL PRINCIPLE
Torsional frequencies of uniform shafts with elastic restraints and elastically attached masses
[TG-833] 01 p0182 N67-11191
Functional analysis of interfacial stability between two superposed viscous fluids which are confined and subject to both capillary and gravitational forces
[FTAS/TR-67-23] 24 p4432 N67-39772
Rayleigh-Ritz procedure applied to plate beam combined structures simulating wing-fuselage combinations
[NAL-TR-137] 24 p4549 N67-40507
RAYLEIGH SCATTERING
Scattering functions for Rayleigh atmospheres of arbitrary optical thickness
[R-455-PR] 05 p0704 N67-15019
Intensity of light reflected and scattered from Earth determined from Tiros data
[TN-1966-53] 07 p1073 N67-17743
Transformation of light beam tensor during Rayleigh scattering

[FTD-HT-66-651] 12 p2156 N67-34722
Multiple anisotropic scattering in slabs with axially symmetric fields
[RM-5345-PR] 13 p2304 N67-25690
Spontaneous Brillouin scattering in carbon dioxide and nitrogen gases 14 p2547 N67-26705
Depolarization of Rayleigh scattering components in liquids 14 p2548 N67-26706
Spectrographic observations of ruby laser stimulated Rayleigh scattering from liquids 14 p2548 N67-26711
Atmospheric aerosol measurement using polarized laser light scattering and Rayleigh and Mie scattering functions
[UTEC-MD-67-034] 20 p3453 N67-34297
RAYLEIGH WAVE
Integral equations for problem of diffraction of flat waves on lattice formed by arbitrary profiles
[FTD-HT-66-170] 09 p1484 N67-19469
Conference on problems of surface wave propagation and amplification, self-induced vibration, aeromagneto flutter, Rayleigh wave scattering, and traveling waves in various media 13 p2154 N67-34141
Statistical properties of Rayleigh wave scattering at random boundary of elastic body 13 p2223 N67-34148
Linearized Rayleigh problem in rarefied gas flow formulated by using BGK model
[ARL-66-0186] 12 p2069 N67-24860
Seismic diffraction by crustal discontinuities - Rayleigh wave transmission and fiber optics
[AFCRL-67-0122] 19 p3445 N67-33664
Dispersion analysis of earthquakes and study of teleseismic signals with analog model data
[AFOSR-67-1561] 22 p4034 N67-36840
Tectonic features of earth crust and upper mantle from Rayleigh wave phase velocity map of North America
[AFOSR-67-1797] 24 p4437 N67-39526
RC NETWORK
Accelerated aging and failure mode analysis of thin tantalum film RC networks 01 p0048 N67-10110
Production of negative resistances in RC circuits using exponential sources of current 03 p0377 N67-13783
Synthesis of RC networks without using inductors or transformers 04 p0533 N67-13347
Gyrator-capacitor network used in production of inductorless filters with RC-ACTIVE networks 04 p0519 N67-13348
Error analysis of resistance capacitance timing circuits
[HDL-TR-1323] 05 p0684 N67-15047
Approximation of transfer characteristic of parallel-T RC network
[RAE-LIB-TRANS-1193] 10 p1597 N67-21201
Optimum design of symmetrical parallel-T RC networks
[AFCRL-66-733] 11 p1845 N67-22527
Thin film RC networks for silicon integrated circuits
[J-24] 12 p2065 N67-24654
Thin film resistors for silicon integrated RC circuits
[REPT.-3] 13 p2682 N67-28968
Multiparameter sensitivity in RC active integrated circuits
[TR-460-148] 10 p3350 N67-32133
RDF
S RADAR DIRECTION FINDER
S RADIO DIRECTION FINDER
REACTION
S CHEMICAL REACTION
S HUMAN REACTION
S KINETICS
S NUCLEAR REACTION
S PROTON-PROTON REACTION
S SABATIER REACTION
S SURFACE REACTION
S THERMONUCLEAR REACTION
REACTION CONTROL
Thrustor and conditioner designs for reaction control systems using cryogenic propellants
[NASA-CR-79704] 01 p0009 N67-10895
Multichannel reaction method for control of motor reactions in man and animals 04 p0489 N67-13455
Updated bipropellant and advanced thruster systems for Manned Orbital Research Laboratory, and comparison of integrated propulsion/reaction control systems
[NASA-CR-66293] 08 p1271 N67-18500
Manned Orbital Laboratory propulsion/reaction control system improvement
[NASA-CR-66293] 09 p1516 N67-20166
Diffusion and kinetic control of hydrogen discharge from acid electrolytes on platinum and platinum alloys
[TR-21] 14 p2475 N67-26738
Impinging sheet injector, hydrazine compatibility, and pulse mode and filter contamination in reaction control for liquid propellant systems 16 p2962 N67-29154
Conceptual design and analytical evaluation of hydrogen-oxygen cryogenic propellants for reaction control systems
[NASA-CR-72176] 22 p4131 N67-37789
Peripheral versus central explanations for operant control of response latency in monkeys
[PRP-32N] 23 p4187 N67-38436
REACTION JET
Shock tunnel investigations of hypersonic flow interaction with transverse reaction jets
[RE-383] 02 p0252 N67-12661
Design and scaling criteria for monopropellant hydrazine reaction chambers employing spontaneous catalytic activity
[NASA-CR-83457] 08 p1355 N67-19122
Design manual for monopropellant hydrazine rocket engines and gas generators employing spontaneous catalyst
[NASA-CR-83456] 08 p1355 N67-19123
Calculation of skin friction and heat transfer generated by lunar excursion module reaction control jet impingement on Apollo telescope mount
[RM-375] 22 p4161 N67-37183
REACTION JET ATTITUDE CONTROL TECHNIQUE
Experimental simulation on on-off reaction jet damping and attitude control system for spinning body
[NASA-TN-D-3643] 09 p1395 N67-19884
Subliming solid propellant attitude control rocket
[NASA-CR-711] 09 p1505 N67-19895
REACTION TIME
SA PERCEPTUAL SPEED
SA PSYCHOMOTOR PERFORMANCE
Experimental data on simple and choice signal reaction time
[PRP-36N] 01 p0023 N67-10412
Closed-loop compensatory tracking for measuring operator delay time in control action
[NASA-CR-674] 06 p0814 N67-16012
Effect of isotopic substitution on chemical reaction rates
[COO-1142-71] 10 p1579 N67-21535
Reaction time and role of components studies in pi and sigma complexes in electrophilic aromatic substitutions
[REPT.-3807] 10 p1581 N67-21745
Stimulus change properties of reaction-time ready signal
[REPT.-876] 12 p2021 N67-23934
Complex human reaction times at simulated cabin altitude of 8,000 feet
[FPRC/1235] 13 p2359 N67-26147
Chemical reactions, and methods to study three zones of flow
[ONERA-PUBL.-114/1966/] 17 p3047 N67-30553
Reaction kinetics of sulfur with lead and lead alloyed with bismuth, sodium, or silver 18 p3222 N67-31705
Technique for solving general reaction-rate equations in atmosphere
[AFCRL-67-0221] 19 p3442 N67-33294
Effects of primary task performance on response time to toggle switches in workspace configuration
[AMRL-TR-66-190] 22 p3975 N67-36688
Experiments and models on tactile perception, visual tracking behavior, and tactile and visual choice reaction time
[NASA-CR-73135] 22 p3990 N67-37368
Reaction rate analysis for describing tensile behavior of glass-cloth reinforced plastics
[PA-TR-3556] 22 p4078 N67-37536
Method of inferring K-infinity from reaction rate measurements in thermal reactor systems
[AEEW-R-512] 23 p4285 N67-39450
Titanium-iron alloys and titanium trichloride reaction rates in molten sodium chloride
[BM-RI-7089] 24 p4397 N67-39650
REACTION WHEEL
Minimum energy reaction wheel control for Advanced Orbiting Solar Observatory performing raster scan over small celestial area
[NASA-TN-D-3922] 11 p1848 N67-22870
Reaction wheel control system for satellite attitude control 12 p2142 N67-23813
Jet and magnetic unloading systems to transfer accumulated angular momentum outside in reaction wheel satellite attitude control system 12 p2142 N67-23814
Characteristics, design criteria and motion equation of reaction wheel and gyroscope 21 p3854 N67-36676
Reaction wheels used as control system actuators in attitude stabilization 21 p3854 N67-36677
REACTOR
SA ADVANCED SODIUM COOLED REACTOR /ASCR/
SA ADVANCED TEST REACTOR /ATR/
SA ASTRON THERMONUCLEAR REACTOR
SA BOILING WATER REACTOR
SA CHEMICAL REACTOR
SA EXPERIMENTAL BREEDER REACTOR I /EBR-I/
SA EXPERIMENTAL BREEDER REACTOR II /EBR-II/
SA FAST REACTOR
SA FLUIDIZED-BED REACTOR
SA GAS COOLED REACTOR /GCR/
SA GAS REACTOR
SA GASEOUS FISSION REACTOR
SA HALDEN BOILING WATER REACTOR /HBWR/
SA HANFORD REACTOR
SA HEAVY WATER COMPONENTS TEST REACTOR /HWCTR/
SA HERO REACTOR
SA HIGH FLUX ISOTOPE REACTOR /HFIR/
SA JUGGERNAUT REACTOR
SA KIWI B REACTOR
SA KIWI B-4 REACTOR
SA KIWI B-4D REACTOR
SA KIWI ROCKET REACTOR
SA LIQUID COOLED REACTOR
SA LIQUID METAL COOLED REACTOR /LMCR/
SA LOS ALAMOS MOLTEN PLUTONIUM REACTOR /LAMPRE/
SA MATERIALS TESTING REACTOR
SA MOLTEN-SALT REACTOR /MSRE/
SA ORGANIC COOLED REACTOR
SA ORGEL REACTOR PROJECT
SA PHOEBUS NUCLEAR REACTOR
SA PLUM BROOK REACTOR
SA PLUTONIUM RECYCLE TEST REACTOR /PETR/
SA POWER REACTOR
SA PRESSURIZED WATER REACTOR
SA RESEARCH REACTOR
SA SATURABLE-CORE REACTOR /SR/
SA SNAPTRAN REACTOR
SA SODIUM GRAPHITE REACTOR /SGR/
SA SPERT REACTOR
SA TEST REACTOR
SA TRANSIENT REACTOR TEST /TREAT/ FACILITY
SA TRIGA MARK F REACTOR
SA ULTRAHIGH TEMPERATURE REACTOR EXPERIMENT /UHTREX/
SA WATER COOLED REACTOR
SA WATER MODERATED REACTOR
SA ZERO POWER REACTOR /ZPR/
Service life of reduction reactor vessels used for bomb reducing batches of uranium fluoride to uranium metal
[RFP-741] 01 p0105 N67-10525
Nuclear reactors for electrical power production
[BNL-10300] 01 p0107 N67-10612
Estimating integrated thermal power produced in nuclear power reactor as potential photovoltaic monitoring system
[NP-16188] 01 p0107 N67-10635
Design requirements and uniaxial in-reactor creep machines developed for NRX and NRU reactors
[AECL-2568] 01 p0108 N67-10676
Effect of openings on strength of reactor containment vessels and design of reinforcements
[ITTRI-578P22-15] 01 p0109 N67-10785
Nondestructive testing of PM-2A reactor pressure vessel to obtain data for predicting brittle fracture failure
[WAPD-TM-664] 01 p0109 N67-10771
Liquid helium use as pre-coolant and in nuclear reactors, and development of storage containers 01 p0107 N67-11150

Isotropically sensitive detector for measuring biological shielding of nuclear reactor 02 p0187 N67-11465
Intercrystalline stress corrosion cracking of Inconel 600 inspection tubes in Agesta reactor
[AE-245] 02 p0286 N67-11904
Thermal neutron spectra in reactor lattices 03 p0424 N67-12603
Analytical procedures for ionic and gas impurities and isotopic analyses in heavy water and helium systems of NRX and NRU reactors
[AECL-2396] 03 p0424 N67-12690
Analytical procedures for identifying and measuring ionic impurities in heavy water moderators of NRX and NRU reactors 03 p0425 N67-12692
Gas chromatograph and mass spectrometer methods of analyzing gases in heavy water and helium systems of NRX and NRU reactors 03 p0425 N67-12693
Second-order one-group perturbation theory for approximating reactor control rod interaction effects
[AE-250] 03 p0425 N67-12825
Time optimal reactor xenon shutdown on xenon boundary layer
[BNWL-156] 03 p0425 N67-12867
Reactor cell parameters in multigroup collision probability theory
[EUR-3075.E] 03 p0427 N67-13093
Charged-particle activation analysis - particle acceleration and analysis of protons, deuterons, helium 3 ions, alpha particles, tritons, and recoil particles in nuclear reactor
[NAS-NS-3110] 04 p0500 N67-13627
Computer program to calculate point cross sections from resonance parameters - nuclear reactor analysis
[NAA-SR-11900, VOL. VI] 04 p0504 N67-13630
Uranium fueled reactor experiments for checking nuclear data on uranium 235 and 238 over 10 to 500 keV energy range
[AWRE-R-5/66] 04 p0575 N67-13961
Abnormal reactor operational problems and safety hazards 04 p0575 N67-13962
Generalized Hartree-Fock calculation for zirconium 90 using effective interaction
[CONF-660906-6] 04 p0586 N67-13964
Nuclear technology progress in power density, radiation shielding, nuclear reactor core, IBM 7040 computer program, and related topics
[IDO-17191] 04 p0576 N67-13984
Production of cobalt 60 in BR2 nuclear reactor 05 p0736 N67-14827
Computer program for steady state hydraulics analysis of steam generating reactor systems
[AEEW-M-474] 06 p0909 N67-15460
Absorption cross section measurements of several elements in nuclear reactor using pile oscillator method 06 p0912 N67-16281
Operation of reactor in Poland from 1961 to 1962 06 p0912 N67-16283
Catalog of nuclear reactors fueled with uranium hexafluoride, gases, or plasmas
[ANL-7180] 06 p0915 N67-16521
Nonlinear system stability, optimal control, reactor dynamics, space-time effects, and pulsed neutron research covered in symposium on neutron dynamics and control
[CONF-650413] 07 p1122 N67-17041
Applications of mathematical methods to nuclear engineering 07 p1122 N67-17043
Nonlinear study of reactor systems with linear feedback 07 p1122 N67-17043
Synthesis of optimal nuclear reactor control system 07 p1122 N67-17048
Linear optimal feedback control theory for synthesis of optimum nuclear rocket engine start-up 07 p1123 N67-17050
Control of nuclear rocket absorption cross section 07 p1123 N67-17051
Large reactivity insertions performed in Advanced TRIGA Prototype Reactor to determine capabilities of uranium-zirconium hydride core 07 p1125 N67-17063
Plutonium recycling - neutron study on plutonium in thermal neutron reactors
[EUR-2953.F] 07 p1126 N67-17118
Design, initial operation, construction, operation costs, and program plans for high flux isotope reactor facility
[ORNL-P-2491] 07 p1129 N67-17402
Reactor fuel cell assembly inspection and cladding deformation analysis for high power density development project
[GEAP-5126] 08 p1266 N67-15478
Sensitivity of reactor multiplication values to thermal neutron cross sections 08 p1313 N67-18786
Sensitivity of SNAP reactor calculations to zirconium absorption cross section uncertainties 08 p1314 N67-18787
Absorption and scattering cross section data for predicting neutron spectrum in thermal reactor 08 p1314 N67-18788
Reactivity measurements of pile neutron cross sections and resonance absorption integrals 08 p1317 N67-18844
General input specifications for Argonne National Laboratory reactor programs
[ANL-7194] 08 p1319 N67-18883
System for evaluation and processing of nuclear data for reactor calculations
[NAA-SR-11900, VOL. I] 08 p1319 N67-18892
Chemical equilibrium studies of organic iodide formation during typical nuclear reactor accidents
[BMI-1781] 08 p1239 N67-19061
Neutron physics researches dealing with nuclear reactors, radiation detection and shielding, and mathematics and computer programs for data processing
[ORNL-3973, VOL. I] 08 p1323 N67-19321
High temperature thermometry for nuclear reactor applications 09 p1478 N67-19639
High temperature thermometry for nuclear reactor applications - instrumentation development 09 p1478 N67-19640
Fortran IV program for evaluating equivalent diffusion coefficient and loss cross section of annular void in cylindrical reactors
[GEMP-434] 09 p1489 N67-20144
Fast neutron flux in heavy water reactors
[CEA-R-3048] 10 p1677 N67-20855
Neutron flux measurements in cylindrical core of paraffin
[JUL-146-RX] 10 p1685 N67-21218
Perturbation and successive approximation methods for coupled form solution of transport equations on reactor shell problem
[INR-665/IX/RP] 10 p1686 N67-21410
Possibility of hydrogen embrittlement of tantalum in sodium cooled reactor
[LA-3506-MS] 11 p1938 N67-22322
Mach 1, one-dimensional diffusion theory code package for single step calculations of reactor parameters - computer program
[ANL-7223] 11 p1935 N67-22387
Nuclear, systems, and components analyses of Piqua nuclear power facility reactor during operations
[NAA-SR-11995] 11 p1921 N67-22389
Prestress process for nuclear reactor application
[EUR-3264.F] 11 p1923 N67-22924
Sodium-water reactions from small leaks studied to determine mechanisms of reactor tube wastage
[APDA-195] 11 p1815 N67-23225
Production and application of neutron sources
[JPRS-39544] 11 p1947 N67-23455
Nuclear reactors, nuclear weapons, and radioactive isotopes - Bibliography
[ORNL-RSIC-5, REV. 1] 12 p2144 N67-23549
Time synthesis approach to solution of time dependent diffusion problems
[WAPD-TM-641] 12 p2163 N67-23756
High temperature materials programs, nuclear fuels development, and other metals and ceramics studies related to various types of reactors
[ORNL-3970] 13 p2354 N67-25341
Uranium nitride as nuclear fuel for high temperature reactors of high power densities 13 p2355 N67-25356
Forced circulation loops with boiling potassium and compatibility of six high temperature brazing alloys with boiling K in medium power reactor 13 p2355 N67-25370
Conceptual design and temperature equations for calorimeter used for gamma heating measurements in nuclear reactor
[NASA-TM-X-52293] 14 p2597 N67-27230
Reactors and critical assembly facilities in United States
[TID-8200, 15TH REV.] 14 p2577 N67-27235
Instrumentation of reactor irradiation experiments using on-line computer
[RISO-M-501] 15 p2766 N67-27901
Direct measurement of neutron-neutron scattering cross sections in magnetosphere using pulsed reactor
[AEC-TR-6793] 15 p2764 N67-28439
Digital reactivity measurement of reactor response to slow movement of control rod
[RCN-65] 15 p2891 N67-28705
Method for calculating kinetic problems of thermal reactors
[RT/FI/66/31] 16 p2922 N67-29761
Soviet articles on theoretical and experimental analyses of nuclear reactor shielding against penetrating radiation
[NASA-TT-F-411] 17 p3112 N67-31241
Single crystal gamma spectrometer for reactor measurements 17 p3117 N67-31282
Mineral-insulated cable resistance heaters for irradiation experiments 18 p3268 N67-32466
Heat transfer simulation by radiation from reactor surface to thermionic converters
[BMWF-FBK-67-06] 19 p3856 N67-33990
Calculation methods for temperature distribution in shielding block of nuclear reactor
[UJV-1663] 19 p3496 N67-33629
Solving heat conduction boundary problems of vertical finned reactor fuel elements
[UJV-1622] 19 p3496 N67-33940
High temperature reactor materials, radiation effects on fast reactor cladding and structural materials, and results of various other developments in high temperature material study
[GEMP-475A, PT. A] 20 p3883 N67-34995
Self-shielded cross sections of thorium 232, uranium 238 and 235, and plutonium 239 for representing correct values in multigroup analysis of reactors
[AEET-372] 20 p3702 N67-35157
Mathematical theory for critical state of reactors
[JPRS-42067] 20 p3886 N67-35231
Computer program for solving time-independent neutron transport equation in multigroup r-geometry reactor cell
[KIR-110] 21 p3990 N67-35857
Rebuilding of superheater fuel assembly for BoiKog Nuclear Superheat Reactor /BONUS/
[ORNL-4072] 22 p4093 N67-37043
Expansion joints in piping systems of nuclear reactors
[JAERI-1130] 22 p4095 N67-37078
Utilization of reactor fast flux for activation analysis of fluorine
[BARC-280] 23 p4302 N67-38317
Performance evaluation of heat exchangers for sodium cooled reactors
[UNC-5163] 23 p4291 N67-39134
Initial planning of wide range digital nuclear instrumentation channel for reactor power level monitoring and displaying
[NYO-3735-7] 24 p4454 N67-40402

REACTOR CHEMISTRY

5A NUCLEAR CHEMISTRY

Water chemistry control for stress corrosion prevention in Agesta nuclear power plant 03 p0423 N67-12468
Latina nuclear power plant
[EUR-3115.I] 04 p0575 N67-13739
Conference on large scale production and applications of radioisotopes in power reactors
[DP-1066, VOL. II] 05 p0735 N67-14821
Recovery and purification of rare earth fission products to produce promethium 147 05 p0865 N67-14830
Processes used for recovery, purification, and conversion of megacurie quantities of cesium 137 fission products to salts and source compounds 05 p0866 N67-14831
Installation for recovery and packaging of cesium 137 obtained by ion exchange from concentrated acid solutions of fission products 05 p0866 N67-14832
Curium and americium processing from reactor fission products 05 p0866 N67-14833
Chemical processing and purification of curium 244 produced in nuclear reactors 05 p0866 N67-14834
Recovery process for chemical separation of reactor produced thulium 171 and erbium 05 p0866 N67-14835
Vacuum distillation process and related equipment for large scale separation of polonium 210 from irradiated bismuth 05 p0866 N67-14837
Analytical reactor chemistry, radiation effects on methods, electron microscopy, mass spectrometry, biochemistry, radiochemistry, and inorganic and organic preparations
[ORNL-4029] 13 p2357 N67-25439
Chemical researches for molten-salt, aqueous, and gas cooled reactors and nuclear

safety studies
[ORNL-4076] 20 p3681 N67-34287
Chemistry of X-7 loop coolant for organic cooled power reactor
[AECL-2327] 22 p3983 N67-36860
Coolant chemistry during X-736 fuel irradiation
[AECL-2654, PT. II] 22 p3985 N67-37068
Multimode time synthesis approximation to space-time reactor kinetics - appraisal of finite differencing methods
[WAPD-TM-635] 23 p4095 N67-37894
REACTOR CONTROL
SA CONFINEMENT
SA CONTAINMENT
Relay modules for safety and control circuits in reactor plant
[TRG-933/R/, PT. 1] 01 p0046 N67-10099
Nondestructive test of carbon beds for reactor confinement applications
[DP-1053] 03 p0437 N67-12355
Thermostat for high temperature measurements of neutron cross sections
[NP-497/PS] 04 p0574 N67-13599
Responsive switching element for magnetic control of nuclear reactor armature
[WAPD-TRANS-34] 04 p0582 N67-14046
Reliable interval timer for reactor runs
[ORNL-TM-1559] 04 p0577 N67-14048
Neutron density distribution measurement by spiral wire detector in reactor elementary cell
[INR-698/IX-A/RP] 04 p0578 N67-14055
Steady state power, coupled drum impulse transition, and cascade step transition tests of SNAPTRAN reactor
[IDO-17165] 04 p0578 N67-14057
Fatigue properties, neutron irradiation effects, and nondestructive testing methods for reactor pressure vessel
[SWRI-1238-4-32] 04 p0578 N67-14059
Applicability of finite escape time concept in reactor kinetics 07 p1123 N67-17044
Perturbation theory and Fortran program for reactor burnout calculations 08 p1315 N67-18892
Linear and nonlinear control systems via state variable feedback with applications in nuclear reactor control
[NASA-CR-82516] 08 p1280 N67-19063
Thermocouple systems for monitoring temperatures inside nuclear reactors 09 p1478 N67-19838
Shunt effects and sheath integrity of thermocouples for reactors of Project Rover 09 p1479 N67-19643
High temperature thermometry for nuclear engine for rocket vehicle reactor 09 p1479 N67-19644
Hot gas thermometry for nuclear engine for rocket vehicle reactor applications 09 p1479 N67-19647
Canadian radiation protection programs - fallout and reactor environment monitoring
[NP-16335] 10 p1571 N67-20740
Nonlinear analysis of xenon stability in high temperature gas-cooled reactor, and effect of fuel zoning on axial stability of reactor
[GAMD-6934] 10 p1675 N67-20623
Mathematical model to predict time-dependent behavior of boiling sodium coolant in nuclear reactor channel
[ANL-7222] 13 p2362 N67-25927
Film flow model for dryout heat flux of steam-water flow in reactor annulus
[AECL-2646] 13 p2434 N67-25929
Real time computers for centralized reactor control and experiment data processing
[NP-16490] 15 p2745 N67-28301
Experiments on vibrational compacting boron carbide for reactor control rods
[INR-701/XIV/PS] 15 p2750 N67-28522
Digital reactivity measurement of reactor response to slow movement of control rod
[RCN-65] 15 p2801 N67-28705
State variable feedback control of coupled nuclear systems
[LA-DC-8352] 16 p2929 N67-29284
Electronic equipment for automatic control of reactor
[UJV-1632] 16 p2933 N67-29806
High Flux Isotope Reactor /HFIR/ transient behavior and reactivity control
[ORNL-TM-1747] 17 p3113 N67-31237
Reactivity balance and xenon poisoning in Molten-Salt Reactor /MSRE/
[ORNL-TM-1796] 17 p3118 N67-31400
Subcriticality measurements of reactor parameters by determination of neutron noise
[ORNL-P-2979] 19 p3492 N67-33663
Method and computer program for determining fuel element burnout rate and reactivity from flux density data on FRJ-2 research reactor /DIDO/
[JUL-456-RE] 20 p3679 N67-34117
Core temperature regulation, control rod operation and heat transfer effects of liquid metal cooled reactor elements
[JPRS-42013] 20 p3684 N67-35075
Heat-transfer coefficient for calculating surface temperature of reactor core 20 p3684 N67-35076
Theoretical and experimental heat transfer determination for reactor heat exchanger
[SGAE-RT-12/1967] 20 p3749 N67-35196
Leakage rates and characteristics determined for minute weld defects in reactor pressure vessels
[NSJ-TR-87] 21 p3886 N67-35528
Hydrodynamics of energy absorption primary containment structure
[ANL-7214] 21 p3886 N67-35534
Computer depletion program for time analysis of nuclide concentration in nuclear reactor
[NASA-TN-D-4151] 21 p3886 N67-35761
Instrumentation for large molten salt breeder reactors
[ORNL-TM-1856] 21 p3890 N67-36511
Short power surge effects on hydraulic and thermal performance in swimming pool reactor channel - out-of-pile experiments on power excursions
[ANL-TRANS-467] 21 p3890 N67-36519
Reactor cooling, materials, and safety - control rods, fuel subassemblies, and crack propagation tests
[BNWL-367] 22 p4096 N67-37983
Linearized point reactor model in prompt jump approximation used with two-region lumped parameter model for heat transfer to determine reactor stability with delayed neutrons
[TID-23844] 22 p4096 N67-38027
Overpressure shock resistance of fire resistant filter unit for reactor system 23 p4233 N67-38885
Impregnated charcoal filter efficiency in methyl iodide removal from reactor system 23 p4288 N67-38890
Floating roof containment vessel for products of nuclear reactor accident 23 p4289 N67-38896
Evaluation of plutonium reactor confinement system for radioactive material collection from exhaust air stream 23 p4289 N67-38897
Trapping plant filter tests on iodine release from uranium fuel into vented reactor containment system 23 p4289 N67-38898
Mathematical model to determine containment size effect on iodine desorption from fission product 23 p4289 N67-38899
Behavior of irradiated photomultiplier in gamma flux in storage well, and in EL 2 reactor channel
[CEA-R-3154] 23 p4228 N67-39207
REACTOR CORE
SA SATURABLE-CORE REACTOR /SR/
Parameters influencing nonuniform heat flux distribution on departure from nuclear boiling predictions in thermal design of reactor cores
[EUR-3114.E] 01 p0164 N67-10550
High temperature burst testing of cladding specimens from reactor core assemblies
[WCAP-6080] 01 p0107 N67-10620
Fuel and other core materials procured for experimental fast oxide reactor critical experiments in Zero Power Reactor III /ZPR-III/
[GEAP-5123] 01 p0111 N67-10910
Reactivity worth of control rods partially inserted in reactor core 03 p0440 N67-12805
Pressure bonding of Zircaloy cladding components to reactor core fuel plates
[WAPD-305] 03 p0466 N67-12315
Engineering and metallurgical evaluation of irradiated control rod
[WCAP-6974] 04 p0572 N67-13390
Nuclear technology progress in power density, radiation shielding, nuclear reactor core, IBM 7040 computer program, and related topics
[IDO-17191] 04 p0576 N67-13984
Southwest Experimental Fast Oxide Reactor development program
[GEAP-5160] 04 p0577 N67-14002
Uranium oxide and plutonium oxide fuel element clusters for high power density core of plutonium recycle test reactor
[BNWL-221] 04 p0578 N67-14056
Differences between measured and calculated bucklings of light and heavy water moderated reactor cores
[AEEW-R-467] 04 p0580 N67-14162
Scattering sample influence on neutron temperature distribution in reactor core 06 p0913 N67-16295
Nonlinear stability of coupled nuclear systems 07 p1122 N67-17045
Second Method of Liapunov for studying asymptotic stability of coupled core reactors 07 p1122 N67-17046
Maximum temperature reached by reactor core in step excursions with different Doppler reaction feedbacks calculated and compared with point kinetics equation results 07 p1124 N67-17060
Large reactivity insertions performed in Advanced TRIGA Prototype Reactor to determine capabilities of uranium-zirconium hydride core 07 p1125 N67-17063
Computer model predicting transient behavior of coupled cores of boiling water superheat reactor power plant 07 p1128 N67-17071
Measurements of gamma and neutron dose distributions in core of thermal tungsten nuclear rocket experiment
[NASA-CR-72081] 07 p1128 N67-17181
Core design and containment cost studies for gas cooled fast breeder reactor
[ORNL-TM-1194] 07 p1132 N67-17522
Performance characteristics of bundle controlled expansion concept in carbide-fueled fast breeder reactor
[WCAP-2589-2] 08 p1312 N67-18647
Neutron cross section sensitivity calculations for small hydrogen moderated clean critical cores 08 p1314 N67-18789
Washout tests on ceramic core material after fuel element failure
[BNWL-295] 08 p1316 N67-18873
Infinite multiplication constant of natural uranium/graphite lattices in RB-1 critical assembly measured by zero reactivity method
[EUR-3126.I] 08 p1323 N67-19194
Fiber-reinforced metal matrix composites for strengthening core and cladding elements in advanced nuclear fuels 08 p1324 N67-19335
Nuclear engineering concepts for corrosion test, reactor core, radiation detector, and related topics
[IDO-17192] 10 p1676 N67-20646
Thermal analysis on SNAP-10A reactor core during atmospheric reentry with core melting and fuel element release
[NAA-SR-MEMO-11847] 10 p1677 N67-20675
Intracell neutron density distributions in Anna reactor core with water
[INR-724/IXA/R] 10 p1685 N67-21403
Intracell neutron density distributions in Anna reactor core without water
[INR-730/IXZ/R] 10 p1685 N67-21404
Power distribution of high temperature gas cooled reactor initial core
[GAMD-6651] 10 p1687 N67-21547
Listing for input cards used with FLARE code to determine heavy isotope content in fuel for nuclear reactor core
[CEND-271, SUPPL. 1] 10 p1688 N67-21578
Setup of Isocheck method for determining heavy isotope content in operating fuel elements of Yankee core V
[CEND-271] 10 p1689 N67-21682
Adjoint Monte Carlo calculations for enriched uranium core assemblies
[K-DP-1637] 10 p1690 N67-21791
Disassembly and examination of ML-1 reactor core to identify failure mechanism and leak paths
[IDO-17190] 10 p1690 N67-21832
Lattice assembly, conversion ratio, and neutron spectrum data from critical experiments on reactor cores
[BAW-3647-3] 12 p2146 N67-23892
Comparative evaluation of reflector and control materials for fast spectrum nuclear rocket reactor cores
[ANL-7090] 12 p2150 N67-24558
Thermal and mechanical aspects of high temperature gas cooled reactor system core designs using beryllium oxide moderation
[AAEC-E-153] 12 p2151 N67-24670
Neutron flux depressions and negative reactivities produced by irradiation device

geometry in swimming pool reactor core
[NP-16432] 13 p2360 N67-25543
Digital computer program for neutron flux stability in reactor cores with xenon 135
[LA-3568] 13 p2360 N67-25557
In-core instrumentation for measuring fuel pin and coolant temperatures, coolant flow rates in fuel element assemblies, fission gas buildup pressure in fuel pins, and neutron and gamma fluxes
[ANL-7161] 14 p2376 N67-27845
Computer program for studying nuclear reactor core thermal conditions during plant transients and calculating temperature distribution for coolant and fuel elements
[GAMD-7397] 14 p2378 N67-27849
Nuclear and thermal-hydraulic performance analysis of boiling water reactor core by one-dimensional analyzer code
[JAERI-1114] 15 p2746 N67-28309
Mathematical model to evaluate effect of moderator temperature coefficient on core stability
[WCAP-2967] 15 p2748 N67-28425
Core stress, fission gas pressure, reactivity coefficient, fuel pellet thermal expansion, and temperature distribution data for low enriched PM replacement core
[HIT-3563-43, VOL. II] 16 p2929 N67-29231
Mechanical, thermal-hydraulic, and nuclear characteristics of low enriched PM replacement core
[HIT-3563-43, VOL. I] 16 p2930 N67-29239
Thermal absorption in seeded gases
[NASA-CR-811] 16 p2953 N67-29299
Measurement and calculation of lattice parameters in thorium dioxide blanket regions as function of distance from seed regions in seed blanket slab cores
[WAPD-TM-615] 16 p2931 N67-29722
Reactor tests on high power density fuel bundle cores
[GEAP-5405] 16 p2932 N67-29786
Certain process variable effect on bond quality of gas pressure bonded pressurized water reactor core 2 plate type fuel elements 17 p3104 N67-30177
Differential transformers for measurement of in core fuel elongation
[HPR-70] 17 p3105 N67-30236
One-module, two-module, and three module cores, containing highly enriched uranium dioxide seeds and thorium dioxide blankets, studied to compare design calculations with measured core parameter
[WAPD-TM-621] 17 p3110 N67-30911
Liapunov direct method for determining region of asymptotic stability of coupled reactor with linear power feedback
[EUR-3465.E] 17 p3093 N67-30940
Reactor core variations and effect on neutron spectra 18 p3301 N67-32443
Core element effect on beryllium-filtered neutron beam from research reactor
[AMRA-TR-67-05] 18 p3304 N67-32646
Critical mass reduction of uranium 235 in polyethylene reactor core
[LA-3651] 19 p3488 N67-33009
Irradiation tests on reactor cores having as-extruded coarse grains 19 p3488 N67-33050
Two-phase flow and heat transfer in multirod geometries
[GEAP-5441] 19 p3553 N67-33433
Nuclear properties of water-moderated slightly enriched uranium dioxide lattices perturbed by clusters of gold-indium-cadmium poison pins and dissolved boric acid
[BAW-3647-3] 19 p3491 N67-33653
Neutron leakage effects on fast advantage factor in thorium oxide seed-blanket assembly
[WAPD-TM-636] 19 p3492 N67-33657
Measured physics parameters in zoned fast uranium carbide core
[ANL-7281] 19 p3493 N67-33739
Effects of helium coolant pressure changes on research reactor vessel strains associated with core and control rod movements
[BNL-11243] 19 p3495 N67-33885
Radiological control of refueling of pressurized water reactor shippingport atomic power station with core 2 and modifications on other reactor systems to accommodate new core characteristics
[WAPD-298] 19 p3496 N67-33923
Reactivity worth of tubular control rods in beryllium oxide moderated pebble bed reactor system
[AAEC/TM375] 20 p3677 N67-34011
Absorber efficiency in Attila reactor
[EUR-3497.I] 20 p3681 N67-34366
Nuclear thermohydromechanical coupled calculation for direct substitution of plutonium in commercial boiling water reactor
[JAERI-1123] 21 p3888 N67-36047
SNAP reactor data used for comparison of beryllium photoneutron decay sets
[NAA-SR-MEMO-12347] 21 p3906 N67-36288
Neutron diffusion code for reactor core containing large cylindrical cavities
[RT/FI/66/44] 21 p3889 N67-36291
Core calculations and design justification for pulsed reactor
[SC-RR-66-3643] 22 p4096 N67-37383
Computer program for evaluating monopole and dipole conditions in pressure tube reactor lattices
[AEEW-R-515] 23 p4294 N67-38339
Computer program for subchannel analysis of hydraulic and burnout characteristics of rod clusters in nuclear reactors
[AEEW-R-524] 23 p4295 N67-38451
Performance potential of radiant heat transfer liquid-core nuclear rocket engine
[NASA-TN-D-4148] 24 p4492 N67-40103
Physical, mechanical, and nuclear properties of wrought elements of PAR-1 alloy for use in construction of EWA 10 MW nuclear reactor core
[INP-779/XIV/PS] 24 p4469 N67-40453

REACTOR DESIGN

Shutdown - Fortran IV digital computer code for optimum method of altering reactor power before shutdown
[ER-22] 01 p0044 N67-10051
Steady-state-coupled fluid flow and heat conduction analysis of heat-generating solid, as applied to reactor design
[NASA-CR-79869] 01 p0112 N67-10930
Catalog of nuclear reactors designed for research and testing and power production and breeding
[ANL-7238] 04 p0577 N67-14905
Conceptual design evaluation of liquid metal fast breeder reactor
[COO-285] 05 p0735 N67-14488
Low power thermionic reactor development for unmanned spacecraft applications 06 p0912 N67-15726
Reactor design research in development of optimum sodium-steam plant system
[NAA-SR-11805] 06 p0915 N67-16526
Reactor stand, core design, and burst operation effects of uranium-molybdenum alloy fast burst reactor at White Sands Missile Range 07 p1125 N67-17062
Design, initial operation, construction, operation costs, and program plans for high flux isotope reactor facility
[ORNL-P-2491] 07 p1129 N67-17402
Fabrication and installation of LACBWR reactor piping system
[SWRI-1236-7-34] 07 p1131 N67-17493
Reactor power systems design requirements for manned Earth orbital applications
[NASA-CR-66254] 07 p1132 N67-17520
French SENA reactor design engineering development, testing, and component reliability
[TID-23339] 07 p1133 N67-17557
French SENA reactor design engineering development, testing, and component reliability
[TID-23338] 07 p1133 N67-17558
Design and fabrication of sodium heated steam generator
[BAW-1260-39] 07 p0999 N67-17598
Low energy neutron cross section measurements of nonfissile nuclides for thermal and intermediate energy reactor designs 08 p1313 N67-18783
Sensitivity of water, graphite, and deuterium oxide moderating materials to scattering model for predicting thermal reactor parameters 08 p1314 N67-18792
Fission resonance cross section requirements for reactor design 08 p1317 N67-18848
Irradiation tests of Experimental Breeder Water Reactor prototype fuel rods, fabrication of plates to test Phoenix fuel concept, and ultrasonic examination of thermally cycled tubes 08 p1324 N67-19234
Design and development of all welded and brazed instrumentation ports for nuclear engine for rocket vehicle applications reactors
[NASA-CR-83200] 10 p1574 N67-20739
Magnetic system, radio frequency system, and injector design of 4 MeV linear accelerator
[ORNL-P-2258] 10 p1601 N67-20945
Nuclear reactor parameters calculated for 1000 MWe fast ceramic reactor
[GEAP-4471] 10 p1666 N67-21588
Shielding window design for use in reactor containment structure
[ANL-7197] 12 p2146 N67-23891
Chemical engineering research on interface phenomena, reactor design, heat transfer, and certain other topics 14 p2474 N67-26604
Computer program used in calculating thermal neutron flux spectra for reactor design
[DLR-FB-66-91] 15 p2750 N67-28673
Optimization of magnetohydrodynamic generator parameters in magnetohydrodynamic reactor system - coolant temperature, gas pressure, power density, and electric conductivity
[AERE-R-5030] 15 p2776 N67-28858
Neutron cross section sensitivity calculation for small hydrogen moderated reactor designs
[KAPL-M-6563] 16 p2942 N67-29223
Improved techniques for design of water cooled and water moderated reactors by lattice spectra analyses
[GA-7378] 16 p2931 N67-29729
Standardization of irradiation rigs - rig design and fabrication techniques 18 p3296 N67-32486
Capacitor pulse heating techniques to determine in-pile specific heat data for reactor design materials as function of exposure to integrated neutron flux
[UCRL-14788] 18 p3298 N67-32430
High-temperature controlled irradiation capsule for power reactor 18 p3299 N67-32430
Automated power and pressure cycling system for elevated temperature for irradiation of thin clad fuel pins 18 p3300 N67-32436
NaK-filled natural convection circulating capsule for fast ceramic reactor 18 p3301 N67-32440
Neutron capture and fission cross sections for uranium 233 used in reactor design applications
[ORNL-TM-1751] 19 p3509 N67-33778
Design, development and manufacture of neutron converters for Dounreay materials testing reactor
[TRG-1453/D/] 20 p3682 N67-34532
Flow shaping technique for optimizing reactor performance and as analytical method of designing flow shaping
[NAA-SR-MEMO-12236] 20 p3682 N67-34676
Digital and analog studies on xenon spatial stability in large seeding reactor
[WAPD-TM-606] 21 p3897 N67-35788
Pebble bed reactor compared to gas turbine coupled reactor to achieve optimum gas cooled reactor design for nuclear power plant
[THTR-32] 23 p4298 N67-38944
Notch strength of irradiated A302-B steel measured in simulated reactor pressure vessel walls
[NRL-6575] 24 p4463 N67-39485
Reference design and developmental components for advanced converter reactor evaluation
[GAMD-7307] 24 p4472 N67-40246

REACTOR FUEL

SA FISSION PRODUCT
SA FUEL ELEMENT
SA NUCLEAR FUEL

Fuel assembly experiments, hydride orientation and mechanical properties of thin walled Zircaloy tubing, and in-core flux monitors
[DPST-66-83-5] 01 p0106 N67-10696
Fuel capsule irradiation and fuel supply for aqueous homogeneous suspension reactor
[NP-16168, PT. A] 01 p0111 N67-10650
Reactor heat rate and energy release studied on critical assemblies with beryllium oxide moderator and nonuniform uranium fuel distribution
[JPRS-36828] 02 p0287 N67-13987
Fuel and control rod operations for Agesta nuclear power plant 03 p0422 N67-13447
Chemical engineering research, power reactor fuel processing, separation of macromolecular substances, transuranium and waste processing, thorium fuel cycle studies, and sol-gel research

[ORNL-3958] 03 p0426 N67-12973
Burnup code for continuous charge discharge fuel cycles
[EUR-3076.E] 04 p0575 N67-12740
Neutronics characteristics of possible driver fuels for fast test reactor
[BNWL-231] 04 p0576 N67-12977
Behavior of pyrolytic carbon coated carbide fuel particles under conditions of high temperature, high burnup, and fast flux irradiation for high temperature gas cooled reactor applications
[CONF-661003-3] 04 p0576 N67-12980
Temperature distribution in dimpled coolant tube of superheating fuel rod assembly
[ORNL-TM-1453] 04 p0578 N67-14060
Fission product distribution in coating fuel elements for high temperature reactors
[SGAE-CH-33/1966] 04 p0578 N67-14061
Irradiation behavior of uranium carbide-silicon carbide dispersed fuel rods
[TRG-1213/S/] 04 p0580 N67-14166
Mathematical model to optimize plutonium 238 production by fuel recycle 05 p0735 N67-14823
Management of americium in power reactor fuels to optimize production of alpha emitting isotopes 05 p0736 N67-14826
Isotopic composition of promethium in spent power reactor fuels 05 p0736 N67-14829
Isotope power for nuclear propulsion and reactor fuel applications 06 p0909 N67-15527
Cooling of WWR-S reactor fuel element in cylindrical channels and in channel with variable cross section in water loop 06 p0913 N67-16237
Irradiation stability of uranium oxide-zirconium oxide in comparison to uranium oxide and uranium oxide-beryllium oxide fuels
[BMI-1782] 06 p0914 N67-16385
Pulsed neutron irradiation of aerospace nuclear reactor fuels immersed in water
[USNRDL-TR-1046] 07 p1127 N67-17154
Crossed-progeny fuel cycles for combining advantages of thorium and uranium fuel cycles
[BNWL-289] 07 p1129 N67-17406
Supercritical water-cooled loop for pressure tube fuel and collapsed clad element tests in reactor environment
[WCAP-3374-4] 07 p1129 N67-17423
Cost of vibrational compacted or pellet oxide fuel elements enriched with uranium-235 or plutonium
[BNWL-273, VOL. 1] 07 p1130 N67-17444
Comparative cost study of processing oxide, carbide and metal fast-breeder-reactor fuels by aqueous, volatility, and pyrochemical methods
[ANL-7137] 07 p1130 N67-17445
Liquid plutonium reactor fuel development
[LA-DC-7381] 07 p1133 N67-17560
Canadian methods for analysis of terphenyl reactor coolant mixtures
[AECL-2643] 07 p1032 N67-18107
Irradiation of liquid plutonium fuels in thermal reactor
[LA-3537] 08 p1311 N67-18588
Irradiation behavior of uranium oxide and plutonium oxide fuels in plutonium recycle test reactor
[BNWL-SA-791] 08 p1311 N67-18591
Flow properties, sedimentation, and caking of thorium oxide suspensions for test reactor
[NP-16348, PT. 1] 08 p1311 N67-18596
Fabrication of uranium oxide-plutonium oxide vibratory compacted fuel rods
[EURAEC-1304] 08 p1330 N67-18960
Reactor materials and components - fuel studies, portable smoke photometer, coated-particle fuels, and corrosion studies of fluidized bed fluoride volatility process
[BMI-1778] 08 p1321 N67-19145
Physical concepts, comparisons, and description of plutonium, uranium, thorium assembly reactivity code /PLUTHARCO/
[EUR-3141.E] 08 p1322 N67-19179
Standard method for calculating fuel requirements of nuclear power reactors and reactor systems
[SGAE-RE-5/1966] 08 p1322 N67-19200
Dancoff corrections for square and hexagonal rod lattices
[AE-257] 08 p1322 N67-19201
Ceramic fuel research studies, Plutonium Recycle Test Reactor /PRTR/ fuel element performance and fabrication, and materials joining and fiber reinforcement in advanced fuel concepts
[BNWL-269] 08 p1324 N67-19330
Slacked-clone solvent extraction contactor, power reactor fuel processing, thorium fuel cycle, uranium oxide-sol preparation, and fluidized bed volatility processing
[ORNL-3905] 09 p1406 N67-19610
Batch shear-leach process for recovering fissile and fertile materials from spent power reactor fuels 09 p1476 N67-19512
Refractory oxide insulated thermocouples for measuring fast reactor fuel pin temperatures 09 p1478 N67-19634
Sintering-extrusion prepared uranium rods subjected to thermal cycling
[CEA-R-2972] 10 p1675 N67-20762
Potential fuel materials for fast-flux pulse reactor
[BMI-X-10170] 10 p1677 N67-20871
Reactor burnup code for GE-635 computer
[GEMP-433] 10 p1679 N67-20967
SAP clad uranium carbide fuel elements for NRX reactor
[AECL-2571] 10 p1680 N67-20968
Plutonium as fuel in nuclear reactors
[EURAEC-1666] 10 p1680 N67-21013
Operation of semiconductor Compton spectrometer and performance in determining burnup history of reactor fuels
[SGAE-G-4/1966] 10 p1635 N67-21800
Boiling water reactor fuel cycle cost calculation
[ORNL-P-2532] 10 p1690 N67-21811
Kinetics calculation for reactor composed of three different regions
[EUR-3051.E] 10 p1690 N67-21825
Metallurgical studies on melting point of carbides reactor fuel, and physical and mechanical properties of certain metals
[USBM-RC-1264] 11 p1888 N67-22288
Monocarbide mononitride region of quaternary system investigated in production of high temperature nuclear reactor fuels 11 p1888 N67-22291
Mathematical models for estimating thermal conductivity of cermet fuel materials used in nuclear reactor
[NASA-TN-D-3898] 11 p1923 N67-22866
Bibliography listing works on thermionic cells in reactors and related use of high temperature fuel elements
[JUL-BIBL-1] 11 p1923 N67-22922
Potential protective coatings for beryllium oxide based reactor fuel elements
[AAEC-TM-334] 12 p2145 N67-23744
Density, hardness, and thermal conductivity evaluated in production of uranium oxycarbide and oxycarbonitride specimens by powder techniques 12 p2117 N67-23957
Uranium nitride as nuclear fuel for high temperature reactors of high power densities 13 p2335 N67-25358
Computer program to evaluate collision probabilities in pin clusters and infinite rod lattices
[EUR-3296.E] 14 p2575 N67-26999
Critical fuel solution reactors containing arrays of void tubes
[NASA-TM-X-52302] 14 p2576 N67-27320
Vaporization kinetics of thorium, uranium, americium, plutonium, and curium - possible atomic reactor fuels
[NASA-TT-F-10068] 15 p2657 N67-28234
Pycnometer using mercury for volume measurements in determining density of porous fuel pellets in hot cells
[ORNL-TM-1743] 15 p2711 N67-28343
Use of plutonium as reactor fuel
[QR-10] 15 p2748 N67-28458
New reactor fuels and cladding and coating materials development
[IDO-17218] 16 p2930 N67-29683
Second order effects as related to critical coolant flow velocities and reactor parallel plate fuel assembly
[ANL-7361] 16 p2934 N67-29854
Behavior and effectiveness of pyrolytic carbon coatings in retaining fission products of fuel particles
[M/250] 16 p2935 N67-29931
Optimization of reactor fuel element heat transfer by surface roughness
[AE-271] 17 p3176 N67-30519
Feasibility of aqueous reprocessing of zirconium dioxide-uranium dioxide fuels
[IN-1069] 17 p3111 N67-30927
Control plate bearing failure and repair, fuel cycle, and shutdown information for Oak Ridge High Flux Isotope Reactor
[ORNL-TM-1811] 17 p3112 N67-31094
Steady burnout of reactor fuels, and computer program to determine steam and water physical parameters
[EURAEC-1618] 17 p3112 N67-31157
Fortran IV computer program for calculating diffusion of radioactive gases from hole in reactor fuel element
[PG-778/W/] 17 p3113 N67-31221
Physical properties of plutonium uranium zirconium ternary system reactor fuel
[MLM-1346] 18 p3293 N67-31717
Irradiation studies of potential reactors fuels
[BMI-1784] 18 p3293 N67-31901
Uranium-plutonium mononitride fuel for fast reactor application 18 p3293 N67-31902
Uranium plutonium nitride fuel materials for liquid metal fast breeder reactors 18 p3294 N67-32355
Ceramic coated plutonium base particle fuels and graphite coatings on fuel particles 18 p3295 N67-32357
High burnup effects on uranium dioxide cerium dioxide and uranium dioxide zirconium dioxide reactor fuels 18 p3296 N67-32359
In-pile measurement of thermal electromotive force of uranium dioxide fuel core during irradiation
[BNWL-SA-680] 18 p3299 N67-32427
In-pile properties of reactor fuels by oscillating technique 18 p3301 N67-32438
Irradiation of liquid plutonium fuels in thermal reactor
[LA-DC-7753] 18 p3301 N67-32441
Instrumentation and data reduction techniques for irradiation experiments to evaluate fuel element performance - SNAP program 18 p3302 N67-32449
Thermocouple development for use in measuring oxide fuel temperatures in-pile above 4000 deg F 18 p3303 N67-32450
Release of fission products from plutonium fuels and concentration of uranium, plutonium, and hazardous isotopes
[LA-3650-MS] 19 p3487 N67-32885
Long-term plutonium value change effects on fuel cycle costs of plutonium fuelled power reactors
[SGAE-RT-10/1967] 19 p3490 N67-33331
Preparation and characterization of uranium oxide for high flux isotope reactor fuel plates
[ORNL-4052] 19 p3490 N67-33332
Aqueous decladding and dissolution of plutonium-aluminum alloy recycle test reactor fuels
[BNWL-204] 19 p3491 N67-33488
DTF-BURN - multigroup transport theory burnup computer program written in Fortran IV
[LA-3671] 19 p3491 N67-33646
Computer program for estimating resonance effects in reactor fuel burnup
[ORNL-TM-1760] 19 p3492 N67-33695
Mechanism of fission gas release from reactor fuels studies, using Oak Ridge Research Reactor
[ORNL-P-2978] 19 p3492 N67-33696
Bench-scale studies on irradiated highly-enriched uranium alloy fuels in engineering development of fluid-bed fluoride volatility processes
[ANL-6994] 19 p3493 N67-33724
Use of plutonium as fuel in nuclear reactors
[EURAEC-1774] 19 p3494 N67-33861
Zircaloy-2 clad uranium oxide fuel rod design for irradiation in power reactor
[GEAP-5462] 19 p3495 N67-33899
Vented fuel development, transient fuel testing, fast flux irradiation of fuel, reactor physics, and core analysis in sodium cooled reactor development
[GEAP-5433] 19 p3495 N67-33900
Potential of advanced carbide and alloy fuels for fast test reactor
[BNWL-SA-1042-S, REV. B] 20 p3678 N67-34073
Potential of advanced carbide and alloy fuels for fast test reactor
[BNWL-SA-1042-S, REV. A] 20 p3678 N67-34076
Phase studies, X-ray, and metallographic examination of uranium nitrides and carbonitrides for reactor fuel application
[JUL-472-RW] 20 p3589 N67-34184
Statistical and thermodynamic equations for quench testing thermal stress resistance of spherical ceramic fuel elements for nuclear reactors

[AAEC/E165] 20 p3679 N67-34219
Breeder characteristics of graphite-moderated high temperature spherical pile reactor for thorium 232 - uranium 233 breeding cycle
[JUL-474-RG] 20 p3679 N67-34225
Uranium 235 fuel increase required for insertion of enriched boron rod in Moata reactor
[AAEC/E181] 20 p3680 N67-34284
Phase equilibria and physical properties of plutonium alloy reactor fuels
[MLM-1338] 20 p3656 N67-34393
Burnup code for treating space dependent pebble bed reactor fuel management
[AAEC/E173] 20 p3683 N67-34579
Irradiation properties of high energy rate pneumatically impacted uranium oxide and plutonium oxide reactor fuels
[BNWL-356] 20 p3683 N67-34784
Pyrolytic carbon coated uranium fuel particle oxidation with water vapor
[ORNL-4014] 20 p3596 N67-34986
Uranium alloy fuel element fabrication process development
[EUR-3471.1] 20 p3685 N67-35137
Critical lattices of high flux isotope reactor fuel elements
[ORNL-TM-1808] 21 p3685 N67-35389
Computer program for reactor multigroup point-depletion calculations
[ORNL-TM-1633] 21 p3688 N67-36018
Materials for molten salt breeder reactors - graphite and modified Hastelloy N structural materials, and uranium bearing fluoride fuel salt
[ORNL-TM-1854] 21 p3689 N67-36067
Irradiation testing of six high performance uranium dioxide fuel assemblies in power reactor
[GEAP-5487] 21 p3690 N67-36516
Determination of neutron spectra in coupled graphite-deuterium oxide reactor
[RT/FI/66/36] 21 p3692 N67-34589
Computer code for present-worth reactor fuel cost calculations
[TRG-1489/R/] 22 p4005 N67-37016
Fuel burnup calculations for water cooled, water moderated reactor
[JPRS-42543] 22 p4006 N67-37216
Fuel cycle cost implications of liquid plutonium reactor fuel
[LA-3655] 22 p4094 N67-37889
Nondestructive testing of plutonium dioxide and uranium dioxide fast reactor fuels
[NUMEC-3534-27] 22 p4095 N67-37939
High melting point carbides, thorium alloy systems, UC-UN-UO for high temperature reactor fuel production, and W-Re-Mo alloys
[USBM-RC-1288] 22 p4074 N67-37951
Uranium fuel charge near equilibrium burnup in reactor reactivity change
[AECL-2965] 22 p4096 N67-37997
High temperature materials and fuels for reactor applications
[GEMP-67] 23 p4284 N67-38312
Burnup determination in low enrichment fuels based on cesium 137 radiochemical analysis
[EUR-3469.F] 23 p4286 N67-38948
Fabrication of fast reactor fuel pins for test irradiations
[EURFNR-314] 23 p4291 N67-39144
Theoretical method for predicting burnup characteristics of advanced gas cooled, graphite moderated reactors
[AEEW-M-740] 23 p4292 N67-39254
Fuel cycle economics of beryllium oxide moderated high temperature gas cooled pebble bed reactor
[AAEC/E175, PT. 1] 24 p4491 N67-39721
Physical, economic, and safety analyses on use of plutonium in water cooled reactors
[EUR-3478.1] 24 p4493 N67-40324
REACTOR IN-FLIGHT TEST /RIFT/ PROJECT
Radiation effects on RIFT vehicle guidance and control system
[NASA-CR-84041] 13 p2263 N67-36294
REACTOR MATERIAL
SA NUCLEAR REACTOR MATERIAL
Interpolation formula for neutron self-shielding factor
[KFK-594] 01 p0124 N67-10661
Reactor materials and components, ceramic and cermet fuels, uranium-plutonium nitride fuels, smoke photometer, and corrosion resistance of materials in fuel recovery process
[BMI-1774] 02 p0285 N67-11709
Reactor materials and components, ceramic and cermet fuels, uranium-plutonium mononitride fuels, smoke photometer, coated particle fuels, and corrosion in fuel recovery process
[BMI-1771] 02 p0285 N67-11710
Literature survey of ion exchange materials for full flow purification of boiling water reactor feedwater
[AECL-2546] 04 p0095 N67-13918
Plastic fatigue embrittlement of reactor vessel steels
[EURAEC-1634] 04 p0562 N67-14695
Radiation effects on reactor structural materials
[NRL-MEMO-1719] 05 p0725 N67-14727
Damaging neutron exposure criteria for evaluating embrittlement of reactor pressure vessel steels
[NRL-6415] 05 p0727 N67-14999
Kinetic analyses to predict quantative loss or gain of interstitial elements from stainless steel materials used to transport liquid metals in nuclear power systems 06 p0894 N67-16175
Evaluation of austenitic steel as construction material for pressure vessel of fast reactor
[EURFNR-927] 07 p1133 N67-17536
Effect of tensile restraint on graphite specimen irradiated in BR-2 reactor
[TRG-1279/C/] 07 p1136 N67-17986
Properties of cobalt 60 and cobalt metal fuels - compatibility of cobalt with encapsulating materials
[DP-1051, REV. 1] 08 p1319 N67-18899
Improved postirradiation stress-rupture properties of Hastelloy X-280 by thermomechanical treatment
[BNWL-231] 08 p1291 N67-18915
Fuels and materials for Liquid Metal Fast Breeder Reactor Program /LMFBR/
[TID-6506, PT. 3, 4TH ED.] 08 p1321 N67-19062
Estimation of curie content of radioactive materials transported under International Atomic Energy Agency regulations
[TRG-1287/D/] 10 p1697 N67-20406
Mechanical properties of reactor materials - neutron induced changes in body centered cubic metals
[GA-7233] 10 p1652 N67-21005
Parametric feasibility study of structural factors and heat transfer in molten-salt reactors
[JUL-296-RG] 10 p1771 N67-21075
Neutron damage in reactor metal studied by liquid helium temperature resistance measurements, mechanical property measurements, and stored energy measurements
[GA-7436] 10 p1657 N67-21654
High-temperature materials program for reactor applications - radiation effects, mechanical properties, refractory metal alloy research, cladding and fuel elements, and pressure vessels
[GEMP-61] 11 p1919 N67-23681
High-temperature reactor materials research - creep-rupture tests on Mo-Re-W alloys and on arc-cast Mo and W sheets 11 p1919 N67-23682
Radiation effects on fast reactor cladding and structural materials 11 p1919 N67-23683
Diffusion-strengthened Al-Cr-Fe base alloys studied in relation to developing fuel cladding and structures for fast breeder reactors 11 p1920 N67-23698
Thermoelectric properties of Mo-Ru alloys and W-Re alloy studied in development of high temperature thermocouples and electrical and electronic materials for reactors 11 p1920 N67-23692
High temperature research on carbides for fuel and structural applications 11 p1921 N67-23694
Prestressed concrete pressure vessels evaluated for use in power reactors
[JUL-350-VW] 11 p1926 N67-23697
Exposure of high-temperature gas-cooled reactor candidate core plates and thermal insulation materials to impure helium
[GAMD-7377] 12 p2114 N67-23567
Workability, heat treatment characteristics, and corrosion resistance for pressurized water of zirconium molybdenum chromium and zirconium molybdenum nickel alloys
[NSJ-TR-34, REV.] 12 p2119 N67-24319
Development of zirconium alloy for use as cladding material in water cooled nuclear reactors
[EURAEC-1725] 12 p2130 N67-24599
Irradiation effects on reactor structural materials
[NRL-MR-1721] 12 p2151 N67-24694
Preparation and purification of thorium, yttrium, vanadium, and refractory metal systems for reactor materials
[IS-RD-3] 13 p2262 N67-25697
Mechanical and physical properties determined in high temperature reactor materials research 14 p2574 N67-26922
Refractory metal alloy research and development in high temperature reactor program 14 p2582 N67-26984
Advanced long life reactor fuel cladding and structural materials development 14 p2575 N67-26957
Evaluations of plastic fatigue properties of heat resistant alloys 14 p2582 N67-26989
Vanadium alloy screening studies and fabrication of V-Ti-Cr tubing for cladding for sodium cooled fast reactors
[ANL-7306] 14 p2575 N67-27058
Fracture mechanics evaluation of reactor vessel steels
[WCAP-3677-1] 15 p2721 N67-27994
High resolution neutron cross section measurements for fast reactor structural materials
[KFK-482] 15 p2750 N67-28492
Irradiation effects on reactor structural materials
[NRL-MEMO-1753] 15 p2751 N67-28949
Low-cycle metal fatigue ruptures in reactor primary coolant system
[GEAP-5279] 16 p2929 N67-29022
Synthesis techniques applied to calculations of three-dimensional reactivity coefficient distributions
[KAPL-P-2106] 16 p2930 N67-29696
Uranium plutonium nitride fuels, radiation effects in reactor cladding materials, coated particle fuels, uranium dioxide plutonium dioxide fuels, and high burnup effects on ceramic fuels
[BMI-1791] 18 p3294 N67-32254
Radiation effects on mechanical properties of reactor cladding materials and stainless steel thermostability 18 p3296 N67-32266
Surveillance of in-pile tests using neutron radiography 18 p3300 N67-32437
Low-cycle fatigue testing for reactor primary coolant system rupture study
[GEAP-5437] 19 p3489 N67-32329
Embrittlement of reactor vessel steels through plastic fatigue
[EURAEC-1780] 19 p3472 N67-33028
Multigroup diffusion perturbation ALTAC code for Philco 2000 computer
[IA-1069] 19 p3494 N67-33021
Exaggerated grain growth in reactor-grade hafnium after small deformations
[KAPL-2198] 19 p3473 N67-33094
Behavior of irradiated materials in liquid sodium fast breeder reactors
[BNWL-SA-972] 20 p3676 N67-34077
Materials buckling and integral spectrum measurements in beryllium oxide moderated plutonium 239 aluminum alloy fueled subcritical assemblies - fission rates
[AAEC/E177] 20 p3679 N67-34214
Measurement of neutron attenuation in several reactor materials and radioactive neutron sources
[JUL-435-ST] 20 p3698 N67-34389
High temperature reactor materials, radiation effects on fast reactor cladding and structural materials, and results of various other developments in high temperature material study
[GEMP-475A, PT. A] 20 p3683 N67-34705
Reactor materials development including metal preparation and purification, phase diagrams, mechanical behavior and forming, and methods for single crystal preparation
[IS-RD-9] 21 p3872 N67-36448
Physical measurements on critical experiments in tungsten based, aluminum reflected fast reactors - Zero Power Reactor /ZPR/
[ANL-7007] 21 p3891 N67-36527
Postirradiation examination of PM-3A reactor control rod
[AD-654745] 21 p3878 N67-36567
Deformation mechanism and dislocation motion resistance in neutron irradiated reactor materials
[GA-7661] 21 p3898 N67-36618
Uranium-plutonium nitride fuel developments and irradiation effects on

reactor cladding material
[BMI-1796] 22 p4091 N67-37313
Radiation effects on reactor structural materials
[NRL-MEMO-1780] 22 p4091 N67-37322
Irradiation effects on reactor structural materials - radiation damage rates, effects on superalloys and refractory metals, and fission track dosimetry
[BNWL-CC-1053] 22 p4092 N67-37423
Physics measurements with modified diluent compositions in tungsten based aluminum reflected fast reactors
[ANL-7397] 22 p4096 N67-38045
Irradiation effects on reactor structural materials
[BNWL-CC-983] 23 p4286 N67-38610
Evaluation of neutron cross sections on basis of optical and statistical models
[BARC-279] 23 p4312 N67-39089
Effect of some fabrication variables on mechanical properties of sintered aluminum powder shapes for heavy water organic cooled reactor
[AI-CE-36] 24 p4466 N67-39909
Active and passive reactor disposal modes evaluation for SNAP reactor
[NAA-SR-12423] 24 p4492 N67-39926

REACTOR PHYSICS
Gamma spectrometric analysis of fission products into fuel particle coatings for high temperature reactors
[SGAE-CH-36/1966] 01 p0104 N67-10100
Nuclear research activities - reactors, equipment, fuel processing, isotopes, theory, chemical and biological studies, electronics, health and radiation medicine, and atmospheric radiation
[NP-16171] 01 p0128 N67-10805
Dynamics and statics physics experiments with Agesta power reactor
[AE-244] 02 p0286 N67-11875
Operational performance and procedures for Agesta nuclear power and heating station
[AE-246] 03 p0421 N67-12461
Reactor physics experiments with various fuel elements in Agesta nuclear power plant 03 p0423 N67-12471
Transmission method for measuring neutron spectrum to calculate energy distribution in reactors 03 p0439 N67-12597
Computer programs dealing with physics problems of heavy water moderated reactors 03 p0423 N67-12599
Reactor physics programs including liquid metal cooled reactors
[ANL-7230] 04 p0576 N67-13975
Facilities, capabilities, and experience in liquid metals and fast reactor research and development
[APDA-TPI-1] 04 p0577 N67-14017
Theoretical and measured Laplacian of deuterium oxide gas cooled reactor lattice
[UJV-1424] 04 p0577 N67-14031
Global power coefficient, global coolant temperature coefficient, and secondary radial temperature for Southwest Experimental Fast Oxide Reactor in steady state operation
[KFK-260] 04 p0579 N67-14091
Buckling measurements of uranium dioxide and deuterium oxide made by flux mapping for application to pressure vessel reactors
[AE-254] 04 p0580 N67-14141
Conference on physics and engineering of experimental reactors 06 p0912 N67-16261
Method for computing centers and limit cycles in reactor kinetics 07 p1122 N67-17047
Space dependent theory for reactor noise spectral density function applied to cubical reactors and compared with space independent theory 07 p1124 N67-17057
Differential equations describing kinetics of spatial and spectral coupling of reactor neutron field 07 p1124 N67-17058
Advanced fast reactor physics technology - Los Alamos Laboratory
[LA-3582] 07 p1133 N67-17556
Measurement of thermal neutron fluxes in simulated intense neutron generator target using manganese and gold foils and small boron trifluoride detector
[AECL-2635] 07 p1158 N67-17944
Reactor physics, and neutron physics for reactors
[BNWL-284] 08 p1300 N67-18501
Thermal reactor parameter sensitivity to scattering models for common moderators 08 p1310 N67-18503
Computer analysis of reactor noise spectrum 08 p1310 N67-18504
Reactor multiplication values and neutron cross section uncertainties in thermal systems 08 p1310 N67-18505
Lutetium activations and neutron spacial and energy distributions in deuterium oxide moderated reactor with Pu-Al 19 rod clusters 08 p1310 N67-18506
Reactivity worths of neutron absorbing rods in plutonium-fueled water moderated reactors 08 p1310 N67-18507
Boron pile measurements of average number of neutrons per fission for reactor physics calculations
[EANDC/UK/-52-S] 08 p1312 N67-18516
Deuterium oxide moderated reactor sensitivity to thermal neutron scattering law 08 p1315 N67-18793
Prepoison isotope cross section uncertainties and SNAP-10A flight test reactor control 08 p1315 N67-18796
Preparation of microscopic cross sections of uranium 235 for high temperature reactor calculations 08 p1317 N67-18856
Theoretical evaluation of high temperature thorium reactor development
[JUL-382-RG] 09 p1482 N67-20300
Tungsten neutron cross section, resonance parameters, and scattering matrixes for certain nuclear reaction concepts
[NASA-CR-83033] 10 p1706 N67-20931
Burnout correlations for forced convection in reactor ducts or rod cluster
[EUR-3300.E] 10 p1866 N67-21018
Neutron resonances and reactivity
[LA-3560-MS] 10 p1728 N67-21665
Semiempirical method for determining natural flux flattening occurring through irradiation of fuel elements
[EIR-96] 10 p1689 N67-21789
Time dependent perturbation theory used to determine output boundedness and stability of nonlinear reactor system
[ANL-7189] 11 p1920 N67-22305
Few-group treatment of resonance captures - spatial calculation, energy condensation, overlapping resonances, equivalence principles, can treatment, and cluster geometries
[AEEW-R-489] 11 p1939 N67-22945
Hydrodynamic and thermodynamic investigations of single-phase and two-phase flows to obtain information on operating behavior of boiling water reactors
[SGAE-RE-7/1966] 11 p1924 N67-22977
Two-mode reactor kinetic equations, and required reactivity components using perturbation edits
[KAPL-M-6576] 12 p2144 N67-23556
Dynamic property, reactivity, power distribution, and fine structure measurements of Agesta reactor
[AE-244] 12 p2147 N67-23901
Dynamic measurements of Agesta reactor 12 p2148 N67-23902
Reactivity, power distribution, and fine structure measurements in Agesta reactor 12 p2148 N67-23903
Fast neutron and radiolysis effects from reactor irradiation on Santoway UR
[MIT-334-70] 12 p2151 N67-24689
Nuclear behavior, physical, and radiological effects of SNAP-10A reactor destructive test
[IDO-17186] 13 p2357 N67-25502
Noise analyzing techniques in nuclear reactor - finite measuring time effect
[RCN-64] 13 p2363 N67-26472
Nuclear engineering program on reactor physics, neutron physics, and nuclear physics problems 14 p2574 N67-26610
Microscopic parameters of reactor used as neutron source
[NP-16426] 14 p2577 N67-27334
Cavity reactor studies - critical masses, power distributions, reactivity worths of mockup heat shields, holes in moderator tank, and effects of varying fuel distribution
[GEMP-473] 14 p2578 N67-27347
Thermal flux measurements in mock-up power cycling rigs of Pluto TV type
[AERE-M-1620] 15 p2743 N67-27784
Measurements of neutron flux as function of wavelength in DIDO cold moderator
[AERE-R-5168] 15 p2743 N67-27861
Integrals and methods for calculation of counter-reaction to reactivity from expansion and distortions of components and structural elements of fast reactors
[NASA-TT-F-11045] 16 p2928 N67-29017
Reactor physics experiments on coupled fast thermal zero power reactor
[KFK-482] 16 p2931 N67-29724
Neutron absorbers and pulsed neutron research in Nora reactor uranium oxide and water lattices
[IAEA-SMR-16] 16 p2932 N67-29761
Powder dispersion materials for reactor physics measurement
[INR-751/XIV/PR] 16 p2935 N67-29870
Heat exchanger dynamics with special attention to double tube heat exchangers
[SGAE-RT-9/1967] 16 p2936 N67-29978
Evaluated compilation of neutron data relevant to development of nuclear energy
[CCDN-NW/5] 18 p3307 N67-31551
Nuclear properties of water-moderated slightly enriched uranium dioxide lattices perturbed by clusters of gold-indium-cadmium poison pins and dissolved boric acid
[BAW-3647-3] 19 p3491 N67-33035
Reactor kinetics and multigroup diffusion theory for defining properties of neutron flux
[KFK-506] 19 p3492 N67-33715
Neutron beam characteristics associated with thermal, epithermal, and fast neutron fluxes measured in high flux beam reactor
[BNL-11245] 19 p3493 N67-33732
General transport theory applicable to studies of kinetics of heterogeneous systems
[CEA-R-3069] 19 p3494 N67-33063
Vented fuel development, transient fuel testing, fast flux irradiation of fuel, reactor physics, and core analysis in sodium cooled reactor development
[GEAP-5423] 19 p3495 N67-33909
Reactor theory, research with thermal and fast reactors, and critical mass physics
[BNWL-340] 19 p3495 N67-33917
Heterogeneity effects in SNEAK Doppler loop measurements
[KFK-507] 19 p3498 N67-33951
Data requirements of triangular mesh neutron codes Trifid and Raven
[TRG-1374/R/] 20 p3681 N67-34420
Fuel particle size effect on dynamics of reactor fuelled with oxide particles dispersed beryllia
[AAEC/E167] 20 p3682 N67-34683
Dual high speed and low speed scanner system for monitoring reactor temperatures
[DUN-SA-33] 20 p3643 N67-34964
Core physics calculations and economics of water moderated thorium - uranium epithermal breeder reactor
[BNL-11483] 22 p4093 N67-37779
Analysis of SNAPTRAN-1 and SNAPTRAN-2 reactor kinetics experiments
[NAA-SR-11830] 23 p4285 N67-38343
Method of inferring K-infinity from reaction rate measurements in thermal reactor systems
[AEEW-R-512] 23 p4285 N67-38459
Material buckling in reactor theory beginning with monoenergetic diffusion theory
[KR-117] 23 p4287 N67-38797
Neutron density distribution in heterogeneous reactor lattice near control rod
[NP-16823] 23 p4290 N67-38916
Supernova computer code for calculating reactor spatial burnup in two dimensions while varying control rod patterns
[AEEW-M-750] 23 p4292 N67-39259
Radial heat transfer at wall in packed beds of reactor system
[AAEC/TM389] 24 p4550 N67-39945

REACTOR SAFETY
Scale-up analysis in experiments on fission product behavior in reactor safety program
[ORNL-3901, PT. I] 01 p0106 N67-10639
Liquid metal cooled reactor, advanced systems, and nuclear safety development studies
[ANL-7210] 01 p0107 N67-10697
Effect of xenon on safety of high flux beam reactor
[CONF-660806-16] 04 p0576 N67-13976
Bibliography on nuclear reactor safety literature
[ORNL-NSIC-16] 06 p0914 N67-16223
Transient Reactor Test facility /TREAT/ experiments to provide data for fast reactor safety kinetics calculations 07 p1124 N67-17061
Experimental results and calculations of reactivity effects in uranium-zirconium hydride fueled power excursions for SNAP reactor safety 07 p1125 N67-17065

Vibration analysis of safety and relief valves in 4-inch steam pipeline of sodium components test installation
[NAA-SR-MEMO-11961] 07 p0999 N67-17586
Liquid metal cooled reactors, reactor technology, advanced research reactor, and nuclear safety
[ANL-7132] 07 p1135 N67-17724
Operating safety limits for high flux isotope reactor
[ORNL-TM-1532, REV.] 08 p1310 N67-18529
Reactor safety as function of reactivity coefficients in neutron cross sections 08 p1316 N67-18514
Sensitivity of fast reactor parameters to cross section uncertainties 08 p1317 N67-18847
TRA test reactor safety committee working charter of duties, responsibilities, and functions
[IN-1023] 08 p1321 N67-19011
Chemical equilibrium studies of organic iodide formation during typical nuclear reactor accidents
[BMI-1781] 08 p1239 N67-19061
Stress analysis of discontinuity stress problem in ESSOR reactor vessel wall
[EUR-3159.E] 08 p1321 N67-19063
Critical experiments on sphere containing uranium, parameters of cylindrical annuli, Monte Carlo calculations, SORA design, and safety factors 08 p1323 N67-19323
Literature reviews on reactor and weapons shielding, space and accelerator shielding, and related computer codes - Radiation Shielding Information Center programs 08 p1324 N67-19325
Component reliability, and reactor safety and controls 09 p1475 N67-19440
Safety criteria development for malfunction of nuclear reactor system
[IITRI-578P21-21] 10 p1677 N67-20064
Weight scaling factor graphs for basic SNAP reactor shield configurations
[NAA-SR-MEMO-11971] 10 p1681 N67-21015
Neutron sensitive detector for uncontrolled nuclear criticality accidents
[BNWL-SA-517] 10 p1687 N67-21577
Ultrahigh temperature reactor experiment system dynamics study using mathematical model and digital computer programs
[LA-3561] 10 p1689 N67-21687
Safety analysis of fast reactor test facility
[ANL-7168, VOL. 2] 11 p1936 N67-23198
Fast reactor transient response and safety in selected accidents
[GEAP-4787] 12 p2147 N67-23896
Keyword In Context /KWIC/ nuclear safety index
[ORNL-NSIC-31] 12 p2151 N67-24682
Fission product detection in cover gas or coolant in cladding failure simulation tests on experimental breeder reactor
[ANL-7067] 13 p2362 N67-25926
Rover/Phoebus scale model chemical explosive destruct tests for safety analysis of nuclear space power supplies
[SC-RR-66-589] 14 p2574 N67-26831
Application of glass to dosimetry of gamma radiation in impulse reactor 17 p3059 N67-30590
Radiation safety problems in case of corrosion and activation of reactor structural materials 17 p3107 N67-30596
Safety analysis on plutonium recycle experiment in experimental boiling water reactor
[ANL-6841] 17 p3111 N67-31041
Neutron danger functions in analysis of reactor radiation shielding 17 p3113 N67-31342
Small-scale capsule test program on destructive processes and behavior of integral reactor systems under accident conditions, and burst irradiation test facilities 18 p3303 N67-33452
Compact pyrochemical processes, fluidization and volatility processes, materials chemistry and thermodynamics, chemical and energy transfer in reactors, and energy conversion
[ANL-7225] 20 p3587 N67-34079
Analysis of coolant-loss accident in boiling water reactor, and fission product release model
[BMI-1797] 20 p3680 N67-34339
Computer program for calculating neutron spectra of water iron water reactor shielding assembly
[EUR-3472.D] 20 p3685 N67-35185
Chamber voltage monitor and test unit for testing response of parts of reactor safety system - maintenance manual
[ORNL-TM-1638] 21 p3885 N67-35439
Air cleaning filters and systems for reactor control and environmental safety, contamination prevention, aerosol exhaust, and fission product confinement and containment
[CONF-660904, VOL. 1] 23 p4287 N67-38880

REACTOR TECHNOLOGY

Fortran program and nuclear data library for physics assessment of liquid-moderated reactors
[AEEW-R-480] 01 p0104 N67-10022
Potassium working fluid and refractory alloys for Rankine cycle systems 01 p0165 N67-10268
Collection and statistical analysis of operating data on life expectancy of nuclear reactor loop components
[EUR-2984.E] 01 p0110 N67-10899
Systems design analysis of tubular thermoelectric module for two-loop liquid metal system
[NASA-CR-80198] 03 p0235 N67-13617
Cost trends of major plant equipment for secondary sodium steam turbine portions for reactor
[NAA-SR-12060] 04 p0574 N67-13856
Low cycle fatigue strengths of dissimilar welds and superimposed fatigue-thermal cycling effects in simulated reactor conditions
[SWRI-1238-4-30] 04 p0579 N67-14067
Temperature distribution in cladding under spacers in BONUS superheater assemblies
[ORNL-TM-1452] 04 p0624 N67-14090
Fracture toughness of reactor pressure vessel steels
[COO-1477-5] 04 p0562 N67-14096
Fuels and materials technology in liquid sodium metal-cooled fast breeder reactor program
[WASH-1065] 04 p0580 N67-14137
Development and operation of 50 MWe nuclear power plant
[EUR-3116.N] 04 p0580 N67-14336
Chemistry, engineering, metallurgy, physics, and reactor technology
[IS-1500] 05 p0778 N67-14612
Reactor technology, production and utilization of radioisotopes in Europe 05 p0910 N67-15537
Polish articles on neutron activation analysis, trace elements, reactor technology, and nuclear physics and chemistry
[AEC-TR-4919] 06 p0821 N67-16221
STEP project research on SNAPTRAN-1 reactor, LOFT core design and radiological studies and instrumentation testing
[IDO-17145] 06 p0914 N67-16521
Long time integrity of nuclear reactor pressure vessels
[ORNL-NSIC-15] 06 p0914 N67-16524
FSM-4 non-nuclear test system designed to provide preflight qualifications for SNAP-10A
[NAA-SR-11814] 06 p0915 N67-16536
Optimization of reactor shutdown margin measurements in high gamma fluxes
[ORNL-P-2311] 07 p1133 N67-17543
Research, design, fabrication, and safety of liquid-metal fast breeder reactors and zero power reactors
[ANL-7245] 07 p1134 N67-17568
Liquid metal cooled reactors, reactor technology, advanced research reactor, and nuclear safety
[ANL-7132] 07 p1135 N67-17724
Nuclear energy in aerospace technology - space power reactor developments, thermionic energy conversion techniques, and emitter materials
[DLR-MITT.-66-07] 08 p1307 N67-18321
Reactor technology, nuclear chemistry, fission product recovery, separations chemistry, and fuel cycle processing
[ORNL-3945] 08 p1309 N67-18475
Conference papers pertaining to effects of neutron cross section measurements and uncertainties on reactor design and technology
[CONF-660903, BK. 1] 08 p1313 N67-18781
Technological survey on neutron cross section measurements and detectors for 100 eV to 100 keV energy range 08 p1326 N67-18813
High temperature liquid metal technology review
[BNL-50062/PR-21] 08 p1318 N67-18880
Atomic Energy Commission unclassified programs for Fiscal Year 1966
[NAA-SR-12010] 08 p1319 N67-18891
Shield Test and Irradiation Reactor startup and operation
[NAA-SR-11175] 08 p1320 N67-18913
Reactor technology instrumentation program with emphasis on electronic equipment, automatic control, component reliability, and related topics
[ORNL-3975] 09 p1444 N67-19433
Reactor technology process instrumentation and control systems engineering 09 p1445 N67-19435
Temperature sensors, and improved thermocouples in process instrumentation development program 09 p1445 N67-19436
Reactor technology and instrumentation developments for low intensity test reactor, molten salt reactor, and high flux isotope reactor 09 p1475 N67-19444
Support activities for in-pile reactor experiments 09 p1476 N67-19446
Reactor instrumentation program for sampling and enriching systems of molten salt reactor 09 p1476 N67-19447
Reactor shutdown procedures for nuclear power plants 09 p1476 N67-19448
Reactor instrumentation program test facility, corrosion study, and test loops 09 p1476 N67-19449
Conference on high temperature thermometry
[WASH-1067] 09 p1477 N67-19621
Effect of simulated fission products in inter-electrode spacing of thermionic diode
[AR-3] 09 p1396 N67-19941
Parallel plate multisection ionization chambers for high-performance reactors
[ORNL-3929] 09 p1480 N67-19954
Operating performance measurements of plutonium fuel reactor - Saxon project
[EURAEC-1713] 09 p1480 N67-20151
Performance characteristics of heat exchangers for sodium cooled reactors
[UNC-5162] 10 p1675 N67-20041
SNAP-10A system optimization and reactor technology developments
[NAA-SR-11935] 10 p1676 N67-20051
Resonance parameter library for TRIX-1 computer code
[NAA-SR-MEMO-12102] 10 p1680 N67-20080
Bellows-free design of secondary sodium piping system in sodium component test facility
[NAA-SR-MEMO-11941] 10 p1680 N67-20091
Bolted flange connections in high temperature-high pressure steam service of sodium components test installation
[NAA-SR-MEMO-11992] 10 p1680 N67-20092
Theoretical evaluation of fuel elements, structural materials, and electronics for planned impulse reactor
[JUL-343-RE] 10 p1683 N67-21050
Literary survey on construction principles of replacement devices in reactor technology
[JUL-BIBL-6] 10 p1684 N67-21068
Code to study effect of design parameters on thermal and hydraulic conditions for axial flow with intersubchannel mixing in fuel bundles
[ORNL-4015] 10 p1686 N67-21481
Pseudorandom binary signal for frequency response testing in nuclear reactors
[ORNL-TM-1662] 10 p1687 N67-21550
Southwest experimental fast oxide reactor development program, and nuclear fuel technology
[GEAP-5306] 10 p1688 N67-21631
Evaluation of zirconium alloy as water reactor fuel cladding
[EURAEC-1738] 10 p1687 N67-21685
Fracture toughness testing of reactor pressure vessel steels
[COO-1477-6] 10 p1706 N67-21698
Bibliography on nuclear sciences, reactor technology, physics, and radiation medicine
[JUL-BIBL-7] 10 p1731 N67-21748
Nuclear, systems, and components analyses of Piqua nuclear power facility reactor during operations
[NAA-SR-11966] 11 p1931 N67-22329
Radiation studies, development of irradiation devices, and operation of BR 2 test reactor by Belgian EURATOM center in 1965
[EUR-3138.E] 11 p1923 N67-22921
Heat affected zone of plate and its importance in regard to vessel embrittlement during fabrication and in service

[EUR-3310.F] 11 p1993 N67-22925
Costanza Cylindrical - Fortran cylindrical one-dimensional dynamics code for liquid cooled multichannel nuclear reactors
[EUR-3171.E] 11 p1924 N67-22930
Irreversible fixing of cadmium on metallic surfaces, and cadmium sulfate poisoning of EL 4 reactor moderator
[AECL-2490] 11 p1924 N67-22960
Literature review on pulsed nuclear reactor technology
[JUL-BIBL-9] 11 p1925 N67-23028
Theoretical analysis of high performance jet pumps for reactor cooling systems
[EUR-3253.E] 11 p1896 N67-23089
Platinum alloy thermocouple composition changes due to neutron bombardment in thermal reactors
[EUR-3156.E] 11 p1926 N67-23093
Kinetic studies of heterogeneous water reactors
[STL-372-38] 11 p1926 N67-23235
Atomic bomb, hydrogen atom fusion, thermonuclear reaction, and atomic nuclear reaction pile research in China
[FTD-HT-66-421] 11 p1945 N67-23356
Performance characteristics of electronic apparatus for measuring stable reactor period 12 p2097 N67-23504
Boiling in transiently heated systems for water reactor excursion analysis
[SAN-1013, VOL. II] 12 p2133 N67-23542
Sodium-cooled reactor program - instrumentation, reactor component development, heat transfer studies, plasma thermocouple work, and heat pipe tests
[LA-3625] 12 p2144 N67-23545
Electron beam welding application in fast reactor technology - weldability of reactor construction materials
[KFK-404] 12 p2106 N67-23686
Plain and antifriction bearings for extreme reactor conditions
[AEC-TR-6839, PT. 2] 12 p2147 N67-23893
Design, fabrication, and performance testing of high heat flux heater for use in nuclear reactor - fuel element
[NAA-SR-12242] 12 p2150 N67-24556
Shielded cells for metallographic studies of irradiated fuel elements and for heavy element chemistry, and equipment design and operation
[EUR-3273.E] 12 p2063 N67-24598
Calculation on feedback energy reactivity coefficient for coupled-drum impulse transient test in SNAPTRAN program
[IDO-17167] 13 p2358 N67-25504
Design and operation of helium gas heater for advanced test reactor
[BNWL-328] 13 p2356 N67-25505
Finite difference approximation to multigroup diffusion equations for slab reactor flux distribution and multiplication constant
[ORNL-TM-1729] 13 p2358 N67-25506
Power distribution and initial reactivity calculations for mobile nuclear power plant reactor
[ORNL-TM-1654] 13 p2358 N67-25507
Superheater fuel thermocouple calibration tests and radiation cooling tests
[ACNP-66570] 13 p2359 N67-25523
Fission rate data from neutron activation method for calculating reactor power for fuel element geometry
[IN-1047] 13 p2362 N67-25908
Influence of development and installation of fast breeder reactors on future role of plutonium
[RM-5148-PR] 14 p2574 N67-26712
Reactor fuel reprocessing, waste management, and reactor technology
[IDO-14480] 14 p2476 N67-26940
Reactor technology on nuclear materials and propulsion operation
[GEMP-63] 14 p2574 N67-26981
Reactor technology developments in high temperature thermocouple and electrical materials 14 p2575 N67-26992
High temperature reactor research on carbides for fuel and structural applications 14 p2575 N67-26993
Metallurgy of stress-relief annealing for nuclear reactor vessel
[EUR-2317.F] 14 p2576 N67-27138
Activation, and reactor technology at SORIN nuclear research center
[SORIN-105] 14 p2480 N67-27247
Frascati linac application of certain studies in absorption of photoneutrons of energy greater than 50 MeV
[LMF-67/5] 14 p2569 N67-27253
Technology and economics of plutonium fuel element fabrication
[EUR-2967.F] 14 p2577 N67-27327
Application of Monte Carlo method to reactor shielding problems
[ORNL-TR-1581] 14 p2590 N67-27444
Bibliography on fast breeder reactor technology and nuclear economy
[KFK-480] 14 p2578 N67-27450
Computer programs for calculations of infinite lattice parameters by multigroup transport theory and of composite reactor parameters by few-group diffusion theory
[DP-1064] 14 p2579 N67-27590
Supplementary and background material for preparation of nuclear fuel requirements and costs of reactors in Germany
[KFK-466] 15 p2746 N67-28307
Calculation program for dynamics and stability of sodium-cooled fast power reactors
[KFK-465] 15 p2746 N67-28308
Reactor flux distribution measurements - post construction research and development test procedures
[GAMD-7353] 15 p2746 N67-28310
Experiments in fast core of mixed spectrum critical assembly
[CONF-661019-10] 15 p2747 N67-28316
High temperature gas cooled reactor fuels and fuel cycles
[GA-7463] 15 p2748 N67-28457
Startup, operation, instrumentation, and maintenance of high flux isotope reactor
[ORNL-TM-1752] 15 p2765 N67-28465
Coupled fast breeder reactors - operation, advantages, and safety aspects
[LA-DC-8288] 15 p2749 N67-28469
Advanced Test Reactor Critical Facility data on startup, shutdown, shim and reactivity effects, and neutron flux and power distribution measurements
[IN-1053] 15 p2749 N67-28474
Voltage distoration effects of SNAP-8 alternator speed controller and alternator performance results
[NASA-TN-D-4037] 16 p2830 N67-29038
Sodium components development program - shell-side heat transfer, once-through steam generator, mechanical properties, carbon analysis, Na mass transfer, and impurity analysis for Na
[ORNL-3955, VOL. II] 16 p2909 N67-29746
Reference study for 1000 MWe steam cooled fast breeder reactor, D 1
[ORNL-TR-1541] 16 p2924 N67-29861
Technological developments with ultrahigh temperature reactor experiment facility
[LA-3605] 16 p2934 N67-29862
Advanced Test Reactor /ATR/ noise research, and effects of flux techniques and outer shim positions on power distribution
[IN-1048] 16 p2935 N67-29868
Model for analysis of fast transient reactivity effects in low enriched oxide fueled reactors
[IDO-17224] 16 p2935 N67-29872
SPERT XVIII E core experiments relating to reactor kinetics behavior
[IDO-17207] 16 p2935 N67-29873
Reactor technological developments in pressurized water reactor and power reactor research facility
[WAPD-BT-30] 17 p3103 N67-30170
Calculated and actual control rod withdrawal transients at Shippingport Atomic Power Station 17 p3103 N67-30171
Deformation analysis of fuel growth in fuel plates 17 p3103 N67-30172
Burnup on highly irradiated fuels determined by spectrometric methods 17 p3104 N67-30173
Differential equations for Doppler broadened cross sections 17 p3123 N67-30174
Recoil range of fission fragments 17 p3104 N67-30175
Ionization of water by mixed radiation from nuclear reactor 17 p3104 N67-30176
Certain process variable effect on bond quality of gas pressure bonded pressurized water reactor core 2 plate type fuel elements 17 p3104 N67-30177
Porosity control in manufacture of pressurized water reactor seed fuel wafers 17 p3104 N67-30178
Polyvinyl chloride replica technique for high burnup reactor fuels 17 p3104 N67-30179
Reactor technological developments utilizing pressurized water reactor, water cooled reactor, water moderated reactor and fuel elements
[WAPD-BT-31] 17 p3104 N67-30203
Experimental confirmation of pressurized water reactor core 2 seed 1 poison wafer space design 17 p3104 N67-30204
Process developed for recycling sintered uranium dioxide and zirconium dioxide fuel wafers 17 p3105 N67-30205
Artificial diffusion theory constants to represent blackness regions in overlapping energy group models 17 p3123 N67-30206
Diffusion calculations applied to nitrogen 16 specific activity 17 p3105 N67-30207
Monte Carlo method used in penetration of point monodirectional gamma rays through slab shields 17 p3105 N67-30208
Ritz finite difference approximation to neutron diffusion equation 17 p3123 N67-30209
Correlator for extracting rod oscillator signals from noise 17 p3105 N67-30210
Cesium 137 determined in presence of other cesium nuclides via its barium 137m daughter 17 p3123 N67-30211
Release and distribution of fission products from pressurized water reactor core 2 fuel materials 17 p3105 N67-30212
Asymptotic numerical solution of reactor kinetics equations
[KAPL-M-6581] 17 p3105 N67-30281
Fast reactor technology, radiation safety problems pertaining to corrosion and activation of reactor structural materials, and interaction of tetravalent U with chloride-fluoride melt
[JPRS-40884] 17 p3107 N67-30396
BN-350 and BOR fast reactors - reloading and control systems, protection mechanisms, emergency cooling problems, and transient processes 17 p3107 N67-30397
Application of saturable reactors to nonregulated dc power supplies feeding pulsating loads
[PPAD-616D] 17 p3109 N67-30843
Dependence of critical size and fuel concentration on dimension of reflector under condition of flattened thermal flux investigated in slab reactor
[UJV-1660] 17 p3110 N67-30905
Comparisons of cost, performance, and confidence estimates between fast flux test facility alternate and interim reference reactors
[APDA-186] 17 p3111 N67-31040
Reactor kinetics calculations program to compute reactor startup transients
[KAPL-M-SR-1, REV. A] 17 p3113 N67-31185
Modified thermalization column for nuclear reactor
[RT/ING/66/19] 17 p3119 N67-31471
Conference papers on capsule irradiation technology
[CONF-666511] 18 p3295 N67-32404
Oak Ridge National Laboratory annual report - 1966
[AR-1966] 18 p3304 N67-32576
Destructive testing of SNAP-10A reactor
[IDO-17187] 19 p3488 N67-33109
Inelastic incoherent scattering laws for common reactor moderators and integral neutron thermalization
[GA-7489] 19 p3496 N67-33955
Uranium dioxide fuel assembly buckling and coolant loss experiments
[AECL-2691] 20 p3679 N67-34102
Utilization of thorium in nuclear power reactors
[AEET-369] 20 p3682 N67-34487
Organic liquid loop for pool reactor at Grenoble, France
[EUR-3456.F] 20 p3683 N67-34611
Core temperature regulation, control rod operation and heat transfer effects of liquid metal cooled reactor elements
[JPRS-42913] 20 p3684 N67-35075
Operational and construction data of control rods in high temperature reactors 20 p3684 N67-35077
Period measurement of neutron flux during reactor startup using logarithmic integrator
[CNEA-161] 20 p3685 N67-35158
Reactivity properties of Agesta nuclear power reactor at zero power
[AE-289] 21 p3887 N67-35789
Operation of plutonium fueled fast reactor LAMPRE
[LA-DC-8398] 21 p3888 N67-35840
Instrumented fuel assembly used to measure incore thermal and hydraulic characteristics of JPDR reactor

[JAERI-1136] 21 p3829 N67-36144
Construction and testing of calibration capsule for fracture mechanics evaluation of reactor vessel steels
[WCAP-3677-3] 21 p3870 N67-36199
Design and testing of solenoid and instrument lead connector for Southwest Experimental Fast Oxide Reactor
[GEAP-5307] 21 p3889 N67-36240
Observations on boiling water reactor technology, including behavior of water-steam mixtures in heat transfer regimes
[AECL-2876] 21 p3890 N67-36405
In-pile irradiation equipment and techniques, power reactor systems development, and reactor technology conference
[TRG-1404/R/] 21 p3891 N67-36541
Methods of calculating axial stability modes in reactor systems
[TRG-1138/R/] 21 p3893 N67-36683
Rebuilding of superheater fuel assembly for Boiling Nuclear Superheat Reactor /BONUS/
[ORNL-4072] 22 p4093 N67-37643
Monte Carlo method for calculating heat source spatial distribution in infinite reactor lattice with uniform spacing
[UJV-1734] 22 p4093 N67-37773
Integrated fuel and blanket processing for molten salt breeder reactor
[ORNL-TM-1852] 22 p4094 N67-37854
Development program on application of steam-water spray to reactor cooling - inpile corrosion of Zircaloy 2 in steam-water mixture
[EURAEC-1862] 23 p4291 N67-39223
Pulsed neutron and cell parameter research studies, and work on gray control elements
[IAEA-3498-18] 23 p4292 N67-39252
Cerenkov detectors for fission product monitoring in reactor coolant water
[AE-294] 24 p4453 N67-40190
Reference design and developmental components for advanced converter reactor evaluation
[GAMD-7867] 24 p4493 N67-40246
Reactor primary coolant system rupture study, including computer code development for elastic analysis of piping, experimental stress work, and fatigue and crack propagation testing
[GEAP-5474] 24 p4494 N67-40503
Radiation dosimetry measurements in center of WR-REACTOR fuel assemblies to determine rates of energy absorption from fast neutrons and gamma rays
[AECL-2763] 24 p4494 N67-40527
READING MACHINE
Two-dimensional image filtration for increasing reliability of automatic reading machines
[FTD-TT-65-1894] 01 p0045 N67-11094
Extraction of informational invariant signs during automatic reading, and problems of fixing names of object
[FTD-TT-66-113] 06 p1254 N67-18573
Radon transformation to extract informational invariant signs during automatic reading 06 p1254 N67-18574
Reading machine for automatic symbol recognition
[FTD-HT-66-512] 12 p3658 N67-33825
Approximation functions for describing images in sets of lines - pattern recognition with reading machines
[JPRS-40635] 14 p3464 N67-37390
Soviet cybernetics - automatic pattern recognition and text reading, digital computers, magnetic memory storage unit, production control, redundancy, and heuristic programming
[P-3650/3] 18 p3238 N67-33805
Survey of Soviet research facilities working in automatic character recognition and text reading 18 p3238 N67-33806
Automatic text reading 18 p3239 N67-33807
Transitorized reading instrument for ionization chamber personnel dosimeters
[NP-16705] 20 p3638 N67-34139
Ordered texts used for extending possibilities of automatic reading character recognition devices 20 p3807 N67-34557
Spiral reader machine for measuring bubble chamber film
[UCRL-17328] 21 p3850 N67-36058
Programming improvements and performance data for spiral reader system 21 p3810 N67-36270
Development of reading machine for speech segment synthesis
[FTD-HT-66-469] 23 p4216 N67-39233
READOUT
Digital data processor, circuit design and fabrication, digital word readout, and interfaces for IMP D and IMP E pulse frequency modulation encoding system
[NASA-TM-X-55653] 06 p0646 N67-16674
Performance characteristics and new developments in magnetostrictive readouts for wire chambers
[UCRL-17121] 06 p1281 N67-18533
Device for visual readout of binary data on sea water measurements 11 p1881 N67-22375
Solid state phenomena considered for use in nondestructive readout from thin magnetic film memories
[NADC-AE-6640] 12 p3061 N67-24847
Electrochemical controlled resistors with various readout electrodes 15 p2683 N67-28116
Performance characteristics of spark chamber magnetostrictive readout system 17 p3064 N67-30957
Development of digitized spark chambers with automatic readout 17 p3064 N67-30958
Wire spark chamber with two coordinated readout systems for particle tracking 17 p3064 N67-30960
Design of wide gap spark chamber with multiple magnetostrictive readout system 17 p3064 N67-30961
Receiver development, wire excitation, torsion bar studies, parasitic waves, and longitudinal wave dispersion in magnetostrictive readout system 17 p3037 N67-30963
Spark chamber double-arm magnetic spectrometer with automatic vidicon readout system 17 p3064 N67-30964
Radiation dosimeter with time readout for space experiments and personnel protection
[RE-293] 22 p4047 N67-37426
Magnetic core, destructive and nondestructive readout memories, plated wire film, ferrites, and other component characteristics of guidance computer main memories
[NASA-TN-D-4224] 24 p4421 N67-40319
REAGENT
5 DIOXANE
REAL GAS
Thermodynamic equations for describing real gas influences in gas dynamical problems
[DVL-564] 06 p1269 N67-19172
Real gas effect test on nozzle flow in hypersonic low density wind tunnel
[DLR-FB-66-62] 11 p1853 N67-23134
Calculation method for mass flow of real gases through critical-flow nozzles
[NASA-CR-87318] 19 p3555 N67-33825
Thermodynamic properties of three Martian model atmospheres for calculating equilibrium flow fields for real gases - tables
[ATDM-66-1] 20 p3724 N67-34125
Quantum mechanical calculations for equations of state of real gas
[R67SD52] 23 p4240 N67-39300
REAL TIME
GEOS optical memory and control unit for controlling operation of optical beacon - digital delayed command system with high accuracy real time clock
[NASA-CR-80476] 03 p0371 N67-13105
Problems in near real time reconnaissance dealing with night air operations and design of imaging systems 04 p0548 N67-13473
Real time performance computation technique for optimizing Gemini booster performance by providing accurate information to mission and launch directors and crew during countdown 07 p1195 N67-16989
Model for multiprocessor control of real-time task schedules 07 p1030 N67-17271
Real time computing system for reducing radar cross section data to median values
[NMC-TM-66-49] 07 p1047 N67-17749
Real time meteorological system providing impact prediction, prelaunch trajectory, and wind data for unguided rocket firing
[ECOM-5037] 07 p1116 N67-17869
Apollo display system permitting display of printed information and charts of real time data on cathode ray tube 08 p1349 N67-18985
Fast automatic station bulletin program - real time computer program using seismology data as input
[TN-1967-3] 11 p1881 N67-23170
Structure and operating procedures of experimental computer programs for simulating real time moving network display of spacecraft checkout operations
[RM-5183-PR] 12 p3060 N67-23619
Onboard computers for pre-transmission data processing, automation of data acquisition centers, and real time data relay to control centers for advanced space information systems
[NASA-TM-X-55774] 14 p3496 N67-26587
Real time Deltic correlator system constructed from digital logic modules
[NOLTR-65-222] 14 p3562 N67-26965
Real-time meteorological system to predict impact of Agena rocket and other unguided, high altitude multistage rocket
[AD-634673] 15 p2739 N67-27883
Real time computers for centralized reactor control and experiment data processing
[NP-16490] 15 p2745 N67-28361
Real time realization and complexity measure defined for class of expressions denoting commutative machine behavior
[REPT.-03105-46-T] 15 p2734 N67-28503
One way real time list storage languages for digital computers
[SDC-TM-738/029/00] 15 p2674 N67-28545
Digital solid state command system using high accuracy real time clock for controlling optical beacon geodesy experiment on GEOS B satellite
[TG-896] 19 p3408 N67-32991
Remote control console and memory protection system for on-line real time PDP-7 data taking system
[UCRL-17220] 21 p3805 N67-36089
Proposed revisions to Autodin communication system to achieve real time traffic processing
[ESD-TR-67-294] 21 p3805 N67-36160
Proposed real time automatic processing system for analyzing bubble chamber post-kinematics data 21 p3806 N67-36255
Improvements to Brookhaven real time flying spot device computer program 21 p3806 N67-36258
Automated input/output diagnostics for real time simulation
[AMRL-TR-66-125] 22 p4062 N67-36695
Ground level neutron counters for real time solar proton monitoring network 24 p4524 N67-39811
Data processing equipment and procedures for real time programming system used with Gemini manned missions
[NASA-TM-X-60547] 24 p4414 N67-39831
Hybrid computer program for real time trajectory determination of human controlled space vehicle booster
[NASA-CR-89642] 24 p4415 N67-40127
Real time monitor and input/output computer programs for Gemini space flights
[NASA-TM-X-60548] 24 p4416 N67-40276
Real time processors for Gemini launch/abort and orbit/reentry
[NASA-TM-X-60549] 24 p4416 N67-40277
Natural communication of computers with people, other computers, and real-time devices
[BBN-1548] 24 p4417 N67-40562
REATTACHED FLOW
Conference papers on separated flows, turbulent mixing, reattachment, and laminar boundary layer separation
[AGARD-CP-4, PT. I] 06 p1270 N67-19281
Laminar boundary layer separation and reattachment on ablating and nonablating axisymmetric bodies at low Reynolds number and high Mach number 06 p1271 N67-19288
Determining velocities, mass flows, temperatures, and viscous stresses in turbulent, compressible isobar mixing layer, and application to reattachment problems 06 p1272 N67-19291
Analytical technique for predicting separation and reattached flow location and characteristics of two-dimensional supersonic and hypersonic turbulent boundary layers 06 p1272 N67-19293
Turbulent reattachment of supersonic jet, boundary layer thicknesses, and similarity law in wall pressure evolution 06 p1272 N67-19294
Iterative solution to boundary layer problem of two-dimensional turbulent reattachment 06 p1273 N67-19295

Separated flow - steadiness of separation and reattachment, turbulent mixing coefficient, effect of Reynolds number on base pressure, and reattachment problems [AGARD-548] 18 p2878 N67-29531
Reconnection model of geomagnetic tail 22 p4144 N67-37822

REBATRON
Improvement of signal-to-noise ratio measurements made with rebatron in Cerenkov radiation studies 07 p1160 N67-16840
Method of producing uniform plasma in microwave cavity and passing high energy pulsed electron beam from rebatron source through plasma 07 p1160 N67-16841

RECEIVER
SA LOGARITHMIC RECEIVER
SA MULTICHANNEL RECEIVER
SA RADAR RECEIVER
SA RADIO RECEIVER
SA SINGLE-SIDEBAND RECEIVER
SA SUPERHETERODYNE RECEIVER
Millimeter and submillimeter wave receiver techniques and detectors [NASA-CR-80831] 04 p0515 N67-14211
Venus station transmitting and receiving systems during Mariner IV tracking 05 p0689 N67-14457
Microwave radiation receiver for plasma scattering experiments [CLM-P112] 06 p0832 N67-15437
Computer program for analysis or design of carrier tracking or clock tracking loops of Deep Space Instrumentation Facility receiver 06 p0839 N67-15917
Performance of sonar receiving arrays in presence of nonuniform and correlated background noise, for both linear and clipped processing techniques [NOLTR-66-53] 07 p1033 N67-16796
Receiver mixer characteristics and their relationship to spurious product formations in mixer circuit [A-868-F] 07 p1050 N67-17245
Large aperture telescope for use as coherent optical deep space communications receiver [NASA-CR-81677] 07 p1066 N67-17946
Hartlobe airborne dual radar antenna system with improved gain-time-control action in interrogator transponder [NRL-6401] 09 p1417 N67-19850
Oscillator, transmitter, and receiver development for space communication systems 17 p3022 N67-30374
Decision region receivers for Sunblazer space experiment [NASA-CR-85789] 17 p3027 N67-30950
Optimization of receivers for demodulating FM signal corrupted by Gaussian noise, and solution to maximum likelihood equation [NASA-CR-87056] 19 p3396 N67-32715
RF intermodulation characteristics of VHF telemetry preamplifiers and receivers [SC-DR-67-296] 20 p3601 N67-34439
Ratio of intensities of backscattering radiation to directly transmitted radiation is determined by calculating area common to two overlapping ellipses [TN-6511] 24 p4409 N67-40226

RECEIVING SYSTEM
Phase nonlinearities in telemetry-receiving systems, and data degradation sources [G-71-F] 01 p0027 N67-10359
Clock-jitter calculation for ranging receiver system - digital communication and tracking 02 p0230 N67-11140
Low noise receivers - traveling wave maser development 06 p0838 N67-15913
Eastern Test Range central telemetry station 07 p1059 N67-16988
Range measurement improvement techniques for rawin set receiving system, and solid state receiver subsystem hardware design [NASA-CR-81528] 07 p1042 N67-18038
Varactor performances for parametric amplifiers used in receiver system of downrange guidance station 08 p1256 N67-18424
Use of giant aperture telescopes as ground receivers for spacecraft laser communication system [NASA-CR-87987] 21 p3794 N67-35334

RECEPTION
S SIGNAL RECEPTION
S TELEVISION RECEPTION

RECEPTOR
SA PACINIAN CORPUSCLE
Sensitivity of lung receptors innervated with unmyelinized fibers in cats 02 p0206 N67-11639
Modernization of Yanishevsky thermoelectric balancemeter by application of massive receptor plates 14 p2536 N67-27115

RECIPROCAL THEOREM
Deformation and discharge theories compared by traction and torsion tests on metal tubes and wires, and verification of reciprocal theorem 05 p0770 N67-14528
Reciprocal theorem used to determine Green function for plate of variable thickness, rectangular in plan 09 p1528 N67-20070

RECIPROCATING ENGINE
Reciprocating hypergolic ignition piston engine space power unit [NASA-CR-89609] 24 p4523 N67-40132

RECIRCULATION
Convective heat transfer in cylindrical chambers with recirculation 02 p0223 N67-11226
Test procedure for temperature-altitude determination of forced air cooled electronic equipment using conventional recirculating chambers [NADC-AE-6637] 12 p2065 N67-24737

RECIRCULATIVE FLUID FLOW
Analysis for digital computer program to predict steady state recirculation ratio and presence of hydrodynamic instabilities in steam generator [WAPD-TM-530] 01 p0044 N67-10736
Absorption and spectral transmittance expressions derived for clarifying statistical basis of gas band models - Recirculation of gas flow field in space vehicle [NASA-CR-81748] 07 p1140 N67-18092
Heat transfer and fluid flow characteristics in pressurized water reactor [EURAEC-1724] 15 p2746 N67-28313
Oil flow in R4 spin-axis bearing with sintered nylon ball retainer [E-2662] 19 p3462 N67-32893

RECOGNITION
SA CHARACTER RECOGNITION
SA MACHINE RECOGNITION
SA PATTERN RECOGNITION
SA TARGET RECOGNITION
Connection between recognition and similarity of given images in receiving and processing information by visual observation 02 p0219 N67-11529
Variation method for solving optimization problems of object recognition against nonhomogeneous backgrounds 05 p0669 N67-14351
Automatic voice recognition techniques based on spectral band analysis and statistical parameters of speech signals 05 p0669 N67-14352

RECOIL ATOM
Differential angular and integral energy distributions of recoil nuclei studied in reaction Al27-Na20 06 p0921 N67-15430
Release time of nuclear reaction recoil products trapped in tantalum plate [JINR-P-2804] 07 p1150 N67-17459
Electromagnetic properties of excited states of nuclei - Radioactive decay and nuclear recoiling [NYO-3525-12] 12 p2159 N67-23569
Symposium on hot atom chemistry - annotated bibliography [AFOSR-67-0238] 13 p2369 N67-25630
Average number of electron volts required to produce one ion pair for carbon and oxygen recoil nuclei in carbon dioxide [AERE-R-5130] 15 p2771 N67-28847
Recoil range of fission fragments 17 p3104 N67-30175
Separation of recoiling chromium /II/ species from neutron bombarded hexaquochromium /III/ ion adsorbed on ion exchange resin [IAERU-6606] 24 p4401 N67-40479

RECOIL ION
Range and total ionization of low energy recoil ions from alpha disintegrations in pure and binary gases [SC-DC-66-1564] 04 p0501 N67-14075
Diffusion of nuclear reaction recoil products in metals and oxides [JINR-P13-3019] 12 p2163 N67-23764

RECOIL PROTON
Data analysis program for high energy physics particle interaction events - recoil proton polarization in pion-proton elastic scattering [COO-1428-16] 01 p0126 N67-10719
Transverse momenta and four momentum transfers of recoil protons in nucleon-nucleon interactions of ultrahigh energy [INR-736/VI/PH] 04 p0586 N67-13996
Recoil proton polarization in elastic pion-proton scattering and phase shift analysis of pion-nucleon scattering [JINR-E-2860] 04 p0590 N67-14067
Neutron-proton differential cross section measurements, using shielded counter to record recoil angle distribution 06 p1342 N67-18570
Phase shift analysis on recoil proton polarization in elastic pion-nucleon scattering [JINR-P-2898] 10 p1710 N67-20963
Calibration of large proton recoil detector for fast neutron spectra measurements [CONF-661001-4] 11 p1887 N67-23237
Proton-recoil proportional counter and helium sandwich detector for critical assemblies [IITRI-578P31-1] 14 p2533 N67-26996
Transverse and four-moments of recoil protons, and interactions of high energy secondary cosmic ray particles [INR-798/VI/PH] 20 p3722 N67-34906
Spectral distribution of neutrons from Triga Mark F reactor measured with magnetic neutron spectrometer - recoil protons [BRL-MR-1841] 22 p4103 N67-37006
Characteristics of recoil-proton Perlow-type neutron spectrometer simulated by Monte Carlo code [RT/FI/66/36] 24 p4455 N67-40556

RECOMBINATION
SA ATOMIC RECOMBINATION
SA ELECTRON-ION RECOMBINATION
SA ELECTRON RECOMBINATION
SA HYDROGEN RECOMBINATION
SA ION RECOMBINATION
SA OXYGEN RECOMBINATION
SA RADIATIVE RECOMBINATION
Recombination of carbon monoxide and atomic oxygen at high temperatures [NASA-TN-D-3744] 01 p0032 N67-10800
Genetic recombination and duplication processes in animals 07 p1062 N67-16702
Diurnal and seasonal variations in ionization and recombination processes in F-2 layer 19 p3437 N67-32820
Shock tube study of nitrogen and water vapor effect on recombination rate of hydrogen and oxygen in argon [LA-DC-8441] 19 p3396 N67-32790
Radiation effects on semiconductors, and recombination lifetimes in gamma-irradiated, boron-doped silicon [NASA-CR-87410] 20 p3711 N67-34922
Description of Van de Graaff irradiation facility, fluorescent properties of doped gallium phosphide, radiation damage in gallium phosphide, and other recombination studies [SR-2] 21 p3917 N67-36161
Kinetic theory and statistical mechanics of reacting plasma and recombination theory for plasma with inhomogeneous ionization in columns 23 p4317 N67-38282
Recombination in hexane ionization chambers irradiated with gamma-rays [LNF-67/43] 23 p4305 N67-38641

RECOMBINATION COEFFICIENT
Anomalous ion formation in lower ionosphere and effective recombination coefficient as function of solar activity and zenith angle [NASA-CR-80682] 04 p0540 N67-13577
Spatial variations of electron temperature in standing wave from changes in afterglow light intensity during microwave pulse and temperature dependence of recombination coefficient 07 p1159 N67-16828
Technique and experimental results of measurements of gas pressure dependence of attachment and recombination coefficients for thermalized electrons in air and oxygen [FTD-MT-65-545] 10 p1741 N67-21068
Total equation for effective recombination coefficient in lower ionosphere [NASA-CR-84090] 13 p2316 N67-26416

RECONNAISSANCE
SA AERIAL RECONNAISSANCE
SA SURVEILLANCE
Tuneable airborne L-band radiometer used as reconnaissance instrument 04 p0549 N67-13501
Orbiting satellites for military reconnaissance related to space control laws 13 p2435 N67-25280
Multiband reconnaissance concepts, and

color photography techniques for target identification
[NASA-CR-84063] 13 p2323 N67-26322
Aerial photography and reconnaissance of Mississippi River outflow into and mixing with Gulf of Mexico
[AD-649697] 16 p2385 N67-29446
Application of computer method for determining probability of cloud free line of sight for satellite reconnaissance in intermontane region of United States
[RM-5365-PR] 22 p4087 N67-37361
RECONNAISSANCE AIRCRAFT
Problems in near real time reconnaissance dealing with night air operations and design of imaging systems 04 p0548 N67-13473
RECORDING INSTRUMENT
SA DATA RECORDER
SA ELECTRONIC RECORDING INSTRUMENT
SA FLIGHT LOAD RECORDER
SA FLIGHT RECORDER
SA MAGNETIC TAPE RECORDER
SA PHOTOGRAPHIC RECORDING INSTRUMENT
SA PLOTTING INSTRUMENT
SA PRESSURE RECORDER
SA PULSE RECORDER
SA TAPE RECORDER
SA WHISTLER RECORDER
Operational performance of gas discharge counters used on Luna-10 for measuring soft corpuscular radiation in earth magnetospheric tail
[JPRS-38795] 02 p0300 N67-12007
Performance of tape recorder with incremental playback capabilities for use in deep space missions 02 p0282 N67-12135
Seismological instrumentation, earthquake and nuclear explosion detection, and engineering construction applications 06 p0870 N67-15426
Galvanometer as electrocardiographical recording instrument 06 p0798 N67-15433
Radiometric method for automatic recording of kinetics and mechanism of gas condensed phase reaction 06 p0880 N67-16244
Flight path accelerometer used for determining flight test performance parameters 07 p1077 N67-16964
Design of automatic blood pressure recording device
[SAM-TR-66-80] 07 p1020 N67-17036
High density digital magnetic recording system
[PB-169697] 07 p1045 N67-17257
Manipulating dates and time lapses in computerized records system
[SAM-TR-66-77] 07 p1047 N67-17710
Multichannel fast scanning instrument for measuring and recording thermocouple output
[AEEW-R-486] 10 p1630 N67-20600
Automatic data recording and processing of wind tunnel measurements 10 p1633 N67-21390
Factors influencing computer selection for automatic integrating fluctuation meters, and automatic gradient recorders . 11 p1874 N67-21991
Performance evaluation of wind speed and wind direction recording instruments 11 p1875 N67-23010
Range indicator attachment to phototelegraphic recording instrument for depth measurement 11 p1881 N67-22378
Multi-audio video tape recording and automatic television audio editor for starting sound-effects tape 11 p1836 N67-23419
Eight-channel oscillograph recording system for recording blast phenomena
[BRL-MR-1765] 12 p2009 N67-23820
Natural sub-audio fluctuation recordings of geomagnetic field
[DRI-2368] 12 p2096 N67-24857
Nondestructive magnetic methods for detecting cracks in cannon bores
[AMRA-TR-67-06] 13 p2335 N67-25454
Observations of heterogeneous structure and kinematics of solar atmosphere, and engineering development of instrument for measuring local displacements on spectrogram
[AFCRL-67-0094] 14 p2808 N67-26785
Design and development of instrument for measuring and recording local displacements on spectrogram 14 p2832 N67-26787
Recording and display of reduced bandwidth television signals
[PIBMRI-1356-66] 14 p2494 N67-27470
Protection of wire and optical aircraft accident recorders against crash damage
[AAEE/TECH/294/WEA] 15 p2707 N67-27791
Semiautomatic device for scanning and measuring spark chamber photographs
[NP-TR-1416] 15 p2712 N67-28451
Recording spectrophotometer for ground and balloon measurements of daytime sky brightness
[T-R-606] 18 p3269 N67-32698
Self-recording pressure-time gauges and triaxial accelerometers evaluated during air blast test
[BRL-MR-1815] 19 p3450 N67-32835
Field test data on prototype self-recording pressure-time gauges and triaxial accelerometers 19 p3450 N67-32836
Systems design of unattended system for automatic measurement and digital recording of critical transportation environmental parameters 19 p3452 N67-32125
Velocity shock recorder for measuring shock inputs experienced by shipping containers 19 p3452 N67-33136
Handbook of recording instruments for ionizing radiation
[AEC-TR-6709] 19 p3455 N67-32748
Conference proceedings on research facilities, recording systems, and lens designs for high voltage electron microscope
[ANL-7275] 19 p3456 N67-32781
Recording, display, and data handling systems for high voltage electron microscopes 19 p3457 N67-32794
Sensitive balance for recording human weight changes due to sweat evaporation
[FPRC/MEMO-232] 20 p3640 N67-34430
Computer tape recording of dynamic data characterized by time varying frequency spectrum
[NASA-TN-D-4161] 21 p3803 N67-35592
Slant of recordings from ionospheric rocket payload and use of resonance rectification probe
[REPT.-6] 21 p3842 N67-36190
Digital data-handling system for recording vacuum ultraviolet absorption spectra 21 p3812 N67-36540
Multiple point manometer with dynamic compensation and distant printout
[FTD-HT-67-20] 22 p4047 N67-37364
Equipment for controlling water levels in tidal river model and instrumentation for remote recording of water level and velocity
[NRC-9658] 23 p4251 N67-38138
Automatic recording system for analysis of ionospheric absorption measurements
[NASA-CR-89782] 24 p4445 N67-40052
High speed digital recorder for atmospheric noise waveforms
[NOLC-739] 24 p4453 N67-40191
Survey on recording methods for dust measurements in industrial plants 24 p4556 N67-40517
RECOVERABLE SPACE VEHICLE
Recovery of sounding rocket by means of paraglider
[DGRR/WGLR PAPER-66-057] 15 p2794 N67-27936
Design feasibility of Scout launched recoverable lifting reentry vehicle test bed
[NASA-CR-66396] 17 p3167 N67-31097
Program considerations and results of feasibility study for small, recoverable lifting reentry vehicle test bed launched by Scout vehicle
[NASA-CR-66399] 17 p3168 N67-31235
Longitudinal stability and control to optimize aerodynamic heat transfer during lifting reentry of recoverable space vehicle
[REPT.-66-061] 19 p3541 N67-33719
RECOVERY
SA PRESSURE RECOVERY
SA SPACECRAFT RECOVERY
SA VISUAL DISCRIMINATION RECOVERY
SA WATER RECOVERY
Torsional creep and creep recovery behavior of organic liquids
[NASA-CR-71115] 07 p1030 N67-17772
Recovery of actinides produced by nuclear explosion in volcanic tuff or desert alluvium
[DP-1065] 10 p1380 N67-21601
Reproductive death, and interpretation of microbial inactivation and recovery phenomena 14 p2457 N67-26772
Plutonium behavior pertaining to assay in aqueous and organic solutions, third phase formation and plutonium recovery, polymerization and redox reactions, and ion exchange purification
[AERE-365] 15 p2657 N67-28220
Recovery of cesium 137 from uranium-molybdenum alloy fission product solutions
[EUR-3451.F] 17 p3116 N67-31264
Relationship between magnitude of applied spin recovery moment and ensuring number of recovery turns made to determine control required for satisfactory recovery
[NASA-TN-D-4077] 19 p3367 N67-33457
Recovery of reentry rocket by sound ranging detection of shock wave
[REPT.-67-K2] 20 p3724 N67-34216
RECOVERY DEVICE
Prototype film transport system for collection from four remote launch vehicle cameras to single recovery capsule
[NASA-CR-89743] 04 p0551 N67-13728
Exploratory wind tunnel tests of recovery rotor concept in axial flow
[NASA-CR-73065] 07 p0989 N67-17636
RECOVERY PARACHUTE
Wind tunnel tests of recovery parachutes designed for controllable gliding flight
[NASA-TN-D-3980] 12 p2016 N67-23056
RECOVERY TEMPERATURE
Heat transfer, pressure, and recovery temperature at blunt base of circular cylinder with and without hydrogen combustion in recirculation zone
[NASA-CR-85819] 17 p3178 N67-31186
Recovery temperature and average coefficients of heat transfer on flat plates in supersonic rarefied gas flow at zero angle of attack in vacuum wind tunnels
[FTD-MT-67-43] 24 p4551 N67-40885
RECOVERY ZONE
Stability and control mechanisms of French BER booster stage for sounding rockets analyzed to improve dispersion in impact zone
[TP-442] 17 p3154 N67-31434
RECRYSTALLIZATION
Recrystallization kinetics and tension relaxation relation using temperature and time dependency of metal crystal internal friction
[FTD-TT-65-1872] 01 p0088 N67-11067
Recrystallization parameters of niobium and tungsten - Titanium and molybdenum effects on recrystallization temperature and hardening of niobium alloys
[FTD-MT-65-412] 02 p0288 N67-11251
Temperature dependence of linear growth rate of niobium and tungsten recrystallization centers 02 p0289 N67-11252
Titanium and molybdenum effect on recrystallization temperature and hardening of niobium alloys 02 p0289 N67-11253
Photoconductor concepts, and properties of recrystallized evaporated cadmium sulfide layers 06 p0945 N67-15710
Recrystallization and sintering of oxides
[COO-1122-3] 07 p1038 N67-17492
Recrystallization kinetics and electron microscopy of magnesium and chromium
[TR-2] 07 p1103 N67-17719
Cold rolled and recrystallization textures of molybdenum single crystals
[NASA-TT-F-10714] 08 p1292 N67-18937
X-ray and microstructure studies of single crystal recrystallization of pure metals after annealing and weak and strong deformations
[FTD-HT-66-179] 10 p1651 N67-20681
Recrystallization conditions of milled stainless steels in hot water and steam
[EURAEC-1669] 10 p1653 N67-20683
Rolling recrystallization texture of commercial grades of low carbon steels
[COA-NOTE-MAT-8] 13 p2337 N67-25582
Recrystallization and electropolishing methods for preparing zirconium dioxide foils suitable for electron microscopy transmission
[EURAEC-1600] 13 p2339 N67-25902
Effects of fluxing agents and cooling rates on recrystallization of chrome spinel
[BM-RI-6923] 13 p2341 N67-26316
Recrystallization, elevated temperature strengthening, and mechanical working effects on tensile strength of TD nickel
[NASA-CR-84160] 14 p2550 N67-26564
Growth and preferred orientations of large elongated grains in doped tungsten sheet
[REPT.-66-C-346] 20 p3654 N67-34628
Room and high temperature tensile properties of Vascojet 90 steel sheet and recrystallization temperature and tensile properties of titanium zirconium molybdenum alloy sheet
[MGRT-304] 20 p3659 N67-34713
Recrystallization effect on sliding friction of metals in single-crystal polycrystalline

form
[NASA-TN-D-4143] 21 p3862 N67-36391
RECTANGULAR BEAM
Modification and simplified application of Vlasov torsion theory for thin-walled rectangular tubes 20 p3738 N67-34597
RECTANGULAR GUIDE
Method of compensating for effects of slot in rectangular waveguide
[NASA-CR-80130] 02 p0289 N67-12171
Wall geometry effects on attenuation minimization of oversized millimeter waveguides
[NASA-CR-81710] 07 p1054 N67-18048
Radiation admittance of rectangular waveguide acting as element in infinite phased array
[ESD-TR-67-279] 22 p4011 N67-36900
RECTANGULAR PANEL
Design and testing of integrally stiffened rectangular shear panel
[AR-66-6] 10 p1763 N67-30562
Aeroelastic instability of flat rectangular panel
[NASA-TT-F-10645] 12 p2322 N67-25030
Radiation sound field of rectangular panel set in infinite wall and excited by turbulent boundary layer
[ARC-R+M-3491] 20 p3690 N67-35179
RECTANGULAR PLANFORM
Dynamic pressure trace at sea bottom and surface waves created by ground effect machine of rectangular planform moving with constant velocity over quiescent water of finite depth
[TR-505-1] 06 p0866 N67-15967
RECTANGULAR PLATE
Buckling of rectangular plate under combination of biaxial compression, bending, and shear
[ARL/SM-301] 02 p0315 N67-11911
Analog circuits for describing static elastic behavior of flat rectangular and circular plates, and cylindrical shell
[NASA-CR-667] 04 p0630 N67-14218
Dynamic characteristics of square plates by passive analog simulation
[NASA-CR-666] 05 p0767 N67-14458
Aerodynamic characteristics of rectangular plates in hypersonic flow of rarefied gas
[NASA-TT-F-10483] 06 p0785 N67-15832
Equilibrium stability of orthotropic rectangular plates
[NASA-CR-83505] 08 p1379 N67-19204
Stability of elastic rectangular plate with rectangular hole and subjected to forced loading of outer edge 09 p1523 N67-20037
Lagrange multiplier method applied to elastic stability problems of rectangular plates and orthotropic cylindrical shells 09 p1524 N67-20046
Reciprocal theorem used to determine Green function for plate of variable thickness, rectangular in plan 09 p1528 N67-20070
Method of initial parameters used in differential equations for bending and internal stress forces occurring in rectangular orthotropic plates lying on elastic foundation 09 p1529 N67-20079
Vibrations, deflections, and equilibrium conditions of plate lying on elastic foundation, allowing for mass of moving load 09 p1530 N67-20087
Equilibrium, compatibility, and contour equations for bending in rectangular flexible plate rigidly clamped to elastic ribs 09 p1531 N67-20094
Bending and stability of rectangular plates with cuts determined by displacement function 09 p1533 N67-20105
Method of sum representations applied to numerical solution of biharmonic problems dealing with rectangles 09 p1534 N67-20117
Critical stresses and deformation pattern after buckling for flexible rectangular plates of nonlinearly elastic materials 09 p1534 N67-20118
Semimembrane nonlinear theory applied to prismatic shells with finite number of thin rectangular plates 09 p1536 N67-20127
Natural vibrations and stability of rectangular plates of variable thickness calculated for various boundary conditions 09 p1537 N67-20133
Integral differential equations of plates whose materials exhibit linear rheological relationships 09 p1538 N67-20137
Dynamic response of rectangular plate to series of moving loads 09 p1539 N67-20276
Fatigue and crack growth of large scale uniformly loaded simply supported tee-fillet welded rectangular rib-stiffened plates
[NASL-TM-6] 10 p1767 N67-21876
Analysis techniques for orthogonally stiffened flat rectangular plates under various loading and support condition combinations
[REPT.-67-1] 11 p1986 N67-23698
Nonlinear flutter of rectangular plate in supersonic gas flow 12 p2221 N67-23709
Plate theories for study of stress concentration around holes in rectangular plates during bending 13 p2227 N67-24527
Temperature stresses in thin rectangular elastic plate with heat source acting on plate contour
[FTD-HT-66-367] 12 p2229 N67-24649
Fatigue and crack propagation of large scale uniformly loaded tee-fillet loaded welded rectangular rib-stiffened plates
[TM-7] 14 p2525 N67-27180
Buckling of rectangular sandwich plates under biaxial compression
[NLR-TN-S.641] 15 p2797 N67-27923
Differential equations for elastic bending of hinge supported rectangular plate subjected to coupled stresses 17 p3172 N67-30798
Analytic solution for acoustic pressure statistics in closed rectangular cavity behind supported rectangular plate excited by boundary layer turbulence
[USL-237] 20 p3689 N67-34913
Plane stress analysis of edge stiffened rectangular plate subjected to boundary loads, boundary displacements, and temperature gradients
[NASA-CR-864] 21 p3941 N67-35744
Maximum response of rectangular plates to random excitation
[NASA-CR-853] 22 p4153 N67-37031
Computer assisted analysis of vibration of flat rectangular plates with clamped and simply supported boundary conditions, using rectangular finite element technique
[ISVR-161] 23 p4356 N67-38385
Textures produced in hot-extruded zirconium plate
[CEA-R-3127] 23 p4264 N67-38649
Ultrasonic inspection of steel plates
[REPT.-6612.277] 23 p4159 N67-38810
RECTANGULAR WING
Accuracy of downwash evaluation by Multhopp lifting surface theory for rectangular wings
[ARC-R+M-3431] 05 p0629 N67-14611
Fortran computer program approximation solution of rectangular wing in slipstream
[UTIAS-TN-101] 10 p1558 N67-21742
Force and pressure distribution measurements in wind tunnel tests of rectangular wing with single lifting fan
[ARC-R+M-3457] 13 p2242 N67-26049
Perturbation velocities in chordwise and spanwise direction for thin rectangular wings of low aspect ratio without lift in compressible subsonic flow
[DLR-FB-67-18] 15 p2839 N67-28668
Aerodynamic characteristics of rectangular wings at subsonic, transonic, and supersonic speeds
[NASA-CR-73097] 16 p2813 N67-29175
Three-component measurements on rectangular wings with cavitation flow
[AD-652393] 18 p3185 N67-31504
Method for calculating lift, induced drag, and pitching moment of flat rectangular wings of low aspect ratio in subsonic flow
[RAE-LIB-TRANS-1218] 20 p3589 N67-34690
Low speed wind tunnel tests on rectangular wings of varying aspect ratio and airfoil section
[ARC-CP-916] 20 p3561 N67-34712
RECTIFICATION
Techniques for studying irreversible electrode processes - pulse polarography, square-wave polarography, and high level Faradaic rectification
[JUL-137-CA] 10 p1576 N67-21214
Rectification by oxide films on zirconium alloys
[AECL-2690] 17 p3079 N67-30936
Resonance rectification effects in warm magnetoplasma
[NASA-CR-87497] 20 p3707 N67-34321
Microwave rectification using piezoelectric quartz crystal
[AFCRL-67-0143] 22 p4123 N67-36716
RECTIFIER
SA AVALANCHE RECTIFIER
SA IGNITRON
SA SILICON CONTROL RECTIFIER /SCR/
Product engineering measure to improve reliability and capability of high voltage miniature silicon rectifier
[AD-643030] 10 p1590 N67-20552
Computer simulations of vocoded speech in absence of laryngeal frequency and its restoration by full wave rectification
[ESD-TR-67-237] 17 p3034 N67-30498
Linear sampled system model describing automatic controlled rectifier for current fluctuations
[DLR-FB-67-16] 17 p3044 N67-30761
Currents and voltages of rectifier or inverter connected to synchronous machine 18 p3197 N67-31875
Cyclotron-synchronous wave rf to dc power conversion - design of Pierce-type electron gun and 3 GHz Cuccia cavity
[UTEC-MD-67-006] 19 p3417 N67-33577
RECURSION FORMULA
Recursive functions and consistency proofs considered in study of axiomatic systems for expressing classical mathematical truth
[TR-4] 10 p1665 N67-20617
Consistency proofs and representable functions
[REPT.-220] 10 p1665 N67-20620
Recurrence algorithms for teaching pattern recognition 12 p2072 N67-24314
Classification of events related to arbitrary automata, and one-dimensional, stable iterative systems associated with recursive events 13 p2198 N67-25734
Chebyshev approximations for Stumpff series of orders four and five
[NASA-CR-84488] 14 p2565 N67-27644
Recursion formulas for coefficients of f and g series
[NASA-TM-X-55805] 15 p2736 N67-28678
Algorithm and recursion formulas for series expansion of three-body problem 16 p2968 N67-29875
Continuous nonlinear recursive filtering theory applied to optimum analog demodulation, using Markov processes and state variable concepts 16 p2883 N67-29903
Recurrent relations for multiplicities of weights and multiplicities of complex semisimple Lie algebra representations
[NP-16680] 19 p3483 N67-33952
Distance problems on homogeneous, symmetrical graphs, and recursion formulas for obtaining propagation rate of disturbance on infinite graph, and upper distance limit on finite graph 21 p3879 N67-35811
Recursion formulas for dynamic response of pressure measurement systems
[NLR-TR-F.238] 21 p3851 N67-36125
Recursive formula for sampling moments of moment and maximum likelihood estimators in discrete distributions
[E-DP-3413] 22 p4085 N67-37972
Recursion formulas for Jacobi polynomials in rational approximations to generalized hypergeometric functions 24 p4477 N67-39469
RED BLOOD CELL
S ERYTHROCYTE
RED SHIFT
Space density and red shift observations in cosmology 05 p0760 N67-14849
Anisotropic and luminosity function effects on velocity-distance relation for bright galaxies, and general red shift law 05 p0760 N67-14852
Photometric red shift corrections and magnitude-red shift relations for radio sources 05 p0761 N67-14857
Red shifts in spectra of O and B type stars
[AD-642144] 06 p0967 N67-16149
Red shift and absorption line spectrum of quasi-stellar radio source PKS 0237-23
[NASA-CR-81343] 06 p0970 N67-16615
Photon-photon scattering model for red shift of light passing through magnetic field
[NASA-CR-71111] 07 p1157 N67-17870
Wavelengths of absorption lines in quasi-stellar objects
[NASA-CR-81797] 08 p1360 N67-18239
Gravitation research - experimental test of Freundlich red-shift hypothesis and measurement of metastable vs ground-state electron exchange cross sections for helium and neon 11 p1927 N67-23649
Quasi-stellar radio source analysis by correlating space-time distribution of luminosities
[MPI-PAE/ASTRO-2/67] 20 p3730 N67-35074
Red shift, inertial system rotation, Mach

principle, and metric comparisons for gravitation theories
[NASA-TT-F-11353] 24 p4496 N67-40205
REDSTONE PROJECT
Mercury-Redstone project development history, and contributions to future manned spacecraft design and operation
[NASA-TM-X-53107] 22 p4151 N67-37935
REDUCTION
SA DATA REDUCTION
SA DRAG REDUCTION
SA FRICTION REDUCTION
SA PHOTOREDUCTION
SA SIDELOBE REDUCTION
SA SPIN REDUCTION
Reduction of matrix with positive elements to doubly stochastic matrix
[MRC-TSR-658] 01 p0094 N67-10405
Uranium metal by carbon reduction of uranium oxide in vacuum
[IS-1379] 04 p0507 N67-14093
Isobutyl alcohol effects on reduction of ferric ions in solutions of perchloric and sulphuric acids 06 p0822 N67-16239
Molecular hydrogen effects on reduction of ferric ions in perchloric and sulfuric acid solutions 06 p0822 N67-16240
Cathodic reduction of aqueous ferricyanide ion on single crystal zinc oxide electrode 08 p1237 N67-18550
Joule effect, and reduction in size proposal for cavity generator
[LNF-66/54] 11 p1848 N67-23019
Reducing combinatorial problem to mass problems in finite automata theory, and establishing algorithmic unsolvability 13 p2298 N67-25736
Vapor deposition of rhenium and rhenium-tungsten composites by thermochemical reduction of rhenium hexafluoride with hydrogen
[BM-RI-6915] 13 p2273 N67-26306
Light-induced oxidation-reduction reactions of cytochromes in living thalli, cells, and isolated plastids of red algae 18 p3204 N67-31756
Metallurgical reduction processes and equipment for vacuum electrothermy
[JPRS-41540] 18 p3222 N67-31894
Calcium oxide reduction with carbon 18 p3223 N67-31897
Effects of canards in reducing launch vehicle flight loads
[NASA-TN-D-4125] 19 p3540 N67-33440
Theorem proving simplification of optimal control problems by reduction to conical form 21 p3821 N67-35010
Feasibility of integrated carbon dioxide and water electrolysis system for oxygen recovery
[AMRL-TDR-66-186] 22 p3979 N67-37391
Oxidation-reduction reactions and electron transfer between metal ions in solution
[COO-1001-14] 22 p3993 N67-37961
REDUNDANCY
Reliability, safety, redundancy, and monitoring in ground support system for all-weather instrument landings
[ER-8541, VOL. II] 06 p0908 N67-16127
Structural influence coefficients for redundant system including beam column effects 11 p1988 N67-22010
Redundancy optimization to decrease probability of system failures in space computers 12 p2056 N67-23645
Eliminating redundancy in fixed frame television, and relationship between spectral properties of original sampled waveform and interpolation error 14 p2493 N67-27414
Renewal processes in study of multiplex systems and reliability
[ARC-R+M-3444] 16 p2923 N67-30048
Soviet cybernetics - automatic pattern recognition and text reading, digital computers, magnetic memory storage unit, production control, redundancy, and heuristic programming
[P-3600/3] 18 p3238 N67-32605
Conference on redundancy in information transmission and processing systems 18 p3239 N67-32613
Redundancy at both mission and spacecraft systems level of Voyager program
[NASA-CR-89763] 24 p4533 N67-40411
Practicality of redundancy and space maintenance in manned space flight
[AFAPL-CONF-66-3] 24 p4533 N67-40537
REDUNDANCY ENCODING
Application of protective redundancy in digital systems in spacecraft guidance computer and extension to multiprocessing 07 p1045 N67-17106
Data compression system using buffer memory for rate interfacing, and analyses of redundancy encoding 14 p2492 N67-27407
Construction and average length of Huffman code with minimal redundancy - application to discrete search and information theory 18 p3231 N67-32236
Information limit of redundancy necessary for correction of fixed set of errors upon transmission of information through channel with noise 18 p3231 N67-32239
Limiting values of redundancy needed to construct codes for correcting mutually independent and group errors 18 p3232 N67-32240
REDUNDANT STRUCTURE
Synchronization of redundant low input voltage conversion and regulation systems for use with satellite energy conversion sources
[NASA-CR-81305] 07 p0994 N67-16729
Reliability of redundant electrical generating system configurations for use in SNAP-2 and SNAP-8
[NASA-CR-72208] 11 p1788 N67-23854
Sequential prime implicant form of fault diagnosis and automatic circuit replacement in self-repairing sequential digital nets
[ECOM-02344-3] 24 p4423 N67-39570
REDUNDANT SYSTEM
Magnetic element with forked magnetic circuit to be used as self-repair unit of redundant systems 03 p0376 N67-12514
Circuitry, logical design, and test data on redundant spacecraft sequencer breadboard
[NASA-CR-80510] 05 p0572 N67-13219
Fortran IV programming of test point allocations and reliability analysis procedure for redundant digital system, and application to Mariner C sequencer
[NASA-CR-80226] 04 p0523 N67-14217
Complex system optimization, and redundant protective elements for reducing external environment effects 05 p0686 N67-14343
Algorithm for optimal control of switching on redundant subsystems 05 p0686 N67-14350
Digital mechanization of triple redundant self adaptive flight control system compared to analog mechanization of system
[GGC/EE/66-17] 06 p0858 N67-16203
Effectiveness of using redundancy method to increase circuit reliability
[FTD-TT-65-1053] 07 p1056 N67-17644
Machine recognition system using statistical nature of human language redundancy 11 p1833 N67-23430
Bibliography and new techniques for use of error correction and redundancy to improve reliability of spaceborne computers
[NASA-CR-80019] 12 p2056 N67-23952
Dynamic programming method used to solve problem of optimal redundancy of apparatus 12 p2070 N67-24210
Reliability prediction for repairable redundant communication channel 18 p3275 N67-32302
Development of self repair theory in digital nets using fault diagnosis and automatic circuit replacement
[U67-1027] 23 p4229 N67-38314
REENTRY
SA ATMOSPHERIC ENTRY
SA HYPERBOLIC REENTRY
SA HYPERSONIC REENTRY
SA LIFTING REENTRY
SA MANNED REENTRY
SA SPACECRAFT REENTRY
Specifications for infrared acquisition and tracking system used for aircraft monitoring of Apollo command module reentry
[NASA-TM-X-50859] 13 p2382 N67-26184
Heat distribution for three SNAP-19 generator models for use in burnup analysis during reentry
[MND-3697-92, VOL. I] 19 p3492 N67-33779
Pulsations in turbulent wakes of hyperballistic spheres during atmospheric reentry 22 p4028 N67-37525
REENTRY ANGLE
Subsonic longitudinal aerodynamic characteristics of semiapex angle conical reentry configuration
[NASA-TN-D-3718] 01 p0083 N67-10795
REENTRY BODY
SA MARK 12 REENTRY BODY
Aerodynamic characteristics of blunt, lifting body reentry configuration
[NASA-TM-X-583] 02 p0171 N67-11385
Heat transfer with receding boundaries in melting, sublimation, depolymerization, pyrolysis, and surface combustion processes of reentry bodies 03 p0474 N67-13160
Comparative study of total equilibrium shock layer radiation for three potential Mars entry body shapes
[NASA-CR-81675] 07 p1210 N67-17948
Static longitudinal aerodynamic characteristics of high drag planetary entry bodies
[NASA-TN-D-3915] 11 p1780 N67-23276
Wind tunnel test on hypersonic lifting reentry body characteristics
[NASA-TT-F-10813] 14 p2445 N67-27889
Compilation of wind-tunnel heat-transfer measurements on afterbody of Mercury capsule reentry configuration
[NASA-TM-X-495] 18 p3230 N67-31829
Static aerodynamic characteristics of experimental nonlifting reentry capsule in combination with rocket booster at Mach numbers from 0.80 to 1.20
[NASA-TM-X-518] 18 p3243 N67-32918
Forces, stability and control characteristics of three axisymmetric low fineness ratio reentry shapes at Mach 6.9
[NASA-TN-D-4122] 19 p3504 N67-33878
Effects of body shape, nose radius, and shoulder shape of reentry body on aerodynamic drag
[NASA-TN-D-4134] 21 p3754 N67-35720
Ballistic range measurements of wake electron density and spectral emission from projectiles during reentry 23 p4117 N67-37833
Hypersonic wind tunnel tests of gaseous injection effects from wall of blunt reentry body model on separation, transition, static stability, and control effectiveness
[NASA-CR-73121] 22 p3907 N67-37569
Body motion and angles of attack during Fire Project flight reentry
[NASA-TN-D-4183] 23 p4350 N67-38348
REENTRY COMMUNICATION
Laboratory simulation of reentry plasma, and methods of alleviating reentry communications blackout phenomenon 04 p0595 N67-13687
Efficiency of water vapor in removing electrons from ionized gases measured in shock tubes
[NOLTR-67-70] 24 p4432 N67-40071
REENTRY CONDITION
Characterization of reentry plasmas in hypersonic Hotshot wind tunnels - importance of nonequilibrium effects and triple probe for determining electron density and temperature
[ONERA-TP-498/1967] 23 p4224 N67-39126
REENTRY DECOY
Ballistic missile decoy displacement at reentry and dependence on ejection velocity
[RAE-TR-66074] 11 p2006 N67-23768
REENTRY EFFECT
Physical and chemical gas-surface interactions for SNAP fuel particle atmospheric reentry
[NAA-SR-MEMO-11845] 10 p1681 N67-21017
Hypersonic nonequilibrium flow at reentry of space vehicles and thermodynamic relations 12 p2211 N67-24299
Annual variation and anomalies of F-2 layer ionization and relationship to entry of solar radiation into atmosphere
[FTD-MT-65-292] 13 p2310 N67-25101
Relationship between increase of F-2 layer diurnal ionization and entry of solar energy in atmosphere 13 p2310 N67-25104
Radar cross section decrease of Apollo command module due to reentry plasma sheath effects
[NASA-TM-X-55824] 16 p2976 N67-30150
Antenna breakdown in high temperature air
[TR-1001/2220-10/3] 22 p3998 N67-36779
Hydrodynamic stability of thin liquid layer on small body reentering atmosphere - free molecular flow
[SC-CR-67-3636] 22 p4022 N67-37734
SNAP reactor reentry ablation and disintegration tests in hyperthermal wind tunnel
[NAA-SR-12382] 23 p4285 N67-38241
REENTRY GLIDER
Static longitudinal aerodynamic characteristics at transonic speeds and angles of attack to 90 deg of reentry glider with folding wing-tip panels
[NASA-TM-X-610] 18 p3189 N67-32139
REENTRY PHYSICS
Theoretical and engineering research on plasma measurement techniques, waveguides,

transport properties, delay lines, reentry phenomena, interactions, and instabilities 04 p0594 N67-13681
Metastable species in atomic and molecular beams produced by charge transfer in reentry physics studies [AD-642525] 06 p0928 N67-16353
Nuclear interaction and trajectory spiral effects in reentrant cosmic ray albedo calculations [NASA-TM-X-57252] 06 p1356 N67-18430
Simulation of emission characteristics of reentry vehicles, and radiation measurements of high speed flows over cylinders and spheres [BRL-TN-1607] 10 p1551 N67-21380
Electron-sodium collision frequencies of reentry wake contaminants [F-920440-6] 15 p2776 N67-28912
Conference papers on reentry physics of hypersonic wakes, ballistic range measurements, and ablating materials [AGARD-CP-19, VOL. 2] 22 p4027 N67-37521
Reentry boundary layer microwave breakdown [TR-1001/2240-30/-11] 24 p4507 N67-39734
REENTRY SHIELD
S HEAT SHIELD
REENTRY TRAJECTORY
Determining optimum atmospheric reentry trajectories using Pontryagin maximum principle [NASA-CR-86842] 04 p0513 N67-14201
Reentry and abort trajectory analyses, and thermal protection requirements for lifting body entry vehicles [NASA-CR-73043] 06 p1381 N67-18276
Aerodynamic characteristics and reentry trajectories of right circular cylindrical SNAP fuel capsule configurations [SC-TM-66-393] 10 p1550 N67-20699
Air drag compensation for ballistic missile trajectory before reentry phase [RAE-TN-WE-8] 13 p2243 N67-26302
Ballistic reentry trajectories at hypersonic speed [NASA-TN-D-4811] 15 p2793 N67-28921
Neighboring optimum feedback control system for reentry flight paths [NASA-CR-87501] 20 p3615 N67-34936
Dynamic behavior during reentry of plutonium dioxide microspheres [SC-CR-67-2635] 22 p4167 N67-37920
REENTRY VEHICLE
SA HL-10 REENTRY VEHICLE
SA TRAILBLAZER I REENTRY VEHICLE
Wind tunnel study of methods of modifying blunt 13 deg half-cone to provide reentry configuration with adequate performance and stability for horizontal landing [NASA-TM-X-501] 02 p0171 N67-11354
Theoretical influence of wake on leading edge of radar return from Sparta reentry vehicle [WRE-TN-PAD-134] 02 p0235 N67-11677
Hollow cathode electron beam discharge for penetrating plasma sheath around reentry vehicle [NASA-CR-660] 02 p0292 N67-11954
Simulation of ionization and radiation properties of reentry vehicle materials by submicron sized particle injection into shock tube [RN-15] 03 p0331 N67-13027
Aerodynamic characteristics of lifting-body entry vehicles [NASA-CR-80436] 03 p0331 N67-13121
Mechanical impact system for earth landing of Apollo command module [NASA-CR-60968] 05 p0771 N67-14886
Operation and characteristics of hypersonic plasma generator for reentry vehicle [SC-RR-66-356] 07 p0996 N67-17074
Weight estimates of thermal protection systems for lifting body reentry vehicle suitable for near earth missions [NASA-CR-73042] 06 p1381 N67-18278
Lifting bodies for manned reentry spacecraft [NASA FACTS, VOL. IV, NO. 2] 06 p1370 N67-18506
Shock tube tests of Langmuir probe for determining electron density and temperature surrounding reentry vehicle [NASA-CR-66275] 10 p1739 N67-21425
Analytical studies of laminar separations using Crocco-Lees mixing parameter method [NASA-CR-745] 12 p2085 N67-23715
Soviet research and development relating to orbiting, maneuvering, deorbiting, reentry, and recovery of spacecraft using aerodynamic lifting and ballistic reentry techniques [ATD-66-81, PT. I] 12 p2214 N67-24378
Precursor infrared radiation from hypervelocity ablating vehicles [BRL-R-1338] 12 p2236 N67-24499
Pyrotechnic shock testing of full scale lifting reentry vehicle 13 p2412 N67-25169
Electron density probe and its application in separated flow region of reentry Apollo spacecraft for typical trajectory [NASA-CR-84156] 14 p2529 N67-26514
Resonance testing of lifting body reentry vehicle 14 p2623 N67-26650
Flight level vibration testing of lifting body reentry vehicle 14 p2624 N67-26653
Hypersonic dynamic stability of reentry vehicles [FDL-TDR-64-149, PT. I] 15 p2799 N67-28628
Lateral directional handling qualities of piloted reentry vehicles utilizing fixed base and in flight evaluations [NASA-CR-778] 16 p2973 N67-29029
Unsteady flow fields and dynamic stability for hypersonic reentry vehicles [FDL-TDR-64-149, PT. III] 16 p2876 N67-29090
Hypersonic dynamic stability of advanced, conical reentry vehicles [FDL-TDR-64-149, PT. II] 16 p2812 N67-29119
Effects of two interchangeable probe antennas on aerodynamic characteristics of Apollo reentry vehicle model at Mach number 10.02 [NASA-TN-D-4034] 16 p2812 N67-29359
Numerical analysis of inviscid flow field about right circular cone in unsteady planar flight using modified perturbation method [FDL-TDR-64-148] 16 p2813 N67-29002
Heat transfer measurements on rotor blade of reentry vehicle model [NASA TN-D-4065] 17 p2992 N67-30684
Design feasibility of Scout launched recoverable lifting reentry vehicle test bed [NASA-CR-66396] 17 p3167 N67-31097
Feasibility of Scout launched small lifting reentry vehicle for testing materials and thermostructures of full scale reentry vehicles [NASA-CR-66397] 17 p3168 N67-31444
Static stability characteristics of reentry spacecraft model in free flight for Mach numbers from 2.62 to 1.11 launched at 180 deg angle of attack [NASA-TM-X-615] 18 p3341 N67-31969
Effects of wing planform on static longitudinal aerodynamic characteristics at hypersonic speeds for several low-aspect-ratio wing body reentry configurations [NASA-TM-X-733] 18 p3188 N67-32015
Full-scale wind tunnel determination of effect of corrugated canister surface on static aerodynamic characteristics of reentry capsule [NASA-TM-X-220] 18 p3189 N67-32155
Deduction of reentry near wake plasma properties for Mercury and Gemini manned orbital spacecraft from radio signal attenuation data [NASA-TN-D-4118] 19 p3517 N67-33463
Separated flow effect on dynamic behavior of bulbous-based reentry vehicles [NASA-CR-66434] 20 p3562 N67-35011
Radiative ceramic heat shield designs for manned lifting entry vehicles [NASA-CR-861] 20 p3734 N67-35013
Release mechanism for separating and ejecting reentry vehicle payload from booster 21 p3937 N67-36214
Vibration and shock tests on reentry nose configurations [NASA-CR-66467] 21 p3944 N67-36559
Optical system for radiative heat transfer for thermal protection of reentry vehicle [NASA-CR-73133] 22 p4159 N67-36736
Reentry vehicle design - aerothermodynamics [AFFDL-TR-66-229] 22 p4146 N67-36788
Ground test simulation of high performance reentry vehicle flight conditions for ablation testing of nose tip materials [TR-1001/2240-10/-8] 22 p4019 N67-36820
Ablation effects on hypersonic dynamic stability of 10 degree cone [AFFDL-TR-66-230] 22 p4160 N67-36903
Electron attaching additives research for modification of reentry plasmas and improvement of microwave communication [AFCRL-67-0214] 22 p4001 N67-37906
Mobile laser transceiver for detection of ablative material clouds from SNAP reentry vehicles [SC-DC-67-1596] 23 p4262 N67-39195
REFERENCE SYSTEM
SA INERTIAL REFERENCE SYSTEM
SA SPACE REFERENCE SYSTEM
Method for manual geographical referencing of direct readout infrared radiometer data from Nimbus C satellite [NASA-CR-81133] 05 p0709 N67-15254
Reference piston barometer that is nonsealed and accurate, compact, and portable 11 p1577 N67-22031
Analytical methods defining location of reference horizons in earth horizon radiance profile [NASA-CR-726] 12 p2141 N67-23713
Identification of lunar surface photographs by cross references to readout periods and photo sites [NASA-CR-66333] 14 p2615 N67-27580
Multivibrator used with small camera to obtain maximum reference marks when photographing interrupted satellite path 16 p2896 N67-29480
Acidity measurement in water, deuterium oxide, and methanol-water solvents, and development and certification of standard references for defining acidity scales in these media [NBS-TN-400] 20 p3583 N67-34525
Reference connecting technique for automatic information classification and retrieval [OEG-77] 21 p3953 N67-36584
Self-adaptive model reference automatic control system [AD-655456] 22 p4016 N67-37268
Recalculation of heat of combustion of high purity methane sample for use as reference sample [NBS-TN-299] 22 p4164 N67-37424
Reference standards for luminance, radiance, and temperature [P-339] 23 p4294 N67-38435
REFINING
SA CLEANING
SA ELECTROREFINING
SA PURIFICATION
SA ZONE REFINING
Fire refining of alpha copper and brass 06 p0884 N67-15505
Microstructure, refining and heat treatment history, and nickel content influences on radiation embrittlement sensitivity of structural steels [NRL-6420] 09 p1461 N67-19755
Electron beam melting equipment for purification of vanadium [CEND-3742-293] 13 p2271 N67-25981
Plasma jet applications in material processing and metallurgical processes [FTD-MT-65-543] 19 p3463 N67-33056
Fortran computer program for refinement of crystal structures using full matrix least squares with X-ray or neutron data [AERE-R-5478] 20 p3712 N67-34157
REFLECTED RAY
Effect of reflecting surfaces on polarization state of light beam 07 p1096 N67-17275
Reflection, dielectric constant, and band structure measurements on diamond crystal [NASA-CR-81729] 07 p1179 N67-18018
Theoretical model for ray reflection from rough dielectric surface [AA+ES-66-5] 07 p1140 N67-18068
Geometrical model for calculation of planet reflected solar thermal fluxes [NASA-CR-84858] 17 p3155 N67-30621
Single scattering albedo effect on reflected and transmitted light from clouds [NASA-CR-89337] 23 p4248 N67-39073
REFLECTED WAVE
Pressure distribution behind reflected diffracted shock wave [ARC-27036] 05 p0695 N67-14952
Reflected circularly polarized electromagnetic waves from anisotropic plasma [SR-4] 05 p0749 N67-15291
Computer programs for calculating equilibrium states in reflected shock plasmas [NASA-CR-82931] 09 p1493 N67-19694
Electromagnetic, shock, and surface wave propagation, reflection, and diffraction 13 p2365 N67-25217

Intersection of reflected shock with boundary layer in shock tube and influence on duration of hot flow in reflected shock tunnel
[ARC-CP-681] 13 p2300 N67-38154
Gas temperature measurement behind reflected shock wave in 20 to 30 Mach number range of incident shock 14 p2530 N67-37737
Radio wave propagation over earth surface, electromagnetic wave impedance and behavior, and reflection of radio waves from anisotropic layers
[JPRS-40689] 15 p2665 N67-38141
Asymptotic graphic representations of reflected electromagnetic waves in inhomogeneous isotropic absorption medium, and numerical solution of functions for various angles and frequencies 15 p2666 N67-38145
Energy characteristics of scattered electromagnetic field calculated for convex uneven surfaces of arbitrary shape 15 p2753 N67-38149
Equivalent sources calculated for replacement of reflection interface in magnetic dipole field in two-layer medium - radio wave propagation 15 p2667 N67-38152
Plasma power source, large amplitude Alfven waves, compression waves, and microwave reflection and propagation
[PR-12] 16 p2955 N67-39750
Review of literature on reflected shock pressure time profiles for air, oxygen, nitrogen, argon, carbon dioxide, and acetylene
[ARC-R+M-3446] 16 p2939 N67-39036
Reflected sound wave methods for determining irregularities on ocean floor
[JPRS-40090] 17 p3051 N67-39343
Measurements of sound reflection coefficient from ocean bottom 17 p3051 N67-39345
Reflected sound wave method for determining distances between irregularities on ocean floor 17 p3051 N67-39346
Normally-incident reflectivity of sea floor and its correlation with physical and geological properties of sediment
[REPT.-67-16] 22 p4637 N67-37317

REFLECTING TELESCOPE
Grazing incident double reflection X-ray telescope
[NASA-CR-717] 07 p1089 N67-18160
Large diameter wide angle telescope 11 p1582 N67-23508
Effects of atmosphere on maximum-size radio telescope variable-profile reflector antenna
[JPRS-39710] 11 p1836 N67-23404
Optical design of multi-spectral tracking telescope for Apollo applications program
[NASA-CR-87313] 19 p3461 N67-33989

REFLECTION
S INFRARED REFLECTION
S IONOSPHERIC REFLECTION
S OPTICAL REFLECTIVITY
S RADIO REFLECTION
S SIGNAL REFLECTION
S SPECTRAL REFLECTANCE
S ULTRAVIOLET REFLECTION
S WAVE REFLECTION

REFLECTION COEFFICIENT
Reflection coefficient of transverse electromagnetic mode parallel plate waveguide illuminating perfectly reflecting sheet
[NASA-CR-66234] 03 p0367 N67-12984
Quantitative estimates of variation of reflection coefficient with angle of incidence for low frequency radio waves using ionospheric model
[RAE-TR-66221] 04 p0546 N67-14310
Nonequilibrium flow and three-dimensionality effects on shock reflection coefficient behavior
[BRL-MR-1775] 05 p0695 N67-15001
Reflectance spectra of organic coatings in 0.3 to 40 micron region
[CCL-213] 07 p1105 N67-16823
Use of Fresnel reflection coefficient for studying reflections from mesosphere
[NASA-CR-70253] 07 p1073 N67-17768
Reflection coefficient of electromagnetic wave on nonuniform jet stream determined by invariant imbedding principle
[TR-38] 10 p1734 N67-20612
Reflection coefficient of weak shock waves
[T-20/65] 15 p2689 N67-37813
Reflection coefficients of plane electromagnetic waves from flat layered and inhomogeneous anisotropic plasma 15 p2666 N67-38143
Solar power concentration, reflection, flux energy distribution, and applications to distillation units and air conditioning systems
[JPRS-40523] 15 p2643 N67-38161
Reflection coefficients of lacquers containing photostabilizing compounds - protection of aluminum mirror surfaces produced by transfer method 15 p2644 N67-38166
Spectral reflection coefficient, emittance, and true temperature of zirconium dioxide and magnesium oxide determined in reflector furnace 15 p2665 N67-38167
Focusing and spread-F influence on apparent reflection coefficient of F region 16 p2857 N67-39288
Fading characteristics of spread-F reflections 16 p2857 N67-39289
Aperture reflection coefficient of parallel plate waveguide by wedge diffraction analysis
[NASA-CR-818] 18 p3252 N67-31892
Reflection measurements in transmission lines using broadband frequency modulation in microwave region
[DISS-3300] 18 p3229 N67-32830
Mathematical analysis of reflection coefficient for plane shock wave reflected from rigid wall in water with pressure amplitude up to 6500 atmospheres 18 p3260 N67-32177
Zero energy reflection coefficient of electrons at freshly evaporated silver surface
[AFCRL-67-0228] 18 p3312 N67-32643
Grating and networks of ribbons as radio reflectors
[NASA-CR-872] 22 p3999 N67-37200

REFLECTOMETER
Sodium salicylate fluorescent properties utilized in coatings of integrating sphere reflectometers for vacuum ultraviolet spectral regions
[NASA-TM-X-53645] 06 p0919 N67-16547
Radioactive meter and reflection gauge for measuring component thicknesses in engine plant 19 p1640 N67-21225
Calibration of in situ reflectometer irradiation facility in program for development of space stable thermal control coatings
[NASA-CR-84063] 13 p2426 N67-30323
Thermal radiation properties of emittance and reflectance for refractory materials
[NBS-TN-292] 16 p2964 N67-29416
Modified vacuum integrating sphere for in situ reflectance measurements of low temperature surfaces
[AEDC-TR-67-10] 16 p2956 N67-29654
Ellipsoidal mirror reflectometer, interferometer spectrometer, and rotating cylinder procedure for thermal radiation property measurements
[NASA-CR-66127] 17 p3069 N67-31130

REFLECTOR
SA BEAM SPLITTER
SA FRESNEL REFLECTOR
SA MIRROR
SA PARABOLIC REFLECTOR
SA RADAR REFLECTOR
SA SOLAR REFLECTOR
SA TWO-REFLECTOR ANTENNA
Optimization of reradiated field from linear Van Atta reflector consisting of four equispaced parallel half-wave dipoles
[R-52] 01 p0026 N67-10696
Two-channel monopulse reflector antenna system with multimode logarithmic spiral feed
[NASA-TM-X-55590] 02 p0233 N67-11382
Cassegrain antenna efficiency - frequency and size dependence of subreflector beamshaping flange 05 p0673 N67-14446
Design and analysis of solid and hollow cube corner reflectors which, when placed on lunar surface, will be used in connection with earth laser system for selenodetic studies
[AFCRL-66-563] 05 p0739 N67-15043
Variable range reflector method for measuring effective power patterns of millimeter wave radiometric antennas
[BRL-R-1322] 05 p0675 N67-15059
Research reports on physics of laser radiation, optical radar systems, corner reflector on lunar surface, photon correlations and counting statistics, and cold cathodes for gas lasers
[NASA-CR-81348] 06 p0889 N67-16014
Optical radar system using corner reflector on lunar surface 06 p0890 N67-16015
Polarization and absorption effects on Fraunhofer diffraction patterns of corner reflector 06 p0917 N67-16029
Light reflection and transmission of four-mirror resonant cavity 07 p1006 N67-17276
Cassegrain spectrograph of 36-inch reflector 12 p2101 N67-24021
Comparative evaluation of reflector and control materials for fast spectrum nuclear rocket reactor cores
[ANL-7080] 12 p2150 N67-24558
Theoretical investigation of square Van Atta reflector with or without conducting plate
[AFCRL-66-840] 12 p2035 N67-24564
Reflection coefficients of lacquers containing photostabilizing compounds - protection of aluminum mirror surfaces produced by transfer method 15 p2644 N67-38166
Structural Analysis Interpretative Routine /STAIR/ 7094 program for advanced antenna system reflector assembly 15 p2661 N67-38731
Computations for electromagnetic scattering properties of circular loaded thin wire loop antennas
[RADC-TR-67-8] 16 p2869 N67-39084
Optical location of moon in Earth-Moon system using artificial light reflector, on lunar surface
[NASA-CR-86689] 18 p3237 N67-32589
Line source corrector and horn system for large spherical reflectors
[AFCRL-67-0143] 19 p3409 N67-33965
Calorimetric tests of reflector for solar water lifting unit for design of semiconductor thermogenerators 21 p3945 N67-35476
Calculated critical radii of plutonium 239 and uranium 233 with various spherical reflectors
[RFP-908] 23 p4092 N67-37485

REFLECTOR SATELLITE SYSTEM
Antenna, mirror, and reflector design and construction for spacecraft systems 02 p0311 N67-11289

REFLEX
SA CAROTID SINUS REFLEX
SA CONDITIONED RESPONSE
SA RESPIRATORY REFLEX
Experimental data on simple and choice signal reaction time
[PRP-28N] 01 p0021 N67-10412
Action of vibration and ionizing radiation on conditioned reflexes 02 p0190 N67-11289
Chemical preparations for preventing motion sickness, and their effects on reflexes 02 p0207 N67-11651
Spinal reflexes of cats and monkeys exposed to repeated stimulation of increased gravity 05 p0634 N67-15125
Multiple exposure to vibration and functional state of spinal reflex arc in guinea pigs 16 p2938 N67-29845
Combined effects of cold and exercise on triceps surae reflex
[AAL-TR-66-15] 21 p3704 N67-36045
Reflex excitation of spinal motoneurons in recording electrical stimulation effects on human vestibular apparatus 23 p4105 N67-39116

REFRACTED RAY
Numerical integration and approximation methods to evaluate bending angular tropospheric refraction of ray path between two points 01 p0009 N67-10944

REFRACTING TELESCOPE
Chromatic refraction of long-focus telescope in astronomical photography 06 p0877 N67-15462

REFRACTION
SA ABERRATION
SA ATMOSPHERIC REFRACTION
SA RADIO WAVE REFRACTION
Crustal seismic refraction and reflection measurements
[AFCRL-66-519] 05 p0702 N67-14760
Seismic scale model study of refraction arrivals in three-layer structure
[AFCRL-66-571] 06 p0873 N67-15139
Radiosonde method compared to exponential vertical structure method of correcting radar elevation angle refraction errors caused by atmosphere
[ECOM-5071] 06 p0842 N67-16212
Calculations from observations of light refraction by blast bubble

[BRL-MR-178] 06 p0919 N67-16583
Establishment and operation of New England seismic network - refraction studies, anomalous delays in teleseismic arrivals, local earthquakes, and crustal transfer function
[AFCRL-66-757] 09 p1441 N67-19008
Analysis of Green function for coastal refraction of electromagnetic waves
[NYO-1480-55] 11 p1866 N67-22322
Anomalous refraction due to inclination of air strata in troposphere 15 p2701 N67-28078
Plasma diagnostics by microwave refraction
[FTI-213/R-067] 16 p2954 N67-29733
Refraction of sound field of omnidirectional pure tone point source by temperature and velocity fields of 3/4-inch air or nitrogen jet
[NASA-CR-840] 18 p3359 N67-31985
Radio wave propagation experiments for measurements of extended solar corona 22 p4137 N67-37823

REFRACTIVE INDEX
Radio refractive index of atmosphere, tropospheric refraction, and synoptic radio meteorology
[NBS-MONOGRAPH-92] 01 p0008 N67-10241
Classical equation for radio refractive index of atmosphere, and exponential model for preparation of climatic maps 01 p0009 N67-10242
Surface variation of radio refractive index in reduced-to-sea-level form 01 p0009 N67-10245
Time and space variations of refractive index structure with synoptic tropospheric disturbance 01 p0009 N67-10246
Tropospheric refraction and refractive index model 01 p0009 N67-10249
Estimation of refractive index spectra in regions of clear air turbulence
[NASA-CR-79391] 03 p0389 N67-13016
Polymers studied for relationship between cohesive forces, refractive indices, and glass transition temperature data
[RAE-TR-66185] 04 p0507 N67-14117
Index of refraction of excited monatomic gases
[BRL-MR-1772] 05 p0742 N67-15160
Different atmospheric perturbations causing optical image instabilities in astronomical star observations, and climatic evaluation of some observatory sites in U.S.S.R.
[NASA-TT-F-437] 06 p0871 N67-15461
Optical instrument for photographic observations of refractive index fluctuations in atmospheric daytime ground layer 06 p0871 N67-15465
Image pulsation classification of atmospheric optical disturbances in small telescope refraction 06 p0871 N67-15468
Index of refraction for argon measured using Mach-Zehnder interferometer
[ARL-66-0140] 09 p1493 N67-19817
Optical boron glasses with high refractive index and medium dispersion
[ERDL-T-1886-66] 10 p1663 N67-21709
Measurement of free-burning arc heated argon plasma refraction index with differential interferometer
[ARL-66-0222] 14 p2595 N67-26904
Refractive index of aqueous perchloric acid
[RPE-TR-65/4] 17 p3017 N67-30821
Mechanism and kinetics of silicon oxidation in air-instrumentation for ellipsometry and use in determining refractive index and thickness of thin oxide films on silicon
[NASA-CR-85801] 17 p3060 N67-31050
Characteristics of atmospheric refractive index difference
[NASA-CR-85871] 17 p3121 N67-31116
Tropospheric radio propagation over dry land regions in central U.S.S.R. studied by systematic monitoring of refractive index of air 18 p3361 N67-31674
Study on refraction by computation of differential Doppler and Faraday effects at 20 and 40 Mc/s 19 p3401 N67-32987
Self-steepening of light pulses due to propagation in medium with intensity-dependent index of refraction
[NASA-CR-87476] 20 p3688 N67-34750
Electromagnetic scattering from absorbing spheres
[NASA-CR-88226] 21 p3897 N67-36604
Dielectric constants and refractive indices for n-octane solutions of high molecular weight organophosphorus compounds used in solvent extraction systems
[ORNL-TM-1893] 22 p3991 N67-37891
Index of refraction in neighborhood of stark broadened spectral line calculated by using relation between absorption coefficient and refractive index
[NASA-CR-89560] 24 p4586 N67-39587
Virtual height slopes used to determine ionospheric electron density profiles from sweep-frequency ionograms 24 p4442 N67-39971

REFRACTIVITY
Martian atmosphere and ionosphere electron density and refractivity profiles determined by two frequency beat occultation technique used by Mariner IV space probe 03 p0460 N67-12685

REFRACTOMETER
Radio frequency refractometers and standard weather observations used in measuring atmospheric radio refractive index 01 p0009 N67-10243
Precision and differential refractometers, and infrared spectrophotometer for isotopic analysis of heavy water system in NRX and NRU reactors 03 p0425 N67-12691
Serum-lipoprotein distribution and protein analysis by refractometry 08 p0802 N67-15948
Refractometric study of chemical interaction between diluents and monododecylphosphoric acid 06 p0836 N67-16305
Cloud droplet microwave scattering effects on line integral refractometer measurements
[MTR-53] 12 p3094 N67-24795
Serum lipoprotein distribution and protein analysis by refractometry 14 p2457 N67-26768
Microwave refractometer for studying tropospheric refractive index structure 18 p3272 N67-32505
Environmental testing of radio refractometers - transient response measurements
[TP-3] 22 p4044 N67-36814
Refractometer for automatic monitoring of electrolyte specific gravity in lead-acid cells
[NRL-6563] 24 p4379 N67-40211

REFRACTORY ALLOY
Potassium working fluid and refractory alloys for Rankine cycle systems 01 p0105 N67-10268
Creep rupture properties and high temperature applications of FS-85 refractory metal alloy
[ORNL-TM-1456] 01 p0084 N67-10673
Fatigue testing of refractory alloys to determine effect of notch geometry on fatigue strength
[NASA-CR-72039] 01 p0086 N67-10861
Space power system material compatibility tests of selected refractory metal alloys with boiling potassium
[NASA-TM-X-52242] 02 p0269 N67-11330
Potassium corrosion test loop for refractory alloys evaluated after 5000-hour test operation
[NASA-CR-72042] 02 p0248 N67-12092
Growth parameters for refractory carbide single crystals
[NASA-CR-70408] 03 p0412 N67-13094
Cavitation damage resistance of refractory alloys in high temperature liquid potassium
[NASA-CR-72131] 06 p0895 N67-16006
ONERA thermochemistry techniques of protection and assembly of steel and refractory metals 08 p1285 N67-18676
Weldability and elevated temperature stability of refractory metal alloys
[NASA-CR-72973] 08 p1296 N67-18695
Static and thermal convection loop tests for refractory alloy corrosion in lithium 09 p1458 N67-19598
Evaluation of refractory alloys for containing liquid and boiling sodium 09 p1459 N67-19660
Test program to determine behavior of advanced refractory metal alloys in boiling potassium 09 p1459 N67-19604
Refractory metal and alloy corrosion in cesium vapor at high temperatures 09 p1460 N67-19607
Corrosion effects of boiling potassium and liquid sodium-potassium on refractory metal alloy tubing of power reactor 09 p1460 N67-19610
Materials evaluation for refractory alloy corrosion loop program
[NASA-CR-72177] 09 p1463 N67-19997
High-temperature materials program for reactor applications - radiation effects, mechanical properties, refractory metal alloy research, cladding and fuel elements, and pressure vessels
[GEMP-61] 11 p1919 N67-22661
Thermochemical deposition processes to prepare fuel compounds and refractory alloys from volatile halides 13 p2354 N67-25360
Heat treatment and inspection of refractory alloys, tubing and component fabrication, and lithium purification system for corrosion loop
[NASA-CR-72230] 14 p2550 N67-26638
Elevated temperature fatigue of TZC molybdenum alloy determined in high frequency and high vacuum tests
[NASA-CR-72241] 14 p2556 N67-27236
Cavitation damage resistance of refractory and stainless steel alloys in liquid potassium at high temperatures
[NASA-CR-72232] 14 p2557 N67-27305
Stress corrosion test of biaxially stressed niobium-base refractory alloy with refluxing potassium
[NASA-CR-807] 15 p2728 N67-28748
Properties of refractory alloys and surface cold working
[NASA-TT-F-11116] 17 p3084 N67-31493
Creep strength test for strips of high strength refractory alloy composed of tantalum, tungsten, and hafnium 19 p3548 N67-33572
Reinforced composite materials, refractory alloy dies, corrosion resistance paints, and insulations for very high and low temperatures 21 p3872 N67-35504
Material and process specifications for refractory alloys and alkali metals
[NASA-CR-88711] 22 p4055 N67-37648
Surface ionization studies on refractory metals and metal alloys used in long term contact ion engine operation
[NASA-CR-54675] 24 p4466 N67-39730
Mechanical properties of refractory niobium alloys
[JPRS-43171] 24 p4467 N67-39940

REFRACTORY MATERIAL
SA CARBIDE
SA CERAMICS
SA CERMET
SA CLAY
SA GLASS
Refractory properties and thermal shock resistance of impregnated tantalum carbide
[NASA-TT-F-10249] 01 p0082 N67-10306
High temperature nuclear fission detection using mica and quartz glass
[JINR-P-2705] 03 p0444 N67-12378
Porous refractory materials related to cesium contact ionizers 04 p0605 N67-13843
Deformation kinetics of refractory materials, and relationship between material creep and change in cylinder ellipicity 06 p0886 N67-15986
New electron beam optics for preparation of refractory insulating crystals by floating zone method
[AFCRL-66-539] 06 p0887 N67-16132
Film cooling process characteristics and uncooled refractory materials used for design of hypersonic nozzle using high enthalpy air 07 p1206 N67-16963
Synthesis, temperature measurement, and high temperature furnaces related to refractory compound processing
[JPRS-39488] 07 p1105 N67-18089
Calcination of refractory materials 08 p1290 N67-18675
Mixing and spraying methods for radioisotope labeling of refractory material in casting process
[EUR-3169.F] 09 p1455 N67-20283
Thermodynamics of borides, carbides, nitrides, and oxides of 31 elements in temperature range of 0 deg to 6000 deg K
[AD-642550] 10 p1706 N67-20537
Compositional variations influence on elastic properties of glasses formed by alumina-base oxides
[B-6692] 10 p1659 N67-20587
Fabrication of refractory composites by pneumatic impaction
[BNWL-SA-482] 10 p1652 N67-20960
Bonding, stability, and formation of cubic refractory monocarbides, mononitrides, and monoxides
[CU-3553-5] 10 p1579 N67-21574
Spectrographic analysis of element concentrations applied to metallic and refractory samples
[JEN-163-DQ/I-56] 10 p1580 N67-21653

High viscosity tungsten-silica thermal protection materials
[NOLTR-66-213] 12 p2126 N67-34909
Growth parameters for refractory carbide single crystals
[NASA-CR-83823] 13 p2337 N67-35667
Sealed tube dissolution method applied to refractory plutonium containing materials
[LA-3554] 14 p2476 N67-36838
Sintering kinetics of refractory compound phases at high pressure and high temperature
[AD-648976] 14 p2543 N67-36975
Measurement of dielectric properties of refractory dielectric materials at high temperatures
[TID-23684] 15 p2754 N67-38446
Floating zone process used to prepare refractory materials
[NAEC-AML-2559] 15 p2727 N67-38601
Thin film refractory substrate combinations for producing high current density in cathodes
[RADC-TR-66-656] 15 p2682 N67-38944
Thermal radiation properties of emittance and reflectance for refractory materials
[NBS-TN-393] 16 p2984 N67-39416
Refractory carbides and carbide-graphite composites for rocket nozzle applications
[QR-1] 16 p2915 N67-39555
Fusion temperature in refractory carbide systems
[NASA-TT-F-11068] 17 p3063 N67-31382
Deposition of protective refractory coatings on graphite
[JPRS-41067] 18 p3290 N67-32296
High temperature tensile testing machine for determining mechanical property of sintered refractory carbides of tantalum, titanium, and zirconium
[NASA-TT-F-11174] 19 p3471 N67-33387
Single crystal dislocations in high purity refractory molybdenum
[F-B2195] 19 p3472 N67-33423
Characteristics of high frequency plasma jets produced by argon plasma guns and application to refractory dielectric crystal synthesis
[FTD-MT-65-530] 19 p3518 N67-33498
Synthesis, microstructure, and characterization of polycrystalline refractory aluminum and magnesium oxides
[AVSSD-0211-67-RR] 20 p3683 N67-34606
Oxygen determination in metal fluorides and refractory nitrides and carbo-nitrides by inert gas fusion technique
[AERE-R-4850] 20 p3591 N67-34541
Evaluation tests of low-sinter temperature refractory metallizing ceramic suspension for electron tube fabrication
[ECOM-2851] 22 p4014 N67-37473
Application of float-zone crystal growth techniques to refractory nonmetallic laser materials in investigation of electron beam processing of aluminum oxide
[AFCRL-67-0273] 22 p4129 N67-37545
Predicted high temperature vapor pressure data for refractory materials with low thermal absorption cross sections
[NASA-TN-D-4147] 24 p4550 N67-39690
Gas chromatography for quantitative oxygen content determination in refractory oxides
[DP-1115] 24 p4397 N67-39655

REFRACTORY METAL

Sintering kinetics of refractory compound phases at high pressure and temperature
[AD-637347] 01 p0027 N67-10275
Solubility and diffusion of oxygen in refractory metals measured by electrical resistivity
[NASA-CR-54649] 01 p0085 N67-10758
Mechanical twinning for improving creep strength and low temperature ductility of refractory metals
[NASA-CR-79710] 01 p0086 N67-10693
Irradiation experiment to determine uranium oxide compatibility with refractory metals, oxides, and graphite
[AECL-2601] 03 p0436 N67-12863
Chemical reaction kinetics and flame study of radioisotope containment materials in launch abort environments - superalloys, stainless steels, and coated and uncoated refractory metal
[SC-CR-66-2044] 03 p0360 N67-13249
Problems and developments in primary processing of refractory metals 05 p0711 N67-14813
Effect of 1000 hour thermal exposures on tensile properties of refractory metal alloys
[NASA-CR-72095] 08 p0895 N67-16564
Compatibility of explosively bonded refractory austenitic bimetal composites after isothermal and cyclic thermal exposure
[NASA-CR-72150] 08 p1291 N67-18742
Effects of hydrostatic pressure on mechanical behavior of body centered cubic refractory metals and alloys
[NASA-CR-83477] 08 p1293 N67-19023
Oxidation characteristics of refractory metals for use as hot getters in sodium coolant purifying systems 09 p1458 N67-19587
Nondestructive testing methods to evaluate refractory-metal alloy tubing for nuclear application 09 p1452 N67-19591
Corrosion resistance of refractory metals to attack by liquid lithium in high temperature environment 09 p1458 N67-19606
Component design for refractory metal-alkali metal corrosion test system 09 p1459 N67-19609
Thermal electromotive force drift of refractory metal thermocouples in pure and contaminated helium atmospheres 09 p1446 N67-19627
Contamination of platinum-rhodium transducers used in thermal conductivity measurements of Inconel 702 09 p1447 N67-19631
Refractory oxide insulated thermocouples for measuring fast reactor fuel pin temperatures 09 p1478 N67-19634
Instability of noble and refractory metal thermocouples at high temperatures 09 p1447 N67-19636
In-pile performance of refractory metal thermocouples 09 p1478 N67-19642
Crystallography studies of alkali halides, refractory and transition metals, and magnetic materials
[NRL-MR-1718] 09 p1408 N67-19657
Radioisotopes used in blast furnaces, coking plants, production of refractories and agglomerates, and chemical analysis of steel 10 p1643 N67-21248
Behavior of refractory metals and alloys in boiling sodium and other alkali metals
[BNL-10723] 10 p1656 N67-21575
Production of Mo sheet from high-purity Mo powder compacts and purification and processing Mo-Re-W alloy sheets 11 p1895 N67-22054
Diffusion of Kr-85 in refractory metal fuel systems 11 p1920 N67-22065
Mass transfer effects in some refractory metal alkali metal stainless steel systems
[ORNL-4028] 11 p1896 N67-23233
Thermodynamic properties of interstitial elements in refractory metals
[NASA-CR-83391] 11 p1896 N67-23439
Dislocation velocity measurements on molybdenum single crystals by etch-pitting method in study of microstrain region in high purity refractory metals
[Q-B2195-3] 11 p1899 N67-23134
Long-time creep data on refractory metal alloys for advanced space power systems
[NASA-CR-72185] 11 p1900 N67-23323
Compaction products obtained from refractory metallides using ultrasonic activation
[NASA-TT-F-10774] 12 p2111 N67-25612
Fibering of oxides in refractory metal matrices
[NASA-TN-D-3923] 12 p2122 N67-25040
Colloid chemical method for effecting oxide particle dispersion hardening in refractory metals and alloys 13 p2336 N67-25359
Plastic deformation effects on refractory titanium carbide, zirconium carbide, titanium boride, and molybdenum silicate
[NASA-TT-F-10775] 13 p2338 N67-25620
Preparation and purification of thorium, yttrium, vanadium, and refractory metal systems for reactor materials
[IS-RD-8] 13 p2362 N67-25907
Heat treatment and metallographic examination of iridium deposited on tungsten and molybdenum as high temperature protective coating
[NASA-CR-83867] 13 p2339 N67-25961
Fused salt electrodeposition and examination of iridium protective coatings on tungsten, molybdenum, and niobium
[NASA-CR-84124] 13 p2341 N67-26443
Electrical behavior of refractory metal oxides
[SRL-599-A] 14 p2662 N67-26985
Refractory metal alloy research and development in high temperature reactor program 14 p2562 N67-26984
Metal purity, and physical metallurgy of refractory metal alloys 14 p2582 N67-26985
Chemical and X-ray phase determinations of relationship of microhardness and microbrittleness of powdered refractory compounds with electron structure
[NASA-TT-F-10995] 14 p2587 N67-27210
Zirconium and titanium additions for improved mechanical properties and corrosion resistance of aluminum alloy sheet
[NASA-TT-F-11815] 15 p2724 N67-28285
Iridium-molybdenum diffusion for protective coatings on refractory metals
[NASA-CR-84828] 15 p2726 N67-28788
Vacuum microbalance and electron diffraction methods of studying fast oxidation reactions of refractory metals
[AROD-4067-3-MC] 15 p2729 N67-28977
Methods for evaluating coatings for superalloys and refractory metals
[AGARD-509] 16 p2979 N67-29640
Oxidation and reactivity of refractory metals with water vapor
[FDTR-TM-67-1] 17 p3078 N67-30268
Methods for predicting temperature composition stability of binary systems of refractory transition metal compounds
[AFML-TR-67-100] 17 p3076 N67-30718
Recoil fission product capsule to determine fission products effects on refractory metal properties 18 p3299 N67-32436
Noble and refractory metal thermocouples in experimental irradiation equipment 18 p3302 N67-32447
Controlled inert atmosphere chamber and high temperature vacuum furnace for refractory metal working
[JPRS-41451] 19 p3462 N67-33294
Hot rolling refractory metals in controlled inert atmosphere 19 p3462 N67-33305
High temperature, high vacuum furnace for annealing high purity refractory metals 19 p3462 N67-33306
Corrosion tests with superalloys and refractory metals conducted in high temperature flowing helium
[BNWL-SA-1137] 19 p3470 N67-33391
Oxygen, nitrogen, carbon, and silicon contents in refractory metals and alloys obtained from far ultraviolet emission spectra
[ONERA-TN-168/1967/] 19 p3393 N67-33501
Purification techniques for removing low level metallic impurities from tungsten hexachloride
[BM-RI-6964] 19 p3394 N67-33555
Elution behavior of vanadium, zirconium, titanium, molybdenum, tungsten, and niobium using ion exchange chromatography
[AMRA-TR-67-10] 19 p3500 N67-33605
Radiant heat transfer between nongray parallel plates of polished tungsten, molybdenum, and tantalum by summing monochromatic energy exchange
[NASA-CR-87258] 19 p3586 N67-33960
Brief survey of use of magnetic force welding techniques on ferrous, nickel-base, reactive, and refractory metals
[BNWL-423] 20 p3649 N67-34765
Feasibility studies for growing refractory metal carbides single crystals from melts and liquid solutions
[NASA-CR-83254] 21 p3689 N67-36681
Electrodeposition of thick coatings of platinum and palladium of refractory metals from aqueous electrolyte
[BM-RI-7016] 23 p3901 N67-36704
Stress rupture evaluation of refractory metal fiber nickel alloy composites at high temperatures
[NASA-TM-X-52342] 22 p4060 N67-36782
Thermionic work functions of refractory metal intermetallic compounds related to their crystal and electronic structures
[NASA-CR-88549] 22 p4126 N67-36970
Partial molar free energies, enthalpies, and entropies of carbon dissolved in solid molybdenum, tungsten, niobium, and tantalum
[NASA-CR-88536] 23 p4128 N67-37421
Irradiation effects on reactor structural materials - radiation damage rates, effects on superalloys and refractory metals, and fission track dosimetry
[BNWL-CC-1053] 23 p4092 N67-37429
Vacuum fusion technique for determining gases in metals and alloys
[BARC-377] 23 p4201 N67-38249
Machining rare earth and refractory

metals
[FTD-MT-65-564] 24 p4456 N67-39396
Surface ionization studies on refractory metals and metal alloys used in long term contact ion engine operation
[NASA-CR-54675] 24 p4466 N67-39780
Vacuum system for forging refractory metals
[JPRS-43015] 24 p4460 N67-40283
REFRASIL
Thermal insulation - material testing of refrasil quartz fiber paper, metal foil, quartz cloth composite, and metal foil glass fiber paper composite
[AL0-3633-11] 15 p2804 N67-38418
REFRIGERANT
Test program for refrigerant expansion valve used in Saturn launch complex air conditioning units
[NASA-CR-88079] 21 p3862 N67-36301
Test performance data on refrigerant expansion control valve
[NASA-CR-88080] 21 p3862 N67-36389
REFRIGERATING EQUIPMENT
Cold box specifications for laboratory biochemical experiments 22 p4019 N67-36961
REFRIGERATION
SA COOLING SYSTEM
SA CRYOGENICS
Pulse tube and cryomatic gas balancing cryogenic refrigeration methods
[NASA-CR-80513] 03 p0474 N67-13167
Temperature and vapor pressure measurements at various system points of freon ejector solar refrigerator designed for cooling air in room 15 p2803 N67-38169
Design evaluation of vapor absorbing refrigerator systems operating independently of gravity
[NASA-CR-836] 18 p3200 N67-32550
Design concepts of refrigeration systems for cooling components of microwave receiving systems to 80 to 100 deg Kelvin - transmission line
[NASA-CR-88130] 21 p3950 N67-36457
REFRIGERATOR
Dual channel traveling wave maser for integration in closed cycle refrigerator 06 p0838 N67-15908
Magneto-caloric effects used for refrigerating machine in which cold can be generated at temperature of about 4 deg K 12 p2235 N67-24027
One-watt refrigerator used for attaining clean room conditions in vacuum system of space simulator
[NASA-TN-D-4006] 16 p2967 N67-30121
REFUELING
Radiological control of refueling of pressurized water reactor shippingport atomic power station with core 2 and modifications on other reactor systems to accommodate new core characteristics
[WAPD-298] 19 p3496 N67-33932
REGENERATION
SA BIOREGENERATION
Regenerative beam extraction for synchrocyclotrons and isochronous cyclotrons
[UCRL-16793] 01 p0121 N67-10009
Regeneration, and morphogenesis research on anuran amphibia
[NASA-TT-F-10793] 12 p2029 N67-25018
Age related characteristics in proportion of histones and nucleic acids in regenerating liver cell nuclei of white rats after partial hepatectomy 19 p3375 N67-33359
REGENERATIVE COOLING
Hydrogenation regeneration unit for decomposed gas-oil coolant of electric power reactor
[IAE-1066] 07 p1130 N67-17430
Transient pressure drop and heat transfer characteristics of regeneratively cooled nozzle assembly used in full scale, cold flow nuclear rocket test facility
[NASA-TN-D-3931] 12 p2003 N67-24618
REGENERATIVE CYCLE
Regenerative amino acid salt sorber and other means to control carbon dioxide and reclaim oxygen during manned missions up to 180 days 04 p0498 N67-14345
Integrated regenerative life support system for extended space missions involving 4 men 04 p0498 N67-14349
Breeder characteristics of graphite-moderated high temperature spherical pile reactor for thorium 233 - uranium 233 breeding cycle
[JUL-474-RG] 20 p3679 N67-34225
Tests of activated charcoal in regenerative carbon dioxide adsorption system
[AMRL-TR-67-48] 22 p3977 N67-36984
REGENERATIVE FUEL CELL
Hydrox electrolytic regenerative fuel cells
[NASA-CR-80109] 03 p0334 N67-12906
Single cells with potassium titanate matrices for improved cycle life performance of hydrogen-oxygen regenerative fuel cells
[NASA-CR-80527] 03 p0336 N67-13214
Hydrogen-oxygen electrolytic regenerative fuel cells as secondary batteries
[NASA-CR-83798] 13 p2348 N67-25486
Hydrogen-oxygen regenerative fuel cell - single cell tests, membrane fabrication, matrix screening test, and potassium titanate analytical tests
[NASA-CR-84147] 14 p2448 N67-26517
Evaluation of pasted KT/Teflon membrane layer structure for hydrox regenerative fuel cell
[NASA-CR-86204] 21 p3762 N67-35981
Hydrogen-oxygen electrolytic regenerative fuel cells with potassium titanate and Teflon matrix structures
[NASA-CR-86203] 21 p3763 N67-36085
Regenerative thrust chamber design, material selection, and fabrication methods
[NASA-CR-72366] 22 p4134 N67-37634
Fabrication and testing of hydrox electrolyte regenerative fuel cells with potassium titanate, Teflon, asbestos, and polypropylene matrixes
[NASA-CR-89181] 23 p4161 N67-38526
Handbook on fuel cell research and technology
[NASA-SP-120] 24 p4379 N67-40127
Hydrox regenerative fuel cell testing of single cells with matrix structures of potassium titanate and Teflon
[NASA-CR-89753] 24 p4380 N67-40475
Hydrox regenerative fuel cell testing of single cells with matrix structures of potassium titanate, Teflon, and asbestos
[NASA-CR-89754] 24 p4380 N67-40500
REGENERATOR
Problem of measuring sensitivity and noise factor of regenerative systems
[TIL/T-5616] 01 p0036 N67-10088
REGGE PARAMETER
S equals O fermion resonance classification as Regge recurrences on three trajectories
[COO-881-77] 03 p0445 N67-13303
Fitting of Regge symmetries into broader group theoretic framework
[TH/183] 14 p2593 N67-27628
Nuclear democracy, high energy elastic scattering, and Regge parameters dominating high energy behavior
[TUEP-67-11] 16 p2943 N67-29440
Regge trajectories of elementary particles, eta meson decay, current algebras, and three-body problem
[AD-653866] 20 p3697 N67-34645
Pion-nucleon elastic scattering in backward hemisphere and application of Regge theory to backward angles other than cosine theta
[COO-1113-107] 23 p4302 N67-38525
Physical values of angular momentum in direct channel and Regge asymptotic behavior for inelastic N/D equations
[IC/67/55] 23 p4303 N67-38547
Supconvergent phase shift, asymptotic Regge residua, and elastic-width versus mass relations
[NP-16863] 23 p4304 N67-38548
Kaon charge exchange and Regge trajectory
[UCRL-17572] 23 p4304 N67-38565
Coincidence of Regge trajectories and Su/3/ symmetry for nucleon-meson interaction
[FTI-LA-1] 24 p4504 N67-40478
REGGE POLE
Regge pole model used for describing particle interactions at high energy - complex moment theory
[REPT.-417] 01 p0116 N67-10702
Regge pole models for bound states and nonrelativistic scattering, and low momentum transfer reactions in crossed channels
[ANL-7173] 08 p0929 N67-16327
Experiments on Regge poles in high energy scattering
[CALT-68-106] 10 p1723 N67-21576
Relations between total cross sections at high energy 11 p1947 N67-23467
Mesons as Regge dipole 13 p2168 N67-24266
Sum rules based on Regge pole model for high energy scattering amplitude problems
[UR-875-178] 13 p2375 N67-25645
Regge pole model applied to high energy particle scattering by nuclei
[AD-648017] 14 p2585 N67-26667
Regge pole concept combined with algebra of currents by generalizing latter to commutation relations on light cone from conventional equal time commutators
[UR-875-179] 14 p2587 N67-27055
Inequality derived to explain dipole nature of leading Regge trajectory
[TUEP-67-4] 14 p2592 N67-27555
Cross section for photoproduction of charged pions in Regge pole model related to vector meson production in pion-nucleon collisions
[TH/191] 14 p2592 N67-27559
Derivation of Orear formula of high energy elastic scattering from Regge theory and unitarity
[TUEP-67-8] 15 p2756 N67-27811
Regge-quark model of hadron scattering
[AD-651038] 15 p2773 N67-28976
Kinematical constraints on Regge pole residues for processes with external spins - vector meson production and charged pion photoproduction
[TH/198] 17 p3138 N67-31376
Regge poles and three-body problem
[UCRL-17250] 19 p3510 N67-33844
Meson-nucleon and nucleon-nucleon collision cross sections at high energies in model unifying Regge poles and broken SU/3/ symmetry
[JINR-P2-3251] 20 p3700 N67-34941
High energy particle interactions and Regge poles
[CERN-67-16] 20 p3704 N67-35220
Kinematical singularities and zeros of Regge pole residues
[LPTHE-TH-198] 22 p4111 N67-37958
Condensation of Regge cuts, vanishing total cross sections, and twisting trajectories
[NP-16870] 23 p4302 N67-38503
Asymptotic unitarity constraints on Regge multipoles and cuts
[NP-16869] 23 p4305 N67-38631
REGION
S POLAR REGION
S STAGNATION REGION
REGRESSION
Regression velocity of Hthergolic propellant 06 p1355 N67-18671
REGRESSION ANALYSIS
SA BIOMETRICS
SA VARIANCE
Regression analysis of data from shipboard tests of electronic equipment
[NEL-1385] 01 p0039 N67-10921
Computer method for fitting surfaces to assay and other data in three dimensions by quadratic regression analysis
[BM-RI-6876] 02 p0257 N67-12089
Methods for nonparametric estimates of smooth regression functions
[TR-91] 02 p0281 N67-12194
Elimination of independent variables in multiple regression analysis 02 p0416 N67-12889
Bounded range error model applied to evaluation of information content of single pass of Doppler data 05 p0671 N67-14459
Stepwise multiple regression statistical theory and computer program description
[BRL-R-1330] 07 p1109 N67-16928
Fixed-X linear multiple regression model used in conjunction with electronic computer to determine weighting of relevant variables in policy implementation problems 07 p1019 N67-16975
Simultaneous estimation procedure for parameters in multiple equation regression model
[NASA-CR-82492] 08 p1301 N67-18921
Methods for evaluating constants and calculating variances and covariances when solving nonlinear regression problems
[BM-RI-6900] 08 p1303 N67-19255
Three nonlinear estimation procedures generalized for simultaneous application to mutiple regression model
[NASA-CR-82957] 09 p1470 N67-19923
Computing schemes for factorial and regression analysis and underlying theory using linear methods
[NAVWEPS-9001] 10 p1666 N67-21223
Linear regression analysis of fatigue test results for structural aluminum alloys 12 p2113 N67-23583
Tracking system error model regression

analysis results from Apollo-Saturn tests
[NASA-TM-X-53585] 12 p2953 N67-34433
Bibliography of subjective probability and Bayesian procedures - regression analyses
[NASA-CR-84497] 14 p3565 N67-37645
Optimum regression designs for discriminating between two mathematical models for assessing system performance
[SU-307] 16 p1919 N67-29222
Regression method using Fortran IV program for statistical treatment of intermetallic diffusion data
[EUR-3458.E] 16 p2911 N67-29941
Principal factors and regression equations for length of fabric tear in rapid method for appraising snatch tearing
[RAE-TR-67022] 16 p2916 N67-29924
Development of usable metric of information transfer from large scale visual displays
[RADC-TR-67-57] 17 p3009 N67-30307
Curvilinear regression analysis of remote Arctic environment optical data
[NEL-1424] 17 p3121 N67-31309
Multiple regression analysis of upper atmosphere density data and variable density models
[AWS-TR-190] 17 p3656 N67-31313
Methods for maximum likelihood estimation of Weibull parameter and estimation of weighted regression parameters in class of growth functions
[AD-653699] 19 p3478 N67-33838
Combined environment testing of shipboard electronic equipment and use of regression analysis 19 p3415 N67-33130
Statistical and computerized multiple regression analyses for determining optimum composition of high temperature cobalt base alloys used in turbine engine stator vanes
[NASA-CR-54543] 19 p3475 N67-33970
Optimal control method for industrial production processes based on linear set regression equations and statistical decision theory 21 p3821 N67-35802
Numerical investigation of one-dimensional search procedures in nonlinear regression problems
[RE-300] 23 p4003 N67-36774
Scattering of electromagnetic waves by vorticity fluctuations in shear generated turbulent flow
[TR-1001/2240-20/-9] 23 p4113 N67-36807
Multivariate logarithmic and exponential regression models
[RM-4279-PR] 22 p4082 N67-37189
Solar cycle variation of attenuation coefficient of intensity recorded by IGY neutron monitors synoptically studied by regression analysis 23 p4127 N67-37451
Multiple regression equations and regional approach to developing forecasting model on geographic distribution patterns for NASA subcontract awards
[NASA-CR-83486] 23 p4170 N67-37784
Analysis of variance, graphing methods, and regression analysis for statistical computer programs
[ORNL-TM-1663] 23 p4219 N67-38419
Stepwise multiple linear regression computational techniques used to solve data analysis programs
[BRL-R-1369] 24 p4481 N67-39034
Optimization on Chebyshev points in regression analysis
[AD-659664] 24 p4483 N67-40464

REGRESSION COEFFICIENT
Regression equations for specifying atmosphere density above 30 km from observational data at radiosonde altitudes
[TR-187] 01 p0102 N67-11025

REGULATION
SA HEAT REGULATION
SA RULE
SA SPEED REGULATION
Regulatory significance of feedback in plant and animal communities 05 p0639 N67-14376
Approximate method for satisfying requirements imposed for regularization of earth
[JPRS-39456] 05 p0786 N67-15174
Air transportation development opportunities, and strengthening smaller airline carriers to eliminate government regulated subsidies 11 p2004 N67-22381
CAB regulations and actions on competition, route development, and rate structures 11 p2005 N67-22385
Aerospace-related science and technology applied to current law enforcement programs
[NASA-CR-86984] 18 p3359 N67-32373
Stabilization systems of spectrometric channels
[JINR-P13-3225] 19 p3454 N67-33517

REGULATOR
SA FLOW REGULATOR
SA FREQUENCY REGULATOR
SA OXYGEN REGULATOR
SA PRESSURE REGULATOR
SA VOLTAGE REGULATOR
Device for monitoring blocks of regulators 03 p0275 N67-13410
Formulas for calculating optimal control law parameters and weight coefficients of quadratic equation to solve analytical design problem of optimal regulator in closed form 05 p0686 N67-14360
Biodynamic regulator chain models for physical chemical systems in mammals
[NASA-CR-81061] 05 p0658 N67-15152
Influence of variations in membrane curvature and effective surface on operation of pneumatic regulators constructed on force compensation principle 07 p0995 N67-16566
Quality control in problems of analytical design of optimal regulators 11 p1844 N67-22423
Power angle regulator for synchronous machines
[RAE-LIB-TRANS-1192] 11 p1787 N67-23083
High current transistorized regulator for fine current control of arc jet, and for smoothing fluctuations in test section flow field
[RM-355] 12 p2864 N67-24290
Dynamic programming relationship to Liapunov functions for optimization problem for digital pulse regulator 12 p2971 N67-24215
Single ended switching transformer regulator 17 p3036 N67-30592
Comparative characteristics of solar furnace power regulators 21 p3760 N67-35473

REINFORCED MATERIAL
Failure mechanism studies of micromechanical behavior of fiber reinforced composite materials
[AFML-TR-66-177] 01 p0091 N67-11001
Fatigue of reinforced concrete due to complete reversal loading
[NASA-CR-79529] 02 p0314 N67-11683
Fatigue of reinforced concrete due to sinusoidal and random loadings
[NASA-CR-79530] 02 p0314 N67-11684
Equations for mechanical properties of singly reinforced strip of glass fiber with polymer binder
[NASA-TT-F-10379] 04 p0618 N67-13784
Strength in two-phase model systems of glass matrix reinforced by randomly oriented W or Ni fibers
[UCRL-16844] 04 p0557 N67-14062
Microparticle and fiber reinforcement of epoxy resins
[NRL-6493] 05 p0725 N67-14723
Textile processes evaluated for fabrication of three-dimensionally reinforced ablative materials - thermal, physical, and mechanical properties of fabric composites with epoxy resin
[NASA-CR-65568] 05 p0712 N67-14920
Potential use of reinforced plastics and plastic foams as structural materials for Naval ships 06 p1295 N67-18428
Factors affecting reinforcement of aluminum with boron carbide whiskers
[NASA-CR-82908] 09 p1468 N67-30010
Cylindrical and spherical reinforced concrete panels and shells for use as roofs and ceilings in industrial buildings 09 p1536 N67-30130
Forming process for fiber reinforced metal matrix composites
[BNWL-SA-550] 10 p1647 N67-31564
Internal displacements in solid propellant grains - analysis of thick hollow cylinder with reinforcing layers
[AD-646017] 11 p1969 N67-23521
Surface modification effects on composite materials - chemical bonding between glass and plastic in glass reinforced plastics
[NASA-CR-83439] 11 p1812 N67-23875
Nonlinear elastic plates weakened by square holes with reinforced corners 12 p2230 N67-24541
Strength of metallic and plastic cylindrical shells reinforced by filament wound high strength materials
[FTD-MT-65-154] 12 p2230 N67-24773
Limit analysis of plasticity applied to strength evaluation of fiber reinforced composites
[NASA-CR-84450] 14 p3637 N67-37421
Feasibility of machine sewing wire reinforced asbestos and silica cloth piles of flexible heat shield curtain assembly
[NASA-CR-84474] 14 p3646 N67-37668
Filament reinforced high temperature metal development
[AD-649068] 15 p2725 N67-28321
Epoxy resin used as reinforcing material in aircraft structural design
[DLR-FB-66-94] 17 p3005 N67-30644
Mechanical properties of simulated, wire reinforced solid propellants
[TR-36] 18 p3319 N67-32636
High strength aluminum casting alloys reinforced with whiskers
[NASA-CR-87277] 19 p3474 N67-33904
Axial, transverse normal, and longitudinal shear loading of fiber reinforced composite materials
[U-4093] 20 p3736 N67-34189
Photoelastic stress analysis of composite fiber reinforced matrices with inserts
[REPT.-13] 20 p3736 N67-34206
Aluminum-alloy-sapphire whisker composite material preparation
[REPT.-6141.00100] 22 p4090 N67-36862
Dynamic shear and diagonal tension resistance of reinforced concrete I-beams constructed with welded wire fabric as web reinforcement
[R-594] 22 p4157 N67-37772
Structural design, reinforced and composite materials, and their applications
[NASA-SP-5039] 23 p4357 N67-38491
Nomographs for design and revision of elements of reinforced concrete 24 p4544 N67-39573
Construction of nomograph for calculating forces in reinforced concrete beam 24 p4481 N67-39074

REINFORCED PLASTIC
Thermal degradation effects on nonstationary deterioration of glass fiber reinforced plastics 01 p0089 N67-10951
Feasibility of glass fiber reinforced plastic structures for aircraft
[NAEC-ASL-1097] 01 p0100 N67-10923
Interaction of diethyl phosphite with glass surfaces studied by radioisotope techniques to determine factors affecting use of organophosphorus compounds in reinforced plastic
[AD-632753] 03 p0414 N67-12455
Glass fiber reinforced plastic material for spacecraft structural components
[NASA-CR-80685] 04 p0566 N67-13575
Applications of reinforced plastics as structural composite materials
[AGARD-523] 04 p0620 N67-14108
Chemical bonding between glass and plastic in glass reinforced plastic composite material
[NASA-CR-80836] 04 p0567 N67-14207
Cellular structures of glass fiber reinforced plastics as load bearing structural elements
[JPRS-39466] 05 p0772 N67-15177
Survey and bibliography concerning use of reinforced plastics in structural systems
[R-491] 06 p0890 N67-16121
Unsteady heating and destruction of glass plastic in region of stagnation point
[FTD-HT-66-279] 07 p1106 N67-17715
Evaluation of applicability of fiber reinforced plastics in spacecraft and launch vehicle structural components, especially for support of cryogenic tanks
[NASA-CR-81717] 07 p1107 N67-18006
Stress distributions in fiber reinforced plastics analyzed after process shrinkage and external loading
[USAAVLABS-TR-66-62] 10 p1650 N67-29618
Filament winding plastics - synthesis, properties, and uses of m-aminobenzyl amine
[NRL-6439] 10 p1571 N67-30719
Microwave and beta ray backscatter techniques for detecting voids and inhomogeneities in glass fiber reinforced plastics
[SA-TR19-1519] 10 p1663 N67-31890
Hydrostatic pressure tests of glass reinforced plastic sandwich cylinders with syntactic foam core
[DTMB-2191] 11 p1969 N67-23386
Thermal properties of structural reinforced plastics
[RAE-TN-CPM-48] 11 p1983 N67-23762
Design, fabrication, and testing of glass

fiber reinforced plastic aircraft structures
[USAAVLABS-TR-66-76] 11 p1906 N67-22734
Filament wound glass fiber reinforced plastic and composite materials for ring stiffened cylindrical pressure hulls for use in deep submergence vehicles
[DTMB-1834] 11 p1993 N67-23116
Compression testing of plastic plates reinforced with glass fibers preimpregnated with epoxy resin
[NASA-TN-D-3018] 11 p1995 N67-23297
Nondestructive inspection of reinforced plastic structures by nuclear quadrupole resonance method
[ARA-77] 11 p1995 N67-23378
Tensile strength and deformation properties of glass fiber reinforced plastics
[ERDL-T-1575-66] 12 p2123 N67-23497
Stress concentration around holes in glass fiber reinforced plastics and other synthetic materials 12 p2224 N67-24507
Glass fiber reinforced plastic materials for spacecraft and launch vehicle structural components
[NASA-CR-83889] 13 p2408 N67-25879
Graphite fiber reinforced epoxy resin matrix composite
[AFML-TR-66-354] 17 p3085 N67-30650
Glass surface properties effect on glass-polymer bonding in glass reinforced plastics
[AD-654486] 18 p3284 N67-33642
Fatigue, creep, and strain rate of glass reinforced epoxy composite materials used in aircraft structures
[ITRI-M6104] 18 p3294 N67-33662
Comparative measurement of torsional modulus and logarithmic decrement of mechanical damping for assessing heat resistance of reinforced and nonreinforced polyester resins
[RAE-LIB-TRANS-1234] 20 p3685 N67-34616
Stress-strain relationships in woven roving glass fiber reinforced plastic laminate
[REPT.-3436] 20 p3739 N67-34641
Test methods for determining shear modulus of fiber reinforced laminated composites
[AFML-TR-67-22] 20 p3739 N67-34675
Methods for producing high modulus, high strength carbon fiber reinforced plastics
[RAE-TR-67068] 20 p3685 N67-34684
Hydrostatic and cyclic testing of glass-reinforced pressure hull models with titanium hemispherical end closures
[DTMB-2462] 21 p3940 N67-35658
Oxidative thermal stability of fiber reinforced borane based resin composites
[TR-38] 22 p4075 N67-37059
Physical chemical nature of plastic matrix reinforcement interface
[AFML-TR-65-303, PT. III] 22 p4075 N67-37065
Radiant heat effects on glass fiber reinforced plastic laminated aircraft structures
[NAEC-ASL-1112] 22 p4078 N67-37461
Reaction rate analysis for describing tensile behavior of glass-cloth reinforced plastics
[PA-TR-3556] 22 p4078 N67-37536
Static mechanical properties of beryllium wire reinforced plastic composites
[AFML-TR-66-404, PT. I] 23 p4288 N67-38060
New method for calculating void content in glass reinforced plastics
[NOLTR-67-99] 23 p4369 N67-38118
Silicon carbide filament reinforced epoxy resin composites
[AFML-TR-66-383] 24 p4472 N67-39830

REINFORCED PLATE
Rigidity operators of reinforced plate composed of isotropic homogeneous layers 09 p1535 N67-20122
Compression strength of flat reinforced aluminum alloy plates
[S-118] 13 p2418 N67-26126

REINFORCED SHELL
Effect of openings on strength of reactor containment vessels and design of reinforcements
[ITRI-578P23-15] 01 p0109 N67-10765
Theory and experimental results on buckling of unstiffened orthotropic and stiffened conical shells
[AFOSR-66-2327] 03 p0469 N67-12540
Solution to problem of axisymmetric strain of rib-reinforced cylindrical shell by means of Stekiov-Fubini method 08 p1379 N67-19171
Calculation of cylindrical shell reinforced by elastic stiffeners and subjected to concentrated force 09 p1526 N67-20056
Methods of calculating short shells and reinforced shells, and experiments on self-oscillations of cylindrical panels in supersonic gas stream 09 p1527 N67-20062
Deflections and stability of reinforced concrete shallow flexible shells allowing for creep of concrete 09 p1527 N67-20063
Mathematical scheme for free vibrations of cylindrical shell reinforced by stringers 09 p1538 N67-20074
Nonlinear formulation for stability of reinforced cylindrical shells under axial compression 09 p1535 N67-20121
Frequencies of natural vibrations in built-up shells determined by dynamic rigidities method 09 p1535 N67-20124
Mathematical model to determine creep effect on reinforced concrete and thin sandwich shells 09 p1536 N67-20126
Dynamic stability of eccentrically reinforced circular cylindrical shells
[NASA-CR-66313] 09 p1539 N67-20347
Axisymmetric strain of rib-reinforced cylindrical shell 09 p1539 N67-20259
Computer program for optimizing design of ring-stiffened sheet metal nose fairings
[NASA-CR-83318] 11 p1985 N67-22180
Thermal properties of thin walled, reinforced cylindrical shells
[FTD-TT-65-2041] 12 p2229 N67-24713
Torsion effects on circular cylindrical shells with rectangular openings reinforced by elastic ribs
[NASA-TT-F-10744] 14 p2627 N67-27529
Analysis of structurally orthotropic shells by compliance method
[NASA-CR-84507] 14 p2628 N67-27665
Cylindrical reinforced shell under symmetrical deformation and stress distribution along, reinforcement
[FTD-HT-66-407] 15 p2799 N67-28387
Loading capacity of smooth and reinforced cylindrical shells 18 p3350 N67-31785
Free vibrations of circular, conical, and cylindrical shells reinforced by annular ribs 23 p4360 N67-39176

REINFORCEMENT
SA METAL REINFORCEMENT
Influence of selective reinforcement of pursuit roter performance on skill and retention
[HUMRRO-TR-66-11] 01 p0022 N67-10416
Structural reinforced plastic materials at cryogenic temperatures
[NASA-CR-80081] 02 p0317 N67-12051
Effects of multiple schedules of reinforcement in operator electrodermal conditioning
[TR-14] 06 p0804 N67-16345
Reinforcement analysis of group performance
[AD-646624] 06 p0816 N67-16654
Adaptation level interpretation of reinforcement phenomena
[TR-42] 09 p1399 N67-19563
Response rate of rats to qualitative change in liquid reinforcement
[TR-44] 09 p1399 N67-19565
Pursuit rotor performance effects from using reinforcement technique of shaping
[TR-66-23] 12 p2035 N67-24827
Design and evaluation of composite thermoplastic and glass filament reinforcement for buoyant submarine antenna cables
[IR-5] 19 p3476 N67-32837
Effects of reinforcement interval on acquisition of paired-associate responses
[NASA-CR-87473] 20 p3585 N67-34749

REINFORCEMENT RING
Small deformations for stress-strain relationship of axisymmetric nonlinear elastic plate with reinforced hole 09 p1538 N67-20123
Elastoplastic state near ring-reinforced hole in spherical shell 12 p2224 N67-24508
Temperature stresses in thin plates reinforced by rings 12 p2226 N67-24519
Reinforced rings and stress concentration reduction near holes of various type plates 12 p2228 N67-24534
Elimination of stress concentration around holes in laminated objects by use of reinforcement rings in design stage 12 p2228 N67-24535
Reinforcing rings effects on stressed state of spherical shell weakened by two equal circular openings
[NAVSHIPS-TRANS-1034] 17 p3173 N67-30878
Buckling equations used to determine structural efficiency of ring stiffened corrugated cylinders in axial compression
[NASA-TN-D-4073] 18 p3352 N67-32382

REINFORCING FIBER
Geometrical effects of filament twist on modulus and strength of graphite fiber reinforced composites
[AFML-TR-66-121] 01 p0090 N67-10691
Fortran IV computer program for design and structural analysis calculations of filament-reinforced metal shell pressure vessels
[NASA-CR-73124] 02 p0318 N67-12097
Reinforcing fiber systems for ablative composite materials - application to thrust chambers of liquid-fuel rocket engines
[NASA-CR-54723] 02 p0377 N67-12273
Constituent material properties effect on strength of fiber reinforced composite materials
[U-3592] 04 p0620 N67-13906
Filament reinforced composite materials for use in aerospace systems hardware 07 p1200 N67-16980
Fiber orientation effects on tensile strength of hot pressed aluminum-Inconel and aluminum tungsten components
[AECL-2605] 08 p1293 N67-19112
Ceramic fuel research studies, Plutonium Recycle Test Reactor /PRTR/ fuel element performance and fabrication, and materials joining and fiber reinforcement in advanced fuel concepts
[BNWL-269] 08 p1324 N67-19230
Fiber-reinforced metal matrix composites for strengthening core and cladding elements in advanced nuclear fuels 08 p1324 N67-19235
Metallurgical and geometrical factors affecting high temperature tensile properties of discontinuous composites of copper and copper chromium alloy reinforced with tungsten wires
[NASA-TN-D-3886] 09 p1462 N67-19891
Friction and wear effects of carbon fiber reinforced polyester resin
[RAE-TR-66247] 09 p1466 N67-20331
Mechanics of fiber reinforced composite materials
[AFML-TR-66-149, PT. I] 12 p2222 N67-24003
Fibering of oxides in refractory metal matrices
[NASA-TN-D-3923] 12 p2122 N67-25040
Fiber reinforced ceramic materials for high temperature application
[NP-TR-1494] 13 p2342 N67-25502
Reinforcement of ductile metals with strong high modulus discontinuous brittle fibers
[NASA-CR-84872] 15 p2729 N67-28925
Buckling response of compressively loaded reinforcing wires
[SEL-67-2] 16 p2977 N67-29004
Reinforcement of ductile metals with strong high-modulus discontinuous fibers
[NASA-CR-87806] 20 p3658 N67-34669
Whisker reinforcement of cobalt-base alloys
[NASA-CR-87811] 20 p3659 N67-34830
Potential reinforcing capabilities of colloidal asbestos fibrils in polymeric structures
[NASA-CR-893] 21 p3875 N67-36914
Stress rupture and creep properties analyzed in tungsten fiber reinforced copper composites
[NASA-TN-D-4173] 22 p4156 N67-37673
Dispersion of free harmonic waves in fiber reinforced composites
[TR-67-3] 23 p4353 N67-38077

REISSNER EQUATION
Reissner-type equations for linear stress distribution determination through plate thickness 09 p1522 N67-20031

REJECTION
Passive method for improving common-mode rejection using magnetic device
[HDL-TR-1347] 19 p3413 N67-33895
Dynamics of water rejection from hydrogen-oxygen fuel cell to hydrogen stream
[NASA-TN-D-4201] 23 p4181 N67-38425

RELATION
S STRESS-STRAIN-TIME RELATION

RELATIVISTIC EFFECT
Particle scattering through short range central field - definition of scattering cross section 11 p1981 N67-22183
Physical meaning and relative time of Bethe-Salpeter solutions
[NP-16897] 23 p4194 N67-38436

Ground state of atomic two-electron systems in independent particle model determined by Hartree-Fock calculation
[SR-34] 24 p4500 N67-35612
Relativistic space-times having corresponding geodesics, classified according to Segre characteristics
[NASA-CR-89771] 24 p4483 N67-40473
RELATIVISTIC PARTICLE
SA HAMILTON-JACOBI EQUATION
Radiation attenuation effects upon relativistic particle motion in uniform magnetic field
[NASA-CR-89179] 02 p0291 N67-12303
Compton effect on relativistic electrons in solar atmosphere
[NASA-CR-89186] 02 p0302 N67-12341
Energy sources, energy amounts, and relativistic particle components of radio galaxies 05 p0761 N67-14856
Radiation decrease effect on relativistic particle motion in uniform magnetic field
[NASA-CR-81270] 06 p0941 N67-16697
Integral equations expressing unitarity in system of relativistically invariant scattering amplitudes 07 p1145 N67-17396
Magnetic system of 700 MeV relativistic cyclotron electron model for investigating resonance method of particle extraction
[JINR-P-2853-1] 07 p1157 N67-17590
Braking of relativistic particles in low atmospheric layers 09 p1497 N67-20245
Summary of research in elementary particle physics
[CALT-68-101] 10 p1701 N67-20781
Current algebra research
[CALT-68-102] 10 p1701 N67-20784
Relativistic quark model as representation of current algebra
[CALT-68-103] 10 p1701 N67-20795
Theoretical analysis of ion vertical motion in central region of relativistic cyclotron
[JINR-P9-3017-1] 10 p1740 N67-21677
Method to determine content of relativistic protons and electrons in synchrotron radiation sources
[NASA-CR-83834] 11 p1973 N67-23260
Narrowing effect of neutrino during interactions with relativistic electrons
[JINR-P-2779] 13 p2160 N67-23578
Four-dimensional relativistic model for Green functions and scattering amplitude of scalar particles
[JINR-P2-3114] 14 p2590 N67-27455
Equivalent potential method for relativistic scattering
[UCRL-17311] 15 p2767 N67-28527
RELATIVISTIC PLASMA
Statistical electrodynamics for determining material coefficients with spatial and frequency dispersion in relativistic plasma 05 p0748 N67-15342
Plasma studies dealing with statistical theory of radiation, bremsstrahlung and conductivity, and generation of second harmonics by spatial inhomogeneities of charge distribution
[AD-644368] 05 p1491 N67-19500
Derivation of quantum Vlasov equation and dispersion relation of relativistic electron gas
[MPI-PAE/PL 2/67] 12 p2180 N67-23907
Plasma with relativistic electrons in magnetic mirror trap 13 p2161 N67-24173
Dielectric tensor elements derived for study of wave dispersion near cyclotron harmonics for Alouette satellite 19 p3513 N67-33987
Wave dispersion in cyclotron harmonic resonance regions investigated for Alouette satellite application 19 p3513 N67-33988
Landau damping in relativistic plasma
[NASA-CR-88269] 21 p3910 N67-36035
Relativistic calculation for bremsstrahlung spectrum of Maxwell-Boltzmann plasma
[UCRL-50227] 22 p4114 N67-36993
Relativistic nonlinear interaction of cold plasmas with electromagnetic waves described by field equations and equations of motion
[IPP-6/36] 22 p4122 N67-37887
Equilibrium statistical mechanics of neutral one-dimensional plasma having positively and negatively charged sheets 23 p4323 N67-38757
RELATIVISTIC THEORY
Relativistic quantum field theory on neutrino and photon concepts
[JEN-157-DF/I-48] 04 p0667 N67-13967
Relativistic theory, and geometric observations to study phenomena occuring in neighborhood of time line
[NASA-TT-F-10356] 06 p0901 N67-15554
Transition from relativistic mechanics to relativistic quantum dynamics through homogeneous canonical formalism - Schroedinger and Klein-Gordon equations
[NASA-TM-X-56965] 06 p1234 N67-16836
Nondynamical integral tests for parity of unstable particles
[INR-741/VII/PH] 11 p1938 N67-23908
Spontaneous breakdown of symmetries and zero mass states - Goldstone theorem in relativistic field theory
[DESY-66/38] 13 p2378 N67-25907
Experiments and predictions on meson-baryon scattering and symmetry 6 group
[JINR-P2-3007] 14 p2590 N67-27452
Determination of neutron-neutron scattering length and effective range in relativistic calculation of muon capture in deuterium
[TH/288] 20 p3696 N67-34632
Generalized four-dimensional unitary relativistic model for quantum field theory without ultraviolet divergence
[JINR-P2-3279] 21 p3908 N67-36027
Relativistic calculation of muon capture in deuterium with application to determination of neutron-neutron scattering length and effective range
[NP-16819] 22 p4109 N67-37071
Red shift, inertial system rotation, Mach principle, and metric comparisons for gravitation theories
[NASA-TT-F-11352] 24 p4496 N67-40286
RELATIVISTIC VELOCITY
Measurability of difference between orbits of two spacecrafts operating by Newtonian and relativistic mechanics 06 p0963 N67-15762
Time-of-flight technique for correlating energy calibration of neutron velocity spectrometers 08 p1316 N67-18804
RELATIVITY
Geodesic motion in incompressible fluid sphere studied in framework of general relativity 06 p1228 N67-19251
Summary of research in elementary particle physics
[CALT-68-101] 10 p1701 N67-20781
Covariant Noether identities in covariant field theories
[NASA-CR-84066] 12 p2369 N67-26178
Relativistic model in quantum field theory not based on perturbations
[JINR-P2-3113] 14 p2591 N67-27456
Passive nonmetallic gyroscopic earth satellite for measuring in-plane precession predicted by general relativity
[NASA-CR-84570] 15 p2768 N67-28063
Radiation physics studies of relativity and quantum mechanics
[ISS-67/1] 15 p2771 N67-28845
Extension of relativistic symmetry group to non-collinear processes
[JINR-E2-3279] 21 p3907 N67-36025
General features of rotation and Lorentz groups in framework of finite geometry
[RT/FI/67/18] 24 p4483 N67-40266
RELATIVITY THEORY
SA FIELD THEORY
SA SCHWARZSCHILD METRIC
Gravitational fields, Newtonian theory, and relativistic cosmology 05 p0760 N67-14850
State, gravitational, and equilibrium equations for highly collapsed stars with relativity effects, and applications to neutron stars and large, low density masses 05 p0761 N67-14859
Computer signal processing approach for Shapiro fourth test of general theory of relativity
[ESD-TR-66-431] 05 p0881 N67-15068
Tetrad and dyadic formulations of junction conditions in general relativity obtained and used to solve Einstein field equations 06 p0916 N67-15740
Complex relativity theory and wave mechanics - attempt to show that mathematically defined complex gravitational world represents physical world and gives unified relativity field theory
[NOLTR-66-180] 06 p0927 N67-16180
Relativity theory lectures involving Lorentz transformations, Minkowski space, and tensor analysis
[NASA-CR-81231] 06 p0918 N67-16510
Research involving gravitational radiation, general relativity, and quantum theory
[AFOSR-66-2699] 07 p1155 N67-17765
Gravity, relativity theory, celestial mechanics, and stellar evolution - conference review
[ACIC-TC-1115] 07 p1190 N67-17819
Null geodesics in general theory of relativity 09 p1335 N67-19310
Effect of nodal regression of orbit on gravity gradient precession of gyroscopic satellite in testing general theory of relativity
[NASA-CR-82590] 09 p1389 N67-19340
Friedmann and Bianchi models of relativistic cosmology
[AFOSR-66-2982] 10 p1700 N67-20665
Relativity theory and new energy content for basic laws of nature
[FTD-MT-66-37] 10 p1698 N67-20713
Existence and quark properties of elementary particles of largest mass
[JINR-E2-3273] 10 p1701 N67-20788
Gravitation theory as generalization of relativity and Newton theory
[AFOSR-66-2983] 10 p1696 N67-21713
Quantum theory of measurement in relation to general theory of observation and control, and triality in structure of field theory
[AFCRL-66-646] 12 p2173 N67-24759
Interaction of elementary particles with gravitational field in general theory of relativity and in generalized linear theory of gravitation
[FTD-MT-66-177] 12 p2174 N67-24915
Proof of special relativity theory by high energy physics experiments
[BNL-TR-70] 15 p2765 N67-28460
General relativity theory and effects on planetary orbits and interplanetary radar observations - Propagation of electromagnetic waves according to general relativity - Doppler effect
[ESD-TR-66-444] 16 p2906 N67-29130
Factoring Newton equation for gravitation by velocity of light 17 p3125 N67-31496
Empirical facts giving evidence on Dirac gravitational hypothesis, problems of general relativity, and mathematical theory of abstract algebras
[ARL-67-0123] 19 p3447 N67-33686
Gravitational radiation problems and related phenomena - exact and asymptotic solutions of Einstein field equations
[ARL-67-0063] 20 p3697 N67-34544
RELAXATION
SA BED REST
SA CHEMICAL RELAXATION
SA CROSS RELAXATION
SA MAGNETIC RELAXATION
SA SPIN-LATTICE RELAXATION
SA STRESS RELAXATION
SA VIBRATIONAL RELAXATION
Material relaxation and structural damping 05 p0707 N67-14478
Viscoelastic relaxation in liquids and polymers 05 p0698 N67-14479
Wave propagation in viscoelastic solids with measured relaxation or creep functions 05 p0719 N67-14482
Polyethylene terephthalate as cryogenic liner material - mechanical relaxation, morphology, and infrared studies of solvent induced crystallization
[NASA-CR-89823] 06 p0898 N67-15977
Mechanical relaxation in polyethylene terephthalate at 4 to 90 deg K - effects of crystallinity and orientation on relaxation spectra 06 p0899 N67-16088
Relaxation loss and rigidity modulus change in compression springs subjected to high temperature environment 07 p1199 N67-16526
Spin correlation and relaxation in ferromagnets and antiferromagnets 10 p1759 N67-21629
Discrete ordinate technique for Boltzmann equation of hard sphere molecules and application to pseudo-shock relaxation 19 p3512 N67-33984
One-dimensional model describing stellar motion for studying relaxation of self-gravitating gas 23 p4143 N67-37750
Relaxation of two-component self-gravitating gas 23 p4143 N67-37754
RELAXATION METHOD
Plane stress analysis of elastic-plastic states in vicinity of straight crack tip in thin plate
[NASA-CR-773] 11 p1986 N67-23260
New method for system identification based on relaxation technique used in pattern recognition
[NASA-CR-756] 12 p2207 N67-23718
Relaxation and radiolysis methods in

chemistry
[INR-750/XVII/C] 13 p2368 N67-25554
Deep relaxation therapy for behavior modification of patient with phobia 14 p2480 N67-28033
Rotational relaxation effect in low density hypersonic free jet studied using impact pressure measurements
[NASA-CR-86364] 21 p3823 N67-36171
Relaxation method for computing stresses in built-up structures consisting of flat plates
[RAE-TR-67063] 22 p4152 N67-38853
RELAXATION TIME
Recrystallization kinetics and tension relaxation relation using temperature and time dependency of metal crystal internal friction
[FTD-TT-65-1872] 01 p0068 N67-11087
Relaxation electrode processes without a priori separation of double layer charging
[TR-2] 02 p0229 N67-11661
Ramp rise time and relaxation time effects on tensile stress response 05 p0768 N67-14491
Shift of mechanical and dielectric relaxation maxima of polyvinyl chloride over wide range of frequency, temperature, and pressure, and extension of Eyring theory 05 p0723 N67-14541
Electric field effects on critical opalescence, time dependent phenomena related to relaxation times of concentration fluctions for binary mixture
[TR-1] 06 p0839 N67-16129
Ionic forces in polymers - properties of polyphosphates in glass transition region
[TR-13] 06 p0831 N67-16640
Factors affecting relaxation times in star cluster 07 p1190 N67-17269
Electron-electron relaxation rates determined from time-dependent electron velocity distribution 11 p1937 N67-23655
Proton spin-lattice relaxation in liquid methane
[NP-566/PL] 11 p1812 N67-23910
Mossbauer effect study of electronic relaxation rates in paramagnetic ferric compounds
[TR-6] 12 p2047 N67-24790
Relaxation to equilibrium of dilute plasma
[AFOSR-67-0395] 12 p2187 N67-24961
Kinetic equation derived for electron gas in magnetic field - relaxation time for establishing Maxwell distribution
[NASA-TT-F-479] 14 p2594 N67-26507
Rates and mechanisms of solvent exchange reactions studied with paramagnetic transition metal ions in solution
[AFOSR-67-0663] 15 p3656 N67-26256
Concentration fluctuation relaxation times in binary mixture investigated by scattered light measurements of electric field effect on critical opalescence
[TR-3] 15 p3656 N67-26390
Free carrier absorption, valence band effective masses and relaxtion times in zinc antimonide cadmium antimonide alloys
[NASA-CR-85579] 17 p3149 N67-30807
Quantum mechanical expression expanded into power series for relaxation time and shear viscosity of gas consisting of loaded sphere molecules
[NASA-CR-85705] 17 p3135 N67-31127
Energy-dependent relaxation times and chargecarrier mass - influence on ionization waves in plasmas
[RADC-TR-67-323] 18 p3314 N67-32154
Initial behavior of pseudo-shock and relaxation of gases
[R-350] 18 p3360 N67-32661
Measurement of relaxation times of concentration fluctuations by electric field effect on critical opalescence
[AD-657208] 23 p4301 N67-38397
Relaxation properties of polyester based polyurethane under small deformations superposed on large deformations
[PIBAL-937] 24 p4471 N67-39442
Dynamics of second order phase transition in ferroelectric crystals observed by means of light scattering
[TR-3] 24 p4515 N67-39603
RELAY
SA RADIO RELAY
Relay modules for safety and control circuits in reactor plant
[TRG-933/R/, PT. 1] 01 p0046 N67-10069
Synthesis of relay devices insensitive to damages of elements with unreliable input effects 03 p0376 N67-12517
Methods for computing static characteristics of pneumatic relay 07 p0995 N67-16867
Static characteristic improvement of pneumatic relay by installation of flow restrictors of constant pressure drop 07 p0995 N67-16868
Mechanical properties and motion equations of relay track drive 07 p1091 N67-17290
Relay track drive switching element and time delay 07 p1091 N67-17291
Instruction and maintenance manual of standard relay modules for plant safety and control circuits
[TRG-933/R/, PT. 2] 07 p1054 N67-18191
Relay protection and emergency automatic equipment for high voltage transmission lines 11 p1837 N67-22210
Relay automatic control system for objects with large range of variation of dynamic characteristics 11 p1844 N67-22421
High speed electric relays using liquid contracts
[PROM.-3654] 11 p1839 N67-23000
Radiographic detection of flaws in hermetically sealed relays
[NASA-CR-85535] 11 p1840 N67-23261
Sled track photographic camera switch/minus two relay box
[SC-TM-67-290] 22 p4014 N67-37719
Systems engineering approach to multidisciplinary problems in industry, with notes on microwave relay systems and Nike-Ajax rocket 23 p4388 N67-38511
Multipath environment using planetary surface model and fast fading effects on relay link of communications between spacecraft and probe entering planetary atmosphere
[NASA-CR-72145] 24 p4403 N67-39534
RELAY I SATELLITE
Fortran routine for Relay I trapped proton distribution measurements
[NASA-CR-61086] 07 p1048 N67-18040
RELAY II SATELLITE
Wideband communication experiments with COMKAS, Japan via Relay II satellite 24 p4410 N67-40330
RELEASE DEVICE
Acoustic testing of explosive release part for holddown arm release assemblies
[NASA-CR-80615] 04 p0554 N67-13535
Combination chemical heat release and fabric insulation system for preventing excessive loss of body heat of downed pilots in ocean
[TM-67-1] 12 p2032 N67-24375
Simplified passive system for separating launch vehicle from spacecraft
[APL-TG-870] 13 p2407 N67-25322
Explosive release for use in Saturn IB ground support pneumatic system
[NASA-CR-84010] 13 p2331 N67-26261
Latch diaphragm release mechanism for payload separation in space 21 p3937 N67-36205
Release mechanism for separating and ejecting reentry vehicle payload from booster 21 p3937 N67-36214
RELIABILITY
SA AIRCRAFT RELIABILITY
SA CIRCUIT RELIABILITY
SA COMPONENT RELIABILITY
SA QUALITY CONTROL
SA SPACECRAFT RELIABILITY
SA STRUCTURAL RELIABILITY
SA SYSTEM FAILURE
High temperature storage, thermal cycling, and mechanical environmental stress testing of high reliability microcircuit modules
[HSER-3149] 01 p0051 N67-10327
Cold-weld high reliability quartz crystal resonators
[REPT.-1] 01 p0052 N67-10331
Development of reliable, low cost, general purpose resistor
[ECOM-02302-F] 01 p0052 N67-10406
Two-dimensional image filtration for increasing reliability of automatic reading machines
[FTD-TT-65-1894] 01 p0045 N67-11094
Reliability and continuity of observation, and signal to noise ratio of large aperture seismic array
[TR-421] 02 p0254 N67-11237
Directed physical training for increasing work reliability of operators 02 p0230 N67-11613
Set theory and probability theory for defining total and partial system reliability 02 p0247 N67-12183
Mechanized direct labor data collection system to support manufacturing reliability program and to provide information on available manned-machine time and productive time of tool utilization 03 p0403 N67-12714
Implementation approaches for conducting Saturn V launch vehicle program without dummy stages
[NASA-CR-79732] 03 p0467 N67-12931
Reliability analysis of thermal vacuum prototype power conditioning and control system for ion engine
[NASA-CR-80516] 03 p0456 N67-13199
Method for analyzing reliability by use of computers
[NASA-CR-80536] 03 p0372 N67-13205
Reliability of ionospheric density measurements by satellites using dispersion method
[NASA-CR-80680] 04 p0540 N67-13560
Fortran computer program for studying trinomial probability distributions in reliability problem
[ORNL-4004] 04 p0569 N67-14041
Upper stage for ELDO B1 launch vehicle - propulsion system, attitude control, and reliability 04 p0615 N67-14186
Fortran IV programming of test point allocations and reliability analysis procedure for redundant digital system, and application to Mariner C sequencer
[NASA-CR-80636] 04 p0523 N67-14217
Asymptotic Chi-square distribution of log likelihood ratio to obtain confidence limits of reliability of systems that can be represented by Boolean function of Bernoulli variates
[D1-82-0489] 04 p0570 N67-14242
Production, maintenance, and other factors affecting reliability of three medium-capacity, general-purpose Soviet computers 06 p0848 N67-16078
System reliability using topological methods
[R-300] 06 p0803 N67-16119
Reliability, safety, redundancy, and monitoring in ground support system for all-weather instrument landings
[ER-8541, VOL. II] 06 p0806 N67-16127
Operational reliability of electronic equipment
[FTD-TT-65-1166] 06 p0853 N67-16172
Production engineering measure for subminiature high reliability ceramic capacitors
[QPR-1] 06 p0854 N67-16337
Gnotobiotic insertion technique reliability in spacecraft sterilization applications
[NASA-CR-81316] 07 p1056 N67-16721
Monte Carlo type computer simulation, programmed in Algol, for modeling reliability growth
[NASA-CR-81692] 07 p1061 N67-18032
Reliability study of three-motor, majority voting
[NASA-CR-82512] 08 p1222 N67-18556
Multivariate analysis of random variables association, with reliability application
[D1-82-0567] 08 p1303 N67-19236
Basic fundamentals applying to evaluation of reliability program effectiveness
[NASA-SP-6501] 08 p1290 N67-19275
Behavior of first gimbal stabilization loop for reliability analysis of inertial guidance system
[NASA-CR-82979] 09 p1475 N67-19982
Reliability demonstration based on accelerated testing of overstressed components
[NASA-CR-82924] 09 p1454 N67-19983
Development plan for all weather landing system reliability analysis and criteria, and AWLS technology bibliography
[RD-66-2] 09 p1394 N67-20359
Product engineering measure to improve reliability and capability of high voltage miniature silicon rectifier
[AD-643030] 10 p1590 N67-20582
Human reliability prediction and evaluation for Saturn V launch vehicle ground support equipment
[NASA-CR-83119] 10 p1567 N67-21168
Queueing system with intervals of inaccessibility, and reliability problems 11 p1907 N67-22408
Approximation method in determining optimal distribution of reliability and individual elements of system 11 p1907 N67-22409

System reliability, and Laplace Stiltjes transformation of time distribution of trouble free operation 11 p1845 N67-22413
Reliability prediction techniques - ballpark and stress analysis methods [RADC-SP-66-8] 11 p1889 N67-23612
Reliability of proposed confidence level procedure for error probability of bank of correlations 11 p1822 N67-22747
Reliability of redundant electrical generating system configurations for use in SNAP-2 and SNAP-8 [NASA-CR-72306] 11 p1786 N67-22854
Reliability applications of bivariate exponential distribution [ORC-66-36] 11 p1909 N67-23114
Mathematical solutions to cybernetic problem involving automatic control systems, information processing and pattern recognition, and reliability and quality control [JPRS-40629] 12 p2069 N67-24201
Construction and reliability characteristics of semi-Markov process systems operating in periodically alternating modes 12 p2070 N67-24207
Preparedness and unconditional probability of trouble free operation functions derived for repairable multiaction devices 12 p2070 N67-24208
Algorithm for optimization of reliability of redundant system with weight, cost, or size restriction 12 p2070 N67-24209
Average time dispersion expressions for use in correct operation of emergency systems - numerical characteristics of probability distribution 12 p2070 N67-24211
Reliability and maintenance control of complex automatic technical systems - scheduling theory 12 p2070 N67-24213
Reliability of information transmission in complex systems using computers 12 p2052 N67-24215
Reliability of VTOL automatic flight control systems [NASA-TT-F-10001] 13 p2244 N67-25081
Reliability of VTOL aircraft flight control systems 13 p2245 N67-25082
Reliable VTOL flight control system 13 p2245 N67-25085
Application of adaptive principle to increase reliability of aircraft flight control systems 13 p2245 N67-25086
Reliability achievement in VTOL automatic control systems 13 p2245 N67-25087
New model to prototype reliability of acoustical scale models [REPT.-606.132 V] 13 p2416 N67-25581
Algorithm for numerical evaluation of small memory storage multiphase logic circuit reliability 13 p2287 N67-23716
Peak reliability of single phase circuits 13 p2296 N67-25782
Reliability of single phase systems, and method for calculating reliability 13 p2296 N67-25783
Logic probabilistic method for calculating reliability of ship power installations 13 p2249 N67-25784
Determination of efficient data format and data system for lightweight deep space probe [NASA-CR-73065] 13 p2290 N67-25860
Improved reliability of multiphase nondissipative optimum charge regulator [NASA-CR-84021] 13 p2251 N67-26372
Computer system designs for control of stationary errors and fault masking of transient errors in reliable computation with unreliable elements [AD-646825] 14 p2497 N67-26806
Impact of reliability requirements on automatic flight control development [AD-648563] 14 p2447 N67-27461
Uncorrelated method of reliability calculation of automatic systems 15 p2684 N67-28129
Computer program to calculate probability of system success from arbitrary reliability block diagram using IBM 1620 [NASA-CR-84790] 15 p2674 N67-28378
Fuel cell acceptance, performance evaluation, and reliability testing [NASA-CR-84826] 15 p2646 N67-28786
Bionics approach to reliability problems, neuron theory, and neuron and neuron network synthesis using Venn diagrams for geometric solution of logic problems [JPRS-41697] 17 p3010 N67-30618
Comparison of two methods for obtaining confidence intervals for system reliability [D1-82-0557] 17 p3093 N67-31055
Predicted reliability and effectiveness of dynamic systems with finite sets of states 18 p3274 N67-32197
Differential equations describing operation of electrical generating units system and enabling calculation of system reliability at any point in time [P-3594] 19 p3439 N67-32959
United States Navy research in human factors and approaches to increased system effectiveness 19 p3382 N67-32306
Operator performance and crew reliability in relation to systems effectiveness 19 p3382 N67-32308
Human initiated malfunctions in system effectiveness, and need for definition and adequate data acquisition 19 p3383 N67-33311
Human reliability method of operator performance prediction 19 p3383 N67-33313
Reliability and human error prediction in airborne all weather landing systems [ER-8957, VOL. II] 20 p3676 N67-34285
All-weather landing system reliability analysis [ER-8957, VOL. I] 20 p3678 N67-34568
Probability/confidence estimates from variables performance parameters [DOC.-66SD342] 20 p3652 N67-35168
Probability of one-dimensional Markov process reaching fixed boundaries 20 p3617 N67-35290
Comparison of some reliability growth estimation and prediction schemes [NASA-CR-87993] 21 p3855 N67-35336
Reliability of silicon integrated circuit devices [ASD-TDR-63-316, VOL. XV] 21 p3815 N67-35610
Aging effects in quartz resonators [ECOM-02251-4] 21 p3816 N67-35717
Optimum tests with grouped data from exponential distribution [REPT.-66-C-398] 21 p3879 N67-35676
Reliability testing of ultrasonic welding for integrated circuits [RADC-TR-67-138] 22 p4051 N67-36702
Open-cycle fuel cell development - space radiator optimization, techniques, mathematical models and reliability [NASA-CR-88387] 22 p3962 N67-36782
Gemini spacecraft reliability and quality control test program [NASA-TM-X-60372] 22 p4147 N67-37943
Power system configurations and reliability for interplanetary missions to Mercury, Venus, Mars, and Jupiter [NASA-CR-88479] 22 p3966 N67-37879
Nonlinear nonconvex programming problem and applications in reliability theory and economics 23 p4272 N67-38065
Topological dual extended to nonplanar networks by coherent dual concept, and applied to reliability problems 23 p4272 N67-38065
Order preserving functions application to majorization and order statistics [D1-82-0583] 23 p4276 N67-39204
PAGEOS design and reliability program 23 p4353 N67-39273
Reliability problems in systems analysis considered in terms of exponential and distribution functions [RR-69] 24 p4456 N67-39643
Conference proceedings on quality and reliability management [AD-648315] 24 p4457 N67-39646
Conference proceedings on quality and reliability management techniques and concepts [AD-648316] 24 p4456 N67-40068
Reliability analyses of global point-to-point communications system network for supporting manned and unmanned space missions [NASA-TM-X-60565] 24 p4410 N67-40497

RELIEF MAP
Relief features, climate, surface waters, soil mantle, vegetation cover, and animal inhabitants of Sinkiang province of Central Asia [JPRS-40299] 14 p2526 N67-27583
Vertical exaggeration ratios selected for three-dimensional mapping [TR-2] 23 p4241 N67-38148

RELIEF VALVE
SA PRESSURE RELIEF VALVE
Vibration analysis of safety and relief valves in 4-inch steam pipeline of sodium components test installation [NAA-SR-MEMO-11961] 07 p0999 N67-17566
Function test on relief valve for launch complex operations [NASA-CR-84049] 13 p2231 N67-26286
Environmental testing of compound pressure and vacuum relief valve [NASA-CR-84976] 13 p2232 N67-26289
Surface finish, piping configuration, and leak tightness evaluations on seat materials for pressurizer steam relief valve [Y-EF-23] 15 p2747 N67-29414
Testing of relief valve for air conditioning unit condenser used in Saturn ground support equipment [NASA-CR-85264] 16 p2900 N67-30056
Operational requirements testing of launch complex relief valve for relieving overpressure in liquid oxygen recycle line [NASA-CR-86017] 21 p3855 N67-35661
Functional and environmental testing of relief valve for liquid hydrogen transfer system [NASA-CR-86005] 21 p3860 N67-36088
Operational and environmental testing of LOX tank relief valve used in Saturn IB program [NASA-CR-86111] 21 p3862 N67-36282
Environmental and function testing of relief valve [NASA-CR-86124] 21 p3863 N67-35416

REMOTE CONTROL
Manual control of remote manipulators examined by analog simulation [AMRL-TR-66-21] 01 p0033 N67-10404
Instrumentation - radio electronics, electrical measuring devices, automation and telemechanics, computing instruments, gyroscopes and navigation aids, and optical, thermal, and bionic devices [JPRS-38750] 03 p0386 N67-12761
Synthesis of telemechanical coders based on code-intersection diagrams 03 p0364 N67-12771
Device for automatic and remote control of various machines for excavating at a given slope with aid of light beam 03 p0378 N67-12786
Design and implementation of digital interface for computer control of remote manipulator [NASA-CR-80643] 04 p0518 N67-14239
System requirements and design concepts of remote control command loop for future unmanned spacecraft [NASA-CR-81523] 07 p0998 N67-17120
Remotely operated equipment for fabricating high flux isotope reactor target elements [ORNL-P-2410] 07 p1092 N67-17453
Automatic remote control systems for radio engineering devices [FTD-HT-66-253] 10 p1585 N67-20721
Electromechanical remote position sensor for setting timer [SC-TM-65-259] 10 p1630 N67-20894
Remote control automated radiometer with pulse attachment to improve pulp and loading parameters in ore dressing plant 10 p1646 N67-21375
Measurement and display of control information using remote manipulation and manual control techniques [NASA-CR-83980] 13 p2263 N67-26018
Error correcting device for remote frequency control systems subjected to pulse interference 15 p2665 N67-27634
Development of remote typewriter console for on-line computing service [RM-5218-PR] 16 p2965 N67-29852
Universal power supply system consisting of 2.5 kW regulated dc supply, 2 kW inverter, and remote control assembly [ECOM-01278-F] 17 p2996 N67-30437
Measurement and display of control information by remote manipulation and continuous manual control [NASA-CR-85775] 17 p3034 N67-31432
High voltage electron microscope construction guidelines on flexibility, radiation shielding, remote control operation, and horizontal mounting 19 p3459 N67-32815
Reference manual for use of computer with on-line remote devices /CORD/ time-sharing system from teletype terminal 19 p3413 N67-32958
Remote maintenance techniques considered in determining main ring enclosure size for 200 GeV accelerator [UCRL-17195] 20 p3621 N67-34289
Symbolic language for supervisory control of intelligent remote manipulator - MANTRAN

[NASA-CR-88271] 21 p3804 N67-35674
High precision remotely settable electronic timer system
[HDL-TM-66-18] 21 p3848 N67-35928
Remote control console and memory protection system for on-line real time PDP-7 data taking system
[UCRL-17239] 21 p3805 N67-36059
System and subsystem requirements for remote control of roving space vehicle motion
[NASA-CR-88285] 21 p3923 N67-36079
Redesign of long range azimuta laying theodolite
[NASA-CR-88276] 21 p3854 N67-36835
Computer simulation of remote control manipulation
[DSR-79060-5] 22 p3975 N67-36723
Computer simulation for remote control and dynamic system behavior
[DSR-9060-4] 23 p4008 N67-36759
Computer aided control technique for remote manipulator
[NASA-CR-88483] 22 p3980 N67-37687
Visual automobile simulation tests of driver control for sudden changes in previewed path - television and oscilloscope remote controlled simulation
[NASA-CR-89273] 23 p4196 N67-38942
Economic considerations for use of on-line communication system to support time sharing access to computers
[AFOSR-67-3018] 24 p4412 N67-39436
RENAL FUNCTION
Renal lymph oxygen tension in dogs during graded renal ischemia
[NASA-CR-79736] 03 p0347 N67-13015
Influence of thrombocyte aggregation on renal circulation in cats
[AD-636694] 04 p0493 N67-13906
Daily water intake, total urine output, and creatinine clearance for men exposed to simulated high altitude and pure oxygen environment 07 p1011 N67-17605
Flexible tube model of renal blood flow regulating mechanism
[GNE/PH/67-4] 11 p1795 N67-23353
Exposure of human males to normal and high pressures to determine whether modifications of renal function occur
[DLR-FB-67-01] 12 p2028 N67-24582
Continuous infusion of alpha-chloralose anesthetic to dogs for use in cardiovascular and renal function studies
[AMRL-TR-66-136] 13 p2253 N67-25139
Interrelationship between renal hemodynamics and sodium and water balance
[NASA-CR-86695] 16 p3210 N67-31876
Blood-urea method for analysis of heavy muscular work effect on human renal function
[NASA-TT-F-11290] 24 p4386 N67-40220
RENDEZVOUS
S EARTH ORBITAL RENDEZVOUS /EOR/
S ORBITAL RENDEZVOUS
S SATELLITE RENDEZVOUS
RENDEZVOUS GUIDANCE SYSTEM
Successive and polynomial optimization techniques for rendezvous control and boundary problem solutions 16 p2919 N67-29365
Operator performance evaluated in control of simulated remote maneuvering unit during satellite inspection
[AMRL-TR-66-134] 21 p3771 N67-35468
RENDEZVOUS SPACECRAFT
Peripheral vision displays for presenting dynamic tracking information while landing high-speed aircraft, rendezvousing spacecraft, or performing other difficult control tasks
[NASA-CR-806] 16 p2839 N67-29368
Flight profile trajectory optimization for two stage launch vehicle rendezvous mission with orbiting satellite
[NASA-CR-73161] 16 p2927 N67-30152
RENDEZVOUS TRAJECTORY
SA EARTH-MARS RENDEZVOUS TRAJECTORY
Analysis of sextant navigation measurements during lunar module rendezvous
[NASA-TN-D-3673] 07 p1121 N67-16155
Transfer orbit and rendezvous trajectory theory 06 p1363 N67-18663
REPAIR
SA SELF-REPAIRING SYSTEM
Weld repair of aluminum fuel and liquid oxygen containers for Saturn S-IVB program 03 p0402 N67-12704
Failure and repair of single line queueing system 05 p0727 N67-14349
Joining techniques for fabrication and repair of structures in extraterrestrial environment
[NASA-CR-85568] 06 p0886 N67-15679
Feasibility of electron beam welding for repairing cracked compressor blades
[NASA-TM-X-1341] 07 p1092 N67-17511
Equipment, methods, and problems in operation and maintenance of high voltage transmission lines 11 p1843 N67-22202
Preparedness and unconditional probability of trouble free operation functions derived for repairable multiaction devices 12 p2070 N67-24208
Random prognosis parameter used to determine level for which repairs to automatic system is made - preventive maintenance 12 p2070 N67-24212
Detection and repair of failures in stainless steel dryer-preheater piper and heaters of power reactor
[PRWRA-102] 14 p2379 N67-27500
Computer routines, operating manual, and programmers manual for program to simulate weapon system repair shop
[RM-4660-PR, PT. II] 22 p4004 N67-36902
REPLACEMENT
Literary survey on construction principles of replacement devices in reactor technology
[JUL-BIBL-8] 10 p1684 N67-21002
Self-repair theory for digital networks based on Sequential Prime Implicant Form Technique
[ECOM-0944-1] 11 p1845 N67-22533
Ultrahigh vacuum techniques - gas replacement studies
[WERL-3823-34] 16 p2852 N67-29836
Markovian decision model for joint replacement and stocking problem
[TR-93] 17 p3094 N67-31301
Minimum average cost ordering policies for two product inventory systems with joint setup costs
[NASA-CR-87490] 20 p3750 N67-34460
REPRODUCTION
SA FERTILIZATION
Nutritional requirements and breeding behavior of two subspecies of Perognathus
[NASA-CR-80823] 05 p0641 N67-14558
Long term effects of space cabin simulated oxygen breathing on rat physiology and reproduction
[SAM-TR-66-90] 07 p1013 N67-17675
Performance evaluation of Microcard EL-4 document copier for data reproduction
[NASA-CR-88551] 22 p4171 N67-38057
REPRODUCTIVE SYSTEM
Dietary and environment chamber tests conducted to determine nutritional requirements and breeding behavior of three Perognathus subspecies
[NASA-CR-85777] 18 p3202 N67-31725
Ionizing radiation effects on processes of cellular proliferation, megasporogenesis, and embryo sac development in orchids
[UR-235P6-3] 22 p3974 N67-37895
Spermatogenesis and reproductive ability of dogs after 22-day space flight 23 p4194 N67-39103
RESEARCH
S HIGH TEMPERATURE RESEARCH
S NUCLEAR RESEARCH
S OPERATIONS RESEARCH
RESEARCH AIRCRAFT
Flight test of PV-1 experimental air cushion vehicle, and aerodynamic characteristics
[NT-18-1966] 11 p1782 N67-22970
Additional flight test data for XV-9A hot cycle research aircraft - evaluation of propulsion system performance and operating characteristics
[USAAVLABS-TR-66-81] 13 p2241 N67-25460
Microelectronic analog data and digital command control system for transonic dynamic wind tunnel tests of research aircraft models 18 p3244 N67-31595
Formulas for airborne gravity measurements using three orthogonal slide-wire transmitters
[ACIC-TC-1190] 20 p3629 N67-34278
RESEARCH FACILITY
Manual control data acquisition research facility 01 p0057 N67-10174
Variable energy cyclotron - facility, budget schedules, and research programs
[ORO-3296-4] 01 p0057 N67-10622
Mercury beam used in ionic propulsion studies 04 p0693 N67-13890
High-performance microwave facility for experimental research in space communications, radar and radio physics 04 p0828 N67-13949
Long John Thermogasdynamic Test Facility
[UCRL-14841] 04 p0528 N67-14000
Clean room assembly and sterilization laboratories for experiments on Voyager capsule, components and modules 05 p0690 N67-14796
History, research programs, and accomplishments of National Aerospace Laboratory, Netherlands, and by-products accruing from NASA scientific and technological programs
[AGARD-66/3] 05 p0781 N67-14921
Extraterrestrial physics and astrophysics research facility activities
[MPI-PAE-EXTRATERR.-22/66] 07 p1060 N67-17617
Organizational aging in research and development facility
[NASA-CR-71765] 07 p1213 N67-17781
Statistical analysis of hypotheses concerning roles of technological gatekeeper and primary groups in flow of information in small research and development laboratory
[NASA-CR-81753] 07 p1213 N67-18081
Development, purpose, and status of various analytical facilities for handling and processing radioactive samples 08 p1235 N67-18388
Operation and research programs of cryogenic bubble chamber facility
[BNL-10474] 08 p1262 N67-18695
Experimental equipment, facility, and targeting application of 200 GeV accelerator
[UCRL-16836, VOL. II] 10 p1600 N67-20765
Master-slave manipulator maintenance program at Oak Ridge National Laboratory
[ORNL-P-2356] 10 p1638 N67-20830
Facility for carrying out chemical analyses of radioactive products
[CEA-R-2897] 10 p1582 N67-21000
Economy improvement with standardized movable in-cell boxes and equipment decontamination in nuclear research facility
[JUL-252-RW] 11 p1921 N67-23440
Irradiation facility and equipment for therapeutic tumor treatment of very small animals
[JUL-356-ME] 11 p1925 N67-23033
New high duty cycle high current 600 MeV electron positron linear accelerator of Saclay 12 p2060 N67-24124
Computer control of Los Alamos Meson Physics Facility 12 p2061 N67-24132
Metallographic facility for analyzing curium 244 oxides 12 p2149 N67-24290
Design and construction features of alpha-gamma metallographic facility for handling nuclear fuels and radioactive isotopes 12 p2149 N67-24292
Hypersonic test apparatus, wind tunnel testing, nozzle throat, and frozen flow studies
[NASA-TT-F-10881] 12 p2084 N67-25085
Activity of International Centre for Theoretical Physics 15 p2757 N67-27823
Dual detector facility for measuring scattered gamma or X-radiation
[USNRDL-TR-67-14] 15 p2689 N67-28947
Profile on Laboratory for Research on the Structure of Matter, and materials science projects
[AD-648126] 16 p2845 N67-29462
Reactor technological developments in pressurized water reactor and power reactor research facility
[WAPD-BT-30] 17 p3103 N67-30179
Thermophysics research on space environment, thermal control, infrared physics, and thermal flight experiments 17 p3155 N67-30630
Launch vehicle control system research facility 17 p3040 N67-30681
Scientific and technical work during 1966 at Institute for Extraterrestrial Physics in Germany
[BMWF-FB-W-67-01] 17 p3044 N67-30678
Engineering design studies for planetary radar box and advanced radar and radio telescope research facility 17 p3026 N67-30714
Scientific and technical work from January 1963 through December 1965 at Institute for Extraterrestrial physics in Germany
[BMWF-FB-66-04] 17 p3044 N67-30754
Construction and experimental equipment

of Karlsruhe fast critical facility
[KFK-471] 17 p3109 N67-30653
Short lived fission products studied by isotope separator connected to reactor
[CH-N-65-66] 17 p3110 N67-30901
Design and instrumentation of cosmic ray beam facility for quantitative analysis of high energy charged particle interactions 17 p3045 N67-30993
Activities of scientific stations and air and tractor sledge traverses to inner regions during fifth and initial stage of sixth Soviet Antarctic expeditions 1959 through 1961
[TT-65-50145] 18 p3266 N67-32168
Scientific stations, tractor sledge traverses, and activities of first, second, and third Soviet Antarctic expeditions from 1955 through 1959
[TT-65-50146] 18 p3266 N67-32170
Survey of Soviet research facilities working in automatic character recognition and text reading 18 p3238 N67-32006
Naval Medical Research Institute deep isolation laboratory
[REPT.-27] 19 p3372 N67-32771
Conference proceedings on research facilities, recording systems, and lens designs for high voltage electron microscope
[ANL-7275] 19 p3456 N67-33781
Proposed layout for electron microscope research facility 19 p3428 N67-33798
Structural vibration problems in designing high voltage electron microscope facility 19 p3428 N67-33797
Mechanical system design concepts for high voltage electron microscope research facility 19 p3425 N67-33796
Proposed electric power supply system for high voltage electron microscope research facility 19 p3428 N67-33799
Proposed layouts for superhigh voltage electron microscope research facility, with flexibility for testing lens and component designs 19 p3428 N67-33800
Electric equipment provisions to minimize stray magnetic fields in high voltage electron microscope research facility 19 p3460 N67-33824
Site selection for seismic array station and crustal studies in Norway 1965
[AFOSR-67-1370] 20 p3628 N67-34188
Electromagnetic wave studies in microwave research facility, Italy 20 p3621 N67-35030
Building modifications to optical research facility for satellite tracking with lasers
[NASA-TM-X-55838] 21 p3825 N67-35062
Cryogenic research facilities for high thrust nuclear space propulsion systems
[LA-DC-8725] 21 p3836 N67-35906
Facilities for general services, specialized research, and materials preparation and processing 21 p3829 N67-35579
Instrumentation and facilities planning for meson physics program
[LA-3712-MS] 22 p4107 N67-37595
Materials research laboratory progress report on materials preparation and characterization studies
[AD-657237] 23 p4328 N67-38363
Synthesis and production of man-made diamonds by corporate research laboratory of geographically and managerially diversified industrial complex 23 p4368 N67-38518
Summary of Langley Research Center accomplishments in aeronautics and astronautics during past fifty years
[NASA NEWS RELEASE-67-251] 23 p4178 N67-38221
Semiannual review of supporting research and technology projects at Jet Propulsion Laboratory
[NASA-CR-88968] 23 p4182 N67-38822
Aerospace research, development, test, and evaluation facilities summary including charts on environmental test chambers and wind tunnels
[NHB-8800.5, VOL. II] 23 p4234 N67-39085
Summary of aerospace research, development, test and evaluation facilities with summary charts on environmental test chambers and wind tunnels
[NHB-8800.5, VOL. I] 23 p4234 N67-39086
Research and analysis outline for organizational behavior and administration of scientific and engineering facilities
[NASA-TM-X-60441] 23 p4370 N67-39199
Labor disputes and work stoppages at Kennedy Space Center and Air Force Eastern Test Range July 1964 through July 1965
[NASA-TM-X-60558] 24 p4583 N67-39756
Indian Government atomic energy research facilities 24 p4501 N67-40129
Management and utilization of research equipment in Federal Government laboratories 24 p4557 N67-40547
Nuclear physics laboratory progress summary, including cyclotron work, atomic beams research, and nuclear theory and reactions studies
[PUC-927-260] 24 p4505 N67-40573

RESEARCH PROJECT
Administration, research, and support in psychophysics and psychophysiology
[PRP-23N] 01 p0022 N67-10239
Abstracts on materials sciences research
[AD-633316] 01 p0136 N67-10357
Abstracted data on magnet and solid state research projects
[AFOSR-66-0373] 01 p0138 N67-10358
Collection of abstracted research studies on electromechanical systems
[ATD-66-74] 01 p0066 N67-10423
Summary reports of research projects in chemistry, biology, mathematics, and physics 01 p0169 N67-10574
Neutrino physics, cosmic ray, and elementary particle experiments
[COO-218-36] 01 p0149 N67-10906
Research program on management of science and technology
[NASA-CR-79781] 02 p0237 N67-11239
Crystal spectroscopy research, and free ion analyses
[NASA-CR-79906] 02 p0294 N67-11842
Interdisciplinary materials research including fundamental physics and chemistry of materials, environmental effects and related problems
[NASA-CR-79755] 02 p0239 N67-12074
Technical progress, fiscal laws for encouraging research and development activities, equipment obsolescence, and role and effect of technology on United States economy
[NASA-TT-F-10467] 03 p0475 N67-12626
Economic measures for encouraging scientific research 03 p0476 N67-12628
Special dispositions for research activities by business enterprises 03 p0476 N67-12629
Research program on management of research and development
[NASA-CR-80199] 03 p0477 N67-12904
Activities of Cambridge 6-BeV synchrotron group
[CEAL-1031] 03 p0382 N67-12361
Soviet quantum electronics research
[ATD-66-97] 04 p0558 N67-14312
Materials science research project
[AD-640485] 05 p0667 N67-15622
Research plans and technological developments in metallurgy 06 p0984 N67-15521
Deep Space Network Inherent Activities Project 06 p0837 N67-15902
University research projects in materials science in applied mathematics, chemistry, engineering, geology, and physics departments
[AD-641405] 06 p0946 N67-15897
Theoretical and experimental research summaries on suboptimal self-adaptive binary communication systems
[NASA-CR-81436] 07 p1034 N67-16931
Southampton university program and research projects in acoustic and structural vibrations 07 p1204 N67-17949
European space program, research projects in space technology, and international cooperation of Swiss organizations 07 p1213 N67-17950
Advanced research and development program on space sciences and technologies
[NASA-CR-81966] 08 p1386 N67-18301
Atomic Energy Commission unclassified programs for Fiscal Year 1966
[NAA-SR-12010] 08 p1319 N67-18891
Research project reports pertaining to physics, space sciences, computer systems, information processing, and control systems
[NASA-CR-83294] 08 p1389 N67-18970
Communication and technology transfer among engineers and scientists in research and development programs
[NASA-CR-82400] 08 p1389 N67-18975
Materials science research projects
[AR-7] 09 p1499 N67-19453
Research and technology implications for improving lunar surface roving and flying vehicles
[NASA-CR-82955] 09 p1512 N67-19944
Data bank summaries of proposed MORL experiments in space sciences, earth-oriented applications, and space travel support
[NASA-CR-66283] 09 p1513 N67-19990
Research on lunar base design and construction 10 p1750 N67-20414
Materials sciences research
[AD-645165] 10 p1751 N67-21329
Test program data on thermal insulation composite materials
[ALO-3632-7] 10 p1663 N67-21511
Electron and plasma physics research projects
[REPT.-66-23] 11 p1961 N67-22920
Thermonuclear research projects - scylla, application of holography to plasma diagnostics, plasma guns, and theory
[LA-3636] 11 p1963 N67-23322
Experimental and theoretical research activities at university in nuclear and high-energy physics
[COO-1371-36] 12 p2157 N67-23551
Research project reports on coder components, infrared atomic spectra, semiconductor and plasma physics, and solid state spectroscopy
[NOLC-633] 12 p2154 N67-23781
Summary conference remarks of Director General of ESRO 12 p2214 N67-24482
Materials research projects
[NASA-CR-83924] 13 p2368 N67-25084
Geoastrophysics research pertaining to planetary atmospheres and geomagnetic pulsation 13 p2317 N67-26461
Scientific research in atomic physics, solid state physics, and radio and X-ray astronomy
[NASA-CR-84289] 14 p2554 N67-26616
Bibliography of lunar and planetary research for 1965
[AFCRL-67-0043] 14 p2612 N67-26674
Air Force research objectives in physical, life, engineering, and environmental sciences
[OAR-667-1] 14 p2635 N67-26902
Review of Air Force chemistry program
[AFOSR-66-1854] 14 p2476 N67-27163
Chemistry program appropriations and budget statistics for fiscal year 1966 14 p2479 N67-27170
Completed Air Force sponsored projects in field of chemistry 14 p2479 N67-27171
Multidisciplinary research for utilization of extraterrestrial resources
[NASA-CR-84424] 14 p2635 N67-27279
High energy research, cosmic ray research, nuclear physics, theoretical physics, and plasma physics experiments
[UCRL-17982] 14 p2582 N67-27584
Plasma physics research projects 14 p2609 N67-27726
Supplement to military science conference - practical problems and applications of Army research and development studies for military technology
[AD-647010] 15 p2806 N67-27997
Applied military science technology for in-house research and development of armed forces - conference address 15 p2808 N67-27998
Practical problems and applications of Army research and development - conference address 15 p2809 N67-27999
Research program on effect of substructure on irradiation stability of ASTM A302 steel
[GA-7463] 15 p2725 N67-28311
Research program for nuclear power plant
[EURAEC-1653] 15 p2746 N67-28314
Research projects in nuclear chemistry, instrumental chemistry, uses of organic isotopes, and physical chemistry
[MIT-905-61] 15 p2660 N67-28462
Government aid to encourage research and development in private economy of advanced nations
[NASA-CR-84826] 15 p2699 N67-28758
Additional basic and applied nuclear research projects of activation analysis research laboratory 16 p2943 N67-28870
Research on hypersonic flows - aerodynamics of lifting surfaces, separated flows, boundary layer phenomena, and viscous interactions
[ARL-67-0009] 17 p3048 N67-30848
Marshall Space Flight Center research project, and technological developments on manned space flight, trajectory analysis, structural designs, and related topics
[NASA-TM-X-53630] 17 p3131 N67-30554
Nuclear research and radiation physics

technological developments 17 p3129 N67-30555
Materials research program for application to rocketry and space flight environment 17 p3078 N67-30565
Aerodynamic research program on space and launch vehicle development 17 p3991 N67-30579
Fuel cell technology for space vehicle application 17 p3995 N67-30568
Primary zinc, silver oxide battery design 17 p3995 N67-30569
Advanced vehicle technology and juncture stress fields peculiar to multicellular pressure vessels 17 p3171 N67-30664
Vehicle design, performance, and propulsion of Nuclear Engine for Rocket Vehicle /NERVA/ 17 p3108 N67-30618
Sensitivity of electrostatic, tridirectional accelerometer for aerospace application [TP-303/1966/] 17 p3089 N67-31166
National developments, plans, and research programs in weather and climate modification [NSF-67-9] 17 p3099 N67-31435
History of Air Force Office of Scientific Research [OAR-66-7] 18 p3357 N67-31547
Comparative study of effectiveness in winning government research and development contracts [NASA-CR-85971] 18 p3357 N67-31553
Goddard Space Flight Center microelectronics program - integrated circuit block and semiconductor process development 18 p3241 N67-31563
Langley Research Center microelectronics program - systems, circuits and devices, and materials and components development 18 p3241 N67-31564
Marshall Space Flight Center microelectronics program implementation, hardware development, and research and development 18 p3241 N67-31565
Marshall Space Flight Center thin film microcircuit development program 18 p3242 N67-31568
Research project on plasma radiation shielding for spacecraft application [NASA-CR-66614] 18 p3312 N67-31654
Research project summaries on magnetic moment and hyperfine structure anomaly for helium 3, and atomic beam source of polarized electrons [AD-646830] 18 p3309 N67-31913
Summary of telescopic lunar stratigraphy program 18 p3329 N67-31955
International cooperative program on standardizing composite materials, and general and specific research recommendations [AGARD-524] 18 p3283 N67-32006
Summary data on capsule irradiation research projects 18 p3304 N67-32458
Harvard University Cyclotron Laboratory research activities [AD-652016] 19 p3500 N67-32779
Research activities of observatories engaged in ionospheric propagation studies through satellite transmissions 19 p3401 N67-32983
Research projects and facilities of Illinois University physics department counter and spark chamber and bubble chamber groups [COO-1195-91] 19 p3505 N67-33343
Progress of research projects in electron and plasma physics at Royal Institute of Tech., Stockholm, Sweden [REPT.-67-04] 19 p3519 N67-33636
Chemical research in atmosphere purification and control on nuclear powered submarines [NRL-6491] 19 p3385 N67-33761
Materials research projects in solid state physics, electronics, cryogenics, and radiation effects [AD-650345] 19 p3516 N67-33897
Role of follow-on contracts in government sponsored research and development [NASA-CR-87404] 20 p3749 N67-34154
Neutron physics research project summaries in nuclear spectroscopy, scattering measurements, solid state studies, and fission processes [JUL-443-NP] 20 p3691 N67-34265
Activities of European Organization for Nuclear Research, 1966 [AR-13] 20 p3694 N67-34485
Expenditures of resources, funds, and manpower for research and development programs [NSF-67-7] 20 p3750 N67-34500
U.S.S.R. scientific articles on locomotor adaptations of vertebrates and cephalopods, and information transfer in living systems [FTD-HT-66-601] 20 p3573 N67-34501
Hungarian development of cooling and lubricating fluids for metal working applications [JPRS-41817] 20 p3649 N67-34874
Summaries of progress during 1966 in research projects covering management planning, systems analysis, information processing, and methods of rationalization in research [REPT.-93] 20 p3751 N67-34918
Nuclear and atomic physics research summaries, and annotated report bibliography [ANL-7284] 20 p3701 N67-34976
High temperature reactor materials, radiation effects on fast reactor cladding and structural materials, and results of various other developments in high temperature material study [GEMP-475A, PT. A] 20 p3683 N67-34995
Survey on industrial aerodynamic research activities [NPL-AERO-1200] 20 p3626 N67-35067
High energy physics research summaries on data analysis systems, accelerator construction and operation, and particle detectors [TID-4005, PT. 6] 20 p3704 N67-35295
Research and scientific reports on statistical communication theory [NASA-CR-87998] 21 p3795 N67-35370
Research project summaries in propulsion, guidance and control, trajectory optimization, physics and chemistry, communications, and related space sciences [NASA-CR-88100] 21 p3952 N67-36161
Research project compilation on optical effects of atmospheric turbulence [NASA-CR-88207] 21 p3897 N67-36560
Research projects to disseminate aerospace technology information generated by NASA and government, and index of articles on marketing technology [NASA-CR-88275] 21 p3953 N67-36840
Research project summaries on nuclear, neutron, space, and theoretical physics [AECL-2752] 22 p4102 N67-36890
Mission planning and research project on electric propulsion systems [NASA-CR-88419] 22 p4132 N67-36941
Theoretical and experimental investigation of physics of crystalline surfaces [NASA-CR-88611] 22 p4125 N67-36943
Deep Space Network research on tracking and navigation accuracy, communications, facility engineering and equipment, and multiple mission telemetry system [NASA-CR-88553] 22 p3996 N67-36965
Tracking and data acquisition supporting research and technology /new systems and spacecraft subsystems/ [NASA-CR-88507] 22 p3998 N67-37186
Nuclear and theoretical physics studies at University of Montreal [LPN-UM-5] 22 p4107 N67-37712
Computer design and programming research on circuits, hardware and software systems, numerical analyses, and machine languages [COO-1469-0064] 22 p4008 N67-37890
Research in analytical chemistry [UCRL-50008-67-1] 23 p4201 N67-38275
Experimental and theoretical high energy physics research projects [TID-4005, PT. 6, REV.] 23 p4300 N67-38344
Argonne National Laboratory Physics Division summary report [ANL-7313] 23 p4294 N67-38421
Applied research concepts, evolving nature of research and technology, and roles of industry, government, and universities 23 p4367 N67-38509
Company investment in research projects, with emphasis on chemical industry, and cooperation between manufacturing/marketing and research 23 p4368 N67-38512
Basic and applied science related to medical progress, and program management and planning in applied research 23 p4188 N67-38514
Evolution and future of applied physical sciences in United States, and current emphasis on basic research 23 p4369 N67-38521

RESEARCH REACTOR
SA BOILING WATER REACTOR
SA LOS ALAMOS MOLTEN PLUTONIUM REACTOR /LAMPRE/
SA TRIGA MARK F REACTOR
Catalog of nuclear reactors designed for research and testing and power production and breeding [ANL-7223] 04 p0577 N67-14605
Research reactor characteristics, neutron spectra, and flux distributions 05 p0735 N67-14617
Nonlinear system stability, optimal control, reactor dynamics, space-time effects, and pulsed neutron research covered in symposium on neutron dynamics and control [CONF-650413] 07 p1122 N67-17041
Increasing height of active zone, changes in auxiliary systems, and radiation stability of materials used in SM-2 research reactor [JPRS-39447] 07 p1137 N67-18111
Neutron activation and iodine-131 tracer test methods for charcoal filter banks at research reactor facility [IS-1425] 08 p1311 N67-18584
Materials compatibility and corrosion studies for research reactor [ORNL-4034] 10 p1686 N67-21479
Thermal neutron flux measurement in Portuguese reactor thermal column [LFEN.23/ALPHA/] 13 p2363 N67-26306
Pneumatic circuit joining research reactor channel with spectrometry laboratory and with activation station for short irradiations [INR-757/XI/R] 14 p2514 N67-27697
Metallurgy of fuel elements for power and research reactors, and of steels for pressure vessels [RISO-139] 15 p2747 N67-28345
Pool and reactor water quality measurements, shutdown data, and instrumentation damage and repair information for Oak Ridge Research Reactor [ORNL-TM-1791] 17 p3111 N67-31015
Infrared detection of nuclear reactor coolant impurities, and absorption hygrometer development [BNWL-377] 18 p3293 N67-31864
Oak Ridge research reactor experimental facilities for conducting mechanical property tests of instrumented capsules [ORNL-P-2162] 18 p3296 N67-32410
Molten-salt reactor irradiation assembly to study radiation and fission effects on molten fluoride fuel salt and construction materials 18 p3298 N67-32422
Core element effect on beryllium-filtered neutron beam from research reactor [AMRA-TR-67-05] 18 p3304 N67-32946
Mechanism of fission gas release from reactor fuels studies, using Oak Ridge Research Reactor [ORNL-P-2978] 19 p3492 N67-33478
Effects of helium coolant pressure changes on research reactor vessel strains associated with core and control rod movements [BNL-11243] 19 p3495 N67-33505
Method and computer program for determining fuel element burnout rate and reactivity from flux density data on FRJ-1 research reactor /DIDO/ [JUL-456-RE] 20 p3679 N67-34117
Use of research reactors in radiation damage studies and in solid state and metal physics [ORNL-P-3038] 21 p3888 N67-36008
Research reactors used for examining atomic and molecular structure of solids and liquids [BNL-11401] 21 p3890 N67-36514
Improved beta spectrometer arrangement for measuring conversion electron spectra from /n, gamma/ reactions at Swedish research reactor [LF-16] 22 p4050 N67-37788
Construction of reactor radioisotope facilities - health physics and safety statistics - administration, operation, and maintenance [JAERI-5016] 23 p4198 N67-39317
RESEARCH VEHICLE
Nuclear research ship and its reactor power plant [EUR-5066.D] 02 p0286 N67-11996
Lunar landing research facility - simulation technique, research vehicle, gantry and bridge crane, control room, data recording, test operations, and system test results [NASA-TN-D-3828] 07 p1061 N67-16148
Optimization of manned lifting body entry

vehicle used for conducting space research tasks
[NASA-CR-66352] 16 p2975 N67-30023
Task identification, requirements, and justification for use in manned flight research program - size influence of lifting body entry vehicle on costs and potentials
[NASA-CR-66353] 16 p2975 N67-30024
Unusual surface vehicle concepts and components evaluated for off-road locomotion 18 p3256 N67-31932
Investigation of landing accident involving M2-F2 lifting body research vehicle
[NASA NEWS RELEASE-67-205] 18 p3544 N67-32305
Flight test of experimental air cushion vehicle with flaps
[NT-12-1967] 20 p3567 N67-34978
Preliminary design and specifications for N-309 NASA V/STOL jet operations research vehicle
[NASA-CR-88063] 21 p3758 N67-36593
RESIDUAL GAS
Background from showers generated by electrons lost by mean-life effect and from interactions of circulating electrons with residual gas in particle accelerator
[LNF-66/22] 04 p0584 N67-13391
Mass spectrometry capabilities of cold cathode magnetron ion source for use in ultrahigh vacuum residual gas analysis
[NASA-CR-66257] 06 p0678 N67-15673
Partial pressure measurements of residual gas mixtures in high vacuum systems by time of flight mass spectrometry
[AEDC-TR-66-150] 10 p1633 N67-21326
Nondestructive method for determining residual gas life of charcoal beds, and motor and lubricant for vacuum operation at cryogenic temperatures
[PB-173179] 17 p3180 N67-30282
Nondestructive method for determining residual gas life in charcoal beds 17 p3013 N67-30283
RESIDUAL STRESS
Hydrogen-induced-cracking technique for studying residual stresses in weldments
[SSC-174] 01 p0161 N67-16933
Device to measure residual stresses by method of electrochemical etching and vibration to reduce friction effects in moving joints 03 p0396 N67-13782
Residual strains and displacements within plastic zone ahead of crack in steel sheets
[SSC-179] 10 p1766 N67-21330
Shear wave refraction for ultrasonic detection of residual stress in cold-worked aluminum 12 p2105 N67-33670
Ultrasonic techniques to measure residual stress in surface of aluminum structures 12 p2105 N67-33671
Specimen width effect on fracture criterion of aluminum alloy sheet material during residual strength test
[NLR-TR-M.2152] 13 p2340 N67-26207
Loading rate effects on residual strength and crack rate propagation in aluminum alloy sheet
[NLR-TR-M.2154] 13 p2341 N67-26208
Nondestructive test methods for detecting and measuring stress corrosion and residual stress 16 p2907 N67-29384
Residual stress in welds of structural elements
[PR-3] 19 p3542 N67-32706
RESIDUE
Effect of acetic anhydride in anhydrous dioxane on C-terminal residues of peptides
[EATR-4028] 02 p0216 N67-12288
Residual properties of molding sand after its contact with liquid metal 06 p0884 N67-15506
Dissolution of plutonium-bearing residues in nitric acid-calcium fluoride solvent system
[RFP-776] 12 p2040 N67-23746
RESIN
SA EPOXY RESIN
SA ION EXCHANGE RESIN
SA LUCITE
SA PHENOL RESIN
SA PLASTIC
SA POLYESTER RESIN
SA SYNTHETIC RESIN
Dynamic compression testing of shock mitigating materials - casting resins, rubber, thermoplastics, and thermosetting compounds
[NOLTR-66-39] 01 p0091 N67-11631
Manufacturing modifications, and glass filler additions for dip resin used in honeycomb structures
[NASA-CR-66517] 03 p0406 N67-13196
Thermal properties, and improvement of organic resins for aerospace application 06 p1296 N67-18678
Interfacial interaction in glass-resin composite structures
[AD-644219] 10 p1662 N67-21945
Encapsulating resin-substrate bond strength as function of humid and dry room temperature aging
[SC-DC-66-2336] 10 p1663 N67-21497
Volumetric determination of free isocyanate in urethane coating resins
[CCL-219] 11 p1815 N67-22361
Mechanical, chemical, thermal, and electrical properties of polyolefin resins used for electric wire and cable insulation
[AD-646547] 14 p2559 N67-26603
Prestressing during resin polymerization for increased strength of one-dimensional laminate
[ONERA-TN-104/1967/] 16 p2916 N67-29941
Tensile and interlaminar shear strengths of glass, boron, and graphite filament wound resin composites and liners for cryogenic pressure vessels
[NASA-TM-X-52350] 22 p4076 N67-37078
Thermodynamics of cation exchange of alkali metals on sulfonic and phenol sulfonic resins
[INR-P-810/VIII/C] 24 p4393 N67-39417
Electric conductivity measurements and temperature frequency characteristics of dielectric losses and permeability in polyvinyl chloride plasticized resins 24 p4473 N67-40074
RESIN BONDING
Microstrain techniques for measuring shear modulus in thin film joints bonded with epoxy adhesives
[PA-TR-3391] 23 p4257 N67-38169
RESISTANCE
SA CONTACT RESISTANCE
SA CORROSION RESISTANCE
SA CREEP RESISTANCE
SA ELECTRIC RESISTANCE
SA FLOW RESISTANCE
SA HEAT RESISTANCE
SA MAGNETORESISTANCE
SA OXIDATION RESISTANCE
SA RADIATION RESISTANCE
SA SKIN RESISTANCE
Thermal resistance of flat, die-cast, and extruded aluminum heat sinks
[P-39] 01 p0163 N67-16034
Oblique leading airfoil edge resistance at hypersonic velocities 01 p0081 N67-16050
Hydraulic resistance and heat transfer in annular channels with smooth and rough heat transfer surfaces 02 p0231 N67-11212
Hydrodynamic resistance of annular channels 02 p0249 N67-11214
Hydrodynamic resistance and heat transfer in inlet section of flat channel with laminar flow of viscous fluid 02 p0222 N67-11221
Evaluation of cross-wire resistance welded joints used in electronic assemblies for aerospace applications
[NASA-TN-D-3714] 02 p0263 N67-11227
Radiant energy effect on body resistance to ionizing radiation 03 p0350 N67-12296
Room temperature resistance and high temperature testing of tubular thermoelectric module
[NASA-CR-66168] 03 p0334 N67-12939
Mechanical shock resistance of threaded fasteners
[MEL-412/66] 05 p0710 N67-14678
Joining techniques for fabrication and repair of structures in extraterrestrial environment
[NASA-CR-65568] 06 p0886 N67-15670
Fire-resistant, high efficiency, particulate air filter requirements
[ORNL-P-2387] 07 p1092 N67-17490
Mechanical resistance measurements of Montival film exposed to gamma rays
[ISS-66/34] 13 p2364 N67-26601
Radiation effect on heat resistant metals and alloys 14 p2558 N67-26988
Evaluations of plastic fatigue properties of heat resistant alloys 14 p2562 N67-26989
Repeated gamma ray treatment effects on radio resistance, virulence, and culture characteristics of certain pathogenic and related bacteria
[TID-23707] 20 p3571 N67-34296
Current reducing fluctuations in narrow superconducting channels, and calculation for intrinsic resistive transition
[TR-20] 21 p3913 N67-35400
Heat sterilizable, impact resistant cell development, and storage battery research
[NASA-CR-66122] 21 p3764 N67-36446
RESISTANCE COEFFICIENT
Behavior of foil resistance strain gauges, and temperature coefficients of resistance
[ARL/SM-NOTE-299] 02 p0260 N67-11910
Coefficients of heat transfer and hydraulic resistance as functions of nonisothermicity in turbulent motion of fluid with variable physical parameters 06 p1266 N67-19497
Road surface texture and change in skidding resistance with speed
[RRL-20] 16 p2929 N67-30016
RESISTANCE DEVICE
SA NEGATIVE RESISTANCE DEVICE
SA PIEZORESISTIVE DEVICE
Resistive loop directional coupler calibration 05 p0674 N67-14453
Electrical analogy technique for determining rotational apparent masses of body in two-dimensional fluid flow
[NASA-CR-73069] 12 p2010 N67-24546
RESISTANCE HEATING
Accelerated life tests of iron chromium aluminum yttrium alloy for electrical heating elements
[GEMP-440] 08 p1290 N67-18586
Mineral-insulated cable resistance heaters for irradiation experiments 18 p3302 N67-32446
Resistance furnace for preparation of high melting point metal single crystals
[INP-797/II] 24 p4469 N67-40329
RESISTANCE THERMOMETER
SA BOLOMETER
Method for checking errors caused by heating in miniature resistance thermometers 03 p0396 N67-12789
Transrotor engine, high temperature platinum resistance thermometer, dynamic analog correlation system and safety valve developments
[NBS-TN-396] 22 p4043 N67-36739
Operation of constant resistance hot-wire anemometer
[ISAV-189] 23 p4255 N67-39257
RESISTIVITY
SA PHOTORESISTIVITY
Resistive plasma instabilities in toroidal hydromagnetic systems
[MATT-424] 02 p0292 N67-11716
Ion collision effect on resistive-g instability of plasmas
[CLM-P110] 03 p0447 N67-12820
Effects of doping type, resistivity, and crystal type on response of silicon diode fast neutron dosimeter
[NDL-TR-83-1] 04 p0601 N67-14161
Apparatus for measuring electric resistivity of irradiated graphite
[NP-16530] 15 p2713 N67-28346
Macroscopic magnetohydrodynamic resistivity instabilities
[SR-46] 19 p3516 N67-33067
Specific heat and electric resistivity of neodymium-iron compounds 21 p3923 N67-36371
Electrical resistivity and flowback effect of thulium single crystals 21 p3923 N67-36370
Pressure effect on optical absorption, radiative recombination, and resistivity of gallium antimonide
[HP-19] 22 p4128 N67-37560
Reactor neutron irradiation of semiconductor single crystals at low temperatures and influence on Hall effect and resistivity
[BMWF-FBK-67-37] 22 p4130 N67-37569
Neutron irradiation effects on resistivity of binary alloys
[ORO-2891-8] 23 p4264 N67-39577
Experiment designed to measure direct current resistivity of boron fibers
[D1-82-0642] 24 p4517 N67-40175
RESISTOJET ENGINE
Ammonia fueled resistojet thruster system for three-axis attitude control and two-direction station-keeping of stable platform type satellite
[NASA-CR-72104] 06 p0883 N67-15677
Subsystem component design and development, and system performance of ammonia fueled resistojet thruster for spacecraft inversion maneuvers
[NASA-CR-72123] 06 p0883 N67-15678
Design, development, and fabrication of ammonia fueled resistojet thruster system for attitude and orbit control of satellites in 500 to 1000 lb class
[NASA-CR-54662] 06 p0884 N67-15847

Mechanical design and testing of thermal storage resistojet
[NASA-TM-X-55864] 20 p3718 N67-35000
RESISTOR
SA ATTENUATOR
SA PRINTED RESISTOR
Simple technique for observing temperature distribution and heat flow and estimating thermal impedance in thin film resistor arrays and integrated circuits 01 p0049 N67-10120
Development of reliable, low cost, general purpose resistor
[ECOM-02203-F] 01 p0052 N67-10406
Feasibility of forming thin film resistors and capacitors by cold substrate deposition
[NASA-CR-80002] 05 p0712 N67-14818
Resistors formed by reactively sputtered tantalum in oxygen
[TI-03-66-36] 06 p0852 N67-15972
Failure mechanisms in metal thin film resistors
[RADC-TR-66-495] 06 p0855 N67-16370
Experiments and test results on thin film resistors and cross over networks, and statistics of thin film production methods
[NAFI-TR-835] 07 p1050 N67-17183
Thin film resistors as source followers in summing resistor network module of communication system
[NASA-CR-65591] 08 p1247 N67-18729
Production facilities for manufacturing multiturn metal film trimmer resistors
[AD-640711] 09 p1434 N67-19879
Bridge using Wheatstone circuit to measure high-megohm resistors
[SC-TM-66-556] 10 p1594 N67-21500
Chebyshev norm and least squares curve fitting methods of determining optimum circuit parameters of quadratron with added compensating series and parallel resistors
[HDL-TM-66-15] 11 p1847 N67-22723
Cryogenic liquid-level sensor composed of diode heated by resistor
[ANL-7343] 13 p2318 N67-25980
Investigation of defective electrical contacts of aluminum interconnecting films to polycrystalline silicon resistors
[NASA-CR-84144] 14 p2504 N67-26520
Dual cathode sputtering technique for thin cermet films
[RADC-TR-66-733] 14 p2506 N67-27006
Photoelectric transducers as controlled elements of electric circuits, with assembly based on photoresistors and low power incandescent lamps 15 p2677 N67-27825
Electrochemical controlled resistors with various readout electrodes 15 p2682 N67-28116
Functional converter design based on nonlinear semiconductor resistors for reproducing power relationships 15 p2677 N67-28119
Electrolytic resistors for microparticle accelerators and their use in plasma physics research
[NASA-CR-73069] 15 p2680 N67-28679
Thin film resistors for silicon integrated RC circuits
[REPT.-3] 15 p2682 N67-28968
Thin film interconnect patterns developed for three hybrid satellite resistor, diode, and transistor circuit applications 19 p3416 N67-32362
Acceleration factors for determining reliability and failure modes for metal film resistors
[NASA-CR-87307] 19 p3417 N67-33475
Failure mechanisms in thin film resistors, and in cadmium selenium transistors 19 p3418 N67-33617
Micropower resistor preparation and electrical properties for electronic devices and circuits
[SCC-27] 20 p3699 N67-34000
Vacuum deposited film process for miniature rhenium resistors
[NADC-AE-6711] 20 p3569 N67-34267
Vacuum evaporated thin film resistors
[NASA-CR-84469] 22 p4911 N67-36927
Stress analysis to determine reliability of Cr-SiO cermet thin films used in fabrication of microminiature resistors 23 p4223 N67-38468
RESOLUTION
SA RADAR RESOLUTION
SA SPECTRAL RESOLUTION
Generation-recombination noise and its influence on energy resolution of diffused silicon p-n junction radiation detectors 03 p0452 N67-12812
Resolution and microphotometric granularity of infrared films
[NASA-TT-F-10664] 06 p1283 N67-18928
Laser interferograms, holographic data sorting for transmission, pulsed laser holograms, holography resolution and image degradation, schlieren holography-ray tracing, and dynamic measurements
[NASA-CR-82828] 09 p1458 N67-19461
Resolution criteria in holography 09 p1483 N67-19466
Factors contributing to degradation of holographic images 09 p1484 N67-19467
Resolution of some O-alkyl hydrogen methylphosphonothioates with dextrorotatory and levoratory alpha phenylethylamine
[REPT.-1966-22] 13 p2273 N67-26502
Resolution, dispersion, and signal to noise ratio in single and double pass spectrographs 14 p2521 N67-26704
Construction and comparison of nonorthogonal incomplete factorial designs, nonorthogonal designs of even resolution, and saturated sequential factorial designs
[ARL-67-0021] 20 p3668 N67-34065
Superdirective design effects on antenna gain and angular resolution, phase pattern characteristics, and pattern correlation
[AFCRL-67-0317] 24 p4405 N67-39659
RESOLVER
Development of prototype resolver to digital converter
[NASA-CR-83925] 09 p1422 N67-19991
Theory and applications of digital resolver
[NOLTR-66-232] 17 p3029 N67-30302
RESOLVING POWER
Resolving power increase of orthogonal distribution, field resolution antenna 05 p0670 N67-14366
Triple pulse generator to study resolving power and dead time of circuits used in nuclear research 06 p0854 N67-16292
Aerial reconnaissance facilities and instruments, and resolving power, haze and rain effects, scanning devices, and optical and photographic media
[TIL/T-5690] 09 p1451 N67-20319
Large transmission, heavy particle spectrometer using preceding magnetic quadrupole lens for improved resolving power
[MIT-2098-276] 10 p1634 N67-21508
Effective resolving time in coincidence measurements on cyclotron beam
[JINR-E13-2926] 10 p1721 N67-21543
Multimodulated cyclotron mass spectrometer with alternating pulses
[IFA-15-38] 12 p2098 N67-23691
RESONANCE
SA CAVITY RESONANCE
SA CYCLOTRON RESONANCE
SA DOUBLE RESONANCE
SA FERROMAGNETIC RESONANCE
SA GROUND RESONANCE
SA MAGNETIC RESONANCE
SA MESON-BARYON RESONANCE
SA MICROWAVE RESONANCE
SA PLASMA RESONANCE
SA PROTON RESONANCE
SA RLC CIRCUIT
SA SPIN RESONANCE
Resonance absorption cross section measurements
[LFEN.45/BETA/] 01 p0119 N67-10039
Configuration splitting of dipole giant resonance for nonmagic nuclei of 1d-2s shell as demonstrated by S32
[UJV-1612] 01 p0125 N67-10047
Accuracy of resonance parameters from combined area and self-indication measurements
[GA-7060] 01 p0116 N67-10056
Mass, width, and quantum numbers of kaon resonance
[BNL-10462] 01 p0130 N67-10904
Resonance production in KKN final states from pion-proton interactions from exposure to liquid hydrogen bubble chamber
[BNL-10461] 01 p0130 N67-10905
Uranium resonance shielding of epicadmium reactions in uranium, plutonium, and manganese detectors
[AEEW-R-483] 02 p0285 N67-11744
Neutron resonance parameters studied using slowing down time lead spectrometer 03 p0439 N67-12590
Oscillator strengths for extreme ultraviolet resonance lines of ions in neon isoelectronic sequence
[NASA-TM-X-55565] 03 p0443 N67-12227
Observation of radiative decays of resonances with lambda hyperons in propane bubble chamber exposed to high energy negative pions
[JINR-E-2858] 03 p0444 N67-13284
Computer program to calculate point cross sections from resonance parameters - nuclear reactor analysis
[NAA-SR-11980, VOL. VI] 04 p0584 N67-13630
Resonances in ionosphere magnetoplasma detected by Alouette satellite 04 p0595 N67-13692
Baryon resonances with spin and parity, and meson resonances
[JINR-P-2790] 04 p0588 N67-14010
Analysis of strange particle resonant states from negative pion-proton interactions
[UCRL-16788] 04 p0588 N67-14013
Resonances in heavy ion reactions and results of study of carbon 12 plus carbon 13 reaction 06 p0930 N67-15623
Absorption and scattering of photons by protons of deformed nuclei, shape of giant resonance, and interpretation of activation or yield curve data 06 p0930 N67-15627
Measurement of gamma ray spectra emitted by nuclei excited as result of resonant neutron capture 06 p0933 N67-15646
Signs of phosphorus-fluorine nuclear resonance spin-spin coupling constants 06 p0818 N67-15738
Mechanical resonance neutron velocity selector system operating on time of flight measurement principle 06 p0913 N67-16313
Nuclear structure - shell model studies, giant dipole resonance, nuclear excitation properties, nuclear reactions in astrophysics, and resonance reactions and isospin - Conference
[ARL-66-0221] 07 p1142 N67-17127
Shell model calculations of sd-shell nuclei, and giant resonance of carbon 12 07 p1142 N67-17130
Giant electric dipole resonance in light nuclei 07 p1143 N67-17133
Isospin and resonance reactions 07 p1143 N67-17136
Measurement of uranium 238 resonance neutron capture integral of uranium carbide clustered fuel elements containing moderating coolants
[EUR-3152.E] 07 p1129 N67-17355
Configuration interaction in helium continuum and autoionization levels
[NASA-CR-71233] 07 p1156 N67-17775
Resonant combustion wave interaction on injector, steady state combustion properties, diagnostic methods for determining wave behavior, and chamber geometry effects on wave properties 08 p1381 N67-18327
Comparison of several methods for determining plutonium 240 resonance absorption in heterogeneous systems
[EUR-3151.E] 08 p1312 N67-18728
Effective group absorption cross sections and resonance overlap
[NAA-SR-11963] 08 p1312 N67-18780
Neutron resonance parameters from combined data on transmission, capture, and scattering areas 08 p1313 N67-18784
Crystalline binding energy effects on resonance line shapes of uranium-238 in uranium oxide lattice 08 p1314 N67-18791
Resonance absorption integral of rhenium 08 p1315 N67-18794
Neutron cross sections and resonance integrals for transuranium elements 08 p1338 N67-18991
Slow neutron resonance parameter and cross section numerical analysis by computer programs 08 p1316 N67-18819
Reactivity measurements of pile neutron cross sections and resonance absorption integrals 08 p1317 N67-18844
Fission resonance cross section requirements for reactor design 08 p1317 N67-18848
Measurement and analysis of fissile nuclide cross sections 08 p1340 N67-18849
Interpretations of neutron cross sections of fissionable materials for resolved resonance region 08 p1340 N67-18850
Neutron resonance absorption
[IN-1021] 08 p1342 N67-18896
Thermal neutron cross sections, resonance parameters, and cross section curves
[BNL-325, SUPPL. 2, VOL. IIA] 08 p1344 N67-19089
Resonance electron motion in discharge flat gap for resonator application, and multipacting in volume resonator 09 p1483 N67-19970

Ferroacoustic resonance in ferromagnets and antiferromagnets
[FTD-HT-66-217] 09 p1501 N67-19802
Simultaneous excitation of electron and ion resonances in magnetoplasma by low frequency modulated, high frequency electromagnetic field
[CEA-R-3053] 09 p1493 N67-20152
Theory of Mossbauer effect applied to resonance absorption of light by impurity induced local modes 10 p1744 N67-20471
Resonance parameter library for TRIX-1 computer code
[NAA-SR-MEMO-12102] 10 p1680 N67-20989
Total-partial width ratios defined by S-matrix theory for beryllium 7 resonance levels
[IC/66/105] 10 p1715 N67-21153
Resonance production and decay and elastic scattering in negative pion-proton two prong interactions
[UCRL-16877] 10 p1725 N67-21605
Neutron resonances and reactivity
[LA-3560-MS] 10 p1728 N67-21665
Plasma wave interaction expressed in terms of wave-particle resonance due to particle motion in turbulent electric and magnetic fields
[IC/66/82] 10 p1741 N67-21787
Radiation effect on self-resonance acceleration of wave particle exposed to magnetic field 11 p1949 N67-21899
Unusual resonance lines of highly ionized atoms of first long period
[NASA-TM-X-55737] 11 p1931 N67-22076
Configuration interaction method for describing resonant or autoionizing states 11 p1933 N67-22117
Molecular beam research - square-wave phase modulation in molecular beam resonance studies and search for shift in transverse electromagnetic mass of electron 11 p1937 N67-22842
Atomic resonance and scattering - magnetic moment of proton and spin-exchange scattering 11 p1937 N67-22844
Few-group treatment of resonance captures - spatial calculation, energy condensation, overlapping resonances, equivalence principles, can treatment, and cluster geometries
[AEEW-R-489] 11 p1939 N67-22945
Intermediate structure in nuclear cross sections analysed in terms of intermediate amplitude with amplitudes
[MIT-3098-273] 12 p2157 N67-23557
Nuclear reactions involving two-body interaction and existence of resonating states
[CEA-R-2985] 12 p2163 N67-23753
Triple-loop technique of atomic-beam magnetic resonance used to determine magnetic moment of plutonium 239
[UCRL-16990] 12 p2165 N67-23755
Phase measurements along linear electron accelerator sections by resonant method 12 p2079 N67-24093
Investigation of slotted iris structure with drift tubes 12 p2082 N67-24139
Oscillation and resonance condition of many element laser - mode selection properties
[SR-4] 12 p2112 N67-24376
Reconstruction of scattering matrix for collinear production of baryon resonances in baryon collisions
[JINR-P2-3069] 12 p2172 N67-24692
Resonance curves for excitation of stationary oscillations, and two photon laser study
[NASA-TT-F-10631] 12 p2113 N67-25008
Effective resonance integral measurements of separated tungsten isotopes and natural tungsten relative to gold
[NASA-TN-D-2957] 12 p2175 N67-25036
Hyperbolic excitons as unstable and not accountable for resonance structure in optical spectra of insulators
[NASA-CR-83750] 12 p2370 N67-25129
Resonances in elastic scattering
[NP-16431] 13 p2373 N67-25542
Parity SU/3/ mixing in meson resonance decays
[UR-875-157] 13 p2375 N67-25644
Infrared radiative corrections for resonant processes
[LNF-67/10] 13 p2381 N67-26307
Parametric resonance of tank with fluid 13 p2421 N67-26427
Pion photoproduction from hydrogen near second and third pion-nucleon resonances 14 p2568 N67-27211
Pressure dependence of energy of resonance gamma ray of gold 197 and hyperfine structure coupling of gold 197 in ordered gold-manganese alloys
[ORNL-TM-1685] 14 p2589 N67-27336
Measurement of effective resonance integral and Doppler coefficient of thorium oxide rods
[WAPD-TM-627] 15 p2747 N67-28360
Fast beam and slow third integral resonance extraction from proton synchrotron
[BNL-11102] 15 p2770 N67-28508
Oscillator strengths for resonance lines of sulfur and silicon ions
[NASA-TM-X-55002] 15 p2862 N67-28799
H functions for transfer of radiation in Doppler broadened resonance line
[CLM-TRANS-9] 15 p2771 N67-28848
Resonances in dibaryonic system
[JINR-P1-3169] 16 p2946 N67-29693
Isobaric analog resonances in elastic and inelastic scattering of protons on lead 208
[ORO-2972-7] 16 p2946 N67-29704
Phi resonance and kaon, muon, and neutral decays 16 p2951 N67-30109
One method of resonance identification
[JINR-P1-3164] 17 p3124 N67-30233
Doppler coefficients and effective resonance integrals of natural and enriched tungsten samples at high temperatures
[NASA-CR-72229] 17 p3168 N67-30729
IBM 7040 computer program for calculating neutron resonance absorption in resolved and unresolved energy regions
[IDO-17212] 17 p3091 N67-30775
Kaon-nucleon forward scattering amplitude evaluated from dispersion relations, and evidence for resonance
[HEP-67-2] 19 p3508 N67-33694
Computer program for estimating resonance effects in reactor fuel burnup
[ORNL-TM-1760] 19 p3492 N67-33695
Electromagnetic interactions, and analog resonance modulation of radioactive nuclear reactions
[NYO-3525-16] 19 p3511 N67-33927
Resonance rectification effects in warm magnetoplasma
[NASA-CR-87497] 20 p3707 N67-34321
Effective resonance integral and Doppler coefficient of uranium 238, thorium 232, and plutonium 240 using code complex LUBRA
[AAEC/E168] 20 p3682 N67-34682
LUBRA complex of codes to provide single flexible entity encompassing various important aspects of resonance absorption in homogeneous systems
[AAEC/E164] 20 p3682 N67-34757
Intensity of radiation transfer in Doppler broadened resonance line expressed in terms of appropriate H-functions assuming semi-infinite atmosphere
[NASA-TT-F-11106] 20 p3704 N67-35216
Cross sections and resonance parameters for U-235, U-233, Pu-239, and Pu-241
[NAA-SR-11900, VOL. V] 20 p3685 N67-35227
Approximate Hamiltonian for analysis of resonant beam extraction from synchrotron
[SJC-A-66-1] 21 p3906 N67-36642
Evaluation of resonance integrals of fission product nuclei
[RT/FI/67/4] 23 p4301 N67-38427
Parameters for first neutron resonance in cadmium 113
[CNAEM-24] 23 p4306 N67-38643
Limitation of ion cyclotron heating in local mirrors of C stellarator
[MATT-411] 23 p4324 N67-39057
Production of isobar N 33 resonance from negative pion proton reaction
[CEA-R-3035] 23 p4313 N67-39094
Photoelectric spectrometer to measure absorption line series and autoionization resonance in ultraviolet spectrum of strontium vapor
[NASA-CR-89961] 24 p4495 N67-39725

RESONANCE CHARGE EXCHANGE

Molecular orbital expansion methods and applicability to resonant charge transfer 11 p1924 N67-22125
Perturbation of resonance states and energy shift in mirror nuclei
[IC/66/106] 11 p1946 N67-22389
Quenching of resonance radiation of sodium by molecular nitrogen
[P-304] 19 p3366 N67-32775

RESONANCE EFFECT

Size resonance effects in proton total absorption cross sections of elements derived and compared with optical model calculations 08 p0934 N67-15899
Excitation energy levels of residual interaction between nucleons within nucleus and photonuclear reactions in giant resonance region 08 p0990 N67-15622
Gamma quantum yield at 90 deg measured following capture of 11 MeV protons by B11, Na23, and Al27 nuclei 08 p0931 N67-15622
Design and operation of resonance neutron selector in Poland 08 p0913 N67-16319
Quantum mechanical calculations to evaluate barrier penetration and resonance effects on phase shifts
[NASA-CR-89580] 07 p1157 N67-17855
Dancoff corrections for square and hexagonal rod lattices
[AE-257] 08 p1232 N67-19301
Pendulum equation for governing resonance effects on satellite due to longitudinal dependence of gravitational field of rotating primary
[RAE-TR-66279] 10 p1700 N67-21056
Resonance excitation and damping of high frequency waves in plasma cylinder exposed to longitudinal magnetic field 11 p1947 N67-21983
Resonant combustion, propellant atomization, and injector hydraulics for liquid propulsion systems 12 p2190 N67-23656
Calculated lambda hyperon-photon mass spectra from lambda hyperon reflection resonance
[JINR-P1-3048] 13 p2376 N67-25915
Natural phenomena in very low and extremely low frequency ranges - whistlers, transverse propagation, ionic plasma waves, resonance effects, and hydromagnetic wave propagation
[ESRO-SN-31] 15 p2787 N67-27980
Dielectric properties of structures, electron band structure and transport properties, and resonance phenomena 16 p2846 N67-29464
Kaon-pion system reaction study on negative kaon beam in hydrogen bubble chamber
[COO-1195-85] 17 p3125 N67-30226
Absorption model analysis of kaon-resonance reactions using pion and vector meson exchange
[AD-652236] 18 p3310 N67-32216
Dispersion curves in nuclear resonance fluorescence related to absorption lines - Faraday rotation
[CEA-R-2925] 19 p3504 N67-32162
Resonance production and characteristic behavior of mesons and baryons from polarized proton interactions
[ITF-66-3] 21 p3905 N67-36398
Effective neutron resonance integral of 30-mil thorium wire relative to integral at infinite dilution
[WAPD-TM-622] 23 p4300 N67-38644
Resonance transparency factor measurements in uranium lattices
[RT/FI/67/13] 24 p4494 N67-40849

RESONANCE PROBE

Resonance absorption of gamma quanta by tin nuclei in germanium studies to investigate electrical activity 01 p0136 N67-10072
Plasma resonance probe to determine some properties of plasma environment 11 p1930 N67-22704
Resonance probe as tool for diagnosing plasmas - resonator geometry, ion sheath, and plasma approximation
[CEA-R-2945] 19 p3515 N67-32227
Slant of recordings from ionospheric rocket payload and use of resonance rectification probe
[REPT.-6] 21 p3942 N67-36189
Brief summary of analytical results on ionospheric data obtained from Indonesian launched resonance probe
[REPT.-7] 21 p3942 N67-36230
Measuring epithermal neutron spectra with resonance monitors 23 p4316 N67-38963

RESONANCE SCATTERING

SA NEUTRON SCATTERING

Resonance scattering of thermal neutron capture gamma rays 08 p0633 N67-13582
Approximation method for calculation of ion-atom rearrangement scattering
[UCRL-17034] 04 p0889 N67-14644
Nuclear Ramsauer effect to interpret neutron giant resonances as maxima created by interference between neutron wave components 08 p0898 N67-15894
Capture gamma radiation measured

following proton bombardment to determine giant resonance region of nuclei excitation 06 p0931 N67-15631
Resonance scattering of photons studied on carbon, magnesium, and silicon using bremsstrahlung 06 p0932 N67-15640
Extended coupled-channel calculation of data on analog state resonances in lead 208 nuclear reaction processes [ORNL-P-3436] 07 p1154 N67-17681
Channel coupling in nuclear reactions applied to resonances in scattering of low energy neutrons by carbon 12 [PUC-937-219] 07 p1155 N67-17686
Neutron physics research on crystal dynamics, diffraction, and resonant scattering 06 p1329 N67-18249
Negative kaon proton elastic diffraction and resonant scattering in GeV region [COO-264-343] 06 p1333 N67-18593
Spin-dependent scattering radii for sodium neutron cross section calculation below 40 keV 06 p1337 N67-18816
Techniques for neutron resonance measurements above 200 keV on lead targets 06 p1337 N67-18823
Differential measurements of neutron scattering cross sections from nitrogen 06 p1338 N67-18830
Resonant scattering method for spin measurement of 3.8 eV neutron resonance in uranium 235 06 p1340 N67-18841
Resonance light scattering by diatomic molecules in external fields [JINR-P-2697] 10 p1712 N67-20979
Computer code for construction of statistical resonances in unresolved resonance region [GA-7136] 10 p1588 N67-21553
Minimum principle in many channel scattering and relationship to resonances near channel thresholds 11 p1932 N67-22114
Experimental examples of atomic and molecular resonance reactions 11 p1933 N67-22115
Angular distributions for elastic scattering of alpha particles on calcium 40 nuclei at various energies analyzed for resonance [INP-502/PL] 12 p2159 N67-23573
Tabulation of thorium 238 total neutron cross sections for 1.9 and 7.5 eV resonances [IN-1040] 12 p2169 N67-24500
Resonance poles in simple model of S-wave pseudoscalar meson baryon scattering [AD-646614] 12 p2174 N67-24965
Intermediate resonances of neutrons scattered by permanently deformed even even nuclei [IC/66/169] 13 p2382 N67-26473
Lasers and resonant scattering used to determine velocity distribution in plasma [ARL-66-0234] 16 p2903 N67-29046
Representation of resonance cross section of uranium 235 and plutonium 239 in calculations of fast and intermediate reactors [BNL-TR-119] 16 p2934 N67-29826
Acoustic scattering coefficients and size distribution of underwater resonant scatterers, and sound scattering in surface layers of the ocean [JPRS-40765] 17 p3057 N67-31461
Theory of resonant dissociative recombination 19 p3502 N67-32946
Comparison of resonance absorption theory used in GYMEA and PEAS codes with exact solutions for resonances in thorium 232, uranium 235, and plutonium 240 [AAEC/TM362] 20 p3692 N67-34277
Resonance scattering of solar radiation in prominences 20 p3722 N67-35043
Intensity beats in resonance radiation and absorption due to coherent excitation of atoms by electron impact [UCRL-17445] 21 p3903 N67-36066
Photon meson productions and electromagnetic couplings of baryonic resonances [TH/210] 23 p4298 N67-38256
Determination of tungsten resonance absorption integrals by activation [NASA-TN-D-4137] 23 p4315 N67-39378
Self-broadening of cesium resonance lines and scattering of cesium resonance radiation [AD-657864] 24 p4586 N67-39648

RESONANCE TESTING
Resonant beam and ultrasonic methods for evaluation of sintered powder steel compacts [SA-TR19-1521] 13 p2111 N67-24987
Resonance testing of lifting body reentry vehicle 14 p2623 N67-26650
Derivation of natural frequencies and modes from resonance test using imperfect excitation [RAE-LIB-TRANS-1213] 15 p2796 N67-27790
Methods for evaluation of resonance curves generated by sinusoidal force vectors to determine critical frequencies and structural damping characteristics [CRREL-SR-97] 18 p3306 N67-32489
Resonance tests on Beagle B206 aircraft using automatic ground resonance testing equipment [RAE-TR-66309] 20 p3568 N67-35194

RESONANT CAVITY
SA CAVITY RESONANCE
Langmuir type probe and microwave resonant cavity technique used to measure electron densities behind incident shock wave in pressure driven shock tube [PIBAL-992] 01 p0132 N67-16300
Microwave resonant cavity measurement of shock-produced electron precursors 07 p1056 N67-16848
Resonant cavity techniques for measurement of electron density and collision frequency of hypersonic flows 07 p1161 N67-16852
Cavity resonator thin-shell model for low frequency earth-ionosphere resonances [IER-7] 07 p1069 N67-17097
Light reflection and transmission of four-mirror resonant cavity 07 p1096 N67-17276
Functional analysis of final amplifier-cavity group, and correction circuit for detuning effects in resonating cavity of particle accelerator [LNF-66/28] 07 p1155 N67-17689
Computer program aided resonant cavity design [LA-DC-8255] 10 p1720 N67-21523
Application of perturbation method to measuring electromagnetic field in resonant cavities [LYCEN-6827] 10 p1732 N67-21785
Radio frequency perturbation measurements in long linear accelerator standing wave cavities [MURA-723] 10 p1605 N67-21825
Tuning and field measurements on long cavity chain accelerator tank [LA-DC-8343] 13 p2302 N67-25918
Absorption spectrum of plasma dielectric in resonant cavity and wave propagation in electron plasma near cyclotron resonance [SURI-KE-1173-367F1] 17 p3141 N67-30496
Compensation of off-resonance effects in resonant cavities of accelerators [LA-TR-66-63] 18 p3256 N67-32104
Concepts for new type of cavity resonator [LNF-67/29] 20 p3630 N67-34725
Resonance-tube igniter for hydrogen-oxygen rocket engines [NASA-TM-X-1460] 24 p4432 N67-40082

RESONANT FREQUENCY
Resonance frequency and damping of internal visceral body structures determined from whole body vibration [AMRL-TR-66-102] 06 p0803 N67-16187
Mesh-relaxation computer calculations of linear accelerator cavity field [BNL-10671] 10 p1698 N67-20729
Resonant frequencies and damping factors of solid dielectric sphere immersed in warm collisional plasma [NASA-TN-D-4083] 15 p2773 N67-28300
Construction and characteristics of simple X-band electromagnetic resonance spectrometer [FTD-TT-65-2010] 16 p2892 N67-29055
Alouette I plasma resonance data analysis, cyclotron harmonic resonant frequencies, and resonant excitation region [NASA-TM-X-55816] 16 p2956 N67-29992
Observations, results, and mathematical theory of Alouette satellite cyclotron harmonics resonances 19 p3513 N67-32890
Shift in resonant frequency of 200-MeV linac cell due to stems supporting drift tubes [BNL-11287] 19 p3498 N67-32925
Natural resonance frequency shift for quantum level system of type displayed by ground state hyperfine structure levels of hydrogen or thallium atom in weak external magnetic field [NBS-TN-346] 20 p3695 N67-34550
Resonance frequency change for cavity charged by plasma with or without static magnetic field [CEA-R-3122] 23 p4317 N67-38289

RESONANT VIBRATION
SA Q-FACTOR
Population inversion by adiabatic expansion of molecular gaseous mixtures [ATD-66-115] 06 p0849 N67-16487

RESONATOR
SA CAVITY RESONATOR
SA ELECTRON TUBE
SA MAGNETRON
SA MULTIMODE RESONATOR
SA OPTICAL RESONATOR
Cold-weld high reliability quartz crystal resonators [REPT.-1] 01 p0052 N67-16331
Electron acceleration calculated up to 30 MeV by rectangular resonators in microtron [JINR-P-2706] 01 p0123 N67-16644
Interference measurement of homogeneity of ruby resonator for laser [FTD-TT-66-44] 01 p0089 N67-11161
Boundary layer oscillations over resonant surface [ASRL-TR-116-2] 01 p0063 N67-11126
Solution to equation for eigenfrequencies of coaxial resonator partly filled with plane parallel dielectric layer 03 p0375 N67-12403
Background from showers generated by electrons lost by mean-life effect and from interactions of circulating electrons with residual gas in particle accelerator [LNF-66/22] 04 p0584 N67-12391
Frequency tuning and temperature stabilization of dielectric resonators - Band pass filter frequency response with rutile and strontium titanate dielectric crystals 07 p1175 N67-16973
Probability method of determining energy losses in ruby laser with misaligned resonators [FTD-HT-66-492] 08 p1388 N67-19235
Resonance electron motion in discharge flat gap for resonator application, and multipacting in volume resonator 09 p1483 N67-19870
Dynamics of electrons in injector buncher consisting of two cylindrical resonators [FTD-MT-65-488] 10 p1693 N67-20717
Production engineering measures for design, processing, and fabrication of precision crystal units [QR-1] 10 p1594 N67-21433
Production engineering measure for quartz crystal unit [QPR-1] 11 p1841 N67-22362
Proton multiple acceleration system resonator designed for synchrophasotron [JINR-P13-3084] 12 p2063 N67-24666
X-ray diffraction and spectral analyses to determine aging and improve reliability of quartz resonators [A-680-11] 12 p2066 N67-24799
Modes of open resonator with plane circular mirrors [PH.L.1966-18] 13 p2369 N67-26301
Stimulated Raman scattering inside resonator of primary laser in steady state 19 p3466 N67-32815
Resonators for synthesis of transfer functions of complex frequency [TR-606-154] 19 p3490 N67-33068
Electrical properties of prototype resonator electrical components [UCRL-17252] 19 p3490 N67-33098
Electronic broadband frequency modulation of high-Q resonator operating at high voltages [UCRL-17372] 20 p3615 N67-34787
Maxwell equations, parameters, and elements of complex waveguide systems and resonators [FTD-MT-64-386] 21 p3814 N67-35585
Aging effects in quartz resonators [ECOM-02251-4] 21 p3816 N67-35717
Design of narrow band filter using dielectric resonators [ECOM-02262-4] 23 p4232 N67-38238
Modal parameter control in crystal resonators [ECOM-2947] 24 p4417 N67-39564
Development of multipole delay networks with resonators for active lattice structure synthesis [AFCRL-67-0333] 24 p4420 N67-40242

RESPIRATION
SA HIGH ALTITUDE BREATHING
SA INHALATION
SA OXYGEN METABOLISM
SA PRESSURE BREATHING
Influence of gel culture medium on reactions of organism under conditions of hypoxia and excess of carbon

dioxide 02 p0184 N67-11448
Nerve reflex regulation of respiration under excess intrapulmonary pressure 02 p0206 N67-11634
Biotechnological development and fabrication of multi-chambered potato tuber respirometer for space flight application - contract
[NASA-CR-82467] 08 p1233 N67-19007
Design, fabrication, and feasibility testing of prototype airborne respiration analyzer for measuring respiration products and oxygen consumption
[NASA-CR-741] 09 p1449 N67-19897
Personal fm/fm biotelemetry system for monitoring respiration, temperature, electroencephalogram, and electrocardiogram data
[NADC-MR-6624] 11 p1796 N67-22550
Relation of radiation induced respiration deficiency to cell survival in yeast Saccharomyces cerevisiae
[RM-349] 13 p2360 N67-26353
Changes in electrogastrogram and breathing amplitude used as indicators of nausea in human males subjected to coriolis stimulation
[TR-18] 20 p3570 N67-34093
Effects of posture, breathing pressure, and immersion in water on lung volumes and intrapulmonary pressures
[AMRL-TR-66-201] 22 p3973 N67-37804
Rat lung changes resulting from prolonged exposure to 100 percent oxygen at 550 mm mercury
[NADC-MR-6710] 24 p4382 N67-39680
RESPIRATORY IMPEDANCE
Impedance pneumograph capable of quantitative measurement of respiratory volumes
[NADC-MR-6622] 07 p1022 N67-17860
RESPIRATORY PHYSIOLOGY
Human lung volume and ventilation measurements by combined spirometry and helium dilution technique during inverted body position
[FPRC/MEMO-223] 01 p0016 N67-10473
Spirographic measurements on human return respiration under rapidly increasing hypoxia 02 p0178 N67-11404
Neuron level analysis of respiratory center readjustment under conditions of breathing with excess intrapulmonary oxygen pressure in cats 02 p0194 N67-11536
Influence of adequate vestibular stimuli of external respiration functioning in man 02 p0204 N67-11621
Respiratory changes and oxygen metabolism in rats exposed to vibration 16 p2829 N67-29250
Soviet articles on casual connection between mountain sickness and ionization of air, and effects of brain functions and training on human performance
[JPRS-41462] 19 p3377 N67-33589
History and early experiments on causal connection between mountain sickness and ionization of air 19 p3377 N67-33590
RESPIRATORY RATE
Respiratory function and maximum breathing capacity in normal young adults at altitudes of 3475 and 4300 meters
[USAMRNL-300] 12 p2027 N67-24725
Respiration and cardiac contraction rate changes in cosmonauts during performance of tasks aboard Voskhod II space flight
[JPRS-40399] 14 p2463 N67-27387
Cardiovascular and respiratory reactions of crewmen during Voskhod II spacecraft orbital flight
[JPRS-40179] 14 p2464 N67-27394
Variability of respiratory functions based on circadian cycles
[NASA-CR-85267] 16 p2836 N67-30046
Development and evaluation of respiration rate transducers for aircraft environments
[NASA-TN-D-4217] 24 p4389 N67-39753
RESPIRATORY REFLEX
Nervous system - conditioned response, respiratory reflex, sleep deprivation reactions, and respiratory changes
[FTD-MT-65-308] 01 p0011 N67-10141
Respiration changes of motor defensive conditioned reaction during different functional respiratory states 01 p0012 N67-10145
RESPIRATORY SYSTEM
SA CARDIORESPIRATORY SYSTEM
SA LUNG
Mechanical properties of lungs and thorax measured by use of expiratory flow-volume curves
[AMRL-TR-66-12] 01 p0018 N67-10096
Effect of increased resistance to respiration on phonocardiogram and ballistocardiogram characteristics 02 p0230 N67-11593
On-line time sharing data processing and computer analysis techniques, and acceleration effects on cardiovascular and respiratory systems
[NASA-CR-79912] 02 p0211 N67-11845
Bibliography of carcinogenic effects of nickel, including clinical and experimental studies as well as occupational parameters of respiratory tract carcinogenesis
[ORO-3461-8B] 10 p1565 N67-21817
Mathematical analysis and digital simulation of respiratory control system
[RM-5344-PR] 16 p2824 N67-30990
Functional organization of brain stem respiratory complex in cat
[NAMI-1001] 18 p3215 N67-32870
Correlation studied between activity of mitochondrial flavin enzymes and regulation of fermentation speed by breathing 20 p3579 N67-35264
Effects of nitrogen dioxide-nitrogen tetroxide on oxyhemoglobin molecule dissociation in dogs after exposure
[SAM-TR-67-33] 22 p3949 N67-36996
Effects of gravitational and inertial forces on cardiovascular and respiratory dynamics
[NASA-CR-88529] 22 p3969 N67-37113
RESPONSE
S CONDITIONED RESPONSE
S DYNAMIC RESPONSE
S ELECTRODERMAL RESPONSE
S FREQUENCY RESPONSE
S HEMODYNAMIC RESPONSE
S MODAL RESPONSE
S PHYSIOLOGICAL RESPONSE
S TIME RESPONSE
S TRANSIENT RESPONSE
REST
SA BED REST
SA SLEEP
Physiological indices changes occurring in humans during prolonged state of physiological rest 02 p0185 N67-11457
Cardiopulmonary responses of young male subjects at sitting rest exposed to simulated high altitudes in hypobaric chamber
[USAMRNL-303] 17 p3002 N67-30518
RESTRAINT
Design criteria and requirements for aircraft cargo restraint system
[USAAVLABS-TR-66-50] 10 p1553 N67-20589
Rat experiments to determine effects of prolonged restraint on gastrointestinal tract function
[NASA-CR-73071] 10 p1553 N67-21434
Chronic restraint effect on absorption from gastrointestinal tract
[NASA-CR-88512] 22 p3969 N67-36964
RETINA
Interaction of central and periphery parts of retina in adapting to light after intense flashes 02 p0209 N67-11673
Medical research on ocular effects of chorioretinal burns produced by thermal radiation
[AD-638642] 04 p0546 N67-13401
Photocoagulator used to study chorioretinal burns in rabbits and primates 04 p0547 N67-13402
Threshold data for production of chorioretinal lesions by thermal radiation 04 p0484 N67-13404
Chorioretinal burns examined in terms of temperature distributions 04 p0484 N67-13405
Threshold distances for retinal burns from low yield nuclear detonations
[SAM-TR-66-49] 06 p0804 N67-16360
Study and conclusions for developing safe-distance charts for eye and retina from nuclear explosions - mathematical model
[AD-641191] 06 p0805 N67-16451
Effects of high intensity radiant stimulation on retinal sensitivity
[DOC.-1549-TDR3] 07 p1008 N67-16893
Electrophysiological response mechanism of fish retina in color information processing
[J-238-4] 08 p1231 N67-19233
Pulse trains in lateral geniculate and retinal ganglion nerve cells
[RM-4870-ARPA] 09 p1491 N67-19793
Electroretinographic reponse of dark adapted eye to weak visual stimuli
[IZF-1967-5] 14 p2465 N67-27698
Flash blindness and retinal injury from high intensity light source 16 p2831 N67-29044
Production of chorioretinal burns in pigmented rabbits by thermal radiation
[SAM-TR-66-105] 17 p3002 N67-30443
Mathematical model for retinal burn and other eye effects from nuclear flashes
[AD-653964] 19 p3378 N67-33631
X-irradiation effect on mammalian retina
[AD-653048] 20 p3579 N67-35189
RETINAL ADAPTATION
Influence of borders on increment thresholds and retinal adaptation
[PLB-17A] 01 p0017 N67-10925
Monocular and binocular aftereffects of chromatic adaptation
[IZF-1966-9] 08 p1231 N67-19258
Immediate and delayed changes in retina and its vascular bed in pigs exposed to intense unfocused light from xenon lamp 16 p2831 N67-29045
Retinal burn and flash blindness from nuclear explosions of various intensities 16 p2832 N67-29232
RETINAL IMAGE
Retinal vascular response to oxygen at increased partial pressures 07 p1011 N67-17604
Anomalies of corneoretinal potential
[FPRC/1223] 13 p2355 N67-25597
RETRIEVAL
SA DATA RETRIEVAL
SA INFORMATION RETRIEVAL
Computer oriented neutron data storage and retrieval system
[UCRL-50122] 11 p1838 N67-22321
RETROROCKET
Techniques for simultaneous ignition of retro and ullage motors on Saturn V launch vehicle
[NASA-CR-66171] 07 p1184 N67-18192
Retrorocket exhaust plume interaction with Martian environment
[RM-354] 12 p2209 N67-24199
RETURN-TO-EARTH PHASE
Trajectory optimization for Apollo-type vehicle under entry conditions during lunar return
[NASA-TR-R-258] 12 p2313 N67-25043
Return-to-earth trajectories from Mars with Venus swingby for 1971-1990
[NASA-CR-66761] 23 p4141 N67-37396
REUSABLE SPACECRAFT
Cost data survey of X-15 as reusable spacecraft
[NASA-TN-D-3732] 02 p0211 N67-11238
Economic impact of reusable orbital transport on manned space flight program
[P-3465] 07 p1192 N67-17976
Airbreathing propulsion applied to reusable launch vehicles
[NASA-TM-X-57064] 07 p1193 N67-17790
Sociological and economical aspects of commercial utilization of reusable spacecraft
[P-3565] 15 p2782 N67-28919
Competitive system approach to design of earth orbital transport systems for passenger and cargo traffic
[NASA-TM-X-53636] 22 p4147 N67-36989
Optimization study of computation and display requirements for human control of reusable orbital transport ascent
[NASA-CR-89086] 24 p4391 N67-40256
REVERSE TIME
SA PONTRYAGIN PRINCIPLE
Test of time reversal invariance in electromagnetic interactions using Mossbauer effect
[NYO-1932-114] 10 p1696 N67-21662
REVERSED FLOW
Tunnel diode shift register with emitter followers for eliminating reversed information flow 15 p2677 N67-28121
Comparative numerical applications of reverse flow theorem to oscillating wings and control surfaces
[ARC-R+M-3486] 23 p3958 N67-37181
Two forms of progressive failure mechanisms of commercial silicon signal transistor - failure from reverse bias at high temperature and from prolonged stressing with high forward current 23 p4223 N67-38463
Eddy current free switching of permalloy thin magnetic film, and large-angle flux reversal measurements
[NASA-CR-89294] 23 p4331 N67-38580
REVOLUTION
Supersonic flow around bodies of revolution with break in generatrix 12 p2309 N67-26380
Stability of shells of revolution taking into

account initial deflections 18 p3348 N67-31651
REVOLUTIONS PER MINUTE
High speed computing circuits used to measure rpm of electric motors 03 p0396 N67-12783
REYNOLDS EQUATION
SA LINEAR EQUATION
SA NAVIER-STOKES EQUATION
Calculation of shear stress caused by sedimentary flow at wall in closed tube using Reynolds equations for turbulent flow
[REPT.-37] 13 p2314 N67-26112
Finite difference solution to propagation of disturbances in infinitely wide foil bearing
[NASA-CR-86780] 21 p3858 N67-35702
Numerical method for treating time transient gas lubrication equation
[NASA-CR-86629] 22 p4057 N67-37799
Numerical method for treating time transient Reynolds gas lubrication equation
[MTI-67TR14] 24 p4458 N67-39928
REYNOLDS NUMBER
SA CRITICAL REYNOLDS NUMBER
SA FROUDE NUMBER
Approximation method for estimating thermal instability effects on convective heat transfer coefficient for spherical bodies in flow at small Reynolds numbers 02 p0324 N67-11233
Heat transfer appropriate to low Reynolds number hot-wire anemometry calculated by Oseen approximation
[ARL/A-252] 02 p0326 N67-11909
Pressure testing of two-dimensional variable ramp external/internal compression intake model for determining terminal supersonic Mach number and free-stream Reynolds number
[ARC-CP-826] 02 p0172 N67-11988
Shock tunnel measurements of surface heat transfer and pressure data of viscous hypersonic flows over pointed cones at low Reynolds numbers
[ARL-66-0111] 06 p0863 N67-15416
Experimental performance evaluation of radial inflow turbine over range of inlet total pressure
[NASA-TN-D-3834] 06 p0870 N67-16694
Effect of Reynolds number on performance of 4.50-inch tip diameter radial inflow turbine
[NASA-TN-D-3835] 07 p1066 N67-17836
Stokes approximation for base flow at very low Reynolds numbers 08 p1270 N67-19282
Structure and behavior of laminar separation bubbles formed under various Reynolds numbers and pressure distributions 08 p1319 N67-19306
Reynolds number and flow incidence effects on cross flow characteristics of flat front, two-dimensional cylinders
[NASA-TN-D-3932] 12 p2010 N67-23800
Stagnation region gas injection in low Reynolds number hypersonic flow
[RM-5273-PR] 12 p2010 N67-24414
Feasibility of constructing high performance aerodynamic impulse facility capable of producing high velocity and Reynolds number environment
[AFFDL-TR-66-139] 15 p2687 N67-28549
Energy spectrum of isotropic turbulence with large Reynolds numbers
[RAE-LIB-TRANS-1201] 15 p2693 N67-28706
Naval Ordnance Laboratory high Reynolds number hypersonic tunnel for accurate aerodynamic and aerothermodynamic measurements within mach number range of 8 to 10
[NOLTR-67-27] 20 p3618 N67-34067
Response of cylindrical structure to turbulent flow field at subcritical Reynolds number
[UTIAS-TN-115] 22 p4154 N67-37097
Reynolds number effects in near wake behind wedge at supersonic and hypersonic speeds 23 p4030 N67-37606
Thermodynamics and gas dynamics experimental facility for study of adiabatic friction for air at high Reynolds numbers
[UCID-15130] 23 p4166 N67-37720
REYNOLDS NUMBER EFFECT
Effect of Reynolds number on slosh damping by flat ring baffles
[NASA-TM-X-53550] 06 p0869 N67-16542
Separated flow - steadiness of separation and reattachment, turbulent mixing coefficient, effect of Reynolds number on base pressure, and reattachment problems
[AGARD-548] 16 p3878 N67-29531
RHENIUM
Soldering titanium alloy with protective coatings of rhenium, rhodium, or silver 02 p0265 N67-11803
Energy level and directional correlations in rhenium 187 03 p0437 N67-12581
Fractional intensities in decay of lutetium 177 and rhenium 186 03 p0439 N67-12592
Gamma and conversion electron spectra of rhenium 184 decay
[JINR-P-2814] 05 p0741 N67-14690
Effect of rhenium on strain rate sensitivity of chromium at room temperature 06 p0892 N67-15838
Relative importance of effects produced by additions of rhenium to tungsten, molybdenum, and chromium 06 p0893 N67-15839
Feasibility of using quenched-in defect technique to study effect of rhenium on vacancy clustering in Mo-35Re 06 p0892 N67-15840
Resonance absorption integral of rhenium 08 p1315 N67-18794
Stability of rhenium-graphite thermocouple 09 p1448 N67-19646
Ultrasonic temperature measuring device
[NASA-CR-72157] 09 p1449 N67-19914
Thermal conductivity of rhenium and problem notes in chemistry, electricity, aluminum alloy fracture toughness, metallurgy and ceramics, nuclear and atomic physics, and optical physics
[PB-173549] 09 p1486 N67-19963
Levels of osmium 188 populated by rhenium 188 and iridium 188
[UCRL-16996] 10 p1698 N67-20730
Gamma vibrational bands in 182 osmium and 184 osmium
[UCRL-16986] 10 p1709 N67-20932
New isotopes - rhenium 175 and rhenium 176
[JINR-P-2910] 10 p1721 N67-21546
Mechanical properties of tungsten and rhenium in W Re Mo alloy development 11 p1889 N67-22292
Nuclear matrix elements of first forbidden beta transitions in rhenium 186, rhenium 189, and thulium 170
[IC/66/111] 11 p1946 N67-23388
Work functions of monocrystalline and polycrystalline rhenium
[UCRL-16663] 12 p2188 N67-23550
Out of pile evaluation of tungsten rhenium thermocouple systems for use in measuring plutonium oxide and uranium oxide fuel temperatures
[GEAP-5166] 12 p2098 N67-23567
Vacuum friction characteristics of single and polycrystalline rhenium
[NASA-TN-D-3955] 12 p2100 N67-24459
Vapor deposition of rhenium and rhenium-tungsten composites by thermochemical reduction of rhenium hexafluoride with hydrogen
[BM-RI-6915] 13 p2273 N67-26366
Acoustic attenuation in ultrasonic rhenium sensor for temperature measurements in carbon atmosphere
[NASA-CR-72343] 14 p2538 N67-27318
Rhenium separation from copper, molybdenum, and tungsten and spectrophotometric determination
[LA-3550] 15 p2662 N67-28611
Gamma and conversion electron spectra from rhenium 184 decay
[ORNL-TR-1442] 16 p2941 N67-29272
Radiation effects on crystal structure of molybdenum, nickel, and rhenium
[BNWL-361] 16 p2960 N67-29762
Nuclear reactions for producing tungsten 189 and rhenium 190 radioisotopes, and decay characteristics
[CNEA-175] 16 p2951 N67-30098
Schottky data used in analysis of metal-vacuum surface barrier for thermionic emitters - rhenium
[SR-1] 17 p3146 N67-30218
Electric and magnetic properties of K equals 1 rotational band in rhenium 188 - transition probabilities in odd-odd nuclei
[AE-290] 17 p3129 N67-30543
Complex-chemical and polarographic investigation to characterize technetium, and comparison with rhenium
[JUL-465-RC] 20 p3589 N67-34165
Vacuum deposited film process for miniature rhenium resistors
[NADC-AE-6711] 20 p3589 N67-34267
Hypersonic flow of rarefied rhenium gas around sphere
[NASA-TT-F-11194] 22 p4022 N67-36898
Liquid and solid cesium deposition on rhenium substrates by vapor deposition
[S-67-1065] 22 p4125 N67-36811
Thermochemical separation and spectrographic determination of impurities in rhenium
[UCID-15153] 22 p3992 N67-37989
Tungsten-rhenium alloys tested as thermocouple materials for high temperature measurement of ceramic fuel elements
[AECL-2788] 24 p4469 N67-40360
RHENIUM ALLOY
Mechanical properties of chromium, chromium rhenium, and derived alloys
[NASA-CR-81225] 06 p0892 N67-15833
Effect of temperature on hardness of Cr-Re alloys in range 0 to 40 atomic percent Re 06 p0892 N67-15834
Activation volume analysis for Cr and Cr-35Re 06 p0892 N67-15837
High-temperature reactor materials research - creep-rupture tests on Mo-Re-W alloys and on arc-cast Mo and W sheets 11 p1919 N67-22082
Effect of carbon additions on shear modulus of tungsten and tungsten-rhenium alloy
[ARO-D-228] 11 p1899 N67-23108
Mechanical and physical properties of tungsten-rhenium alloys prepared by powder techniques for extrusion drawing 12 p2107 N67-23958
Techniques for fabricating small diameter, thin wall tungsten and tungsten rhenium alloy tubing
[ANL-7151] 12 p2111 N67-25067
Deformation structures of polycrystalline slightly strained tungsten, tungsten rhenium, and tungsten tantalum alloys examined by transmission electron microscopy
[NASA-TN-D-4094] 18 p3282 N67-32439
Optimum compositions for ternary alloys of rhenium with tungsten and molybdenum - Alloying of molybdenum welds with rhenium to increase plastic properties
[FTD-MT-65-445] 19 p3472 N67-33586
Optimum compositions for ternary alloys of rhenium with tungsten and molybdenum 19 p3472 N67-33587
Decalibration of tungsten-tungsten 25 percent rhenium thermocouple in neutron flux by determining change in thermoelectric emf
[LA-3662] 20 p3679 N67-34313
High temperature compatibility of uranium dioxide fuel contained in tungsten-rhenium alloy
[NASA-CR-72382] 22 p4093 N67-37645
A15-type phase in vapor-deposited W-Re alloys
[ORNL-P-3101] 23 p4263 N67-38358
Chemical vapor deposition of tungsten and tungsten-rhenium alloys for structural applications - process development
[UCRL-70340, PT. 1] 23 p4267 N67-39109
Chemical vapor deposition of tungsten molybdenum rhenium ternary alloy
[LA-DC-8605] 25 p4268 N67-39230
RHENIUM COMPOUND
Vapor deposition of tungsten, molybdenum, and rhenium coating by carbonyl decomposition or hydrogen reduction
[NASA-TT-F-10914] 14 p2558 N67-27581
Spectrophotometric measurement of low rhenium concentrations as furil dioximate after separation from plutonium rhenium alloy
[LA-3711] 24 p4397 N67-39905
RHEOLOGY
Rheology studies on polymer chemistry, plastic deformation, stress relaxation, and similar topics
[NASA-CR-80685] 05 p0777 N67-14483
Rheology of inorganic glasses 05 p0720 N67-14481
Rheology of cytoplasmic streaming 05 p0641 N67-14480
Continuum mechanics, stress-strain distributions, and polymer physics - rheology conference
[NASA-CR-80686] 08 p0778 N67-14482
Large deformations and viscous flow in isomorphic and isotropic materials 05 p0768 N67-14483
Mechanics of consolidation theory, and component behavior and coupling between water and soil 05 p0690 N67-14504
Dependence of entanglement chain length on polymer composition of linear, amorphous

polymers - Rheology 05 p0721 N67-14507
Rheology of concentrated suspensions - effects of surfactant 05 p0643 N67-14518
Rheology conference - continuum theory, stress and strain distribution analysis, polymer fluids and solids, testing techniques, and dispersions [NASA-CR-80687] 05 p0778 N67-14521
Description of plastically deformed body in continuum theory - Rheology 05 p0770 N67-14522
Relation of elasticity number and recoverable shear strain by simple analytical considerations - Rheology 05 p0770 N67-14523
Symmetric formulation of linear theory of viscoelastic materials - creep compliance and stressing viscosity, retardation fluidity and relaxation modulus, and basic operators 05 p0770 N67-14524
Nonnewtonian mathematical model and plotting method for analyzing variable head viscometer data obtained on pseudo-plastic polymer solutions - Rheology 05 p0693 N67-14525
Flow-no flow criterion in gravity flow of powders in converging channels - Rheology 05 p0694 N67-14529
Rheology of plaster slurry - stress and flow under trowel 05 p0778 N67-14531
Fracture phenomena in plastics cutting - chip types, deformation of material, magnitude, and direction of cutting forces during cutting, and rheological effects on cutting mechanism 05 p0710 N67-14532
Causes for striped pattern observed in viscoelastic liquids during rolling in mill - Rheology 05 p0710 N67-14534
Stress-strain-time relations in filamentous high polymeric materials - Rheology 05 p0722 N67-14537
Correlations between rheological behavior and structural changes of concentrated micellar isotropic solutions 05 p0694 N67-14538
Rheology of polymer melts - Viscoelastic parameters and their influence on flow under static conditions 05 p0723 N67-14539
Rapid shearing characteristics of polymers dissolved in mineral oil - Rheology 05 p0723 N67-14543
Rotational viscometer to measure viscosity of inorganic glass in range between strain point and melting temperatures 05 p0707 N67-14550
Semiempirical method including variation in particle size for use in evaluating viscosity data - Rheology 05 p0725 N67-14554
Thixotropy and dilatancy in complex multiphase emulsions and suspensions - microrheological classification 05 p0725 N67-14555
Biorheology studies of cytoplasmic streaming, erythrocyte suspensions, and blood clotting [NASA-CR-80688] 05 p0641 N67-14561
Validity of classical fluid mechanics in biorheology 05 p0641 N67-14562
Archaic hemorrheology and historical significance of blood sedimentation 05 p0641 N67-14563
Quantitative observations and theoretical evaluation of hemorrheology 05 p0641 N67-14564
Rheological theory application to biological systems 05 p0642 N67-14565
Theoretical considerations on flow of blood through capillary 05 p0642 N67-14569
Hydrodynamic interaction between particles in suspension 05 p0642 N67-14571
Casson equation and rheology of blood near zero shear 05 p0643 N67-14573
Instrumentation for testing rheology of biological materials 05 p0644 N67-14582
Rheological disturbances following tissue injury 05 p0645 N67-14585
Electrokinetic charge influence on rheological properties of red blood cell suspensions 05 p0645 N67-14587
Rheological disturbances and their treatment in clinical surgery 05 p0646 N67-14591
Hemorheological studies of spider-shaped arterial branching in human skin 05 p0646 N67-14592
Plasma proteins effect on rheology of blood in microcirculation 05 p0646 N67-14594
Behavior of blood plasma and corpuscles in tissue capillaries 05 p0647 N67-14597
Rheology of synovial fluid and its role in joint lubrication 05 p0647 N67-14599
Rheological behavior of hyaluronic acid in extracellular fluids of connective tissue 05 p0647 N67-14600
Thrombodynamic property of clot, specific hemorheological property studied by thromboelastograph, blood platelets, fibrin, plasma, and serum 05 p0648 N67-14603
Cone-in-cone viscometer used to study viscosity changes during blood clotting 05 p0648 N67-14606
Role of fibrinogen and other plasma proteins in rheology of blood 05 p0648 N67-14607
Boltzmann superposition principle applied to rheology of viscoelastic medium 06 p0696 N67-15934
Rising sphere rheometer, viscometer, and standard gel evaluated for measuring accuracy [RK-TR-66-15] 06 p0667 N67-16131
Gravitational development of slopes [ACIC-TC-1129] 07 p1073 N67-17706
Integral differential equations of plates whose materials exhibit linear rheological relationships 09 p1538 N67-30137
Characteristics of confined dense phase flow of granular solids driven by compressed air through plastic pipes [AD-642845] 10 p1605 N67-30539
Rheology of viscoelastic medium, including deformation, stress, and creep [AD-644173] 10 p1644 N67-31862
Applied mechanics research on cyclic plastic strain effects on metal fatigue, and thermodynamic principles of rheology [FTD-TT-65-1375] 12 p2231 N67-23790
Thermodynamic principles of rheology, and thermal and mechanical processes in medium 12 p2231 N67-23792
Hysteresis loop method used to study thixotropic suspensions [NRL-6496] 12 p2199 N67-24960
Two-dimensional elastohydrodynamic problem for two cylinders separated by lubricant [FTD-MT-65-401] 15 p2719 N67-28629
Asymptotic solution to nonlinear rheological equations of viscoelastic lubricant effects on squeeze film lubrication between impinging spheres [MTI-67-TR-22] 15 p2720 N67-28906
Rheological properties of nonsaturated styrene polyester copolymers, and temperature and reticulation effects [NT-166/1967/] 16 p2916 N67-29986
Rheological study of glass fibers in Newtonian oil [NASA-CR-85257] 16 p3881 N67-30073
Energetics of ion transport in presence of polymeric compounds altering rheological properties of water [TR-30] 22 p3985 N67-37092

RHODIUM
Crystal and molecular structures of transition rhodium and lithium hydrids [NASA-CR-79747] 01 p0034 N67-10682
Soldering titanium alloy with protective coatings of rhenium, rhodium, or silver 02 p0365 N67-11803
Design and testing of six iridium versus iridium-40 rhodium thermocouples [NASA-CR-82853] 09 p1451 N67-30255
Sliding friction of ruthenium, rhodium, osmium, and iridium crystals [NASA-TN-D-4153] 20 p3656 N67-34894
Mechanical and thermal treatment effects on structure and magnetic transitions in FeRh [REPT.-66-C-419] 20 p3714 N67-34850
Effective cross sections for deuteron induced nuclear reactions in rhodium [IAN-F-3] 21 p3898 N67-35427

RHOMBIC ANTENNA
SA RADIO ANTENNA
Radio telescope, rhombic antenna, and sensors studied for feasibility of kilometer wave orbit telescope program [NASA-CR-79734] 02 p0361 N67-12053
Measured radiation patterns of two short wave rhombic antennas [IIB-18] 11 p1824 N67-23063
Backscatter echoes detected by frequency swept sounder and rhombic antenna 16 p2894 N67-29812
Helicopter measurement of rhombic and cophasal antenna radiation patterns [FTD-MT-65-411] 19 p3299 N67-32750

RHYTHM
SA CIRCADIAN RHYTHM
Applicability of nonlinear differential equation with discontinuous coefficient to development of mathematical model for studying spontaneous rhythm of neurons 04 p0488 N67-13449

RIBONUCLEIC ACID /RNA/
SA DEOXYRIBONUCLEIC ACID /DNA/
SA NUCLEOTIDE
Spontaneous droplet separation from high molecular compounds and enzymatic conversion into continuous systems [NASA-TT-F-10440] 04 p0492 N67-13539
Isolation and properties of RNA-DNA complex from Escherichia coli cells [NASA-TT-F-10368] 06 p0799 N67-15560
Statistical concepts and experiments to study inhibition of ribonucleic acid synthesis by actinomycin [NASA-TT-F-10369] 06 p0799 N67-15567
Regulation of RNA synthesis [AFOSR-66-2650] 06 p0805 N67-16434
Biosynthesis of deoxyribonucleic acid /DNA/, ribonucleic acid /RNA/, and protein molecules 07 p1002 N67-16706
Ribonucleic acid and protein synthesis in sea urchin eggs after fertilization 07 p1005 N67-16762
Ribosomal ribonucleic acid synthesis in frog embryos 07 p1006 N67-16784
Control of nucleic acid synthesis and extraction of RNA from salivary glands of Rhynchosciara angelae [AD-640929] 07 p1010 N67-17230
Ribonuclease effect on polymerase activity during ribonucleic acid synthesis kinetics [NASA-CR-69091] 09 p1235 N67-16251
Reconstitution of ribosomes, evolution of enzyme systems in pseudomonas, molecular mechanism for T4 bacteriophage, and other studies related to evolution and chemistry of living systems [NASA-CR-83321] 11 p1790 N67-22360
Ribonucleic acid injection effect on shock avoidance conditioning and brain chemistry in rats [MPL-7] 13 p2021 N67-23927

RICCATI EQUATION
S DUFFING EQUATION

RICHARDSON NUMBER
Richardson extrapolation applied to numerical evaluation of sonic boom integrals [NASA-TN-D-3906] 06 p1218 N67-18949
Radiosonde data used to study relationship between Richardson number and atmospheric turbulence [T-R-613] 09 p1474 N67-19739
Richardson number for clear air turbulence dependent on atmosphere scale length 20 p3631 N67-34436
Spatial and temporal distribution of gradient Richardson number in surface and planetary boundary layers [ECOM-5123] 21 p3839 N67-35919
Wind, temperature and Richardson numbers profiles from Project Windy Acres [AFCRL-67-0039] 24 p4483 N67-39786

RIEMANN PROBLEM
Geometric interpretation of theory of dislocations using method of Cartan forms 12 p2231 N67-23711
Geometric structure and mathematical relations of singular Riemann-Hilbert problem, and reduction to canonical form 12 p2181 N67-24233

RIEMANN SPACE
Covered space, Riemann geometry extension, and partition function research on stochastic models for multivalued, multidimensional relations [NASA-CR-83236] 09 p1470 N67-19837
Analyticity properties of unitary integrals [DOUGLAS PAPER-4247] 12 p2130 N67-24019
Geodesics in Riemannian geometry 20 p3670 N67-34464

RIESZ THEOREM
Lectures on functional analysis devoted to theory of Riesz spaces [EUR-5146.E] 07 p1115 N67-18068

RIFT PROJECT
S REACTOR IN-FLIGHT TEST /RIFT/ PROJECT

RIGID BODY
Transformation properties of rigid sphere wave functions and relation to Dirac spinor [NUP-66-13] 01 p0126 N67-10547
Pegasus measurements of temperature, radiation, and rigid body motion 02 p0313 N67-11307
Gravitational equilibria of rigid body containing symmetric constant speed fixed axis rotor [NASA-CR-80254] 03 p0462 N67-12981
Generalized rigid body trajectory program for digital computer

[SC-DR-65-511] 07 p1046 N67-17473
Vector analysis approach to algebra of rotations with applications to least-squares rotation and rigid body motion
[NASA-TM-X-57187] 06 p1500 N67-18705
Equations for calculating control gains with filters for rigid body motion of space vehicle 09 p1429 N67-20269
Achieving stability in rigid body modes for flexibly supported wind tunnel model
[RAE-TN-STRUCT-348] 11 p1656 N67-22783
Rigid body kinematics and dynamics in relation to satellite attitude control problems 12 p2141 N67-23803
Quantum theory of rigid body in terms of two-component spinor
[NUP-67-1] 13 p2374 N67-25595
Damped vibrations of elastically supported rigid body with coupling between translation and rotation 18 p3349 N67-31790
Flywheight despin mechanism performance with coning body
[SC-TM-67-314] 20 p3689 N67-35130
Rigid body kinematics and dynamics discussed in relation to satellite attitude control problems 21 p3885 N67-36670
RIGID MOUNTING
Motion analysis for rigid-plastic cylindrical shell clamped at both ends and subjected to internal impact load 09 p1522 N67-20034
RIGID STRUCTURE
Low gravity liquid sloshing in rigid cylindrical tank
[NASA-CR-80471] 03 p0384 N67-13111
Foam rigidizing for inflatable paraboloidal solar collector
[NASA-CR-66114] 03 p0406 N67-13191
Rigid/perfectly plastic structure subjected to independent loadings
[DOMIIT-1-34] 14 p2624 N67-26076
Survey of research on behavior of ideal rigid plastic structures under dynamic load 14 p2629 N67-27732
RIGIDITY
SA STRUCTURAL RIGIDITY
Exact solution for stresses produced by screw dislocation pileup at circular inclusion of finite rigidity
[NASA-CR-79742] 01 p0180 N67-10887
Nonuniform rigidity effect of component material on machining precision in instrumentation 03 p0393 N67-13429
Temperature effects on strain in gels under constant stress 05 p0734 N67-14553
Relaxation loss and rigidity modulus change in compression springs subjected to high temperature environment 07 p1190 N67-16920
Frequencies of natural vibrations in built-up shells determined by dynamic rigidities method 09 p1535 N67-20124
Gyroscopic chamber radial rigidity effect on forced oscillation amplitudes in gyroscopic instrument 15 p2710 N67-28123
High rigidity load cells for forces between 1,000 and 50,000 daN
[ONERA-TN-109/1967/] 23 p4256 N67-39371
Bending tests with plate strip in pure bending and square plate in pure shearing stress, and determination of moduli of elasticity and plate rigidity
[NASA-TT-F-11347] 24 p4545 N67-40139
RING
SA CIRCLE
SA LOOP
SA REINFORCEMENT RING
SA VORTEX RING
Performance of miniature slip rings in high-vacuum conditions
[NASA-CR-80468] 03 p0405 N67-13126
Buckling of shells and methods of stability analyses applied to heads, cylinders, and rings
[AEDC-TR-66-234] 10 p1703 N67-20546
Chemical synthesis of bridged bicyclic molecules to give medium-sized rings
[AFOSR-67-0836] 11 p1815 N67-23238
Monochromatic gamma ray beam production in electron storage ring for calibration of total absorption counter
[SLAC-TRANS-55] 13 p2372 N67-25518
Load deflection data for grooves and between flanges with toroidal elastomer sealing rings
[AWRE-O-22/66] 13 p2330 N67-26213
Stacking efficiency measurements with CERN electron storage and accumulating ring /CESAR/
[CERN-67-11] 20 p3696 N67-34522
RING CURRENT
Current sheet approximation of effect of ring current on distribution of unbound particles in magnetosphere
[NASA-CR-78971] 02 p0301 N67-12234
Temperature dependence of ring current level structure of weakly coupled superconductors
[COO-1569-5] 10 p1748 N67-20785
Field model equations for calculating higher order ring currents and particle energy storage in magnetosphere
[NASA-TM-X-55810] 16 p2885 N67-29429
Plasma confinement and stability in ring current configurations
[REPT.-67-05] 22 p4115 N67-37346
RING DISCHARGE
Electrodeless plasma acceleration studied in ring discharge for spacecraft propulsion devices
[JUL-358-PP] 03 p0449 N67-13044
Electrodeless ring discharge in argon plasma and in air
[FTD-MT-65-549] 09 p1491 N67-19520
RING STRUCTURE
External pressure effect on ring stiffened fiber glass cylinders
[DOUGLAS PAPER-3535] 04 p0617 N67-13610
Dynamic plastic response of pressure pulse loaded rate sensitive ring structure
[REPT.-3] 06 p0975 N67-15771
Synthesis of ring polyphenyls, and Grignard reagent preparation from substance containing two or three bromine atoms
[ARL-66-0144] 06 p0821 N67-16219
Structural optimization of conical shells with nonuniformly spaced rings 07 p1196 N67-16891
Geometrical parameters, loading, and condition of momentlessness of radial guy net in hanging roof with momentless contour ring 09 p1539 N67-20089
Method for determining buckling loads of circular stiffening rings
[AEDC-TR-66-166] 10 p1765 N67-20726
Finite element modeling of circular ring using half and quarter symmetry
[NASA-TM-X-55746] 11 p1995 N67-23317
Synthesis of small ring compounds containing silicon
[AD-645879] 12 p2039 N67-23677
Estimation of transition matrix of finite Markov process, abelian groups, structure of near rings and near rings homomorphisms, and metrization of topological spaces
[NASA-CR-84514] 14 p2565 N67-27672
Reinforcing rings effects on stressed state of spherical shell weakened by two equal circular openings
[NAVSHIPS-TRANS-1034] 17 p3173 N67-30078
Cosmogonic theory of Saturnian ring structure origin including effects of Mimas and Janus satellites
[REPT.-67-09] 19 p3535 N67-33418
Properties of rings with one-sided inverses or one-sided identities
[NOTS-TP-4223] 23 p4356 N67-38265
Properties of metal chelates in solution and structures in solid state
[COO-1654-1] 23 p4268 N67-38913
Fatigue strength of turbine shafts with shrunk-on rings
[NEL-359] 23 p4260 N67-38993
Magnetic and vacuum properties and acceleration ring characteristics of Frascati microtron
[LNF-67/46] 23 p4238 N67-39355
Computer program for determining redundant reactions of closed circular rings to imposed planar loadings and resulting stresses
[DPSO-IR-11] 24 p4547 N67-40322
RING WING
Behavior of separation and attachment in three-dimensional turbulent boundary layers on ellipsoids and annular wings
[AD-650982] 16 p2879 N67-29614
RIOMETER
Summary reports of experiments and observations during solar eclipse of 1966 - solar flux measurements, riometer observations, ionospheric soundings, and electron density determination
[SR-11A800] 01 p0068 N67-10560
Rocketborne riometer technique for deriving electron density distribution in D region
[RPU-829] 04 p0541 N67-13714
Analyses of ionograms, high frequency phase and amplitude data and riometer measurements of absorption to determine D and E region electron density profile for low latitude regions
[T-6142] 05 p0704 N67-14981
Balloon and riometer observations of polar cap absorption midday recovery
[NASA-CR-84369] 15 p2690 N67-28002
RIOMETRY
Total field intensity magnetometer, cosmic ray neutron intensity monitor, riometer, oblique high frequency propagation, solar observations and radio emission, and ionospheric soundings
[AD-646084] 12 p2091 N67-23539
Riometric determination of cosmic noise at Sanae, and position of southern auroral zone and auroral absorption zone in relation to Sanae 16 p2890 N67-30115
RISK-TAKING
Components of group risk-taking
[TR-18] 05 p0661 N67-15064
Government position in contracting for logistics support 11 p1852 N67-21973
Seasonal and regional hail intensity indices for wheat, corn, soybeans, and cotton in midwestern states - insurance risk
[RR-36] 14 p2569 N67-27767
Behavioral response measures for determining effects of fear of failure on risk taking and performance
[AD-650302] 16 p2825 N67-29127
Risk estimating techniques for unmanned space missions
[NASA-CR-80465] 18 p3326 N67-31842
Iterative risk analysis approach for assessing and comparing risks associated with proposed Voyager missions
[NASA-CR-89736] 24 p4528 N67-39783
RITZ AVERAGING METHOD
Construction of nuclear level schemes using precise relative neutron-gamma energies
[BNL-10996] 15 p2761 N67-28320
Ritz series finite element analysis of axisymmetric solids under thermal, body force, and surface traction load
[SEL-67-6] 22 p4156 N67-37583
RL-10 A-3 ROCKET ENGINE
Design features of RL-10 A-3 liquid propellant rocket engine
[NASA-CR-80930] 05 p0755 N67-14808
RLC CIRCUIT
Active circuits for simulating inductance in passive LCR filters
[RRE-TN-717] 07 p1040 N67-17348
IBM 704 Fortran computer program for analyzing RLC circuits and solving of polynomials and linear equations
[USL-751] 10 p1587 N67-20607
Computer calculation of magnetic field penetration, surface electric field, and resistive damping in capacitively driven RLC circuit including skin effects
[LA-3500] 10 p1694 N67-20905
RLC NETWORK
Method and digital computer program for Resistance-Inductance-Capacitance /RLC/ synthesis of minimum-phase transfer functions 09 p1428 N67-20267
Conditions for transformerless realization of one terminal pair RLC with one resistor
[R-351] 18 p3254 N67-32895
ROBIN BALLOON
Meteorological tracking data from high altitude Robin balloon flights
[AFCRL-67-0433] 24 p4484 N67-39691
ROCK
SA CLAY
SA LAVA
SA LIMESTONE
SA METAMORPHISM
SA MINERAL
SA PETROLOGY
SA QUARTZ
SA SANDSTONE
SA SCHIST
SA SEDIMENTARY ROCK
Stress determination in crystalline rocks from Georgia
[BM-RI-6800] 01 p0067 N67-10432
Measuring apparatus for instant density determination of uranium ore
[CEA-R-2910] 01 p0129 N67-10655
Multidisciplinary research activities on rock formations in lunar surface simulation
[NASA-CR-80121] 02 p0258 N67-12389
Spectrophotometric analysis and X-ray diffraction of fine grained rocks and minerals for examining composition of Martian surface
[AD-630976] 03 p0459 N67-13661
Infrared spectral emittance of natural rock surface from Pisgah Crater and Mono

Craters area in California
[NASA-CR-80479] 03 p0390 N67-13102
Mass spectrometric stable isotope dilution method for barium determination in G-1 and W-1 rock standards
[NASA-TM-X-55563] 03 p0360 N67-13221
Infrared spectroscopic comparison of Mars surface and terrestrial rocks 06 p0966 N67-16102
Comparative analysis of strain and pressure gauge methods for evaluating relative performance of explosives in rock
[BM-RI-6686] 06 p1275 N67-18213
Geology of Sierra Madera cryptoexplosion structure 09 p1430 N67-19391
Origin, texture, and distribution of rock units forming Manicouagan lake structure 09 p1438 N67-19392
Prototype explosive assembly for large scale plane wave shock experiments on rock specimen in laboratory 09 p1439 N67-19396
Geology of Moses Rock intrusion 09 p1439 N67-19400
Radiometric techniques for quantitative evaluation of rock porosities 10 p1623 N67-21292
Fast neutron activation of rock boreholes using polonium-beryllium sources 10 p1624 N67-21302
Scintillation gamma spectrometer technique for simultaneously determining element concentration in rock sample 10 p1625 N67-21304
Neutron scattering and gamma ray methods for measuring moisture and density distribution in rocks 10 p1626 N67-21313
Petrographic studies on absolute ages of rocks in East Antarctica 11 p1867 N67-23345
Lunar soil properties determination through simulation of rock grinding in ultrahigh vacuum
[NASA-CR-66276] 12 p2108 N67-24628
Parametric study and experimental development of small rotary percussion drill for lunar and planetary exploration
[NASA-CR-83849] 13 p2327 N67-25963
Pendulum sclerometric determination of surface energy and hardness of rocks
[BM-RI-6953] 17 p3061 N67-30680
Melting range of natural gabbro determined at pressures up to 45 kilobars
[NASA-CR-86627] 18 p3261 N67-31820
Morphological rock units, structure, and geologic history of Plato quadrangle 18 p3327 N67-31944
Density cross sections of earth crust in southern Verkhoyansk-Chukot folded region by direct measurements and by geophysical observations 19 p3448 N67-33747
Borehole deformation gage for determining stresses in rocks
[BM-RI-7015] 20 p3641 N67-34578
Physical characteristics of rolling stone and surrounding lunar surface based on Lunar Orbiter II photographic analysis
[NASA-TM-X-58007] 20 p3726 N67-34631
Spectral reflectance of silicate rock powders, Jupiter atmosphere measurements, and visible and near-infrared spectrum data for analyzing lunar surface 20 p3727 N67-34775
Literature search and experimental work on physical and engineering property data of lunar surface materials
[NASA-CR-88161] 20 p3730 N67-35071
Paleomagnetic character of Permian deposits in Viatka River Basin
[T-479-R] 21 p3835 N67-35407
Remanent magnetization and magnetic stability of Triassic rock complex in central Urals
[T-480-R] 21 p3835 N67-35411
Natural remanent magnetization of rocks
[T-477-R] 21 p3835 N67-35435
Frequency dependence of dielectric constant and electric conductivity of water-containing rock determined to evaluate VLF and LF wave propagation through earth interior
[AFCRL-67-0362] 21 p3837 N67-35621
Propagation of long electromagnetic waves through rock
[AFCRL-67-0361] 21 p3796 N67-35715
Volcanic cauldrons, ring complexes, and associated granites of Georgetown Inlier, Queensland 21 p3843 N67-36441
Lunar soil and rock program in support of lunar exploration
[NASA-CR-61178] 24 p4526 N67-39482
Geology of Lower Precambrian rocks of area in upper Michigan
[NASA-CR-89604] 24 p4439 N67-39648

ROCKET
SA AEROBEE ROCKET
SA AGENA ROCKET
SA ARCAS ROCKET
SA BLACK KNIGHT ROCKET
SA CAJUN ROCKET
SA CONTROL ROCKET
SA DORNIER PARAGLIDER ROCKET
SA ELOISE PROJECT
SA ESCAPE ROCKET
SA HOVERING ROCKET
SA JUDI ROCKET
SA METEOROLOGICAL ROCKET
SA MISSILE
SA MULTISTAGE ROCKET
SA NIKE-AJAX ROCKET
SA NIKE-APACHE ROCKET
SA NIKE-CAJUN ROCKET
SA NIKE-TOMAHAWK ROCKET
SA NIRO SOUNDING ROCKET
SA NUCLEAR ROCKET
SA PLASMA ROCKET
SA PROPULSION SYSTEM
SA RETROROCKET
SA RUBIS ROCKET
SA SINGLE-STAGE ROCKET
SA SKYLARK ROCKET
SA SOUNDING ROCKET
SA TWO-STAGE ROCKET
SA ULLAGE ROCKET
SA WASP ROCKET
Rocket and satellite data tables 01 p0150 N67-10054
Motion optimization in ballistic rockets
[FTD-TT-65-1918] 01 p0118 N67-11100
Soviet missiles and rockets displayed at military parade
[LT-66-46] 09 p1545 N67-19553
Engineering development of 1680 MHZ telemetry antenna for Arcus type rocket ejectable twenty-four inch sphere
[AFCRL-67-0238] 22 p3696 N67-36926
Description of quasi-symmetric rockets attitude by means of trigonometric functions
[ESRO-TM-91] 24 p4490 N67-40054

ROCKET BOOSTER
Failure modes of metallic components in unmanned spacecraft and rocket boosters during simulated service testing
[NASA-TM-X-55607] 03 p0468 N67-13223
Carbon phenolic, graphite phenolic, and silica phenolic nozzle ablative materials performance for large solid propellant rocket boosters
[NASA-CR-72080] 05 p0755 N67-15157
Analytical models for prediction of thermal environment of booster rocket altitude abort
[SC-CR-66-2047] 07 p1196 N67-17302
Booster and upper stage system capabilities of placing payloads into Mars orbit
[NASA-TM-X-1234] 08 p1361 N67-18359
Stability and control mechanisms of French BER booster stage for sounding rockets analyzed to improve dispersion in impact zone
[TP-442] 17 p3154 N67-31434

ROCKET CHAMBER
Micro-orifice injectors and combined injector chambers for improved liquid rocket motor design concepts 01 p0145 N67-10521
Reinforcing fiber systems for ablative composite materials - application to thrust chambers of liquid-fuel rocket engines
[NASA-CR-54722] 02 p0277 N67-12273
Resonant combustion wave interaction on injector, steady state combustion properties, diagnostic methods for determining wave behavior, and chamber geometry effects on wave properties 08 p1391 N67-18327
Conference presentations on preparation and properties of solid and composite propellants, fuel combustion, and combustion chambers
[DLR-MITT.-66-14] 12 p2196 N67-24381
Vaporization of liquid propellant injected into rocket combustion chamber
[DLR-FB-66-83] 13 p2425 N67-26986
Transient pressure measuring methods as applied to liquid propellant rocket thrust chamber
[NASA-CR-83584] 16 p2897 N67-29914
Mathematical model for designing glass fiber composition and structure in ablative-cooled rocket combustion chambers 20 p3719 N67-35350
Heat-transfer rates and coefficients and coolant pressure loss characteristics in regeneratively cooled liquid hydrogen-liquid fluorine rocket engine thrust chambers
[NASA-TN-D-4178] 21 p3946 N67-35687

ROCKET COMBUSTOR
Liquid and solid propellant combustion and air breathing combustion
[AFOSR-66-0581] 05 p0776 N67-14747
Thin film, heat flux probe for measuring gas velocities in unstable rocket combustor
[NASA-TM-X-1333] 06 p0962 N67-16078
Chamber pressure variations and rocket combustor performance for gaseous hydrogen-liquid oxygen propellant system
[NASA-TN-D-4173] 21 p3946 N67-35686
Rocket combustor shape effects on combustion instability
[NASA-TM-X-52361] 24 p4548 N67-39599

ROCKET ENGINE
SA CYCLOPS II ROCKET ENGINE
SA HYDRAZINE ENGINE /HIMPHE/
SA HYDROX ENGINE
SA J-2 ROCKET ENGINE
SA LIQUID PROPELLANT ROCKET ENGINE
SA M-1 ROCKET ENGINE
SA MULTISTAGE ROCKET ENGINE
SA NUCLEAR ENGINE FOR ROCKET VEHICLE /NERVA/
SA SOLID PROPELLANT ROCKET ENGINE
Effect of rocket engines on electrostatic charge accumulation
[AFCRL-66-497] 01 p0144 N67-10496
Motion equations in flow analysis of accelerated combustion in rocket engine
[D1-82-0541] 02 p0297 N67-11279
Computer program for calculation of single jet and five jet interaction regimes associated with multiple rocket engines
[NASA-CR-79741] 02 p0341 N67-12000
Chinese Communist abstracts dealing with rocket propulsion and material technology
[ATD-66-89] 02 p0298 N67-12089
Hybrid and lithergolic propellant systems, and combustion modes in rocket engines
[TP-395] 04 p0687 N67-14365
Fluoric position servo for rocket engine pneumatic control drum actuator
[NASA-CR-72129] 05 p0637 N67-14925
Effect of fuel opacity on temperature distribution in gaseous nuclear rocket engine
[NASA-CR-695] 06 p0954 N67-16012
Absorption properties of small particles and heavy-atom gases for use in nuclear rocket engines
[NASA-CR-693] 06 p0941 N67-16501
Linear optimal feedback control theory for synthesis of optimum nuclear rocket engine start-up 07 p1122 N67-17050
Performance capabilities of nuclear rocket engines using gaseous hydrogen in ideal state at stagnation temperatures up to 200,000 R
[NASA-CR-696] 07 p1182 N67-17508
Probability solution and statistical thrust vector analysis of engine cluster problem
[NASA-CR-83017] 08 p1354 N67-18412
Correlation method for application to cooling of air breathing engines and rocket motors by gas film
[AFAPL-TR-66-56] 10 p1769 N67-20623
Development of 260-inch diameter solid propellant rocket motor
[NASA-TM-X-52375] 10 p1756 N67-21393
Air breathing and rocket engine propulsion technology and propellant combustion engineering
[ATD-66-137] 11 p1970 N67-23104
Carbon rug rings used to eliminate metal-metal rub of inducer on housings in rocket engine oxidizer pump
[NASA-CR-83547] 11 p1970 N67-23274
Causes and methods for determining side thrust force components on solid propellant rocket engines 12 p2198 N67-24396
Test facility and methods for determining thrust vector deviations on solid propellant rockets 12 p2198 N67-24397
High temperature resistant materials for missile propulsion systems
[NOLTR-66-216] 12 p2126 N67-24946
Review of potential chemical and atomic fuel rocket engines for space power systems
[FTD-TT-65-693] 12 p2247 N67-25446
Fluorine and fluorine oxygen mixtures in rocket systems
[NASA-SP-3037] 13 p2395 N67-26990
Applications of exhaust diffusers for chemical propellant rocket engine testing
[NASA-CR-84791] 15 p2857 N67-28267
Jet-stream interaction effects on rocket

engine studied with simulated ballistic missile using liquid oxygen and JP-4 fuel mixture
[NASA-TM-X-52] 18 p3354 N67-31731
Scale model tests to determine acoustical field generated by hydrogen-fueled rocket engine
[NASA-CR-87315] 19 p3528 N67-33243
Optimal utilization of hydrazine as monergole in rocket engines and gas generators
[TR-714-O] 20 p3719 N67-35250
Diffusion analysis on radiant heat transfer from gaseous nuclear fuel container to annulus of flowing hydrogen
[NASA-TN-D-4164] 21 p3947 N67-35764
Abstracts on advanced air breathing, liquid rocket propellant, and solid rocket propellant combustion dynamics
[AFOSR-67-0391] 21 p3947 N67-35897
Thrust history of rocket engine that produces maximum altitudes for two-stage sounding rocket launch vehicle
[P-3490] 23 p4335 N67-38106
ROCKET ENGINE ADVANCEMENT PROGRAM
Graphs, tables, and illustrations of manufacture, material properties, and performance of 360-SL, 120-in., and 44-in. rocket motor nozzle and exit cone assemblies
[NASA-CR-72125, BK. 2] 17 p3152 N67-30895
ROCKET ENGINE CONTROL
Optimal nuclear rocket engine control for minimization of propellant consumption 07 p1123 N67-17049
Conceptual design and analytical evaluation of hydrogen-oxygen cryogenic propellants for reaction control systems
[NASA-CR-72176] 22 p4131 N67-37789
ROCKET ENGINE DESIGN
Hydrox rocket engine design for high energy upper stage of ELDO B or C launch vehicles
[TR-543] 04 p0606 N67-14275
Thermodynamic and structural design of LOX-HYDROGEN engine for use in ELDO B launch vehicle 04 p0606 N67-14280
Design features of RL-10 A-3 liquid propellant rocket engine
[NASA-CR-80920] 05 p0758 N67-14800
Design and scaling criteria for monopropellant hydrazine reaction chambers employing spontaneous catalytic activity
[NASA-CR-82457] 08 p1355 N67-19122
Design manual for monopropellant hydrazine rocket engines and gas generators employing spontaneous catalyst
[NASA-CR-82456] 08 p1355 N67-19123
Thermodynamic and ballistic fundamentals for solid propellant rocket engine design
[FTD-MT-66-191] 10 p1756 N67-31042
Rocket motor chamber insulation with rubber
[NASA-CR-72228] 12 p2300 N67-34631
Design and development of 30 kp liquid hydrogen/ liquid oxygen rocket engine in West Germany
[TR-713-O] 20 p3719 N67-35260
ROCKET ENGINE NOISE
Experiment design and construction for rocket engine noise protection, and grounding of amplifier circuit
[NASA-TM-X-55768] 14 p2618 N67-26591
Prediction method for near field noise of subsonic and supersonic jets observing jet-flow structure
[NASA-CR-857] 19 p3499 N67-33480
Far-field acoustic environmental predictions for launch of Saturn V and Saturn V MLV configuration
[NASA-TN-D-4117] 21 p3935 N67-35775
ROCKET EXHAUST
Effects on communications and tracking systems of electromagnetic wave interactions with ionized rocket exhausts 04 p0595 N67-13688
Electromagnetic wave interaction with rocket exhausts 05 p0676 N67-15248
Secondary water flow rates in vertical diffuser of decreasing length using rocket exhaust jet as motive fluid - model sound compressor
[NASA-TM-X-53543] 06 p0955 N67-16950
Review and evaluation of studies concerning emission of infrared and thermal radiation from rocket exhaust plumes
[PIBAL-964] 06 p0955 N67-16454
Impingement damage to spacecraft from rocket exhaust gases and micron sized metal particles
[NASA-CR-81687] 07 p1196 N67-18024
Heat transfer and ablation rate measurement in Saturn S-II ullage motor exhaust plume
[NASA-CR-82850] 08 p1385 N67-19320
Retrorocket exhaust plume interaction with Martian environment
[RM-354] 12 p2209 N67-24199
Spectral emissivity of carbon particles in exhaust gases of rocket engines using oxygen and RP-1 propellants
[NASA-CR-83790] 13 p2422 N67-25494
Spectral radiance measurements of scale model rocket engine exhaust gases at simulated altitude using high speed scanning spectrometer
[NASA-CR-83927] 13 p2302 N67-25821
Thermal radiation from liquid and solid propellant rocket exhausts
[NASA-TM-X-53579] 17 p3153 N67-31300
Analytical methods for determination of trajectories, loads, and heating experienced by spacecraft passing through rocket exhaust field
[NASA-CR-84855] 17 p3179 N67-31352
Jet pluming effect on static stability of five cone cylinder-flare finned rocket models at Mach numbers of 4, 5, and 6 and static pressure ratios up to 36,000
[NASA-TN-D-4064] 18 p3187 N67-31989
Emission from aluminum oxide particles in rocket engine exhaust 18 p3355 N67-32005
Fabrication and calibration of narrow field of view, high radiant heat flux sensor designed to operate in severe environs of rocket exhaust plumes
[NASA-CR-86625] 18 p3270 N67-32100
Inhomogeneous radiant heat transfer from Saturn rocket exhaust plumes
[NASA-TM-X-53630] 21 p3949 N67-36226
Heat flux and pressure instrumentation used to measure Saturn rocket exhausts
[NASA-TM-X-53613] 21 p3949 N67-36395
Computer program for calculating radiation from nonisothermal, nonisobaric, inhomogeneous, multicomponent rocket exhaust plume
[NASA-TM-X-53623] 22 p4163 N67-37263
Digital computer program for evaluating mixing and combustion characteristics of rocket exhaust jet with turbine gases exhausting peripherally about nozzle exit with surrounding external air stream
[NASA-CR-89519] 24 p4431 N67-39671
ROCKET FIRING
French space program, rocket firing, and construction of FR-I satellite - European space program
[NASA-TT-F-8594] 01 p0151 N67-10188
Electron densities and collision frequencies from Nike-Apache rocket firings, results of eclipse experiment in South America, and instrumentation for rocket propagation studies 05 p0700 N67-14644
ESRO sounding rocket program using Arcas, Beller, Centaur, Dragon, and Skylark rockets
[ESRO-SR-5] 08 p1367 N67-19069
Techniques for computing launcher settings for unguided rockets
[ECOM-5077] 10 p1618 N67-30488
Real-time meteorological system to predict impact of Agena rocket and other unguided, high altitude multistage rocket
[AD-634473] 15 p2739 N67-27953
Meteorological rocket network firings 21 p3883 N67-35690
Wind and temperature measurements from meteorological sounding rocket firings and computed values for pressure, density, and speed of sound for January 1967 23 p4281 N67-39302
Rocket explosion air blast parameters and design in relation to structural load calculations
[NASA-CR-89622] 24 p4535 N67-39951
ROCKET FLIGHT
Charged particle interactions of rockets and satellites with ionosphere 04 p0612 N67-13545
Doppler system for measuring flight performance of small rockets and light ammunition 04 p0513 N67-13937
Basic similarities in calculus of variations and optimum control theory for rocket flight between two points 07 p1112 N67-17230
Real time meteorological system providing impact prediction, prelaunch trajectory, and wind data for unguided rocket firing
[ECOM-5057] 07 p1118 N67-17969
Technical, legal, military, and political aspects of astronautics and rocketry related to space laws and policies 13 p2431 N67-25248
Design and flight experiments for single-stage solid propellant research rocket NAL-16
[NAL-TR-115] 16 p2964 N67-29021
History of rocket flight
[NASA-TT-F-11173] 20 p3735 N67-35239
Ionospheric electron and ion temperatures and densities obtained by rocket probes over Indonesia
[REPT.-3] 21 p3841 N67-36109
Slant of recordings from ionospheric rocket payload and use of resonance rectification probe
[REPT.-6] 21 p3842 N67-36190
ROCKET INSTRUMENTATION
Stellar X-ray radiation source observation from rockets, and rocket instrumentation
[ESRO-SM-59] 03 p0464 N67-13051
Problems associated with measuring electron directional flux inside aurora by rocket probe, and design of instrument capable of obtaining electron spectrum by electrostatic selection
[UU-66-9] 05 p0702 N67-14725
Maksutov-Cassegrain type telescope for Aerobee rocket instrumentation package
[NASA-TM-X-55689] 08 p1283 N67-18920
Niro sounding rocket instrumentation for auroral measurements
[AFCRL-66-738] 09 p1451 N67-20346
Design and performance characteristics of rocketborne instrumentation system to measure radio frequency noise energy
[NASA-CR-84151] 14 p2529 N67-26513
Chronological summary listing of AFCRL rocket and satellite borne scientific experiments from 1946 to 1966
[AFCRL-66-868] 15 p2796 N67-28000
Black Brant rocket instrumentation for making measurements in ionosphere D-region during auroral absorption event
[UU-67-1] 20 p3731 N67-34600
Design and construction of rocket-borne photometer for measuring day airglow emission
[AFCRL-67-0257] 21 p3846 N67-35477
Rocket instrumentation for measuring D region of ionosphere during solar eclipse
[UU-67-2] 22 p4038 N67-37265
Far ultraviolet polarization analyzer for rocket measurement of resonantly scattered sunlight
[NASA-TM-X-55946] 23 p4252 N67-38685
Modular auroral probe payload for rocket studies of zone disturbances
[NASA-CR-89283] 23 p4249 N67-39240
Rocket instrumentation, ground equipment, and aircraft sensors for airglow and aurora observations
[AFCRL-67-0431] 24 p4429 N67-39889
ROCKET LAUNCHING DEVICE
Performance and payload gains by launching rockets from ejection tube
[NASA-TM-X-52328] 16 p2976 N67-30143
Integrated rocket spin-up launch mechanism with pyrotechnic and mechanical events initiated by single electric signal 21 p3937 N67-36218
ROCKET LINER
Evaluation of acoustic liners for suppression of screech in hydrogen oxygen rockets
[NASA-TN-D-3822] 07 p1162 N67-17504
Scanning of rocket motors for bond between propellant liner and case
[NOLTR-67-36] 15 p2714 N67-28839
ROCKET MEASUREMENT
Weak shock effects and chemistry of lower D region, and blunt supersonic probe theory and first order corrections
[NASA-CR-80374] 03 p0389 N67-12998
Centaur sounding rocket experiments during solar eclipse - measurements of solar electromagnetic radiation intensity and electron temperature
[ESRO-SN-56] 04 p0609 N67-14389
Rocket measurements at high altitudes 09 p1439 N67-19611
Rocketborne radiation detector observations of 10 cps periodicity in auroral electron precipitation
[NASA-TM-X-55811] 16 p2889 N67-30029
Ionospheric characteristics from altitude variations of positive ion densities
[NASA-CR-86682] 18 p3261 N67-31881
Rocket and satellite measurements on meteoritic dust 18 p3332 N67-32061
Cosmic dust particle properties obtained from Aerobee rocket

measurements 18 p3333 N67-32067
Rocket measurements of diurnal and semidiurnal S-N wind components in upper atmosphere 19 p3443 N67-33400
Ozone measurement in stratosphere and lower mesosphere by rocket sonde [NASA-TM-X-55732] 19 p3447 N67-33732
Determination of atmospheric composition by solar absorption photometry using rocket-borne detectors 20 p3636 N67-35073
Interaction between upper and lower atmosphere [NASA-TM-X-55951] 23 p4340 N67-39055
ROCKET MOTOR CASE
Gaseous film cooling of rocket motor with injection near throat [NASA-TN-D-3836] 07 p1398 N67-17505
Gas tungsten arc method for optimal weldments in steel plates for large rocket motor case [NASA-CR-72155] 09 p1520 N67-19972
Design, fabrication, and test of titanium vanadium chromium aluminum alloy composite rocket motor case [PWA-2894] 14 p2607 N67-26818
High frequency longitudinal combustion instability in gaseous propellant rocket motors [TR-784] 16 p2966 N67-29675
Finite element analysis for shells of revolution and cylindrical shells in plane strain - solid rocket motor cases [REPT.-67-4] 20 p3717 N67-34456
Flame propagation inside of cracks in polyester ammonium perchlorate composite propellants [NASA-TM-X-40659] 24 p4520 N67-39684
ROCKET NOSE CONE
Upper atmosphere neutral particle composition measured by mass spectrometer mounted in Centaur rocket nose cone [ESRO-SN-21 /ESLAB/] 07 p1074 N67-17541
Nose selection and vehicle motion dynamics for Nike-Tomahawk rocket [NASA-TM-X-55739] 11 p1980 N67-22477
ROCKET NOZZLE
SA JET NOZZLE
Regeneratively cooled nozzle for tungsten water moderated nuclear rocket system [NASA-TN-D-3771] 04 p0573 N67-13582
Computer programs for design of convectively cooled rocket nozzle with application to nuclear type rocket [NASA-TN-D-3798] 04 p0579 N67-14186
Ground and altitude testing to evaluate rocket nozzle and injector performance [NASA-CR-56428] 07 p1183 N67-17856
Flight subliming solid respin rocket system development for OV2-1 satellite and nozzle optimization performance studies [NASA-CR-712] 08 p1355 N67-18954
Numerical computations for nonequilibrium hydrogen oxygen rocket nozzle flow 11 p1990 N67-22982
Scale model compressed air tests of 260-inch solid rocket with submerged nozzle to determine exhaust flow velocity and direction in annular channel [NASA-TM-X-52385] 11 p1971 N67-22310
Transient pressure drop and heat transfer characteristics of regeneratively cooled nozzle assembly used in full scale, cold flow nuclear rocket test facility [NASA-TN-D-3631] 12 p2063 N67-24618
Short-time tensile properties and joinability of eight alloys for use in Rover rocket nozzle 13 p2356 N67-25576
Spectrographic analysis of combustion product radiation in supersonic rocket nozzle flow [TG-877] 14 p2630 N67-26496
Supersonic rocket nozzle design for optimum thrust with chemically reacting gas flows [NASA-CR-84159] 14 p2606 N67-26505
Flow characteristics about submerged rocket nozzle model immersed in simulated exhaust gas [NASA-TM-X-1288] 14 p2518 N67-27265
High purity silica reinforced ablative composite materials evaluated as nozzle sections of throat storable propellant rocket engine - erosion rates and charring [NASA-TM-X-1391] 14 p2632 N67-27286
Application of pyrolytic graphite in construction of nozzle throats [TIL/T-5730] 15 p2726 N67-27788
Refractory carbides and carbide-graphite composites for rocket nozzle applications [QR-1] 16 p2915 N67-29655
Chemical composition and mechanical properties of nickel maraging steel plate, forged, and weld wire materials for 260 inch diameter motor chamber and nozzle shell [NASA-CR-72126, V. V, APPEND. C] 16 p2964 N67-30035
Computer analysis for chemical kinetic processes and nozzle performance in rockets and ramjets [NASA-TN-D-4144] 21 p3926 N67-35731
Physical metallurgy, fabrication, and mechanical properties of Pheobus 2 rocket nozzle materials [NASA-CR-69512] 23 p4393 N67-39239
Aerodynamic hinge moments for scale model boost stage nozzle of Saturn V launch vehicle during cold flow jet simulation [NASA-TM-X-1470] 24 p4537 N67-40234
Numerical analysis of chemical kinetics in reacting gas equations applied to rocket nozzle and plume flows [NASA-CR-89857] 24 p4400 N67-40281
ROCKET PHOTOGRAPHY
Solid state wide range low power timer for shutter of rocket or satellite-borne camera [NASA-TN-D-3756] 04 p0552 N67-14161
Sodium and trimethylaluminum payloads for test rocket flight - camera equipment for night and twilight photography [GCA-TR-66-9-A] 11 p1981 N67-22395
Design and performance characteristics of eight Australian airborne and missile-borne instrumentation cameras [NRE-ISD-TN-78] 11 p1984 N67-22906
ROCKET PROJECT
Brief summary of analytical results on ionospheric data obtained from Indonesian launched resonance probe [REPT.-7] 21 p3942 N67-36238
ROCKET PROPELLANT TANK
Liquid sloshing in scale model Centaur liquid hydrogen tank [NASA-TM-X-1313] 01 p0061 N67-10732
Dynamic behavior of liquids in moving containers with applications to propellants in space vehicle fuel tanks [NASA-SP-106] 06 p0971 N67-15804
Dynamic response of liquids during vertical excitation of propellant tanks 06 p0976 N67-15693
Interaction between liquid propellants and elastic structure 06 p0976 N67-15694
Propellant impact loading on tank bulkheads induced by maneuvering or docking of spacecraft in low gravity environment, and thrust termination in atmosphere 06 p0976 N67-15695
Liquid rotation and vortexing during draining 06 p0986 N67-15696
ROCKET SLED
Air film lubrication principle applied to rocket sled slippers - gas bearing [B-638] 11 p1954 N67-22392
Effectiveness of nylon drag straps for braking monorail sleds [MDC-TR-66-23] 11 p1964 N67-22648
Vertical quasi-steady state force data on rocket sleds compared to wind tunnel data [MDC-TR-67-13] 12 p2064 N67-24743
Measurement of specific components of forces acting on rocket sleds [MDC-TR-66-119] 13 p2300 N67-25127
Whirling arm, air gun, and rocket sled used to study rain erosion and water drop impact [RAE-LIB-TRANS-1194] 15 p2886 N67-27789
Daisy decelerator sled-track facility for biodynamic and equipment impact testing [ARL-TR-67-3] 19 p3425 N67-33235
Supersonic wall pressure measurements on rocket sled slipper [MDC-TR-67-68] 21 p3754 N67-35623
Evaluation of extendable aerodynamic drag brake for monorail rocket sleds [MDC-TR-67-69] 21 p3825 N67-35639
Mathematical theory and practical considerations for selecting solid rocket motors as track test propulsion [MDC-TR-67-76] 24 p4584 N67-40942
Layout, design, operation, and aerodynamic problems of hypersonic rocket sleds [MDC-TR-67-77] 24 p4427 N67-40343
ROCKET SOUNDING
SA SOUNDING ROCKET
Evaluation of rocket soundings of noctilucent clouds in upper atmosphere [NASA-TT-F-10004] 01 p0065 N67-10214
Advanced meteorological balloon and rocket sounding system and instrumentation [AFCRL-66-356] 01 p0040 N67-10972
Comparison of rocket sounding and radio sounding temperatures and verification of computed rocket sounding pressure and density [ECOM-5048] 01 p0102 N67-11018
Diurnal temperature and wind variation measured by instrumentation aboard meteorological rockets - detection of possible errors in temperature measurements in upper stratosphere [NASA-TM-X-1298] 02 p0082 N67-11816
Rocket experiment designed to measure density and molecular scale temperature by means of free molecular flow analysis [UTIAS-117] 02 p0256 N67-11927
Printouts and graphs of rocket winds, radiosonde observations and/or thermodynamics of February 1966 firings of Meteorological Rocket Network [NASA-CR-86854] 04 p0571 N67-13966
Ionospheric cross modulation effects determined by collision frequency profile of electrons and other rocket sounding data 05 p0709 N67-14647
Derivation of stratospheric density statistics from rocket soundings in polar region 12 p2133 N67-24496
Legal status of space flights and international law aspects of high altitude flying, balloon and rocket sounding, and man-made satellites 13 p2429 N67-25223
Rocket borne rubidium magnetometer measurements for latitude determination of equatorial electrojet [NASA-TM-X-55787] 14 p2327 N67-27543
Rocket sounding data on noctilucent clouds 15 p2898 N67-29032
Rocket sounding of noctilucent clouds 15 p2709 N67-29081
Weekly synoptic analyses for 1964 of 5-mb, and 0.4-mb surface charts based on meteorological rocket network observations [WB-2] 17 p3000 N67-30970
Operation manual for stratosphere temperature sonde [ECOM-5114] 18 p3344 N67-32328
Rocket sounding of neutral atmospheric composition over European U.S.S.R. 19 p3438 N67-33622
Meteorologic and sound transmission data from from Scirus I and II [ECOM-5094] 19 p3443 N67-33411
Tabulation of wind and temperature measurements from meteorological rocket network firings in September, 1966 19 p3495 N67-33592
Balloon or rocket-borne sensors for measuring meteorological properties of lower atmosphere [ECOM-01919-F] 20 p3640 N67-34529
Rocket sounding data obtained at Natal, Brazil, from Hasp and Arcas launchings [LAFE-47] 20 p3675 N67-35277
Theory, design, and operating principles of rocket-launched chemiluminescent drop sonde for measuring atmospheric ozone concentrations [NASA-CR-87984] 21 p3830 N67-35642
Tidal experiment based on 24 meteorological rocket soundings in equatorial stratosphere over Ascension Island [ECOM-5122] 24 p4436 N67-39680
Equatorial ionospheric propagation studies using rocket sounding techniques [NASA-CR-89743] 24 p4438 N67-39780
ROCKET STEERING MOTOR
Physical and ballistic tests of sounding rocket motors [E57-67] 21 p3827 N67-36420
ROCKET TEST STATION
Hydraulic-electric system for measuring side thrust components of solid propellant rockets 13 p2190 N67-24395
Scale model test results on subsonic turn ejector in nuclear exhaust system for Nerva engine test stand [NASA-CR-85231] 16 p2936 N67-29659
Structural dynamics analysis of nuclear exhaust system duct for Nerva engine test stand [NASA-CR-85232] 16 p2932 N67-29660
Activation and initial operation of test facility for turbopump of NASA M-1 rocket engine [NASA-CR-54234] 22 p4021 N67-37955
Activation and initial test operations of thrust chamber facility for NASA M-1 rocket engine [NASA-CR-72200] 22 p4021 N67-37957
ROCKET THRUST
SA JET DAMPING

Gas flow, propulsion properties, and burning process investigated in end burning solid propellants 12 p2196 N67-24982
Computer program for performance calculations of rocket propellants [TG-230-T511] 14 p2606 N67-26697
Concentric tube injection effect on dynamic characteristics of hydrogen-oxygen rocket [NASA-TM-X-52363] 24 p4823 N67-40221

ROCKET VEHICLE
SA MULTISTAGE ROCKET VEHICLE
Mass loading effects on localized vibratory environments of rocket vehicles [NASA-CR-79513] 02 p0319 N67-12236
History and technical data of German rocket developments [NASA-TM-X-59839] 15 p2796 N67-28636
Feasibility, parametric design, and comparative analysis of unguided solid fuel rocket vehicle with solar orbit, earth probe, and reentry mission capabilities [NASA-CR-788] 16 p2972 N67-29025
Vehicle design, performance, and propulsion of Nuclear Engine for Rocket Vehicle /NERVA/ 17 p3100 N67-30610
Carbon radiant heat transfer from plume mixing region to base of rocket vehicle [NASA-CR-85835] 17 p3153 N67-31152
Base heating at Mach 2.0 on simulated missile with JP-4 liquid oxygen rocket [NASA-TM-X-411] 18 p3353 N67-31524
Review of individuals and societies involved in growth of rocketry [FTD-MT-66-57] 19 p3528 N67-32876
Structural weight sensitivities to structural design variations for large rocket vehicles [NASA-CR-73087, VOL. 2] 19 p3544 N67-32904
Gas diffusion plant, organizational, uranium fuel, and manpower resources at Lanchow nuclear base, and rocket delivery capabilities [JPRS-41810] 20 p3752 N67-35141
Rocket capabilities and rate of technological progress in Communist China 20 p3755 N67-35143

ROCKETRY
Future directions for space research in planetary and lunar exploration, astronomy, geophysics, physics, rockets, satellites, universities, biology, medicine, physiology, and manned role [PUBL.-1403] 03 p0465 N67-13095
Space research activities in Switzerland dealing with communications, rocketry, satellites, and horology 11 p2007 N67-23400
Materials research program for application to rocketry and space flight environment 17 p3078 N67-30565
Historical summary of origin and first uses of military rockets emphasizing Spanish role [NASA-TT-F-11128] 21 p3757 N67-35930

ROD
SA CONTROL ROD
Elastoplastic wave interaction in finite rod using approximation method 01 p0157 N67-10046
Elastic-plastic loading-wave vibrations of finite rods 03 p0470 N67-13946
Thermal cycling of prismatic, viscoelastic rod 05 p0769 N67-14497
Problems in propagation of elastic-plastic waves in shafts of finite length with different boundary conditions, and dependence of tension on deformation [FTD-TT-65-1830] 05 p0773 N67-15057
Production engineering measure for ruby laser rods [QPR-3] 05 p0715 N67-15197
Dancoff corrections for square and hexagonal rod lattices [AE-357] 06 p1322 N67-19201
Computer program using matrix algebra to solve linear equations for natural frequencies of rods [FTD-HT-66-553] 10 p1669 N67-21846
Approximation method for determining torsional stiffness of rods having complex shapes 13 p2419 N67-26185
Structural stability of rod, cylindrical panel, and closed cylindrical shell under impact loading 13 p2430 N67-26394
Radiation leakage from TM mode in circular dielectric rod aerial waveguide [RT-27] 14 p2563 N67-27545
Power assessment of radiation from metal waveguide aperture - radiation pattern of uniform dielectric rod aerial [RT-31] 14 p2563 N67-27548
Two-dimensional interactions of shocks with cylindrical aluminum rods, V notches, and cylindrical voids in water [LA-3614] 14 p2579 N67-27680
Linear theory of straight elastic rods allowing for thermal effects [AM-67-1] 15 p2806 N67-28605
Nonlinearity in elastic and aerodynamic characteristics and its influence on vibrations of rod in gas flow 16 p2816 N67-28054
Correlator for extracting rod oscillator signals from noise 17 p3186 N67-30210
Stability of rod compressed by following force 18 p3351 N67-31505
Approximation analysis on deformation pressure and collapse of Zircaloy fuel rod cladding [WAPD-TM-591] 21 p3887 N67-35787
Failure mechanism and crack formation in cylindrical fuel rod cladding due to plastic instability [WAPD-TM-651] 21 p3887 N67-35789
Design, operation, and rupture evaluation on Mark III nuclear fuel rod bundle with Inconel cladding [GEAP-5416] 21 p3893 N67-36653
Propagation of thermally generated stress waves in dispersive elastic rod [UCRL-50252] 22 p4155 N67-37446
Calculation methods for natural frequencies of rods with apertures 23 p4361 N67-39192

RODENT
SA GUINEA PIG
SA MOUSE
SA RABBIT
SA RAT
Design of radiation source and shield for application to studies of effect of gamma irradiation on natural populations of rodents [CEX-63.10] 04 p0490 N67-13638
Nutritional requirements and breeding behavior of two subspecies of Perognathus [NASA-CR-80693] 05 p0641 N67-14556
Species characteristics of thermogenesis in rodents during rewarming process after hypothermia [DRB-T-471-R] 24 p4381 N67-39514

ROLL
Supersonic wind tunnel analysis of unguided sounding rocket roll lock-in [NASA-CR-81142] 05 p0630 N67-15252
Catastrophic yaw and roll lock-in at supersonic and subsonic speeds [AGARD-551] 16 p2813 N67-29525
Ship-motion data indicating that autocorrelation of roll and pitch can be represented by exponential cosine 19 p3411 N67-33380

ROLL CONTROL
SA MISSILE ROLL CONTROL
Performance of roll control elements in six-component magnetic wind tunnel balance 04 p0536 N67-13592
Instrumentation and techniques for determining pitch and roll damping derivatives, Magnus force and moment coefficients, and other dynamic stability measurements in wind tunnel facility [NOLTR-66-23] 06 p0962 N67-16464
Flight tests of pitch and roll rate demand system using electric signalling in Avro 707C aircraft [AGARD-526] 11 p1783 N67-23346
Motion equations, geometry, natural frequency, and sloshing considered in active tank system design for roll control of ships [TR-490-3] 23 p4355 N67-38149

ROLL FORMING
Bonding of Inconel and titanium alloy structural panels by roll-welding process [AMRA-CR-66-02/3] 06 p0887 N67-16183
Thickness gauge with radiation detector for measuring hot-rolled products 10 p1632 N67-21271
Roller calibration system with settling of wavy billet for reduced metal thinning at bending points of plate [FTD-HT-66-361] 12 p2110 N67-24801
Fatigue tests of tubes flared by roll forming and Dynaflare machine [GDC-ERR-AN-959] 13 p2330 N67-26236

ROLLER BEARING
Packaging materials of anti-friction bearings evaluated for environmental protection [NAEC-AML-3447] 06 p0886 N67-16456
Lubrication and failure mechanisms evaluated for roller bearings [AL66Q028] 13 p2324 N67-25339
Ball and roller bearings and lubricants for high temperature application in turbine engines 16 p2899 N67-29201
Design requirements, types and applications of bearings for power transmission machinery 23 p4361 N67-39362
Design requirements and types of rolling bearings for power transmission machinery 23 p4361 N67-39364

ROLLING
High density zirconium carbide thin plates by rolling and pressing methods, with subsequent high temperature baking [JPRS-38834] 02 p0265 N67-11831
Hot rolling titanium alloys into small round shapes 03 p0491 N67-13680
Pressure distribution on metal rolls during rolling process [NASA-TT-F-10422] 04 p0555 N67-13795
Hot rolling behavior of titanium alloy ingots containing aluminum, vanadium, molybdenum, and zirconium additions [NASA-TT-F-10421] 04 p0559 N67-13836
Causes for striped pattern observed in viscoelastic liquids during rolling in mill - Rheology 05 p0710 N67-14584
Rolling seamless tubes from billets, and stress and fracture reduction [JPRS-39345] 06 p0882 N67-15392
Analysis of force equilibrium in deformation zone using direction of sliding friction in industrial piercing process of forced feed of billet 06 p0883 N67-15393
Increased roll inclination and piercing speed for reduced axial failure in tube rolling 06 p0883 N67-15394
Tube rolling processes using long mandrel 06 p0883 N67-15396
Hot and cold bond-rolling techniques for metal hardening 06 p0885 N67-15518
Rolling response measurements of Hunter Mark 6 aircraft to turbulent air currents [ARC-CP-898] 10 p1554 N67-21187
Higher productivity, lower rejection rates, and closer tolerances in metal rolling processes through use of measuring devices with radioisotopes 10 p1646 N67-21236
Phosphorus 32 used to study nature of deformation in steel rolled into rails 10 p1646 N67-21272
Mathematical model and calculator for optimum division of rolled material [FTD-HT-66-163] 10 p1648 N67-21719
Chromium alloy sheet and plate produced by rare gas induction melting, hot extrusion, and warm rolling [NASA-CR-72184] 11 p1896 N67-22175
Titanium-deoxidized steel used for support material in high strength skin-to-rib bonding of composite rolled structural metal panels [AMRA-CR-66-02/3] 14 p2542 N67-26759
Stress determination during rotational pressing of precision parts [FTD-MT-66-136] 15 p2716 N67-28197
Roller stability using synthetic lubricants with surface active substances [FTD-HT-66-376] 15 p2719 N67-28633
Flight tests at subsonic speeds of aileron rolling power and lateral stability of Fairey Delta 2 aircraft [ARC-CP-739] 16 p2819 N67-29081
Plastic deformation of aluminum nickel and iron alloys on thermal cycling [INR-768/XIV/PS] 17 p3060 N67-31083
Sintering, and physical properties of hot rolled oxide glass compositions [BM-RI-6907] 17 p3067 N67-31299
Separating forces, dimensional changes, and grain structures of rolled alloyed and unalloyed uranium billets [NLCO-980] 18 p3293 N67-31741
Hot rolling refractory metals in controlled inert atmosphere 19 p3462 N67-32605
Hydrodynamic lubrication in cold strip rolling at high speeds 20 p3649 N67-34717
Ductility, power, and deformation parameters of titanium alloy rolling process at varying pressures and temperatures 22 p4068 N67-37159

ROLLING CONTACT
Analytical study of metal contact surface in transverse helical rolls for rolling billet into solid and hollow shapes 06 p0883 N67-15395
Rolling element fatigue lives of hollow and solid one-half inch diameter ball bearings [NASA-TN-D-3832] 07 p1002 N67-17834
Numerical solution of elastohydrodynamic film thickness in elliptic contact [MTI-67TR25] 18 p3276 N67-32319
Rolling contact deformation using steel

balls rolling on magnesium oxide single crystals
[NASA-CR-72295] 23 p4256 N67-38700
ROLLING CONTACT BEARING
Rolling contact bearing lubrication and fatigue life in reduced pressure environment
[NASA-TM-X-52287] 11 p1892 N67-23311
Rolling contact bearing torque measurements and fatigue life tests of high temperature lubricants
[NASA-TN-D-3948] 14 p2573 N67-26543
Elastohydrodynamic film thickness calculations for high speed rolling and sliding contacts
[MTI-67TR24] 19 p3461 N67-32736
Rolling contact bearing designs and applications to power transmission machinery 21 p3860 N67-36078
Fatigue testing of rolling contact bearing materials and analysis of advanced lubricants
[NASA-CR-72290] 22 p4064 N67-37370
Failure modes in highly loaded rolling and sliding contacts /antifriction bearings/
[MTI-67TR23] 23 p4256 N67-38115
ROLLING MOMENT
Theoretical rolling moment capacity of magnetically suspended shaped cores within wind tunnel models
[ISAV-140] 01 p0116 N67-10075
Influence of nonlinear yaw-induced roll moment and side moment on dynamic stability of bomb with cruciform tail 06 p0784 N67-15376
ROOM TEMPERATURE
Optimum constituent concentration and operating conditions for room temperature zinc phosphating process
[RIA-66-1858] 01 p0077 N67-10328
Room temperature resistance and high temperature testing of tubular thermoelectric module
[NASA-CR-89188] 02 p0334 N67-12939
Elasticity and anelasticity of uranium oxides at room temperature
[ANL-7181] 04 p0559 N67-13459
High current solid state pulser used to drive injection laser for room temperature operation
[ECOM-2753] 06 p0689 N67-15343
Room temperature mechanical behavior of various chemical and experimental graphites
[NASA-CR-52396] 08 p1296 N67-18977
Microwave properties of manganese substituted zinc-yttrium single crystals as function of temperature
[ECOM-2762] 10 p1747 N67-29720
Wear of plastics in room temperature water
[AECL-2533] 10 p1661 N67-21212
Radiation-induced polymerization of styrene in extremely dry system at room temperature 11 p1805 N67-22234
Radiation-induced polymerization of styrene in extremely dry system in methylene chloride and toluene solutions at room temperature 11 p1805 N67-22235
Plastic deformation at room temperature of single crystals and textured polycrystals of magnesium and magnesium alloys with thorium and lithium
[REPT.-67164-1-T] 16 p2905 N67-29065
Design and operating features of 6-inch shock tunnel and driver gases at room temperature
[ARC-R+M-3449] 16 p2874 N67-29899
Effects of high initial tensile and compressive loads and elevated temperatures on room temperature fatigue life of notched titanium alloy sheets
[NASA-TN-D-4661] 18 p3348 N67-31539
ROOT
Theorems concerning clusters of roots of polynomial and its derivative
[MRC-629] 09 p1470 N67-19833
Method of hodograph in theory of automatic control
[FTD-MT-65-513] 11 p1845 N67-22553
ROOT-MEAN-SQUARE ERROR
Modified root-mean-square computer program used to evaluate distortion of reflective surface of paraboloidal antenna - Deep Space Instrumentation Facility /DSIF/ 02 p0227 N67-12136
Mathematical models for effect of tracking systems on RMS errors in spacecraft position and velocity - least squares method
[NASA-TN-D-3776] 03 p0369 N67-12175
Root-mean-square differences between measured magnetic field values obtained by rubidium vapor magnetometer aboard OGO-2 satellite and values derived from spherical harmonic expansions
[NASA-TM-X-55685] 08 p1370 N67-18567
Paraboloid antenna root-mean-square best fit computer program 15 p2870 N67-29732
Tracking station location uncertainties studied for effect on root-mean-square errors in spacecraft position and velocity
[NASA-TM-X-55804] 15 p2870 N67-29747
ROTARY DRIVE
Pneumatic rotary servomotor for gimbal actuators
[NASA-CR-84463] 14 p2449 N67-27502
ROTARY STABILITY
Electrical analogy technique for determining rotational apparent masses of body in two-dimensional fluid flow
[NASA-CR-73960] 12 p2010 N67-24546
Balancing criteria and acceptable residual specific unbalance of rotating machines as practiced in U.S.
[TR-3] 18 p3258 N67-32589
Rotating vessel and compressed air used in experimental studies on high gravity rotating fluidized beds
[BNL-50013] 19 p3497 N67-33994
ROTARY WING
Analysis of low disk loading VTOL aircraft 05 p0633 N67-15191
Generalized rotor performance graphs suitable for preliminary design in rotary wing field
[USAAVLABS-TR-66-83] 14 p2445 N67-26957
Extended transient-response calculation method to determine aerodynamic load and blade motion for variable shaft torques of rotary wing
[CAL-BB-1846-S-2] 22 p3957 N67-37443
ROTARY WING AIRCRAFT
SA AUTOGYRO
SA HELICOPTER
High speed and payload capability of rotary wing aircraft 05 p0633 N67-15193
Vibration control in rotary winged aircraft 05 p0636 N67-15210
Test and data analysis techniques for rotary wing hovering and takeoff performance
[AGARD-517] 15 p2642 N67-28878
High speed and payload capabilities of various rotary wing aircraft designs 23 p4178 N67-38842
ROTATING BODY
Stress state of rotating conical shell with linearly changing thick wall
[FTD-TT-65-1460] 01 p0161 N67-11069
Three-dimensional analysis of tangential yo-yo despin device on rotating rigid body
[NASA-TN-D-3843] 08 p1223 N67-18694
Experimental simulation on on-off reaction jet damping and attitude control system for spinning body
[NASA-TN-D-3943] 09 p1295 N67-19884
Gravitational induction effect in stationary field of rotating mass, and possible geomagnetic interaction
[NASA-TT-F-10633] 13 p2368 N67-25808
Optimum stabilization of rotational motion of solid with fixed point using gyroscopes 13 p2369 N67-26186
Flywheel for equilibrium position stabilization of rotating solid body
[NASA-TT-F-10739] 14 p2583 N67-27569
Finite rotations of body under effect of internal rotating flywheels 14 p2583 N67-27739
ROTATING CYLINDER
Test facility for measurement of boundary layer flow noise generated by rotating cylinder in water
[REPT.-82] 02 p0251 N67-11890
Nonisothermal stationary flow of nonnewtonian fluid between two parallel planes, headless axial flow in annular gap, and flow between two rotating cylinders in presence of dissociation 08 p1264 N67-18341
Stability of closed cylindrical shells of rotation subjected to torsion and external pressure 09 p1518 N67-19485
Aerodynamic and heat exchange studies in annular channel with inner rotating cylinder
[FTD-TT-65-1026] 09 p1542 N67-19798
Calculation methods and test results for convective heat transfer from spinning cylinder and gyroscope wheel
[E-3046] 11 p1999 N67-22561
Superlaminar flow in annular space between nonconcentric rotating cylinders
[NASA-CR-749] 15 p2691 N67-28372
Ellipsoidal mirror reflectometer, interferometer spectrometer, and rotating cylinder procedure for thermal radiation property measurements
[NASA-CR-66127] 17 p3069 N67-31139
Temperature effect on stability of rotational motion of liquid 18 p3260 N67-32287
ROTATING DISK
Measurements of entrainment by free rotating disk in turbulent axisymmetric flow
[ARC-27997] 05 p0697 N67-15166
Flow of viscous fluid between fixed and blown rotating disks
[NASA-TT-F-10931] 18 p3259 N67-32113
ROTATING ENVIRONMENT
Stability of dense plasma confined by rotating magnetic field which is parallel to the surface
[LRP-25/66] 01 p0134 N67-10630
Rotational load on narcotized dogs changes bioelectric activity in neck nerves of animals with intact labyrinths 02 p0191 N67-11864
Adrenaline increase and motor activity suppression in ileum found by rotation of animals with intact nervous systems and labyrinths 02 p0191 N67-11865
Functional changes in internal organs of six healthy subjects following confinement in rotational environment 02 p0192 N67-11510
Otolith and noctolith information influence in perception of visual horizontal by rotating human subjects with normal and defective labyrinthine functions 05 p0656 N67-15134
Effectiveness of motion sickness drug from slow rotation room studies
[NASA-CR-81787] 07 p1617 N67-18130
Thermally induced boundary layer flows in rotating environment
[SUDAAR-292] 12 p2086 N67-24048
Drugs altering susceptibility to motion sickness in aerobatics and slow rotation room
[NASA-CR-84019] 13 p2280 N67-26270
ROTATING FLUID
Linearized incompressible viscous flow in rotating systems
[TR-2] 09 p1434 N67-19727
Effect of viscosity on oscillatory disturbance of rigidly rotating fluid
[ARL/A-350] 11 p1881 N67-23901
Equations of motion used to construct magnetohydrodynamic model of cyclone in electric conducting atmosphere
[NASA-CR-84100] 13 p2367 N67-26486
Stable equilibrium of cylinder axis in rotating fluid volume 15 p2711 N67-28124
ROTATING MACHINE
Steam lubrication, low kinematic viscosity fluids, and bearing materials for naval machinery applications
[MTI-66TR50] 07 p1089 N67-16086
Feasibility of rotating boiler for high performance Rankine cycle power generator
[NASA-TM-X-52281] 11 p1788 N67-23313
Bearing and lubricants for high speed rotating machinery operating in hard vacuum 21 p3865 N67-35806
Vibration analysis of shipboard rotating machinery using mathematical model
[AD-654196] 21 p3943 N67-36183
ROTATING PLASMA
SA THETA PINCH
Diffusion due to ion-ion collision in rotating multicompenent plasma
[REPT.-66-07] 03 p0449 N67-13055
Velocity measurements of particles in rotating plasma using Fabry-Perot interferometer with photoelectric recording
[FTD-HT-66-522] 09 p1459 N67-20043
Temperature limit as measure of plasma confinement for study of magnetic bottles at low plasma temperature
[REPT.-66-19] 10 p1741 N67-21766
Drift velocity of hydrogen plasma rotating in crossed radial electric field and axial magnetic field 11 p1956 N67-21548
Rotating plasma experiments with steady-state Hartmann flow
[NASA-CR-84655] 16 p2813 N67-31721
Boundary layer and limiting velocity for rotating plasma
[NASA-CR-85975] 18 p3213 N67-31806
Partial corotation of magnetized plasma - results of study applied to cosmogony of Saturnian rings and asteroid belt
[REPT.-67-68] 19 p3390 N67-32961
Improved confinement time as function of plasma column rotation 22 p4318 N67-39729
ROTATING SHAFT
Digital computer rotor dynamic analysis of SNAP-2 combined rotating unit shaft bearing system

[NAA-SR-11944] 02 p0385 N67-11719
Analog computer model of combined rotating unit shaft-bearing system
[NAA-SR-11943] 03 p0426 N67-12877
Osmium dispenser cathodes, microfractography of thin films, and grease lubricated spiral bearing for straight through shaft 04 p0635 N67-13721
Grease lubricated spiral groove bearing for straight through shaft 04 p0554 N67-13724
Journal bearing studies of shaft displacement gauge evaluation and friction torque determination
[NASA-CR-72034] 05 p0714 N67-15217
Compilation of abstracts on screw-type rotary shaft seals
[BIB-32] 11 p1890 N67-23037
Gas bearing system with flexible supports and shaft damping for stability for application to Brayton cycle radial flow turbocompressor
[NASA-CR-72246] 16 p2901 N67-30154
ROTATING SPHERE
Rotation instrumentation for loose shell particle removal from clogged nuclear fuel element sphere
[JUL-378-RG] 10 p1684 N67-21690
ROTATING STALL
Stall flutter of helicopter rotor blades
[AROD-4846-3] 21 p3754 N67-35699
Rotating stall analysis for axial flow compressor
[ONERA-TP-492/1967/] 23 p4184 N67-39365
ROTATING VEHICLE
Approximate solution of motion equations for arbitrary rotating spacecraft
[NASA-TR-R-269] 23 p4353 N67-39063
ROTATION
SA EARTH ROTATION
SA FARADAY ROTATION
SA GYRATION
SA LIQUID ROTATION
SA MOLECULAR ROTATION
SA SATELLITE ROTATION
SA SOLAR ROTATION
SA SOLID ROTATION
SA TORQUE
Correlation between human sensory reaction and vestibular analyzer after radial acceleration 02 p0221 N67-11659
Comparison of rotational M1 transition rates between high and low spin states of rare earth nuclei
[CONF-660906-11] 04 p0588 N67-13968
Quantitative explanation of observed distribution of rotational velocities for stars of different spectral types - stellar evolution
[UCRL-TRANS-10040, PT. III] 07 p1191 N67-17537
Proper rotations of three-dimensional orthogonal frame
[NASA-TN-D-3908] 08 p1298 N67-18357
Rotational behavior of stars and formation of planetary systems
[NASA-CR-82656] 08 p1368 N67-19114
Rotational excitation of polar molecules by slow electrons 11 p1933 N67-23121
Method for determining lunar rotation constants from measurements on scaled and oriented lunar photographs 11 p1975 N67-22516
Parametric oscillations and rotation of magnetization vector in ferromagnetic films 13 p2392 N67-25705
Digital computer solutions to rotation regions of magnetization vector in single domain ferromagnetic films 13 p2392 N67-25707
Equations describing rotation of orbital plane
[NASA-CR-83933] 13 p2402 N67-25685
Certain explanations of rotation of planet Mercury 14 p2611 N67-26535
Rotation theories of geomagnetism and gravitation
[NASA-TT-F-10889] 14 p2520 N67-26571
Matrix conversion of direction cosines into equivalent Euler sequence of rotation
[NASA-TM-X-1384] 14 p2502 N67-27364
Dynamic errors of axes of rotation of cinetheodolite
[RAE-LIB-TRANS-1190] 15 p2707 N67-27794
Finite rotation matrix represented as sum over Clebsch-Gordon coefficients
[NP-16587] 15 p2761 N67-28347
Optical method for determining orientation of rotation axis of spin stabilized satellite
[RAE-LIB-TRANS-1212] 15 p2795 N67-28714
Changes of rotation-vibration spectrum of simple molecules during dissolution
[NASA-TT-F-11027] 16 p2842 N67-29014
Finite displacements of solid subjected to rotation of internal flywheels and translational motion 18 p3348 N67-31647
Damped vibrations of elastically supported rigid body with coupling between translation and rotation 18 p3349 N67-31700
Effect of orientation to gravitational vertical on nystagmus following rotation about horizontal axis
[FPRC/1247] 20 p3571 N67-34251
Equations for inelastic dynamic shells under large strains and rotations
[SC-CR-67-2641] 23 p4356 N67-38383
Influence of rotation on flow in long rectangular channel
[MD-18] 24 p4430 N67-39550
ROTATIONAL FLOW
Hydrodynamics and heat transfer of rotating flow between two coaxial cylinders 02 p0322 N67-11218
Circumferential variations in resonant pressure wave, resonant combustion diagnostic techniques, and hydrodynamic response of injectors to high amplitude chamber pressure oscillations 06 p0980 N67-15730
Rotational temperature measurement of electron beam excited nitrogen for free jet flow conditions 06 p0685 N67-15743
Decay of turbulent axisymmetrical free jet and wake flows with rotation
[TAE-55] 11 p1880 N67-22916
Navier-Stokes and continuity equations used to calculate unsteady laminar flow of viscous incompressible fluid in moving circular tube
[REPT.-38] 13 p2308 N67-26107
High acceleration effects on interior ballistics of solid propellant rocket engines
[F66-10] 16 p2985 N67-29457
Sink flow response to unsteady rotation of cylindrical chamber gyroscope
[DLR-FB-67-52] 22 p4026 N67-37310
ROTOR
SA COMPRESSOR ROTOR
SA HELICOPTER ROTOR
SA LIFTING ROTOR
SA TILTING ROTOR
SA WING
Gravitational equilibria of rigid body containing symmetric constant speed fixed axis rotor
[NASA-CR-80354] 03 p0463 N67-12981
Feasibility studies of foil bearing rotor support system
[NASA-CR-81266] 06 p0688 N67-16509
Substitution circuit parameters for excitation and control circuits in hollow rotor asynchronous two-phase motor 07 p1090 N67-17283
Feasibility study of single rotor, gas turbine engine design
[WAD-268/F, REV.] 09 p1505 N67-19707
Flow generating rotor for testing inlet flow to transonic stators
[NASA-CR-54620] 21 p3753 N67-35376
Gas cooled reactor application of graphite helical rotor expanders
[UCRL-70258] 21 p3859 N67-35852
ROTOR AERODYNAMICS
Rotor aerodynamics and guidance control system for postal missile
[NASA-TT-F-8458] 01 p0004 N67-10184
Gyrorotor form providing minimum aerodynamic resistance 03 p0393 N67-12420
Method for approximate calculation of aerodynamic gyromotor losses 03 p0393 N67-12421
Wind tunnel tests of operating limits of high speed rotorcraft 05 p0632 N67-15184
High speed and payload capability of rotary wing aircraft 05 p0633 N67-15193
Exploratory wind tunnel tests of recovery rotor concept in axial flow
[NASA-CR-72665] 07 p0989 N67-17836
Aerodynamic design of highly efficient propeller blade based on vortex theory
[NASA-TT-F-11318] 22 p3965 N67-36705
Mathematical model for predicting rotor dynamic motion phenomena associated with rotor whirl using computer simulation
[NASA-CR-72302] 22 p4133 N67-37213
Rotor aerodynamics in relation to historical and ideal development of helicopters
[NASA-TT-F-494] 22 p3961 N67-37633
ROTOR AXIS
Anodized aluminum alloy tail rotor drive shafts examined for effectiveness of corrosion protection
[M67-116] 13 p2228 N67-26039
ROTOR BLADE
Design analysis for twisted pinned blades subject to bending and torsional vibrations
[NASA-TT-F-10273] 01 p0156 N67-10208
Presentation of measured and calculated full-scale rotor blade aerodynamic and structural loads
[SER-58398] 05 p0631 N67-15230
Use of excitation panels to simulate flight loads in helicopter rotor blades during whirl tests
[NAEC-ASL-1100] 06 p0786 N67-16154
Prediction theory for motion behavior of helicopter blades at low rotor speeds in strong steady high winds
[ARC-CP-852] 08 p1220 N67-18300
Effect of slots on performance of highly loaded compressor rotor blades
[NASA-CR-54546] 08 p1217 N67-18630
Helicopter rotor blade pressure distributions compared with static two-dimensional airfoil characteristics for extreme flight conditions
[NASA-TN-D-3936] 12 p2013 N67-23818
Axial-flow medium aspect ratio compressor rotor blade rows designed to evaluate use of blade camberline shape to minimize blade element losses at high transonic speed
[NASA-CR-54561] 12 p2012 N67-25078
Blade element performance of two-stage axial-flow pump with tandem-row inlet stage
[NASA-TN-D-3962] 13 p2307 N67-25844
State of art in calculating oscillations of helicopter rotor blades
[DLR-MITT.-66-16] 14 p2446 N67-27128
Vortex amplitude generation of helicopter rotor blade noise
[AD-634644] 15 p2840 N67-27990
Evaluation of rain erosion resistant materials for helicopter rotor protective covering
[SEG-TR-65-53] 15 p2840 N67-28183
Analysis and testing of air cooled turbine rotor and stator blades 16 p2983 N67-29197
Heat transfer measurements on rotor blade of reentry vehicle model
[NASA TN-D-4065] 17 p2992 N67-30834
Increased turbine rotor blade loading through use of boundary layer control devices - vortex generator, tangential slot blowing, tandem airfoil, and jet flap
[NASA-CR-735] 17 p2999 N67-31216
Rotor blade modifications for high weight flow, low pressure ratio turbine
[NASA-TM-X-7] 18 p3196 N67-31528
Performance characteristics of high-weight flow, low pressure ratio, single stage turbine rotor and stator blades
[NASA-TM-X-6] 18 p3220 N67-31918
High subsonic Mach number 32-blade rotor turbine with low suction-surface diffusion experiment to determine effect of low rotor blade solidity on losses
[NASA-MEMO-10-2-58E] 18 p3321 N67-31975
Nondestructive inspection of adhesive bonded metal helicopter rotor blades 20 p3647 N67-34478
Single stage axial flow compressor consisting of slotted rotor and slotted stator examined for slot effect on blade performance
[NASA-CR-54548] 21 p3753 N67-35337
Stall flutter of helicopter rotor blades
[AROD-4846-3] 21 p3754 N67-35699
Single stage experimental evaluation of high Mach number compressor rotor blading
[NASA-CR-54582] 22 p4133 N67-37107
Method for predicting aerodynamic loads and dynamic response of tandem rotor helicopter blades
[CAL-BB-1960-S-1] 22 p3960 N67-37325
Single stage experimental evaluation of compressor rotor blading with 1400 ft/sec tip speed
[NASA-CR-54583] 22 p3957 N67-37598
Numerical method for determining transient blade motions of rotor with flapping and lead-lag degrees of freedom
[NASA-TN-D-4195] 22 p3956 N67-39016
Experimental evaluation of high Mach number compressor rotor blading
[NASA-CR-54585] 23 p4175 N67-38856
Blade element performance data for axial flow compressors
[NASA-CR-54584] 23 p4336 N67-38922
Theory and aerodynamic experiments to improve lift-drag ratio of helicopter blade sections
[ONERA-TP-495/1967/] 23 p4175 N67-38923

ROTOR DISK
Spinning filamentary disk used as hypersonic decelerator for manned reentry missions
[NASA-CR-89684] 24 p4546 N67-40217
ROTOR SPEED
Radial-inflow turbine performance over range of specific speeds
[NASA-TN-D-3742] 01 p0009 N67-10799
Three-axis stabilization of dumbbell satellite by small constant-speed rotor
[TG-835] 09 p1511 N67-19836
ROTOR SYSTEM
Dynamic stability analyses of rotor-bearing systems
[NASA-SP-113] 02 p0365 N67-11942
Turbo-rotor helicopter with gas ejection rotor drive system for takeoff and landing and turboprop or jet engines for high speed flight 05 p0634 N67-15196
Possible helicopter performance improvements 05 p0634 N67-15197
Large heavy lift shaft driven helicopter 05 p0634 N67-15198
Rotor drive problems and feasibility of using tip jet driven large rotors 05 p0634 N67-15199
Design problems of helicopter rotor tip jet engines 05 p0755 N67-15200
Parametric analysis and preliminary design of shaft driven rotor system for heavy lift helicopter
[LR-19143] 12 p2013 N67-23861
Adjustable rotor device for generating ellipses over arbitrary pair of conjugate diameters
[NASA-TT-F-10947] 14 p2565 N67-27538
Optimum rotor system for hot cycle heavy lift helicopter - system integration and stability and control characteristics
[HTC-AD-66-17] 16 p2979 N67-29421
Steady state and dynamic response characteristics of rotor current meter for water flow velocity measurements
[REPT.-67-33] 22 p4046 N67-37210
ROTORCRAFT HELICOPTER
SA TANDEM-ROTOR HELICOPTER
Wind tunnel tests of operating limits of high speed rotorcraft 05 p0632 N67-15184
Status of rotorcraft technology 05 p0632 N67-15185
Operational feasibility of hybrid rotorcraft at speeds up to 200 knots 05 p0632 N67-15186
Helicopter design concepts reviewed in relation to optimization of operation and utility 05 p0633 N67-15188
ROUGHNESS
SA SURFACE ROUGHNESS
Surface state influence on various types of corrosion in stainless steels
[EUR-3891.E] 10 p1654 N67-21055
ROUND-TRIP TRAJECTORY
Propulsion requirement for high-thrust round-trip trajectories to Jupiter
[NASA-TN-D-3739] 03 p0462 N67-12797
Trajectory design and associated computer programs for spacecraft ballistic Earth-Mars round-trip mission
[NASA-CR-80530] 03 p0465 N67-13196
Theoretical basis for double precision orbit determination program - formulation for computing two-way Doppler and round-trip range 06 p0837 N67-15906
Navigation and guidance requirement analyses during midcourse and orbital phases of 1975 round-trip Mars mission
[NASA-CR-61130] 16 p2927 N67-29920
Round-trip trajectories for exploration of major moons of Jupiter
[NASA-TN-D-4167] 23 p4341 N67-35665
ROUNDED LEADING EDGE
Shock wave impingement effects on heat transfer on cylindrical leading edge
[NASA-TN-D-3859] 07 p1067 N67-17798
ROVER PROJECT
Shunt effects and sheath integrity of thermocouples for reactors of Project Rover 09 p1479 N67-19643
Short-time tensile properties and joinability of eight alloys for use in Rover rocket nozzle 13 p2356 N67-25376
Analysis of debris from simulated destruction system test of full scale Rover/NERVA reactor
[NASA-CR-84690] 13 p2363 N67-26172
Rover/Phoebus scale model chemical explosive destruct tests for safety analysis of nuclear space power supplies
[SC-RR-66-589] 14 p2574 N67-26831
ROVING
SA LUNAR ROVING VEHICLE /LRV/
System and subsystem requirements for remote control of roving space vehicle motion
[NASA-CR-88265] 21 p3932 N67-36079
ROYAL ZONE
S SUNSPOT
RUBBER
SA SILICONE RUBBER
SA SYNTHETIC RUBBER
Dynamic compression testing of shock mitigating materials - casting resins, rubber, thermoplastics, and thermosetting compounds
[NOLTR-66-39] 01 p0091 N67-11031
Crack propagation and critical strain in swollen rubber
[NASA-CR-80195] 02 p0279 N67-12276
Anisotropic strain energy function describing mechanical behavior of rubber 05 p0720 N67-14484
Suitability of thermoplastic rubbers as binder for composite solid propellant 06 p0897 N67-15721
Stiffness in elastic membranes of rubberized cloth under load and pressure variations 07 p1197 N67-16681
Rubber coatings to protect metals from cavitational wear
[FTD-HT-66-510] 07 p1196 N67-17670
Impact testing machine used to determine dynamic stress-strain diagrams of industrial rubber specimens 08 p1374 N67-18220
Thermal conductivity of soft vulcanized natural rubber
[TR-66-49-PR] 08 p1295 N67-18296
Nuclear magnetic resonance study for determining structure of nitroso rubber 08 p1234 N67-18329
Thermodynamics, thermal effects, and dilation of natural rubber
[PIBAL-931] 11 p1903 N67-23441
Rocket motor chamber insulation with rubber
[NASA-CR-72238] 12 p2200 N67-24631
Low aspect ratio wing theory applied to ship rudder
[FTD-TT-65-1853] 13 p2306 N67-25419
Rubber and butyl cable insulation materials tested for physical and mechanical properties to determine effects of aging
[MAR-8702] 13 p2329 N67-26025
Fabrication techniques and physical properties criteria for gum rubber and polyvinyl plastisol bags used in isostatic pressing of powdered materials
[Y-1574] 16 p2852 N67-29659
Polysulfide rubber effect on electric strength of epoxy resin
[SC-TM-67-50] 20 p3667 N67-35097
Tensile strength of rubbers tested with respect to crosslinkage in relaxation of stress experiments at various elongations at room temperatures
[ONR-TR-RLT-90] 24 p4474 N67-40358
RUBIDIUM
Long term performance of two rubidium gas cell frequency standards
[NBS-TN-341] 06 p0877 N67-15438
Rubidium and cesium thermodynamic and transport properties for space power systems
[AGN-8187] 07 p1209 N67-17599
Whole-rock rubidium-strontium age of Silurian Devonian boundary in northeastern North America
[NASA-TM-X-57221] 08 p1275 N67-18244
Properties of simple atoms and ions - atomic helium, rubidium, lithium, barium, and potassium transitions
[NASA-CR-83463] 08 p1345 N67-19272
Thermodynamic and transport properties of liquid cesium and rubidium viscosity
[AGN-8192, VOL. 3] 09 p1544 N67-20211
Thermodynamic and transport properties of cesium, rubidium, lithium, and sodium
[AGN-8202] 10 p1772 N67-21516
Continuous counter current ion exchange method of separating cesium and rubidium ions 16 p2847 N67-29628
Optical pumping technique for studying magnetic properties of rubidium vapor magnetometer
[NADC-AE-6714] 17 p3142 N67-30722
Operation and performance of rubidium 85 vapor magnetometer flown aboard 5E-5 satellite
[TG-890] 18 p3347 N67-32636
Thermodynamic and transport properties of cesium and rubidium pressure volume temperature properties
[AGN-8192, VOL. 1] 20 p3743 N67-34078
Nuclear spin and hyperfine structure measurements of indium 110, rubidium 86, and tin 121
[UCRL-17472] 23 p4306 N67-38850
RUBIDIUM COMPOUND
Differential thermal analysis of niobium oxytrichloride melt with rubidium and cesium chlorides 03 p0456 N67-12284
RUBIS ROCKET
Very low frequency electromagnetic measurements of ionosphere using Rubis rocket 11 p1979 N67-22362
Payload missions and design of third Rubis rocket launched in April 1966, and data on geomagnetic and electric field structure
[MPI-PAE-EXTRATERR.-35/66] 19 p3542 N67-33942
RUBY
Preparation of high-perfection ruby monocrystals by vapor phase growth
[AD-636007] 01 p0025 N67-10488
Vapor-phase growth technique for development of growth of ruby single crystals
[RADC-TR-66-456] 05 p0726 N67-15283
Circularly polarized laser modes in ruby laser material 07 p1176 N67-17277
Alignment of chromium in ruby by optical pumping 07 p1176 N67-17279
Intensity of absorption bands of ruby
[FTD-HT-66-498] 14 p2668 N67-26978
Exchange effects in ruby determined by comparing line shapes obtained by electron paramagnetic resonance and ultrasonic paramagnetic resonance techniques
[AD-634888] 15 p2778 N67-27986
Vapor phase growth of ruby single crystals
[AD-648386] 15 p2657 N67-28606
Czochralski growth technique for large ruby crystals with optical quality suitable for solid state lasers
[SRCR-67-5] 15 p2781 N67-28329
RUBY LASER
Energy-losing bleaching mechanism of organic phototropic crystals used for ruby laser switches
[ATD-66-110] 01 p0080 N67-10437
Giant optical radiation pulses from ruby lasers by control of static cavity geometry
[TR-4] 01 p0080 N67-10600
Effects of ruby laser radiation on ocular tissue of rabbits and estimation of human corneal threshold
[FA-R-1815] 01 p0018 N67-10988
Temperature dependence of fluorescent frequency shift in ruby laser
[FTD-TT-65-2006] 01 p0141 N67-10978
Interference measurement of homogeneity of ruby resonator for laser
[FTD-TT-66-44] 01 p0080 N67-11161
High power laser research - laser material evaluation, stimulated output and Q-switching, self-focusing in liquids, and flash lamp spectroscopy
[NRL-6444] 02 p0407 N67-12645
Magnetic low temperature Q-switching of ruby laser 02 p0407 N67-12648
Faraday effect as switching technique for high power laser output 02 p0407 N67-12651
Measurement and theory, including signal to noise and transfer function calculations, of atmospheric water vapor using ruby laser optical radar 04 p0897 N67-13488
Production engineering measure for ruby laser rods
[QPR-3] 05 p0715 N67-15107
Low noise receivers - traveling wave maser development 06 p0838 N67-15913
External mirror for laser brightness gain and thermal compensating mode control 07 p1095 N67-16954
Journal of Applied Spectroscopy articles on ruby lasers and activated alkali halide scintillators
[FTD-HT-66-310] 07 p1096 N67-17169
Ruby laser operation with inclined mirrors 07 p1096 N67-17170
Probability method of determining energy losses in ruby laser with misaligned resonators
[FTD-HT-66-492] 08 p1298 N67-18235
Pulsed laser holograms 09 p1456 N67-19464
Production engineering techniques for ruby laser crystal growth
[QPR-4] 09 p1456 N67-19885
Parametron frequency divider and multiple interference light filters for ruby lasers
[FTD-HT-66-370] 10 p1649 N67-20449
Parametron frequency divider for ruby

lasers 10 p1590 N67-20450
Multiple interference light filters for narrowing ruby laser emission spectrum 10 p1649 N67-20451
Gas, semiconductor, and ruby lasers [FTD-HT-66-228] 10 p1649 N67-20481
Induced combination dispersion obtained in benzene contained in ruby laser resonator [FTD-HT-66-174] 10 p1578 N67-21422
Aberrant corneal epithelial cells produced in rats by ruby laser irradiation [AMRL-698] 10 p1586 N67-21879
Pulsed ruby laser evaporation method for preparation of germanium and gallium arsenide crystalline films [N66SD66] 11 p1893 N67-22535
Eye safety problem created by projected field operations with pulsed ruby laser [USL-772] 11 p1893 N67-23627
Particle emission measurements on metal surface absorption of radiation pulses from Q-switched ruby laser [AD-645473] 11 p1894 N67-22727
Bleaching effect of cobalt doped zinc sulfide crystals under influence of extremely large pulses of ruby laser [NASA-TT-F-480] 11 p1894 N67-23838
Experimental comparison of energy and radiation angle for lasers with plane and confocal mirrors [FTD-HT-66-523] 12 p2112 N67-24458
Laser stimulated optical frequency mixing in liquids and solids 14 p2548 N67-36709
Laser stimulated optical mixing in Brillouin spectra of liquids and glasses 14 p2548 N67-36710
Spectrographic observations of ruby laser stimulated Rayleigh scattering from liquids 14 p2548 N67-36711
Three-photon photoelectric effect in gold using ruby laser [REPT.-648] 15 p2700 N67-28087
Ignition of solid combustibles by ruby laser [BRL-MR-1799] 15 p2721 N67-28564
Ruby laser light source in shadowgraph system for observing shock wave shape, detachment distance, and nose shape for luminous and ablating bodies at hypersonic speeds [NOLTR-67-18] 15 p2639 N67-28692
Crystal structure defects produced in ruby and sapphire laser materials by gamma radiation [AD-650122] 16 p2904 N67-29625
Pink ruby laser and intense magnetic fields studied in superpower laser research project 17 p3076 N67-30568
Atomic clocks and ruby lasers used for greater precision in trajectory analysis [TP-446/1967/] 17 p3076 N67-31105
Characteristics of Stokes emission in simulated Brillouin scattering of intense laser light in non-focusing media [AFCRL-67-0661] 18 p3277 N67-32622
Measurements of interaction of chromium ions in ruby crystals [AFCRL-66-830] 18 p3318 N67-33495
Temporal coherence and frequency versus time characteristics of Q-spoiled ruby laser [SR-2] 19 p3466 N67-33773
Dilute ruby absorption spectra, ruby laser efficiency, and kinetics of optical pumping [AFCRL-67-0194] 19 p3467 N67-33979
Ruby laser thermal distortion effects from intense flash of optical pump energy [TR-5] 19 p3467 N67-33034
Geodetic laser system with specified photographic range and rangefinding distance capabilities [B-3546] 19 p3467 N67-33106
Theoretical and experimental research on radiation and plasma physics, hydrodynamics, thermodynamic property of matter, and nuclear structure [UCRL-50001-66-2] 19 p3496 N67-33208
Ruby lasers to study plasma production 19 p3515 N67-33210
Stimulated Raman scattering and mode selective techniques for giant pulse lasers, and studies of optical harmonic generation and bleachable dye lasers [P67-81] 21 p3815 N67-35619
Charged particle emission after ruby laser irradiation of transparent dielectric materials [TR-7] 21 p3866 N67-35695
Electro-optic and magnetic-optic Q switches for narrow line width ruby lasers - Farraday rotation switch [CLM-R-73] 22 p4010 N67-36786
Two-step imaging technique using Fraunhofer holograms formed by Q-switched ruby laser to record fog droplets [TO-B-67-32] 22 p4059 N67-37292
Mobile laser transceiver for detection of ablative material clouds from SNAP reentry vehicles [SC-DC-67-1596] 23 p4262 N67-39195
Simulated ruby laser radar data for analysis of atmospheric water vapor profiles [ECOM-02207-F] 24 p4446 N67-40225
Structural and thermal properties of multimode high energy laser transmitter system and Q-switched laser transmitter [IR-966-1] 24 p4463 N67-40306

RULE
SA INSTRUMENT FLIGHT RULE /IFR/
SA REGULATION
Dispersion sum rules method for determining hyperon magnetic moments [JINR-E2-2931] 10 p1722 N67-21552
Commercial airlines and Railway Labor Act 11 p2004 N67-22275
Rule for estimating chemical displacement of protons in olefinic systems from additive increments of double bond [JPRS-41595] 20 p3592 N67-34419
Superconvergent sum rule for pion photoproduction on lambda hyperon derived in framework of SU/3/ symmetry 20 p3697 N67-34747
Fubini sum rules for vertex functions [AFOSR-67-1637] 22 p4103 N67-36916

RUNGE-KUTTA INTEGRATION
Tables for elementary weights of Runge-Kutta formulas of first eight orders and for relations of explicit formulas through order seven [NASA-CR-81802] 07 p1116 N67-18187
Numerical solutions for librational motion of Mercury obtained by applying Runge-Kutta integration [NASA-TM-X-57295] 06 p1363 N67-18711
Explicit integration of differential equations [NASA-CR-82571] 06 p1302 N67-19154
Numerical solution of differential equations using Runge-Kutta methods of orders up to ten - combinatorial analysis [MRC-TSR-698] 09 p1468 N67-19746
Initial value methods for calculating eigenvalues of Couette flow in fully filled container using Runge-Kutta integration procedures [F-B2294] 14 p2517 N67-27075
Runge-Kutta-Gill method using Fortran subroutine RKLDEQ for integration of first order ordinary differential equations on IBM 360/75 computer [ORNL-TM-1762] 17 p3093 N67-31080
Pressure approximation based on Runge Kutta integration for deriving theoretical yawed sphere streamline cone paths used in comparison of cone theoretical and experimental streamline paths [MEMO-66-18] 20 p3559 N67-34070

RUNWAY
SA LANDING AID
Design concept for distance coded runway markings [RD-66-37] 01 p0057 N67-10424
Landing design constraints on foam runway for lifting reentry vehicle [SEG-TR-66-21] 15 p2686 N67-28184
Fog dispersal over airport runways by rotary sieve and mobile plant methods [DLR-FB-67-23] 15 p2688 N67-25676
Compacted-snow runways constructed in polar region from contaminated snow [R-533] 20 p3618 N67-34293
Aviation safety projects - aircraft design, maintenance, instrumentation, and equipment - airports, runways, personnel training, fuels, lubricants, materials, and engines 20 p3568 N67-35159

RUNWAY ALIGNMENT
Feasibility study of aircraft taxiing guidance system using buried radioactive isotopes and avionic gamma ray detector [SRDS-RD-67-18] 23 p4282 N67-38160

RUNWAY CONDITION
Airport runway surface traction measuring device [FAA-ADS-55] 06 p0860 N67-15772
Drag effects on aircraft pneumatic tire during takeoff under hazardous runway conditions [S+T-MEMO-9/66] 09 p1455 N67-20323
Atmospheric turbulence, flight, commercial survey and ground load, sinking speed, and runway condition effects in NATO countries on design of military aircraft [AGARD-555] 16 p2885 N67-29434

RUNWAY LIGHT
Technical testing of masked lamps for taxiway edge lights [RD-66-44] 01 p0057 N67-10344
Fixture for testing landing gear load capabilities of inset runway guide lights [RD-66-17] 02 p0249 N67-12284
Evaluation of runway centerline, high speed exit taxiway and runway remaining lighting systems for Category III flight operations [FAA-RD-66-6] 07 p1120 N67-17958
Offset marker beacon antenna for instrument landing system improvement [FAA-RD-66-55] 07 p1121 N67-17959
Feasibility of retroreflective markers for improving runway threshold and centerline identification at small airports [FAA-RD-66-71] 07 p1061 N67-17960
Runway visual range evaluated for pilot visibility [SRDS-RD-66-24] 11 p1855 N67-22554
Photometric detection contrast of airport runway lighting in decreasing visibility [SRDS-RD-66-47] 11 p1855 N67-22732
All-weather flight tests, physical and mechanical properties, and photometric measurements of multiple semiflush mounted in-runway lighting fixtures for displaced threshold approach system [RD-66-66] 12 p2143 N67-24010
Landing light backscatter effect on target visibility in fog [FAA-RD-66-60] 12 p2016 N67-24850
Wide angle 60 watt pavement inset light for use in center line of short radius taxiway turns [RD-66-78] 14 p2512 N67-27182
Runway visual range system for atmospheric transmittance over 500 feet [RD-66-34] 14 p2571 N67-27184
Pilot evaluation of colored centerline lighting systems for indicating runway distance remaining and taxiway exits [SRDS-RD-67-10] 21 p3826 N67-36000
Controlled observation program to evaluate current runway visual range system and lighting methods and to establish standard [RD-66-100] 24 p4426 N67-40014

RUPTURE
SA BURST
SA FAILURE
SA FATIGUE
SA STRESS RUPTURE
Creep-rupture properties of wrought powder metallurgy W, thermochemically deposited W, and several W-base alloys [ORNL-3992] 04 p0559 N67-13654
Statistical variability of rupture stress and rupture strain studied by breaking ring specimens of peroxide cured styrene butadiene rubber - tensile failure envelope 05 p0722 N67-14512
Effect of nitrogen on tensile and creep-rupture properties of niobium [NRL-6464] 13 p2121 N67-24225
Frequency and temperature effects on deformation and fatigue rupture behavior of chromium martensitic steel [NGTE-R-278] 15 p2721 N67-27792
Low-cycle metal fatigue ruptures in reactor primary coolant system [GEAP-5279] 16 p2929 N67-29333
Boron influence on creep rupture properties of neutron irradiated precipitation hardening iron base alloy [GE-TM-66-6-15] 16 p2908 N67-29712
Reduction behavior, thermoconductivity, rupture modulus, dielectric constant, and other properties of alumina-ceria compositions [RE-297] 20 p3664 N67-34424

RUTHENIUM
Mossbauer effect in ruthenium 99, use of Ru 99 as sensitive probe for internal magnetic fields, and Mossbauer spectrometer design [BNL-11026] 14 p2805 N67-27487
Sliding friction of ruthenium, rhodium, osmium, and iridium crystals [NASA-TN-D-4152] 20 p3656 N67-34394
Sorption of radioruthenium in colloidal and ionic state on ferrous hydroxide formed by electrodissolution of iron anode [UJV-1733] 22 p3992 N67-37943

RUTHENIUM ALLOY
Thermodynamic properties of hcp iron and iron ruthenium alloys

[TR-13] 16 p2906 N67-29081
RUTILE
Frequency tuning and temperature stabilization of dielectric resonators - Band pass filter frequency response with rutile and strontium titanate dielectric crystals 07 p1178 N67-16973
Contrast in electron microscopy transmission at cavities in titanium dioxide and other metallic crystals - corrosion and oxidation
[EURAEC-1555] 13 p2339 N67-25991
RYAN MILITARY AIRCRAFT
S XC-142 AIRCRAFT

S

S-3
S EXPLORER XII SATELLITE
S-3A
S EXPLORER XIV SATELLITE
S-4
S EXPLORER XVII SATELLITE
S-BAND
Development of coherent fractional frequency multiplier for S-band
[NASA-CR-79528] 02 p0343 N67-11682
Measurements of S-band signal reflections from ground 04 p0512 N67-13928
Apollo project support for systems analysis and test of S-band and planning for navigation aspects of lunar landing mission 05 p0671 N67-14428
S-band bistatic planetary radar receiver 05 p0672 N67-14452
S-band transponder laboratory test equipment
[NASA-CR-65570] 06 p0833 N67-15676
S-band receiver exciter ranging subsystem Blocks IIB and IIIB 06 p0839 N67-15921
Sensitive S-band noise receiver for Mariner Mars 1964 spacecraft program
[NASA-CR-51637] 07 p1039 N67-17824
Mariner S-band turnaround ranging transponder improvement program 06 p1245 N67-18345
Unified S-band system in Apollo network to provide tracking and communications to lunar distance 06 p1249 N67-18993
Pulsed S-band klystrons for Stanford linear accelerator
[SLAC-PUB-208] 10 p1698 N67-20731
Telemetry propagation characteristics of test track operated at L and S-band frequencies
[MDC-TR-66-114] 11 p1825 N67-23347
Spacecraft radio studies on multipacting between coaxial electrodes, S-band ranging, radar beam guidance, and rectangular cup radiator for high impact antenna 12 p2050 N67-23664
Five-watt solid state S-band telemetry transmitter
[NASA-CR-83836] 13 p2279 N67-25747
Least squares analysis of unified S-band system high speed range rate and X-Y angular data from AS-202 mission
[NASA-TM-X-55783] 14 p2490 N67-27263
Signal margin calculation procedures for CSM unified S-BAND downlink channel Apollo AS-202 to aircraft NASA 432
[NASA-TM-X-55854] 19 p3407 N67-33855
S-band traveling wave tube development
[NASA-CR-88023] 21 p3816 N67-35644
S-band traveling wave tube for deep space
[NASA-CR-88022] 21 p3817 N67-35670
Fabrication and testing of high-efficiency 100 W S-band traveling wave tube for spacecraft application
[NASA-CR-88000] 21 p3819 N67-36281
Development of 100 watt S-band traveling wave tube for space applications
[NASA-CR-88505] 22 p4009 N67-36730
S-band amplifier development and klystron testing
[NASA-CR-88539] 22 p4010 N67-36851
Simple method using frequency synthesizer and sweep circuit for bandpass observation of S-band klystron power amplifier
[NASA-TM-X-55948] 22 p4236 N67-38686
Performance analysis of Apollo unified S-band communications system for typical lunar mission
[NASA-TM-X-53440] 23 p4216 N67-39125
Design, alignment, testing, and specifications of S-band transponder Mark I with 20-cycle bandwidth for planetary spacecraft
[NASA-CR-89060] 23 p4217 N67-39314
Noise characteristics of unified S-band tracking system high speed range rate and X-Y angular data obtained during aircraft flyby tests
[NASA-TM-X-55987] 24 p4405 N67-39651
S-MATRIX
Properties of cluster expansions of causal S-matrix investigated in framework of Bogoliubov theory - theoretical physics
[JINR-P-2760] 04 p0582 N67-13356
Multivarite statistics used to study data relationships shown by mean and colorlance matrix
[RADC-TR-66-514] 06 p0849 N67-16590
Dispersion relation approach to structure of elementary particles and their interactions, and S-matrix theory based on analyticity and unitarity 07 p1145 N67-17205
Elementary particle, bubble chamber, nuclear emulsion, computer programming, S-matrix theory, mesic atom, field theory, accelerator, and gravitation research
[UCRL-16863] 06 p1344 N67-19143
Construction of S-matrix using perturbation theory free from ultraviolet divergences by one-component scalar quantized field
[JINR-P-2870] 10 p1703 N67-20822
Total-partial width ratios defined by S-matrix theory for beryllium 7 resonance levels
[IC/66/105] 10 p1715 N67-21153
Covariant structure of casual S-matrix elements for arbitrary spin
[JINR-P2-3045] 10 p1728 N67-21616
Component free quantized spinor field theory
[JINR-P2-3010] 10 p1667 N67-21635
Kinematics of multiparticle scattering events within framework of S-matrix theory
[AD-644980] 11 p1942 N67-23173
Perturbation of resonance states and energy shift in mirror nuclei
[IC/66/106] 11 p1946 N67-23389
Functional formulation of Bogoliubov axioms determining causal S matrix theory
[JINR-P5-3179] 17 p3134 N67-30235
Spin, decay parameters, and density matrix of decaying states
[CERN-67-20] 23 p4301 N67-38432
Bogoliubov distributions and causal S-matrix elements
[JINR-P05-3180] 23 p4302 N67-38459
S-matrix from asymptotic solutions of nonlinear equation describing Born-Infeld scalar field in two-dimensional space
[JINR-P2-3330] 23 p4306 N67-38661
S-N DIAGRAM
Electronic structure of iron series impurities in copper, impurity screening in inhomogeneous electron gas, crystal potential for grey tin, and branching diagrams
[QPR-64] 19 p3322 N67-33058
Branching diagrams for SU/2/, SU/3/, U/2/, and U/3/ 19 p3503 N67-33062
S-WAVE
Quark model for pionic two-body hadron decays which relates S-wave hyperon amplitudes and decays of kaon mesons into two pions
[TH/182] 11 p1941 N67-23067
Final state lambda hyperon-neutron interactions in reaction gamma plus deuteron yields positive kaon plus lambda hyperon plus neutron
[TH/176] 11 p1941 N67-23069
Resonance poles in simple model of S-wave pseudoscalar meson baryon scattering
[AD-646614] 12 p2174 N67-24905
Regional differences in travel times of shear and dilatational waves
[AFCRL-67-0265] 19 p3436 N67-33988
Analysis of travel times of S-waves from earthquakes
[AFCRL-67-0264] 19 p3437 N67-33989
S-wave pi-pi scattering with small scattering lengths 20 p3699 N67-34916
Current algebra calculation of lambda to sigma ratio in isospin-1 S-wave antikaon reaction
[TUEP-67-17] 22 p4103 N67-37920
S-16
S OGO-I
S-27
S ALOUETTE I SATELLITE
S-49
S OGO-A
S-50
S OGO-C
S-51
S ARIEL I SATELLITE
S-52
S ARIEL II SATELLITE
S-53
S UK-E
S-55B
S EXPLORER XVI SATELLITE
S-55C
S EXPLORER XXIII SATELLITE
S-66
S BE-A
S BE-C
S-99
S EXPLORER SATELLITE
SABATIER REACTION
Water and carbon removal from carbon dioxide reduction systems in weightless environment
[ER-6652-5] 06 p0615 N67-16400
SACCHARIDE
S POLYSACCHARIDE
SACCHAROMYCES
Effect of gamma radiation and protons with energies of 127 to 680 MeV on yeast cells 02 p0183 N67-11441
Relation of radiation induced respiration deficiency to cell survival in yeast Saccharomyces cerevisiae
[RM-949] 13 p2260 N67-26353
SAFETY
SA AIRCRAFT SAFETY
SA FLIGHT SAFETY
SA HAZARD
SA INDUSTRIAL SAFETY
SA RANGE SAFETY
SA REACTOR SAFETY
Protective gear and devices for pilot safety during acceleration of flight, parachute jumps, and ejection 03 p0352 N67-12495
IBM 7040 computer program for computing potential radiological doses resulting from release of radioactive fission products into atmosphere - nuclear safety
[IDO-17151] 03 p0427 N67-12348
Mathematical models for calculation of radiation dose equivalents in Clinch river - safety analysis of radionuclide release to river
[ORNL-3721, SUPPL. 3] 03 p0348 N67-12353
Atlas Centaur pad safety report for launch complex 36A and 36B
[NASA-CR-80916] 05 p0690 N67-14830
Gemini launch vehicle pilot safety program 07 p1019 N67-16903
Chemical hazards, housekeeping, equipment, and manipulations for chemistry laboratory safety
[SC-R-66-959] 10 p1579 N67-21524
Technical criteria for prevention of criticality in chemical processing of fissile materials
[ISO-522] 12 p2039 N67-23695
Decompression sickness treatment, and safety measures for its prevention
[JPRS-40225] 14 p2463 N67-27256
Aerospace nuclear safety analysis of nuclear heat source for radiojet thruster
[NASA-TM-X-55844] 18 p3296 N67-32111
Radiation safety levels at Los Alamos tandem accelerator facility
[LA-3641] 19 p3426 N67-33506
Structural and temperature stress tests on radioisotope source capsules
[ORNL-4092] 20 p3663 N67-34670
Aircraft design - crash survival aspects of aviation safety
[AVSER-66-18] 22 p3980 N67-37177
Critical parameters of fissionable materials systems and nuclear safety handbook
[JPRS-42323] 22 p4094 N67-37836
SAFETY DEVICE
Radiation shelter, on-board dosimetry, therapeutic measures, and ground radiation safety service as means of providing protection from radiation hazards encountered in space 02 p0190 N67-11492
Advanced alpha beta gamma hand and shoe contamination monitor
[BNWL-350] 03 p0897 N67-13089
Safety device for isotopic power sources in terrestrial applications 06 p0811 N67-15549
Explosively actuated high voltage switch to short diodes as safety device for fast pulse accelerator
[UCRL-70090] 06 p1256 N67-18467
Field method for modifying MK 24 flares with safety device to increase fuse arming distance
[TN-1118] 06 p1294 N67-18865

Electronic safety device to control current rise in semiconductor detectors
[KFK-436] 11 p1887 N67-32315
Safety attachments for X-ray diffraction apparatus
[AWRE-O-102/66] 19 p3454 N67-33277
Transrotor engine, high temperature platinum resistance thermometer, dynamic analog correlation system and safety valve developments
[NBS-TN-295] 22 p4043 N67-36739
Functional characteristics of seat belt and shoulder harness restraint systems for personal safety in aircraft
[AM-67-13] 24 p4389 N67-39865
SAFETY FACTOR
Health physics technician radiation safety training manual
[IDO-17182] 01 p0023 N67-10527
Ground and flight safety aspects of nuclear rocket flight operations
[NASA-CR-79870] 01 p0111 N67-10915
Aerospace medicine safety considerations in rating space simulators for manned operations
[AMD-TR-66-3] 05 p0640 N67-14719
Responsibilities of management in fields of ordnance and propellant safety 06 p0985 N67-15982
Definition, mechanism, and examples of explosions, deflagrations, and detonations in relation to explosive and propellant safety 06 p0952 N67-15984
Ordnance system safety engineering - safety devices, safety criteria, missile wiring circuits, destruct systems, and hazards to electroexplosive devices 06 p0793 N67-15986
Detailed procedures for safe and effective operation of test program 06 p0985 N67-15990
Safety analysis of promethium 147 microspheres in self-luminous disks aboard Apollo spacecraft
[NASA-CR-65577] 08 p1371 N67-18576
Safety criteria development for malfunction of nuclear reactor system
[IITRI-S78P21-21] 10 p1677 N67-20864
Safety design criteria for structural engineering of explosive facilities and operations, scale model tests of concrete slabs, and weapon storage tests
[PA-TR-3484] 10 p1662 N67-21357
Characteristics of liquid alkalimetals and techniques for safe handling
[ORNL-TM-1740] 13 p2383 N67-25612
Indexed bibliography of current nuclear safety information
[ORNL-NSIC-20] 13 p2341 N67-25616
Thermal scale model test to determine temperature distribution in Nimbus B sensory ring with antennae removed - SNAP 19 expanded safety program
[MND-3697-94] 17 p3178 N67-31138
Aviation safety projects - aircraft design, maintenance, instrumentation, and equipment - airports, runways, personnel training, fuels, lubricants, materials, and engines 20 p3568 N67-35159
Definitions and mathematical formulations for probabilistic safety analysis of structures and structural systems 22 p4151 N67-36794
Surface temperature role in estimates of laser injury thresholds
[AMRL-733] 24 p4384 N67-39984
SAFETY HAZARD
Relay modules for safety and control circuits in reactor plant
[TRG-933/R/, PT. 1] 01 p0046 N67-10099
Ignited clothing fire risk to man in oxygen rich environment
[FPRC/MEMO-223] 01 p0015 N67-10471
Cosmic radiation hazards and biological effects on Vostok and Voshkod spacecraft 02 p0102 N67-11518
Abnormal reactor operational problems and safety hazards 04 p0075 N67-13963
Generalized Hartree-Fock calculation for zirconium 90 using effective interaction
[CONF-660906-6] 04 p0686 N67-13964
Propellant and explosive safety activities - management planning, static electricity and lightning hazards, and sensitivity measurement
[NASA-CR-81230] 06 p0984 N67-15981
Characteristics, sensitivity, and possible safety hazards of various propellants and explosives - combustion processes, damage assessment, and definitions 06 p0952 N67-15985
Personnel, equipment, and tasks considered in application of safeguards to uranium nuclear fuel processing plant
[BNWL-301, APPEND.] 10 p1674 N67-20745
Operational safety and radiation protection for isochronous cyclotron personnel
[ORNL-TM-364, REV.] 10 p1662 N67-21470
Safety measures and propellant sensitivities reviewed for fabrication, transport, and handling 12 p2197 N67-24390
Existing data analyzed for applicability to boiling and pressurized water reactor accidents
[BMI-1790] 14 p2578 N67-27486
Neutron radiation detector and air contamination monitoring systems
[ORNL-TM-1669] 15 p2687 N67-28341
Causes and preventive measures of world-wide aircraft accidents
[DLR-MITT.-67-02] 15 p2641 N67-28712
Radiation safety of manned space flights - radiobiological aspects 16 p2827 N67-29217
Reduction of hazards during testing of Saturn systems - manual
[NASA-TM-X-53363] 16 p2975 N67-29997
Bibliography on biological effects and hazards associated with laser equipment
[AD-652707] 18 p3277 N67-33126
Chemical researches for molten-salt, aqueous, and gas cooled reactors and nuclear safety studies
[ORNL-4076] 20 p3681 N67-34287
Automatic reengagement of pumping and neutron safety of GNP-1 accelerator
[NT-65-18] 20 p3619 N67-34447
Dust hazards in mixing plants and bituminous road construction 20 p3651 N67-35108
Bird strikes on aircraft flying in Canada and Europe, including summary of aircraft destroyed and other hazards created 20 p3568 N67-35201
Protecting aircraft from damage due to bird strikes
[CM4-S-17-3] 21 p3759 N67-36600
Computer analysis on maximum safety hazard of fast reactor
[LA-3683] 21 p3893 N67-36651
Requirements and elements of systems safety program for launch vehicle development
[NASA-TM-X-53812] 23 p4350 N67-38394
Storage of chemicals, hazards and toxic properties of certain metals and organic compounds, and general safety measures
[ORNL-TM-1884] 23 p4302 N67-38407
Launch vehicle systems safety engineering requirements and procedures at contractor and subcontractor level
[NASA-TM-X-53382] 24 p4425 N67-39396
Computer program for aerosol fall and dispersion in atmosphere for nuclear particle safety hazard analysis
[SC-CR-67-2530] 24 p4427 N67-39640
Pressure chamber test evaluation of decompression hazards to crew ejection from pressurized aircraft
[AM-67-14] 24 p4374 N67-39943
Self-heating hazard analysis for technetium recovery and purification by anion exchange cycle
[BNWL-476] 24 p4399 N67-40125
SAGITTARIUS CONSTELLATION
Milky Way structure in direction of Sagittarius spiral arm, and spatial distribution of stars 20 p3729 N67-35057
Dust and stellar components distribution data to determine Milky Way structure between arms in Carina-Cygnus and Sagittarius 20 p3729 N67-35058
SAGNAC EFFECT
Ring interferometer and ring laser - performance, differences, and theory of Sagnac experiment
[DLR-MITT.-67-01] 12 p2112 N67-24581
SAHA EQUATION
Correlation of experimental data on nonequilibrium seeded plasma obtained from generalized Saha equation and Joule heating effects on plasma bulk temperatures 05 p0747 N67-15237
Generalized ionization equation for optically thin nonequilibrium plasmas, based on corona formula and Saha equation 05 p0748 N67-15239
Nomogram for Saha equation to determine plasma electron density
[AD-647747] 12 p2185 N67-24484
Magneto-optics with pulsed argon laser, converging detonations, Saha equation, multiple-phonon absorption, germanium optical constants, europium fluoride spectra, and lattice dynamics
[NOLC-765] 18 p3216 N67-31679
Electrostatic interaction of electrons and ions and effect on calculations using Saha equation 18 p3313 N67-31682
SAIL
S SOLAR SAIL
SAILWING
Aerodynamic characteristics of full scale airplane wing model employing sailwing concept and having aspect ratio of 11.5
[NASA-TN-D-4062] 17 p2993 N67-31143
SAINT ELMO FIRE
S CORONA DISCHARGE
SAINT VENANT PRINCIPLE
Saint Venant principle in linear and nonlinear plane elasticity
[MRC-TSR-728] 17 p3169 N67-30216
SALICYLATE
S SODIUM SALICYLATE
SALMONELLA
Repeated gamma ray treatment effects on radio resistance, virulence, and culture characteristics of certain pathogenic and related bacteria
[TID-23707] 20 p3571 N67-34296
SALT
SA CARBONATE
SA NITRATE
SA PHOSPHATE
SA SODIUM CHLORIDE
SA SULFATE
Crystal structure studies of unusual antimony bromide salts
[IS-T-89] 01 p0030 N67-10682
Theoretical turbulent saline diffusion in conduit in continuous service
[NASA-TT-F-9096] 01 p0061 N67-10754
Binary phase diagrams of halide salts
[YALE-2723-1, VOL. I] 01 p0033 N67-10833
Binary phase diagrams of halide salts
[YALE-2723-1, VOL. II] 01 p0034 N67-10834
Viscosity, Raman spectroscopy, and diffusion in molten salts
[NYO-1789-68] 03 p0361 N67-13273
Isotopic effects in deuterium oxide-salt systems 04 p0500 N67-13565
Cathode process mechanism in preparing thorium zinc alloys in fused salt 06 p0821 N67-16224
Synthesis of fluorodisulfate salts
[TR-56] 07 p1024 N67-16900
Calculations on stability of mixed ionic-molecular lattices of complex salts
[AFCRL-66-677] 07 p1026 N67-17197
Mechanisms of salt stress corrosion cracking of titanium alloys at high temperatures
[NASA-CR-82511] 08 p1293 N67-19087
Soviet techniques and instruments for measuring temperature, optical density, salt content, electric conductivity, depth, and current velocity of sea water
[JPRS-39681] 11 p1878 N67-22356
Shipboard adjustment techniques and operation of contactless laboratory meter for measuring salinity of salt water 11 p1879 N67-22363
Induction salinity meter for measuring sea water salinity and transmitting data to ship in binary code 11 p1879 N67-22364
Acid and alkaline denaturation of DNA and its dependence on salt concentration
[ISS-66/33] 11 p1793 N67-23067
Gastric and intestinal changes caused by saline solutions of varying concentration
[NASA-TT-F-10926] 13 p2257 N67-25616
Tabulated data on eutectic compositions and melting points of fused salt mixtures
[SC-R-65-930, VOL. 2] 14 p2470 N67-26830
Vapor species identification, structural data, thermodynamics, and chemical properties of gaseous ternary salts of alkali metals
[AROD-006-24-C] 19 p3587 N67-32869
Surface tension, viscosity, and Raman spectra of fused salts
[ORO-2073-12] 19 p3294 N67-33559
Hyperfiltration with dynamically-formed salt rejecting membranes
[ORNL-P-2961] 19 p3396 N67-33727
International critical tables for solution densities of sodium bromide as function of temperature and anhydrous salt content
[UCRL-50257] 20 p3505 N67-34720
Role of chloride in hot salt stress corrosion cracking of titanium-aluminum alloys
[NASA-CR-87817] 20 p3659 N67-34736
Ignites for industrial applications
[JPRS-41677] 20 p3505 N67-34876
Surface treatment of zirconium alloys by oxidizing fused salts

[EUR-3476.F] 20 p3062 N67-35272
Rare earth oxides precipitated from anhydrous molten nitrate salts 21 p3789 N67-36350
Properties of titanium dioxide and other inorganic salts, and ordering of point defects in high temperature oxides
[NYO-3581-7] 22 p4127 N67-37233
Physiological effects of low salt concentrations on marine
[NASA-TT-F-11226] 22 p3971 N67-37476
Mechanism of hot salt stress corrosion cracking of titanium base alloys
[NASA-CR-88979] 23 p4263 N67-38350
Survey of optimum dual purpose desalting plants as function of product ratio using alternate steam supplies
[ORNL-TM-1659] 23 p4234 N67-39230

SALT BATH
Salt water stress-corrosion cracking characteristics of commercial titanium alloys
[NRL-6564] 24 p4466 N67-39894

SAMARIUM
Fluorescence and infrared absorption spectra of samarium ions in lanthanum fluoride crystals - continuous slot antenna waveguide perturbation
[NOLC-672] 03 p0452 N67-12643
Isotope effects on ion exchange columns during separation of rare earth elements
[JUL-402-PC] 09 p1412 N67-20325
Spin resonances and thermal neutron cross sections for samarium 149, neodymium 148 reaction
[INR-755/IA/PL] 10 p1717 N67-21411
Cold pressing and sintering of samarium and neodymium sesquioxides
[BNWL-386] 20 p3666 N67-34799
Ethylenediaminetetraacetate ion exchange elutions used for separating gadolinium and europium, and europium and samarium mixtures 21 p3788 N67-36345
Phase relations for samarium-gadolinium system from X-ray diffraction, microscopy and thermal analysis 21 p3872 N67-36360
Samarium-cerium and samarium-gadolinium binary systems study by microstructural, X-ray and thermal analysis 21 p3873 N67-36361
High field magnetic moment measurements in single crystals of europium, samarium, and thulium 21 p3922 N67-36376

SAMARIUM COMPOUND
Thermal dissociation and lattice energy calculations for samarium and gadolinium hydrides
[AWRE-O-31/66] 01 p0630 N67-10691
Electrical resistivity versus temperature curves of three equi-atomic phases of Sm with Cu, Ag, and Au
[CALT-221-25] 09 p1502 N67-20159
Hot pressing of samarium and promethium oxides
[BNWL-448] 22 p4056 N67-37703
Slip-casting of samarium and neodymium oxides
[BNWL-497] 22 p4056 N67-37718

SAMPLED DATA
Size distribution sampling errors of point plane electrostatic precipitator for aerosol sampling 03 p0353 N67-12642
Numerical operations on sampled-data representation of random functions
[TR-496] 05 p0730 N67-15026
Meteorological observation data from Finland for 1964 08 p1395 N67-18717
Data on simulated spacecrew activities and vehicle disturbance experiment for Apollo applications program engineering study
[NASA-CR-66277, SUPPL.] 09 p1405 N67-19880
Statistical probability and sampled data method for compressing data from deep space probes 14 p2493 N67-27406
Eliminating redundancy in fixed frame television, and relationship between spectral properties of original sampled waveform and interpolation error 14 p2493 N67-27414
Central limit effect for samples from 24 populations and correlation with population moments
[AMRL-TR-66-242] 19 p3380 N67-33870
Reconstructing patterns from sampled data
[TR-126] 20 p3669 N67-34390
Filtering, prediction, and smoothing procedures for multi-stage linear dynamic systems using sampled data with sequentially correlated noise
[NASA-CR-87502] 20 p3614 N67-34745
Small-sample evaluation of squib time-current firing characteristics
[NASA-CR-89598] 24 p4378 N67-39880

SAMPLED DATA SYSTEM
Sampled data function and staircase function described in telemetry time-division multiplexing devices
[DLR-MITT.-66-13] 04 p0511 N67-13769
Adaptive maneuver demand aircraft control system studied by sampled-data techniques
[RAE-TR-65278] 11 p1781 N67-23704
Equivalent gain and stochastic analysis for nonlinear sampled-data control systems
[AFIT-TR-67-1] 15 p2685 N67-28572
Method for stability analysis of distributed parameter feedback systems incorporating both spatial and temporal sampling
[NASA-CR-85237] 16 p2922 N67-30006
Frequency domain method of synthesizing minimal sensitivity sampled-data control systems
[NASA-CR-87321] 19 p3422 N67-33397

SAMPLING
SA AIR SAMPLING
SA RANDOM SAMPLE
Proceedure for ranking means of normal populations extended to arbitrary, finite number of populations
[TR-9] 01 p0096 N67-11180
Errors in sampling zinc sulfide particles with nozzles designed to achieve isokinetic flow 04 p0530 N67-13761
Use of fast sampling rate for computing wind velocity from pilot-balloon data
[ECOM-5066] 05 p0722 N67-14744
Microbial surface sampling techniques for spacecraft sterilization program 05 p0650 N67-14772
Sampling theory derivation, and sampling functions for linear matrix equation solution
[TR-505] 05 p0729 N67-14992
Stochastic and sampling processes for logarithmic series distribution
[ARL-66-0147] 06 p0903 N67-16118
Mixing and sampling characteristics of enriched uranium 235 fluid in cylindrical storage tanks
[Y-1502] 07 p1024 N67-17080
Solid state rapid timing sequencer for obtaining toxic gas samples from rapid fire weapons and fast burning rocket engines
[USAARU-67-4] 09 p1451 N67-20363
Mixing and sampling enriched uranium 235 fluids in cylindrical storage containers
[Y-1561] 11 p1854 N67-22332
Derivation of sampling expansions using integral representation based on property of resolvent operator on Hilbert space
[TR-17] 11 p1907 N67-22534
Method to evaluate joint probabilities necessary to determine operating characteristics of dependent mixed sampling inspection plans for single specification limit case
[N-26] 11 p1908 N67-22885
Prolonged storage of biological samples taken during Apollo-type orbital flights
[NASA-CR-781] 12 p2030 N67-25047
Procedures for obtaining precision and accuracy in measurements, and detection of outliers that deviate substantially from other members of statistical sample
[AD-634686] 15 p2709 N67-27364
Automatic data acquisition system for semiconductor device testing
[COO-1634-1] 16 p2870 N67-29717
Analysis of variance, data interpretation, and consequences of sampling and randomization
[ARL-66-0240] 17 p3088 N67-30181
Direct mass spectrometric sampling of high pressure inorganic gas systems
[AD-651458] 17 p3123 N67-30231
Feasibility of using activated carbon /charcoal/ in nuclear submarines for atmospheric filter applications and for collecting samples of atmospheric contaminants for subsequent analysis 19 p3385 N67-33766
Robust linear estimators for location of symmetric unimodal distributions
[TR-74] 21 p3870 N67-35799
Payload analysis for automated Mars surface sampling mission modes
[NASA-CR-84849] 21 p3936 N67-36556
Recursive formula for sampling moments of moment and maximum likelihood estimators in discrete distributions
[K-DP-3413] 22 p4085 N67-37972
Computer program for acceptance criteria in sampling for quality control
[PA-TR-3564] 23 p4257 N67-38134
Average outgoing quality and average fraction inspected values for continuous quality control sampling plan
[Y-1545] 23 p4258 N67-38449
Estimation of parameters from large samples arbitrarily censored or truncated
[AFML-TR-67-107] 23 p4274 N67-38498
Likelihood ratio tests for restricted families
[ORC-67-16] 24 p4478 N67-39512
Two types of approximation of linear, unbiased order-statistic estimators
[AFML-TR-67-198] 24 p4483 N67-40468

SAMPLING DEVICE
Radial voidage distribution measurement in two-phased flow by isokinetic sampling
[AEEW-M-650] 01 p0059 N67-10075
Sampling rate system for monitoring clean rooms
[NASA-CR-79537] 02 p0221 N67-11693
Performance characteristics of aerosol generator, and distribution sampling errors of electrostatic precipitator sampling device for space cabin atmosphere
[NASA-CR-79538] 03 p0353 N67-12641
Size distribution sampling errors of point plane electrostatic precipitator for aerosol sampling 03 p0353 N67-12643
Prototypes of automated soil sampling systems for use in Voyager-class capsules of 1970 decade for Mars exploration
[NASA-CR-83516] 11 p1789 N67-22222
Midget impinger for sampling uranium dusts and pyrolytic graphite aerosols
[SC-RR-66-597] 11 p1854 N67-22331
Lathe machining device and splitter for disassembly and sampling of graphite ball fuel elements
[JUL-23-RW] 11 p1925 N67-23065
Applicability of isokinetic sampling probe method to two-component, two-phase flow
[GEAP-5287] 12 p2065 N67-23733
Mass spectrometric sampling of high temperature systems at atmospheric and high pressures
[AD-646935] 14 p2475 N67-26809
Physical characteristics of spectral analysis with sampling by electric discharge to auxiliary electrode
[NASA-TT-F-10976] 15 p2657 N67-28235
Design and calibration of modified centrifugal sampling instrument for airborne particulates
[LF-34] 15 p2715 N67-28672
Rapid quench sampling probe for determining free stream composition from gaseous composition of captured sample in nonequilibrium air flows
[AEDC-TR-67-65] 15 p2694 N67-28699
Model simulation of rocket-borne ion sampling probe
[AFCRL-66-672] 16 p2953 N67-29413
Gravimetric sampling method based on small polyethylene ampoule as pycnometer for determining absolute cobalt 60 concentrations of solutions
[ACEL-2679] 17 p3020 N67-31407
Balloonborne sampling technique for stratospheric collection of cosmic dust
[NASA-CR-86634] 18 p3325 N67-31811
Preliminary observations from Surveyor III soft moon landing - telemetered pictures and data on mechanical soil sampler, and lunar surface properties
[NASA-SP-146] 18 p3346 N67-32582
Lunar soil sampler test results and mechanical properties of lunar surface materials 18 p3347 N67-32584
One-point sampler for determining amplitude of fast transient pulse during brief time increment compared to total pulse duration
[SCL-TN-66-113] 19 p3490 N67-32932
Mechanical design and sampling performance of Cleansweep IV vehicle
[UCRL-13278] 21 p3964 N67-36560
Operating principles of vacuum probe microbiological sampler
[NASA-CR-88261] 22 p3975 N67-36710
Design and construction of cloud-droplet sampler for continuous operation at ground level
[EMM-67-154] 22 p4087 N67-37368
Design and performance of size separating aerosol centrifuge facilitating particle size spectrometry in submicron range
[UR-49-778] 22 p4089 N67-37888
Soil mechanics surface sampler aboard Surveyor III spacecraft 23 p4342 N67-38184

SAMPLING OF AEROSPACE NUCLEAR DEBRIS /SAND/
S SAND PROJECT
SAN MARCO SATELLITE
Sea launched San Marco-B design, communication system, and instrumentation for equatorial atmospheric density measurements
[NASA NEWS RELEASE-67-93] 11 p1962 N67-22886
San Marco phenomena involving relative motion of two orbiting vehicles
[RM-358] 13 p3410 N67-26440
Plans for future studies on prediction of joint satellite observations, and San Marco B satellite ionospheric experiment 19 p3402 N67-32969
SAND PROJECT
Nuclear cloud sampling system
[UCRL-13215] 09 p1480 N67-20146
SANDSTONE
Hematitic sandstone deposits in Virginia as future iron ore source
[BM-RI-6966] 23 p4247 N67-39128
SANDWICH CONSTRUCTION
SA MULTILAYER STRUCTURE
Cellular structures of glass fiber reinforced plastics as load bearing structural elements
[JPRS-39468] 05 p0773 N67-15177
Compression tests of open-face truss core sandwich panels
[NASA-TN-D-3780] 06 p0979 N67-16688
Temperature field in two-layer wall of section of structure under external heat-exchange conditions
[FTD-HT-66-485] 09 p1542 N67-19797
Linear and nonlinear equations of simple nonshallow shells for deriving stability equations of sandwich shell 09 p1531 N67-20001
Mathematical model to determine creep effect on reinforced concrete and thin sandwich shells 09 p1536 N67-20126
Vibrations and stability of anisotropic and sandwich cylindrical shells of arbitrary cross section 09 p1536 N67-20128
Buckling tests on aluminum honeycomb sandwich compression panels
[S+T-MEMO-10/66] 10 p1767 N67-21754
Hydrostatic pressure tests of glass reinforced plastic sandwich cylinders with syntactic foam core
[DTMB-2291] 11 p1965 N67-22586
Edgewise compressive properties of titanium and nickel-base sandwich constructions at elevated temperatures
[FPL-66] 12 p2219 N67-23498
Brazing alloy development for high strength aluminum honeycomb sandwich composites for elevated and cryogenic temperature applications
[NASA-CR-83883] 13 p2326 N67-25873
Computer program for near optimum structural designs of ring stiffened honeycomb sandwich nose fairings
[NASA-CR-83919] 13 p2417 N67-25899
Manufacturing sandwich constructions with honeycomb cores
[FTD-MT-66-166] 15 p2799 N67-28383
Evaluation of sandwich shaped nose fairings for Saturn launch vehicle
[NASA-CR-84833] 15 p2802 N67-28837
Thin sheet and porous homogeneous cores of alumina sandwiches and monolithic fused silica constructions in connection with radome limitation program 19 p3548 N67-33373
Alumina sandwich cone testing to develop theoretical values of internal temperature distribution and thermal stress 19 p3548 N67-33374
Rational methods of structural optimization of flat, corrugated core, and web core sandwich panels subjected to uniaxial compression loads
[NAEC-ASL-1109] 21 p3940 N67-35481
Weight optimization of flat truss-core sandwich panels under lateral loads
[NAEC-ASL-1111] 22 p4153 N67-37001
Structural optimization of flat, corrugated core and web core sandwich panels under in-plane shear loads and combined uniaxial compression and in-plane shear loads
[NAEC-ASL-1110] 22 p4153 N67-37060
Measurement of moderated neutron fluxes using gold lanthanum cobalt manganese sandwich detectors
[CEA-R-3290] 22 p4095 N67-37954
Generalized Chern and Nemat-Nasser method and application to bounds on bending moments and resultant thrusts and shear forces induced in sandwich arch section by anelastic strains
[TR-12] 23 p4355 N67-38120
Computer method of measuring the thermal stresses in finite length sandwich cylinder with thin faces and isotropic core
[TG-903] 24 p4543 N67-39768
Structural analysis of simply supported circular sandwich arch subject to central point loading and symmetrically applied end couple
[DOMIIT-1-36] 24 p4543 N67-39773
Distribution of inter-laminar shear stress in sandwich beams
[TR-33] 24 p4546 N67-40343
SANDWICH PLATE
Linear equation solutions for small symmetrical deformation of shallow spherical sandwich shells under local loading
[NASA-TN-D-3855] 07 p1205 N67-18153
Rayleigh method used to compute elastic stability of rectangular sandwich plates under biaxial compression
[ARL/SM-310] 08 p1378 N67-19082
Compressibility of filler of sandwich plates of variable thickness calculated by equations obtained by variational methods 09 p1518 N67-19484
Fluxless brazing of aluminum honeycomb sandwich structures
[NASA-CR-83927] 09 p1463 N67-19989
Bending and buckling calculations for sandwich panels filled with glass particles, and optimal compression of sandwich plate having foam filler 09 p1522 N67-20022
Linear equations for longitudinal-tranverse bending of nonsymmetrical sandwich plates with rigid filler, allowing for thermal stresses 09 p1524 N67-20044
Axisymmetrical bending of thick circular sandwich plate with layers of different elastic moduli 09 p1532 N67-20099
Asymptotic method applied to natural vibration problems of rectangular elastic sandwich plates 09 p1532 N67-20103
Flexural vibrations in thin homogeneous and sandwich plates with plane-parallel boundary layer separation 09 p1534 N67-20114
Dynamic response of curved composite sandwich panels in thermal environment
[NOR-66-336] 10 p1764 N67-20572
Theory and equations for natural oscillations and stability of continuous triple-layer plates with light filler
[FTD-HT-66-285] 10 p1764 N67-20619
Displacement function for unsteady bending vibrations in sandwich plate 13 p2421 N67-26439
Buckling of rectangular sandwich plates under biaxial compression
[NLR-TN-S.641] 15 p2797 N67-27933
Elastic buckling and bending of sandwich plates with orthotropic cores
[MRC-TSR-710] 15 p2799 N67-28278
Triangular finite sandwich element for direct stiffness matrix determination of bending in plates and shells
[NASA-CR-85357] 23 p4356 N67-38853
Nonstationary thermal conduction and optimum parameters of sandwich plates 23 p4360 N67-39177
SANITATION
SA HYGIENE
SA POTABLE WATER
Laboratory model waste management unit for use in space simulator
[U-413-66-145] 21 p3773 N67-36429
SANTOWAX COOLANT
Composition and physical properties of organic coolant mixtures formed from terphenyl feed mixture, Santowax OM, and hydrogenated terphenyl feed mixture HB-40
[AECL-2644] 08 p1323 N67-19261
Static testing in Santowax-OM of zirconium alloys in alpha-annealed state to determine compatibility
[AEET-260] 10 p1855 N67-21504
Fast neutron and radiolysis effects from reactor irradiation on Santoway UR
[MIT-334-70] 12 p2151 N67-24669
SAPPHIRE
Wetting and bonding between aluminum alloys and sapphire
[AMRA-TR-66-19] 01 p0063 N67-10255
Energy levels in iron doped sapphire
[AFCRL-66-693] 14 p2605 N67-27477
Factors affecting wetting and bonding of nickel to sapphire
[AMRA-CR-66-01/3] 15 p2651 N67-28607
Crystal structure defects produced in ruby and sapphire laser materials by gamma radiation
[AD-650122] 16 p2904 N67-29825
Silicon-sapphire space charge limited triode development
[NASA-CR-87492] 20 p3612 N67-34894
Aluminum-alloy-sapphire whisker composite material preparation
[REPT.-6142.00100] 22 p4060 N67-36862
Hydrostatic pressure effects on electron paramagnetic resonance spectra of doped sapphires
[COO-1112-115] 23 p4331 N67-38853
Dilute alloys effect on wetting and bonding of nickel and nickel alloys to single crystal sapphire
[AMRA-CR-66-01/4] 24 p4464 N67-39634
SATELLITE
SA ACTIVE SATELLITE
SA ALOUETTE I SATELLITE
SA ALOUETTE SATELLITE
SA APPLICATIONS TECHNOLOGY SATELLITE /ATS/
SA ARIEL I SATELLITE
SA ARIEL II SATELLITE
SA ARIEL SATELLITE
SA BE-A
SA BE-C
SA BEACON SATELLITE
SA BIOSATELLITE
SA COMMUNICATIONS SATELLITE
SA COSMOS III SATELLITE
SA COSMOS V SATELLITE
SA COSMOS XVII SATELLITE
SA COSMOS SATELLITE
SA EARLY BIRD SATELLITE
SA ECHO I SATELLITE
SA ECHO II SATELLITE
SA ELDO SATELLITE
SA ELEKTRON III SATELLITE
SA ELEKTRON SATELLITE
SA EQUATORIAL SATELLITE
SA ESRO I SATELLITE
SA ESRO II SATELLITE
SA ESSA SATELLITE
SA EXPLORER IV SATELLITE
SA EXPLORER XII SATELLITE
SA EXPLORER XIV SATELLITE
SA EXPLORER XVI SATELLITE
SA EXPLORER XVII SATELLITE
SA EXPLORER XXII SATELLITE
SA EXPLORER XXVIII SATELLITE
SA EXPLORER XXXIII SATELLITE
SA EXPLORER SATELLITE
SA FR-1 SATELLITE
SA GEODETIC SATELLITE
SA GEOPHYSICAL SATELLITE
SA GRAVITY GRADIENT SATELLITE
SA IMP-E
SA INJUN III SATELLITE
SA INJUN SATELLITE
SA INSPECTOR SATELLITE
SA INTELSAT SATELLITE
SA LINCOLN EXPERIMENTAL SATELLITE /LES/
SA LOW FREQUENCY TRANSIONOSPHERIC /LOFTI/ SATELLITE
SA LUNAR SATELLITE
SA MANEUVERABLE SATELLITE
SA METEOROLOGICAL SATELLITE
SA NATURAL SATELLITE
SA NAVIGATION SATELLITE
SA NIMBUS SATELLITE
SA OGO-A
SA OGO-B
SA OGO-C
SA OGO-E
SA ORBITING SATELLITE
SA OV2 /ORBITING VEHICLE-2/
SA PASSIVE SATELLITE
SA PEGASUS SATELLITE
SA POLET I SATELLITE
SA PROTON II SATELLITE
SA PROTON III SATELLITE
SA RADIO ASTRONOMY EXPLORER /RAE/ SATELLITE
SA REFLECTOR SATELLITE SYSTEM
SA SAN MARCO SATELLITE
SA SCIENTIFIC SATELLITE
SA SPACE VEHICLE
SA SYNCHRONOUS SATELLITE
SA TELSTAR SATELLITE
SA TIROS III SATELLITE
SA TIROS IV SATELLITE
SA TIROS IX SATELLITE
SA TIROS VII SATELLITE
SA TIROS VIII SATELLITE
SA TIROS SATELLITE
SA TRANSIT SATELLITE
SA TWENTY-FOUR HOUR SATELLITE

Rocket and satellite data tables 01 p0150 N67-10054
Orbit perturbations of artificial satellites by attraction of external bodies [D1-82-0658] 03 p0602 N67-11311
Effectiveness of testing complete satellite systems in attaining reliable performance - comparison of simulation and flight results [NASA-TN-D-3715] 03 p0611 N67-11347
Artificial earth satellites for geodetic studies [JPRS-38537] 03 p0257 N67-12002
Graphic interpretation of Luna-9 panoramas of lunar surface [JPRS-38792] 03 p0305 N67-12005
Operational performance of gas discharge counters used on Luna-10 for measuring soft corpuscular radiation in earth magnetospheric tail [JPRS-38795] 03 p0300 N67-12007
Lunar-10 artificial satellite measurements of magnetic field strength in vicinity of moon [JPRS-38797] 03 p0305 N67-12008
Optimal temperature for growing single cell algae with varying artificial illumination intensities [JPRS-38731] 03 p0213 N67-12009
Lunar-10 measurements of soft corpuscular radiation [NASA-CR-80174] 03 p0301 N67-12306
Measuring apparatus, astronomical coordinates, visual tracking, and artificial satellite research 04 p0506 N67-13545
Homographical coordinates for astrometric reduction of photographs of artificial satellites 04 p0509 N67-13548
Accuracy of position determination of artificial satellites by photographs 04 p0509 N67-13550
Determination of distortion coefficient 04 p0509 N67-13551
Visual tracking at satellite station of Kirov Pedagogical Institute 04 p0509 N67-13556
Laboratory simulation of geophysical phenomena relating to perturbations induced by satellite motion in magnetized plasma, and solar wind interaction with magnetosphere 04 p0506 N67-13693
Low temperature refrigeration system for satellite mounted infrared sensor cooling [NASA-CR-81134] 05 p0777 N67-15256
Short-period perturbation computation of artificial satellite orbits caused by atmospheric drag [NASA-CR-81341] 06 p0070 N67-16617
Air drag compensation system for low altitude satellites 07 p1077 N67-16909
Tabulated expressions of short period lunar and solar perturbations for artificial satellites [NASA-TM-X-55683] 06 p1364 N67-18737
Thermal properties of gas jet control system using propane stored as liquid for Black Arrow satellite [RAE-TR-66301] 09 p1397 N67-20230
Dynamic model of Prop computer program for earth satellite orbital parameter refinement [RAE-TR-66255] 09 p1514 N67-20323
Temperature field of thin wall satellite surfaces in radiant heat transfer 10 p1767 N67-20393
Listing of artificial earth orbiting satellites Feb 28, 1967 [NASA-TM-X-59655] 13 p2408 N67-25754
Satellite telemetry automatic reduction system, with fully automatic computer controlled telemetry data processor [NASA-TN-D-3981] 13 p2290 N67-25799
Tables of artificial satellites launched from 1957 to 1966 13 p2410 N67-26471
Geophysical observations from sounding rockets and satellites, 1 July - 31 December 1966 - tables and bibliography 14 p2621 N67-27748
Nutational stability of multibody spin stabilized satellites [RAE-TR-67089] 15 p2795 N67-28563
Classical pendulum problem in weightlessness environment of artificial earth satellite [FTD-TT-65-1563] 15 p2785 N67-28681
Radar signal reflection from satellite for ionospheric scintillation analysis 16 p2858 N67-29302
Satellite scintillation occurrence in auroral zone 16 p2859 N67-29304
Operation and performance of rubidium 85 vapor magnetometer flown aboard S3-3 satellite [TG-890] 18 p3347 N67-32636
Amplitude distribution of scintillating radio signals from artificial satellites [REPT.-671] 20 p3633 N67-34627
De-to-de converter using step-width modulation for use on solar-cell battery-powered satellite [TG-980] 21 p3812 N67-35327

SATELLITE ATTITUDE CONTROL

Solar paddle and gyroscopic mechanism used for active and passive satellite attitude control for non-spinning spacecraft [NASA-TM-X-55576] 03 p0606 N67-11357
Gas jet propulsion systems for satellite attitude control [ESRO-TM-39] 03 p0407 N67-13056
Ion thrust motors applied to attitude and position control of orbital satellite 04 p0606 N67-13696
Attitude perturbations and magnetic control of spin stabilized satellite [ESRO-TR-2] 04 p0614 N67-14282
Design, development, and fabrication of ammonia fueled resistojet thruster system for attitude and orbit control of satellites in 500 to 1000 lb class [NASA-CR-54688] 06 p0564 N67-15847
Nonlinear and optimal control of planet pointing space vehicles, satellite trajectories, and satellite attitude control [NASA-CR-80024] 06 p0972 N67-16081
Attitude control for earth satellite in elliptic orbit, linearization in attitude control, and computation of optimal controls by method based on second variations 06 p0972 N67-16082
Attitude stability of spinning passive orbiting satellite [NASA-CR-665] 06 p0972 N67-16665
Torque adaptive and time optimal control logic for spacecraft attitude control 07 p1655 N67-16989
Sun, earth, and star sensors for use in closed loop feedback systems to stabilize rocket or satellite attitude [ESRO-TM-35] 07 p1666 N67-17642
Air and propane used in measuring discharge coefficients of jet control valve and nozzle for satellite attitude control [RAE-TR-65014] 07 p1660 N67-17851
ELDO second stage stainless steel structures and third stage structure and development, varactor performances for parametric amplifiers, and orbiting satellite attitude stability 08 p1370 N67-19421
Attitude stability of orbiting satellite 08 p1370 N67-19425
Forces and torques acting on satellites and dynamical equations for describing satellite attitude [NASA-CR-83666] 08 p1368 N67-19105
Attitude control system design of astronomical satellite for stellar ultraviolet observation [ESRO-TM-39] 09 p1517 N67-20297
Radiation effects on gyroscope silicone damping fluid [RAE-TR-66300] 09 p1466 N67-20327
High-altitude or small-earth limitations for advanced horizon sensor of Orbiting Geophysical Observatory /OGO-A/ [NASA-CR-83567] 11 p1878 N67-22357
Scanning Celestial Attitude Determination System /SCADS/ for three axis attitude determination at Command and Data Acquisition /CDA/ station [NASA-CR-83523] 11 p1886 N67-23652
Optimized performance of articulated gravity gradient satellite at synchronous altitude [UTIAS-118] 11 p1977 N67-23125
Satellite control and stabilization conference [ESRO-SP-10] 12 p2141 N67-23601
Passive and active satellite attitude control systems and instrumentation 12 p2141 N67-23602
Rigid body kinematics and dynamics in relation to satellite attitude control problems 12 p2141 N67-23603
Environmental torque effects on satellite attitude control from solar radiation pressure, meteoroid impact, and earth atmosphere, gravitational field, and magnetic field 12 p2141 N67-23604
Gas jet propulsion systems for satellite attitude control 12 p2141 N67-23605
Magnetic control actuators for satellite attitude control, using coils or designing torques from hysteresis in ferromagnetic rods 12 p2142 N67-23606
Angular momentum exchange control actuators for satellite attitude control 12 p2142 N67-23607
Gyros used as sensors for satellite attitude control 12 p2142 N67-23608
Sun, earth, and star sensors for use in closed loop feedback systems to stabilize rocket or satellite control 12 p2142 N67-23609
Satellite attitude control by spin stabilization 12 p2142 N67-23610
Passive methods for damping attitude motion of gravity gradient stabilized earth-pointing satellite and semi-passive gyro systems 12 p2142 N67-23611
Attitude control of satellites using pure jet systems 12 p2142 N67-23612
Reaction wheel control system for satellite attitude control 12 p2142 N67-23613
Jet and magnetic unloading systems to transfer accumulated angular momentum outside in reaction wheel satellite attitude control system 12 p2142 N67-23614
Attitude control of stellar observatory satellites for observing radiation in ultraviolet and shorter wavelengths 12 p2142 N67-23615
Attitude control of communication satellites, including maintenance of full earth-pointing and spin stabilization 12 p2142 N67-23616
Mariner II attitude control system, OGO spacecraft, and OGO spacecraft 12 p2143 N67-23617
Attitude control system for proposed ESRO large astronomical satellite 13 p2215 N67-24468
Attitude stabilization and control system for Applications Technology Satellite /ATS/ [NASA-CR-81562] 12 p2217 N67-24690
Description and maintenance manual for flexible photogrammetric satellite attitude determination system with programmed sequential control [NASA-CR-84841] 15 p2714 N67-28825
Photogrammetric satellite attitude determination system [NASA-CR-85242] 16 p2836 N67-29002
Attitude control subsystem for spin stabilized spacecraft for mapping earths infrared horizon radiance profiles in 15 micron carbon dioxide absorption band [NASA-CR-66282] 18 p3298 N67-32000
Attitude and stability control system with high accuracy for astronomical research satellites 20 p3677 N67-35092
Analysis and design of attitude control systems for earth orbiting satellite [NASA-CR-831] 21 p3804 N67-35557
Minimum fuel control of spacecraft in orbit using extended method of steepest descent [NASA-CR-79112] 21 p3822 N67-36001
Comparison of star trackers used to derive misaligned error signals in closed-loop feedback system stabilizing satellite attitude 21 p3854 N67-36073
Nitrogen and propane cold gas systems used in microthrust propulsion for satellite attitude control - storage tanks, heaters, nozzles 21 p3820 N67-36074
On-off gas jet systems used for satellite attitude control, and stability of linear and nonlinear systems 21 p3855 N67-36075
Spin stabilization and automatic attitude control for spinning communications satellite [RAE-TR-66368] 22 p4000 N67-36089
Performance of DME-A satellite attitude control, attitude detection, telemetry, command, antenna, and power systems [TG-907] 23 p4332 N67-36650
Facilities using gas bearing in attitude motion simulators for developing spacecraft attitude control systems [NASA-TM-X-66443] 23 p4294 N67-36971
Active damping for gravity gradient satellite attitude control [TR-1001/2825-05/-2] 24 p4525 N67-37458

SATELLITE ATTITUDE DISTURBANCE

Attitude perturbations of spin-stabilized satellite on a highly eccentric orbit [ESRO-TN-14] 23 p4391 N67-36449
Fortran II program for attitude perturbations and magnetic control of spin-stabilized satellite [ESRO-CN-2] 24 p4414 N67-37939

SATELLITE-BORNE RADAR

Effects of ionosphere on 400 Mc radar signals sent vertically downward from satellite - time delay and virtual height, attenuation factor, and Faraday rotation [NASA-CR-80194] 02 p0230 N67-12277

Bistatic radar imaging techniques for study of planetary surfaces
[NASA-CR-66264] 21 p3602 N67-34611
SATELLITE COMMUNICATION
Multiple access techniques and ground environment design studies in satellite communications research
[REPT.-5] 01 p0040 N67-10954
Government hearings on satellite communications - civil and military applications, interagency relations, and procurement policies
[REPT.-2318] 04 p0626 N67-14146
Feedback frequency modulation demodulator for satellite relay communication 06 p0841 N67-16098
Conceptual study of deep space monitor communications systems using single earth satellite - interface relationships and tradeoff analysis
[NASA-CR-73035] 07 p1039 N67-17840
Analog modulation, frequency-division multiplexing and signal processing for multiple-access satellite communication
[NASA-CR-83014] 08 p1247 N67-18520
Space research activities in Switzerland dealing with communications, rocketry, satellites, and horology 11 p2007 N67-23400
Radio receiver used in satellite communications phased array
[REPT.-1963-8] 13 p2857 N67-34943
Satellite communication and tracking station network for data acquisition and transmission
[ESRO-TM-44] 13 p2279 N67-25697
External noise and antenna noise temperature calculations for 136 and 400 MHz satellite frequency bands
[DLR-FB-67-12] 14 p2490 N67-27260
Use of high gain antennas and advanced electronics for synchronous satellite communication
[P-3477] 15 p2796 N67-28930
Satellite radio signal scintillations during descending half of solar cycle 16 p2858 N67-29295
Geophysical aspects of radio star and satellite signal scintillation 16 p2883 N67-29296
Correlation analysis on nighttime scintillation of satellite radio signals and F-layer at equator 16 p2950 N67-29300
Quantum generators utilized in satellite communication
[NASA-CR-85262] 16 p3223 N67-30665
Telemetry and command antennas for atmospheric composition satellite
[SR-8] 17 p3025 N67-30620
Doppler frequency shift occurrence with relative velocity between satellite and ground station
[NASA-TM-X-55629] 17 p3029 N67-31284
Molnia 1 satellite communication system and radio transmission 18 p3228 N67-31648
Gallium arsenide semiconductor laser development, and applications in future satellite light communication systems
[FTD-HT-66-439] 19 p3467 N67-33464
Thermoconductivity of propellant tank insulants, satellite communication ground station, and twenty-four hour satellite motion stability 20 p3734 N67-35021
Activities of ground station for satellite communications at Fucino, Italy 20 p3804 N67-35023
Multiple access communication utilizing small ground stations for satellite communication modulation - multiplexing techniques
[NASA-CR-87479] 20 p3805 N67-35234
Transionospheric propagation of FM signals for satellite communications
[NASA-CR-86004] 21 p3796 N67-35529
Potential uses of new communications technologies for national security and defense in 1970s
[P-3639] 24 p4406 N67-39748
Automatic data handling of satellite communication experiments by ground station 24 p4416 N67-40804
SATELLITE CONFIGURATION
Configurations, performance capabilities, command and data handling systems, stabilization and control systems, and scientific missions of OSO and AOSO 12 p2215 N67-24467
Configurations, integration, and weights of earth orbital manned space station
[NASA-TM-X-50701] 14 p2830 N67-27852
Librational motion of satellite with large panels 21 p3934 N67-36866
Recommended configuration and mission profile on Voyager orbital experiment capsule based on systems analyses and tradeoff studies
[NASA-CR-73127] 23 p4147 N67-37173
Spin stability of single-boom configuration, precession damping, infrared aspect sensor, and perigee attitude selection for multiple satellite system
[NASA-CR-73144] 23 p4345 N67-38865
ELDO-PAS communications satellite configuration analysis 23 p4347 N67-39123
Fortran IV program for calculating orbital heating rates to various-shaped satellites in general trajectory
[NASA-CR-69605] 24 p4552 N67-40510
SATELLITE CONTROL
Satellite control station methods and facilities for evaluating Pegasus in-flight performance, and meteoroid penetration data 02 p0312 N67-11395
Ammonia fueled resistojet thrustor system for three-axis attitude control and two-direction station-keeping of stable platform type satellite
[NASA-CR-72104] 06 p0953 N67-15677
Single axis simulator design for satellite control system testing and low torque measurement
[NASA-TM-X-55660] 08 p1282 N67-18625
Comparative study of nutation dampers for satellites
[NASA-TT-F-10373] 12 p2232 N67-25034
Intercontinental ballistic missiles and satellites related to space law development 13 p2431 N67-25245
Command decoders for processing satellite control data at ground station
[NASA-TN-D-4086] 19 p3420 N67-32039
SATELLITE DESIGN
Potential application of propulsion to aeronomy satellites
[NASA-CR-79700] 02 p0311 N67-11340
ESRO astronomical observatory satellite design considerations
[ESRO-SM-65] 03 p0467 N67-13049
Selection and evaluation of satellite thermal control surfaces - electrolytically deposited matt gold surface and black and white polymethyl methacrylate paints
[RAE-TR-66121] 03 p0468 N67-13240
Feasibility of standard satellite system to accommodate variety of missions in magnetosphere
[NASA-TM-X-55698] 09 p1517 N67-20170
Heat sink, solar, and earth radiation effects on thermal environment of space satellite
[ESRO-TM-49] 09 p1544 N67-20298
NASA educational booklet on space science, spacecraft, and planetary exploration 11 p1983 N67-23336
Design, fabrication, packaging, and test methods used in Echo II satellite
[NASA-TM-X-55764] 12 p2214 N67-23915
Program plan for fan beam navigation test satellite
[NASA-CR-85003] 17 p3102 N67-31423
Mission, design criteria, and stand of development of ESRO sponsored Highly Eccentric Orbiting Satellite /HEOS-A/
[REPT.-66-124] 20 p3734 N67-34923
Feasibility estimate, mission profile, and design Orbital Experiment Capsule /OEC/ Mars satellite to be used in Voyager Project
[NASA-CR-73139] 22 p4146 N67-36792
Preliminary designs for gravity gradient stabilized satellite using control moment gyros for damping and control
[NASA-CR-89137] 23 p4351 N67-38835
PAGEOS design and reliability program 23 p4358 N67-39273
SATELLITE DRAG
Analog simulation of limit-cycle fuel consumption of spinning symmetric drag-free satellite
[NASA-CR-79709] 01 p0154 N67-10882
Electric drag of spherical satellites with conducting surfaces 04 p0612 N67-13859
Short-period perturbation computation of artificial satellite orbits caused by atmospheric drag
[NASA-CR-61341] 06 p0970 N67-16617
Approximation of periodic atmospheric drag function for satellites by piecewise constant function
[NWL-2099] 22 p4140 N67-37171
Satellite experiment design for atmospheric density and near-free molecule flow aerodynamics
[NASA-CR-88868] 23 p4142 N67-37856
Autocorrelation and cross correlation analyses of rapid variations in earth satellite drag and properties of upper atmosphere
[NASA-CR-89681] 24 p4530 N67-40198
SATELLITE GUIDANCE
Electronically steerable antenna systems suitable for satellite guidance
[NASA-CR-83509] 20 p3804 N67-34998
SATELLITE INSTRUMENTATION
Satellite instrumentation and data retrieval procedures for collecting meteoroid penetration data from Pegasus satellite
[NASA-TN-D-3505] 02 p0311 N67-11381
Luna-10 artificial satellite recordings of cosmic radiation level in free interplanetary space
[JPRS-38794] 02 p0380 N67-12015
X-ray collectors and detectors evaluated for use as spectrography experiment in Orbiting Astronomical Observatory /OAO/
[NASA-CR-86344] 03 p0483 N67-12964
Proton III satellite design and instrumentation
[NASA-CR-86686] 04 p0615 N67-13572
Injun V very low frequency experiment - mechanical configuration, electric system, calibration procedure, and equipment
[REPT.-66-43] 06 p0973 N67-16100
Magnetic core memory unit for GEOS A satellite - memory unit design and circuit description
[TG-839] 07 p1044 N67-17916
Dielectric infrared beam splitter for use in interferometer spectrometer for Nimbus B satellite
[NASA-CR-703] 07 p1057 N67-18137
Probe theory for impedance source calculation of satellite born very low frequency antenna
[NASA-TM-X-55668] 08 p1247 N67-18649
Active optical system for spaceborne, orbiting telescopes
[NASA-CR-66297] 08 p1327 N67-18968
Instrumentation problems of scientific satellite telemetry, localization, and synchronization
[ESRO-TM-41] 09 p1451 N67-20292
Error angles, system errors, and attitudes of magnetic measurements aboard satellite
[ESRO-TM-21] 09 p1514 N67-20296
Determination of gas flow parameters from propane attitude control jets, and effects on satellite optical sensors and telescopes
[RAE-TR-66290] 11 p1918 N67-23485
Lunik X instrumentation and preliminary data on lunar magnetic field intensity and magnetosphere 11 p1961 N67-23289
Sea launched San Marco-B design, communication system, and instrumentation for equatorial atmospheric density measurements
[NASA NEWS RELEASE-67-93] 11 p1982 N67-23806
Passive damping method for aligning instantaneous spin, symmetry, and angular momentum axes of solid axisymmetric almost spherical satellite gyroscope
[NASA-CR-83569] 11 p1918 N67-23961
Simulated space environment life testing of step-servo assembly for radiation experiments on OSO D satellite
[NASA-TM-X-55754] 12 p2101 N67-23964
Direct phase reading X-band radio interferometer for attitude control of Applications Technology Satellite-4
[NASA-CR-81768] 12 p2217 N67-24410
Ground-base difference frequency coulometer for monitoring satellite battery charge
[APL-TG-857] 13 p2323 N67-26238
Explorer XXXIII subsystem and instrumentation, and design and operation of onboard experiments
[NASA-TM-X-55770] 14 p2818 N67-28582
Satellite instrument performance and flight data processing for radiation shielding experiment
[AFWL-TR-66-94] 14 p2818 N67-28879
Electric power, environmental control/life support, instrumentation, communications, and cryogenic storage systems for earth orbital manned space station
[NASA-TM-X-58699] 14 p2830 N67-27854
Magnetic core digitized spark chamber for use on balloons and satellites
[NASA-TM-X-55913] 16 p2870 N67-29999
Sounding rocket, satellite, and deep space probe instrumentation problems
[SR-1] 17 p3060 N67-30641
Design characteristics, design tradeoffs,

and kernel requirements of miniature data processing system for small standard satellite
[NASA-CR-85561] 17 p3031 N67-30832
Spaceborne nine bit analog-to-digital voltage converter for direct measurement Explorer satellite
[TG-895] 17 p3032 N67-30876
Equipment engineering and development for ionospheric research 19 p3401 N67-32988
Flight and altitude tests of scientific instrument package for German research satellite using Nike-Apache for launch in Canada 21 p3937 N67-36150
Satellite-borne altimeters, and interfaces between altitude measurements and orbit determination practices
[NASA-CR-88710] 23 p4141 N67-37330
SATELLITE LAUNCHING
Applications Technology Satellite /ATS/ launching, communications, power supply, control, and ground station activities
[NASA NEWS RELEASE-65-57] 02 p0211 N67-11348
Chronological listing, orbital data, and description of U.S. and Soviet satellites and space probes launched from 1957 to 1965 02 p0240 N67-11913
Launching and orbit determinations of Pioneer VII space probe 06 p0964 N67-15907
Scientific and engineering data on space and launch environments
[NASA-TM-X-53347] 07 p1193 N67-17967
Press kit on United Kingdom UK-E third Ariel satellite launching
[NASA NEWS RELEASE-67-96] 11 p1983 N67-23337
NASA information release of Lunar Orbiter D launching, including configurations, systems, mission, and Atlas Agena launch vehicle data
[NASA NEWS RELEASE-67-101] 12 p2114 N67-25960
Telemetry, antenna, command, power, solar array, battery, attitude control, spin-up, de-spin, housekeeping, and thermal control systems for ESRO II satellite - press kit release
[NASA NEWS RELEASE-67-110] 12 p2116 N67-24548
Satellite launchings and international law as defined by Chicago Convention 13 p2429 N67-25236
Role of United Nations and international control of satellite launchings and space flights 13 p2430 N67-25238
United States approach to airspace freedom and sovereignty, United Nations Ad Hoc Committee of Peaceful Uses of Outer Space, COSPAR charter, and satellite launchings from 57-60 13 p2429 N67-25314
Chronological data on satellite launchings and accomplishments of 1965
[NASA-TM-X-53680] 14 p2612 N67-26976
Placing in orbit and monitoring geostationary satellite, role of ESRO Redu station, and construction of control and mobile stations 23 p4149 N67-37347
SATELLITE LIFETIME
Nomogram for determining artificial earth satellite lifetime based on atmospheric density data
[NASA-CR-84465] 14 p2615 N67-27517
SATELLITE MEASUREMENT
Computational method for high altitude estimates of earths atmospheric density based on satellite measurements
[RM-5068-PR] 01 p0152 N67-10545
Solar plasma measurements from ionospheric sounding rockets and geocentric and heliocentric satellites
[TN-1966-26] 01 p0147 N67-10553
IMP-II measurements of thermal plasma within magnetosphere
[NASA-TM-X-55691] 02 p0235 N67-11369
Satellite measurements of electron temperature and concentration in ionosphere behavior studies
[NASA-TM-X-55599] 02 p0235 N67-11374
Satellite measurements of geomagnetic field interaction with solar wind
[NASA-TM-X-55605] 02 p0299 N67-11378
Pegasus measurements of temperature, radiation, and rigid body motion 02 p0312 N67-11387
Luna-10 satellite charged particle trap measurements of tail of earths magnetosphere
[JPRS-36796] 02 p0265 N67-12016
Artificial satellite measurements of lunar magnetic field intensity
[NASA-CR-79545] 02 p0299 N67-12247
Explorer XII satellite measurements of geomagnetic field distortion by solar wind
[NASA-TM-X-55623] 03 p0256 N67-12274
Statistical analysis of Pegasus satellite measurements of meteoroid penetration
[NASA-TM-X-1216] 03 p0268 N67-12966
Planetary radiation measurement from satellite in elliptical orbit
[REPT.-66-7] 03 p0456 N67-13053
Solar X-ray and X-ray absorption measurements from satellites, balloons, and rockets
[ESRO-SM-83] 03 p0456 N67-13057
Reliability of ionospheric density measurements by satellites using dispersion method
[NASA-CR-80080] 04 p0540 N67-13580
Analysis of satellite data for studies related to ionospheric plasma research
[NASA-CR-80741] 04 p0541 N67-13726
Comparison of measurements of earth magnetic tail performed by IMP-C and Lunik X satellites
[NASA-TM-X-55650] 06 p0703 N67-16361
Satellite data used for simultaneous trapped electron and geomagnetic tail field studies
[NASA-TM-X-55581] 07 p1185 N67-17875
Magnetic field experiment data for geomagnetic tail analysis
[NASA-TM-X-55691] 08 p1262 N67-18450
Satellite measurement analysis of distorted geomagnetic field and magnetic tail of earth
[NASA-TM-X-57116] 08 p1263 N67-18453
Global satellite measurements of thermal radiation from tropospheric water vapor
[NASA-TM-X-55686] 08 p1286 N67-18729
Elektron II satellite magnetosphere measurements from outer radiation belt region 09 p1509 N67-19534
Magnetic measurements in outer terrestrial magnetosphere from Elektron II and Elektron IV satellites 09 p1509 N67-19537
U.S.S.R. cosmic research
[FTD-TT-66-76] 10 p1758 N67-20381
Magnetic field of magnetosheath and relation to interplanetary space using data from IMP satellites
[NASA-TM-X-55750] 11 p1973 N67-23220
Satellite measurements of penetration rate for particles causing Zodiacal light 11 p1979 N67-23439
Balloon and satellite measurements of low energy galactic cosmic rays
[NASA-TM-X-55761] 12 p2091 N67-23905
Potentiality of satellite radiation data for synoptic analysis 12 p2138 N67-24293
General atmospheric circulation and importance to global heat balance 12 p2138 N67-24297
Variations of radiation with large scale circulation and possible feedback of radiative heating on circulation 12 p2138 N67-24298
Methods used in deriving stratospheric temperatures from Tiros VII measurements of carbon dioxide emission bands 12 p2138 N67-24299
Methods for analyzing vertical thermal structure of atmosphere from satellite remote radiation soundings 12 p2139 N67-24303
Approximation method of obtaining ozone parameters from satellite measurements of backscattered ultraviolet radiation 12 p2093 N67-24307
Magnetic field measurements made by IMP-II satellite
[NASA-TM-X-55633] 12 p2094 N67-24324
Measurements of primary cosmic radiation gamma quants from Proton I and II satellites
[NASA-CR-80650] 13 p2398 N67-25000
Scientific measurement and instrument requirements for lunar orbiter Block III missions
[NASA-CR-85019] 17 p3068 N67-31069
Doppler method for determining locations of ships at sea by using satellite measurements
[JPRS-41233] 17 p3102 N67-31101
Error analysis of nonlinear inversion techniques for deriving atmospheric temperature profiles from satellite radiometer data
[NASA-CR-80836] 18 p3268 N67-31993
Rocket and satellite measurements on meteoritic dust 18 p3232 N67-32083
Speeds, directions of arrival, and mass of dust particles measured from OGO-1 satellite to determine orbits of dust particles 18 p3232 N67-32070
Satellite measurements and trapped corpuscular radiation, and radiation damage on satellite component materials 18 p3232 N67-32187
Atmospheric and ionospheric studies with Faraday records 19 p3440 N67-33365
Satellite scintillation studies 19 p3401 N67-32984
Magnetometer experiment for measurement of magnetic field environment of applications technology satellite
[NASA-CR-86992] 19 p3482 N67-33823
Relationship between solar wind velocities and temperature field of lower troposphere derived from satellite measurements
[NASA-CR-87185] 19 p3442 N67-33958
Circulation features of stratosphere derived from radiometric temperature measurements with Tiros VII satellite
[NASA-TM-X-55859] 19 p3442 N67-33469
Low energy protons and electrons precipitated at high latitudes measured using low altitude oriented polar orbiting satellites 20 p3730 N67-34151
Proposed experiments and apparatus for satellite measurements in magnetosphere 20 p3724 N67-34153
Charged particle measurement by ESRO satellite in highly eccentric polar orbit in magnetosphere 20 p3721 N67-34154
Particle measurements in magnetosphere near equatorial plane and in auroral zone by particle detectors on ESRO satellites 20 p3721 N67-34155
Geometric, classical geodetic, astrogeodetic, gravimetric, and dynamic satellite geodetic methods of determining earth shape
[NASA-TT-F-11191] 20 p3439 N67-34801
Geodetic datum shifts, displacements of vertical, and astrogeodetic geoid, revised with recent satellite measurements 21 p3934 N67-35897
Agreement between satellite and surface gravity data 21 p3935 N67-35898
Mapping interplanetary magnetic field by extrapolating satellite measurements, and sector evolution observations
[TM-X-53869] 21 p3933 N67-36393
Interference of earth surface properties through satellite measurements of infrared emission
[NASA-TM-X-55919] 21 p3945 N67-36612
Orbital operations and analysis for infrared horizon radiance measurement experiment - mission profile, data acquisition, and spacecraft position and attitude determination
[NASA-CR-86376] 22 p3994 N67-36630
Van Allen belt measurements by artificial satellites and space probes
[FTD-MT-65-417] 22 p4139 N67-36829
Satellite measurement of ionospheric electron density
[ASR-3] 22 p4007 N67-37185
Meteorological satellite measurements of lower atmosphere
[NASA-TM-X-55943] 23 p4090 N67-37597
Map of magnetic field intensity above U.S.S.R. constructed from measurements by earth satellite
[ACIC-TC-1240] 23 p4041 N67-37782
Physical-numerical model for inferring tropospheric structure from satellite radiation measurements - rain relationship to surface dew point, and atmospheric energetics 23 p4200 N67-38001
Physical numerical model for inferring tropospheric structure from satellite radiation measurements 23 p4200 N67-38002
Measuring particle density and temperature of lower thermosphere by sounding rocket and satellite
[NASA-TM-X-55859] 23 p4249 N67-38235
Spherical harmonic expansion of lunar gravity field data from lunar orbiter and Lunik 10 analyses, and calculation of moon shape and internal structure
[NASA-CR-87669] 24 p4521 N67-40139
SATELLITE NAVIGATION SYSTEMS
Operational performance of modified inertial navigation system for ELDO launch vehicle
[RAE-TR-66314] 09 p1475 N67-20819
SATELLITE NETWORKS
Synoptic measurements of field aligned data associated with radio aurora, shower meteor detection, and ionospheric electron content used for evaluating satellite radar

system
[NRL-MEMO-1768] 19 p3400 N67-32877
Multiple satellite system for measuring interaction of solar wind and interplanetary magnetic field with geomagnetic field - appendices to feasibility study
[NASA-CR-73149] 23 p4344 N67-38549
SATELLITE OBSERVATION
Observations to determine Injun III orbital parameters for upper atmosphere rotation studies
[RAE-TR-66196] 01 p0156 N67-10079
Tabulated data on optical observations of earth orbiting satellites 01 p0036 N67-10138
Tabulated data on optical observations of earth orbiting satellites 01 p0036 N67-10140
Certain satellites observed from satellite station Stade - West Germany
[NASA-TT-F-9320] 01 p0151 N67-10193
Visual satellite observations and tracking data - West Germany
[NASA-TT-F-9466] 01 p0151 N67-10194
Visual satellite observations from satellite station Stade - West Germany
[NASA-TT-F-9416] 01 p0151 N67-10195
Visual satellite observation data
[NASA-TT-F-9314] 01 p0151 N67-10233
Cinetheodolite observations of satellites during April 1966 01 p0038 N67-10552
Summaries of sounding rocket, space probe, and artificial earth satellite launchings and observations 01 p0068 N67-10594
Model of near-earth meteoroid environment from satellite observation data
[NASA-TN-D-3717] 01 p0068 N67-10794
Determination of Pageos satellite magnitude and brightness fluctuations
[NASA-TM-X-55595] 02 p0303 N67-11372
Mariner IV observations of protons in interplanetary space
[NASA-CR-79364] 02 p0300 N67-11688
Satellite observations by U.S. and foreign stations during 1960 as part of NASA program
[NASA-CR-79505] 02 p0233 N67-11731
Tabulated data from optical observations of satellites 02 p0235 N67-11874
Equatorial and horizontal coordinates for Sputnik 1960 Epsilon and Cosmos II, VIII, X, XI, XVII, and XVIII - April and May 1963 02 p0235 N67-11990
Equatorial coordinates of observations for Sputnik 1960 Epsilon and Cosmos II, XIV, XVII, and XVIII - May 1963 02 p0235 N67-11991
Equatorial and horizontal coordinates for observations of Sputnik 1960 Epsilon, Vostok V and Cosmos II, VIII, and XVII - June 1963 02 p0235 N67-11992
Equatorial and horizontal coordinates for observations of Sputnik 1960 Epsilon, and Cosmos II, XIV, and XVII - July 1963 and 1963 supplements 02 p0236 N67-11993
Equatorial and horizontal coordinates for observations of Sputnik 1960 Epsilon and Cosmos II, XVII, and XIX - August and September 1963 02 p0236 N67-11994
Tabulated orbital mean elements derived from satellite observations
[NASA-CR-80092] 02 p0306 N67-12150
Description of movie representing IMP-1 magnetometer observations of interplanetary magnetic field
[NASA-CR-80128] 02 p0307 N67-12172
OGO-C observations of low-energy protons and electrons in earth magnetosphere
[NASA-CR-80113] 02 p0362 N67-12362
Cinetheodolite satellite observations received in Malta during April, 1966 03 p0365 N67-12477
Cinetheodolite satellite observations received in Malta during May, 1966 03 p0365 N67-12478
Equatorial and horizontal coordinates as observed March 1963 for Sputnik 1960 Epsilon and Cosmos II, V, VIII, XI, and XIII 03 p0366 N67-12637
Development and construction of theodolite for satellite observation
[RAE-LIB-TRANS-1178] 03 p0397 N67-12997
Orbit, viewing geometry, coverage, and resolution pertinent to satellite observation of earth 04 p0537 N67-13503
Determination of major semi-axis of satellite orbit from limited number of observations 04 p0560 N67-13547
Visual tracking at satellite station of Kirov Pedagogical Institute 04 p0560 N67-13556
Manned meterological satellite instrumentation and observation
[DAC-59300] 04 p0571 N67-13562
Terrestrial magnetosphere influence on IMP-1 data
[NASA-CR-80682] 04 p0607 N67-13578
Index to Smithsonian Astrophysical Observatory special reports on satellite observations, orbital information, preliminary data analyses, and studies related to astrophysics 05 p0758 N67-14374
Advanced techniques for reduction of geodetic Sequential Collation of Range Satellite /SECOR/ observations
[AD-640238] 05 p0675 N67-15035
Rocket and satellite observations of low energy auroral electrons and other activity
[NASA-TM-X-55617] 05 p0758 N67-15320
Physical meteorology studies of satellite observations, cloud physics, and atmospheric ozone 06 p0906 N67-15422
Line scan television for earth observation satellites
[TG-853] 06 p0841 N67-16141
Camera with optical compensator for artificial earth satellite observations 07 p1079 N67-17165
Cinetheodolite method for observation and identification of satellites acquired unexpectedly
[REPT.-52A] 06 p1361 N67-18365
Comparison of satellite interplanetary magnetic field observations with photospheric magnetic field and plage structure
[NASA-CR-83443] 08 p1368 N67-19136
Cinetheodolite observations of several satellites received from Malta station during May 1966 08 p1251 N67-19188
Surveillance of solar activity from optical observations of satellites
[RAE-LIB-TRANS-1188] 09 p1507 N67-20350
Cosmos V registration of fragment gamma radiation following United States nuclear explosion over Johnston Island 10 p1757 N67-20391
Data from earth satellite tracking station
[FTD-HT-66-321] 10 p1599 N67-20662
Mobile 24-inch satellite photometric observatory
[NASA-CR-66304] 10 p1602 N67-21220
Function minimization applied to nonlinear least squares curve fitting problem arising in estimation of geophysical constraints from synchronous satellite observations
[RAE-TR-66290] 11 p1974 N67-22486
Cinetheodolite satellite observations made in November and December 1965 at Earlyburn
[REPT.-55] 11 p1981 N67-22497
Cinetheodolite satellite observations made during January, February, and March 1966 at Earlyburn
[REPT.-60] 11 p1981 N67-22499
Cinetheodolite observation data for several satellites from Malta station for August 1966 11 p1823 N67-22929
Cinetheodolite observation data for several satellites from Malta station for September, October, and November 1966 11 p1823 N67-22931
Cinetheodolite observation data for several identified and unidentified satellites from Malta station for September, October, and November 1966 11 p1823 N67-22935
Electro-optical observation of magnitude and brightness fluctuations of Pageos satellite during passage
[NASA-TM-X-55756] 12 p2214 N67-23977
Graphic method and computer program for conversion of geocentric to topocentric coordinates in satellite observation
[REPT.-19] 12 p2269 N67-23998
Meteorological satellite technology application development 12 p2137 N67-24284
Problems in using satellite observation data for specific meteorological projects 12 p2137 N67-24287
Applicability of meteorological satellite observations to studies of general circulation 12 p2138 N67-24296
Problems relating to use of satellite observations on aerosol layers and cirrus clouds in upper troposphere and lower stratosphere, and radiative transfer theory 12 p2139 N67-24305
Chromospheric problems and investigation by satellite observations of extreme ultraviolet solar spectrum, filtergrams, spectroheliograms, and radio flux measurements 12 p2206 N67-24465
Cinetheodolitic satellite observation data from Malta 13 p2280 N67-26025
Cinetheodolitic satellite observation data from Malta 13 p2280 N67-26026
Cinetheodolitic satellite observation data from Malta 13 p2280 N67-26027
Cinetheodolitic satellite observation data from Malta 13 p2281 N67-26028
Optical observation data on artificial satellites from various ground stations 13 p2281 N67-26029
Cinetheodolitic satellite observation data from Malta 13 p2281 N67-26030
Cinetheodolitic observations of satellites from Malta 13 p2281 N67-26053
Cinetheodolitic observations of satellites from Malta 13 p2281 N67-26054
Cinetheodolitic observations of satellites from Malta 13 p2281 N67-26055
Cinetheodolitic observations of satellites from Malta 13 p2281 N67-26056
Cinetheodolitic observations of satellites from Malta 13 p2281 N67-26057
Cinetheodolitic observations of satellites from Malta 13 p2281 N67-26058
Cinetheodolitic observations of satellites from Malta 13 p2281 N67-26059
Scintillation observations at medium latitude geomagnetically conjugate stations
[NASA-CR-83967] 13 p2314 N67-26077
Computer programs for atmospheric density determination from low height satellites
[AFCRL-66-809] 13 p2315 N67-26256
Formula derivation for optimum satellite station configurations for simultaneous direction observations to satellites
[NASA-CR-84077] 13 p2283 N67-26268
Equatorial and horizontal coordinates for Sputnik 1960 Epsilon, Cosmos XI, XVII, XXV, XXVI, XXX, Polet I and II, and Elektron I for May 1964 16 p2970 N67-29944
Equatorial and horizontal coordinates for Sputnik 1960 Epsilon, Cosmos XI, XVII, XXV, XXVI, XXVIII, Polet I and II, and Elektron I for April 1964 16 p2970 N67-29947
Horizontal coordinates for Sputnik 1960 Epsilon, Cosmos XVII, XXV, XXVI, XXXI, Polet I and II, and Elektron I for June 1964 16 p2970 N67-29948
Equatorial coordinates for Sputnik 1960 Epsilon, Cosmos XVII, XXV, XXVI, XXXI, Polet I and II, and Elektron I for June 1964 16 p2970 N67-29949
Tabulation of satellite optical observations for Jan 1967 17 p3025 N67-30635
Catalog of satellite observation data received between 1 Jun 1966 and 31 Dec 1966 17 p3166 N67-30636
Observations of whistler mode signal propagation by OGO satellites from very low frequency ground station transmitters
[NASA-CR-84869] 17 p3055 N67-30631
Probability of recording and tracking satellite images optically
[NASA-CR-84870] 17 p3063 N67-30684
Simultaneous observations of solar protons inside and outside magnetosphere by Explorer XXXIII and Injun IV
[NASA-CR-84853] 17 p3165 N67-31448
Moonwatch program observations of satellite orbits - decay prediction table
[NASA-CR-85862] 17 p3169 N67-31450
Design, launching, and polar orbit of OGO-D, and its instrumentation and observational data
[NASA NEWS RELEASE-67-137] 18 p3340 N67-31707
AIS Venera-3 observation of solar radio bursts at 925 kc/sec
[NASA-CR-86633] 18 p3322 N67-31990
Invariant imbedding equations for determining vertical stratification of terrestrial and planetary atmospheres on basis of satellite observations
[RM-5229-PR] 18 p3337 N67-32463
Joint Satellite Studies Group studies of ionospheric propagation through satellite transmissions
[JSSG-2] 19 p3401 N67-32982
Research activities of observatories engaged in ionospheric propagation studies through satellite transmissions 19 p3401 N67-32983
Plans for future studies on prediction of joint satellite observations, and San Marco B satellite ionospheric experiment 19 p3402 N67-32989
Artificial earth satellite observations of planetary distribution of ozone
[NASA-CR-87182] 19 p3449 N67-32987
Geometric structure of gravitational field at sea level determined from observed

satellite motion 21 p3835 N67-35599
Analytical method for locating new satellite observation stations 21 p3931 N67-35967
Tabulated data on optical observations of satellites during March 1967 21 p3800 N67-36037
Cinetheodolite observations of satellites from Malta during August 1966 21 p3800 N67-36062
Spectral, spatial and temporal variations of outer zone electrons from Injun III observations [NASA-CR-88542] 22 p4135 N67-36712
Stellar triangulation theory, geodetic satellite observations and preprocessing procedures [NASA-CR-89081] 23 p4343 N67-38298
Solar X-ray flare observed by Geiger counter onboard Explorer XXXIII satellite [NASA-CR-89263] 23 p4340 N67-38676
VLF radio noise at low altitudes near magnetic equator from Injun III satellite observations [NASA-CR-89280] 23 p4349 N67-39248
Computer programs for determining atmospheric density from analysis of satellite observations using numerical integration procedures [AFCRL-67-0403] 23 p4250 N67-39379
Digital computer program to estimate observation system bias from satellite observations of orbit determinations [ER-14627, VOL. 2] 24 p4528 N67-39686
Satellite observation and orbital element data input to satellite analysis monitor and numerical integration programs for computing atmospheric densities 24 p4438 N67-39816

SATELLITE ORBIT

Third and fifth harmonics effect in power gravitational force decomposition of planet on movement of planetary satellites [FTD-TT-65-872] 01 p0155 N67-11063
Orbit perturbations of artificial satellites by attraction of external bodies [D1-82-0558] 02 p0302 N67-11311
Orbital parameters and methods of using orbital information bulletins [NASA-TT-F-10468] 02 p0303 N67-11389
Digital computer program for satellite orbit determination and ephemeris computation [ER-13950] 02 p0240 N67-11704
LUNIK X orbit studied to determine lunar gravitational field, taking into account effect of other planets [NASA-CR-79543] 02 p0303 N67-11733
Average anomaly and eccentricity for satellite orbits with small eccentricity - tables 02 p0247 N67-11912
Approximation methods for determination and prediction of artificial earth satellite orbits [DLR-MITT.-66-06] 02 p0305 N67-11967
Dynamic behavior of spinning solar pressure stabilized satellite with precession damping [NASA-CR-86082] 02 p0305 N67-12064
Lie series for numerical computation of satellite orbits [NASA-CR-79763] 02 p0306 N67-12077
Graphical prediction method for azimuthal orbit coordinates of artificial satellite for given time and observation point on earth surface 03 p0459 N67-12474
Large semiannual variation in exospheric density confirmed by analysis of orbit of Calsphere I satellite [RAE-TR-66211] 04 p0612 N67-13960
Fluid mechanic and radiation pressure effects on satellite orbits and orbital decay, and space rendezvous maneuvers - mathematics conference [NASA-CR-80873] 05 p0691 N67-14401
Drag force effect on satellite orbit decay 05 p0758 N67-14405
Two variable expansion procedure for approximate solution of nonlinear differential equations with applications to satellite orbital motion 05 p0727 N67-14406
Mathematics of satellite orbital motion and three-body problem - conference [NASA-CR-80674] 05 p0758 N67-14410
Hamilton-Jacobi equation and oblate spheroidal coordinates for satellite orbit calculation 05 p0759 N67-14416
Flywheel stabilization of satellite relative equation 05 p0762 N67-14863
Periodic position and velocity perturbations of artificial satellite developed to first order [MTR-296] 05 p0763 N67-15044
Generalized multistep methods of constructing stable difference equations, and applications to satellite orbit trajectory computation [SP-2831] 05 p0764 N67-15091
Systems manual program description R 104 Master Orbit Tape Routine for computing inertial, geocentric, geodetic position, velocity, real field, and geomagnetic data for satellites [NASA-TM-X-55633] 05 p0681 N67-15154
Earth-satellite orbits in resonance with tesseral perturbation, and motion near earth-moon libration point 06 p0973 N67-16063
Inclination angle and right ascension of nodal crossing of near earth satellite orbital plane from radar observation data [RISO-1-66] 06 p0842 N67-16399
Error analysis for selecting optimum rates for taking counted doppler rate and range data for tracking short arc of lunar satellite orbit [NASA-CR-66245] 06 p0845 N67-16572
Error sources associated with Doppler radar tracking data of lunar satellite orbits taken by Deep Space Instrumentation Facility [NASA-CR-66246] 06 p0845 N67-16574
Validation of orbit determination calculations by using observed time that satellite enters shadow of earth 07 p1189 N67-16985
Applied mathematics in celestial mechanics - theory of librational motions, earth shape, and satellite orbit calculations [NASA-CR-81531] 07 p1190 N67-17321
Classification of lunar satellite orbits perturbed by earth and by nonsphericity of lunar gravitational field [NASA-TM-X-55670] 08 p1362 N67-18639
Launch operations, orbit, and performance of Anchored Interplanetary Monitoring Platform AIMP I-Explorer XXXIII [NASA-TM-X-55663] 08 p1371 N67-18699
Space satellite application in communications, navigation, geodesy, and meteorology [NASA-SP-137] 08 p1371 N67-18724
Navigation and orbital performance of commercial communications satellites 08 p1371 N67-18725
Orbital parameters and working characteristics of geodetic Explorer satellites 08 p1363 N67-18726
Orbital analysis technique for sharply varying geophysical phenomena [NASA-TM-X-55672] 08 p1364 N67-18746
Relationship of perigee motion of satellite orbit to latitude and local time [NASA-TM-X-55703] 08 p1365 N67-18763
Differential corrections applied to Vinti accurate reference satellite orbit with inclusion of third zonal harmonic [NASA-TM-X-55699] 08 p1365 N67-18765
Baker-Nunn camera field-reduced photographs used in computing satellite orbit data - tables [NASA-CR-82596] 08 p1369 N67-19358
Expressions for second order short periodic perturbations for satellite motion [NASA-CR-82797] 09 p1509 N67-19415
Orbit determination and data processing programs for satellite radar range and tracking computer [ESD-TR-66-248] 09 p1415 N67-19724
Orbital prediction and differential correction using Vintis spheroidal theory for artificial satellites [NASA-TN-D-3803] 09 p1511 N67-19982
Solar pressure perturbation effects on orbit of flat reflecting satellite 09 p1513 N67-20273
Odd zonal harmonics in Earth gravitational potential [RAE-TR-66317] 09 p1442 N67-20320
Graphical methods of calculating satellite orbits for radio observation [DLR-FB-67-03] 11 p1977 N67-22965
Power supply system, orbital analyses, and propulsion and guidance of Applications Technology Satellite-4 [NASA-CR-61599] 12 p2217 N67-24607
Orbit position control handbook for passive communications satellite [NASA-CR-730] 12 p2219 N67-25650
Upper atmosphere review, and satellite orbit analysis of atmospheric properties and variations [ESRO-SP-14] 13 p2313 N67-25681
Lie series solution of gravity gradient stabilized motion of satellite in elliptic orbits [NASA-CR-84079] 13 p2404 N67-26366
Optimum navigation measurements for satellite orbit and hyperbolic free fall reentry 14 p2570 N67-26526
Air drag effect on contraction of satellite orbits in atmosphere where air density varies sinusoidally [RAE-TR-64229] 15 p2769 N67-28154
Numerical lunar theory for satellite moving in orbital planes with higher inclinations than orbit plane of sun [NASA-TN-D-4002] 15 p2782 N67-28522
Orbit calculations from minitrack observations [RAE-TR-66380] 15 p2793 N67-28923
Satellite orbit optimization techniques using lasers and other advanced guidance instruments [AGARDOGRAPH-92] 16 p2967 N67-29361
Mathematical models to approximate functions, bounds and power series for three-body problems, satellite orbit theories, and other aspects of trajectory analysis and guidance theory [NASA-SP-141] 16 p2967 N67-29370
Rigorous error bounds on position and velocity for satellite orbits with eccentricity of less than one 16 p2968 N67-29376
Deep structure of earth inferred from satellite orbit - density anomaly [NWL-2077] 16 p2886 N67-29559
Theory of orbital mechanics of artificial earth satellites [NASA-TT-F-391] 16 p2972 N67-30156
Elementary derivation of principal effects of earth oblateness on satellite orbits [TR/RP-76] 19 p3582 N67-32790
Proposals for high inclination satellite and for satellite for investigating particle wave interactions - magnetosphere [ESRO-SN-29] 19 p3445 N67-33822
Computer program for listing OGO attitude orbit tapes [NASA-TM-X-55679] 20 p3606 N67-34274
Electric propulsion application to synchronous satellite orbit adjustment, stationkeeping, and attitude control [NASA-TM-X-55680] 20 p3716 N67-34800
Differential method of orbit improvement for Vinti spheroidal theory of artificial satellite motion about oblate planets with inclusion of planetary gravitational effects [NASA-TN-D-4088] 20 p3730 N67-35234
Determining asphericity parameters of earth atmosphere from changes in orbital elements of artificial satellites [TG-230-T519] 21 p3886 N67-35612
Inertial guidance laws for placing satellite into eight hour polar orbit or twenty four hour equatorial orbit [CDTA-50-4644, APPEND. III] 21 p3885 N67-35629
Orbit determination from improved numerical estimates of satellite motion [SAO SPECIAL REPT.-161, REV.] 21 p3931 N67-35966
Lunar and solar semidiurnal tidal values deduced from satellite orbits [TG-985] 22 p4035 N67-36968
Determining locations of equilibrium positions of synchronous equatorial satellites [NAL-TN-2] 23 p4045 N67-38679
Scientific system requirements, orbit and control options, and communications and data handling evaluation for determining feasibility of multiple satellite system [NASA-CR-73141] 23 p4345 N67-38854
Latitude gradient hypothesis explaining semiannual effect in satellite orbit decay data [LMSC-6-77-67-40] 23 p4345 N67-38875
Error sensitivity expressions for satellite orbital hyperbolic navigation system [P-3636] 24 p4489 N67-39527
Predictor-corrector algorithm applicable to numerical integration of satellite orbits in multirevolution steps [NASA-TM-X-55986] 24 p4536 N67-39995
Computation method for determining topocentric data using orbital information in NASA Space Bulletin 24 p4411 N67-40026

SATELLITE ORIENTATION

SA IMAGE DISSECTOR TUBE
Interplanetary flight orientation by instruments based on utilization of rigidly mounted and oppositely directed telescopes 05 p0763 N67-14880
Artificial earth satellite orientation using

plane ion traps 13 p2405 N67-26432
Optical method for determining orientation of rotation axis of spin stabilized satellite
[RAE-LIB-TRANS-1212] 15 p2795 N67-28714
SATELLITE PERTURBATION
SA ORBIT PERTURBATION
Long period perturbations in motion of small eccentricity satellites and analysis of Alouette I and Tiros VIII satellites - zonal harmonics
[NASA-TM-X-55647] 06 p0968 N67-16549
Effects of solar and lunar tides on motion of artificial earth satellite
[NASA-TM-X-55696] 06 p1385 N67-18755
Pendulum equation for governing resonance effects on satellite due to longitudinal dependence of gravitational field of rotating primary
[RAE-TR-66379] 10 p1760 N67-21056
Lateral disturbing acceleration for elliptical satellite orbit
[NASA-TT-F-10740] 14 p2615 N67-27527
Lunar and solar perturbations in motion of artificial satellite due to fourth degree Legendre polynomial
[NASA-TM-X-55864] 19 p3535 N67-33355
Satellite position and velocity perturbations due to errors at injection
[MDC-TR-67-78] 23 p4343 N67-38252
Attitude perturbations of spin-stabilized satellite on a highly eccentric orbit
[ESRO-TN-14] 23 p4351 N67-38440
SATELLITE PHOTOGRAPHY
Tiros satellite photographs used in numerical weather prediction for Pacific Ocean area
[REPT.-07424-1-T] 03 p0420 N67-13115
Solid state wide range low power timer for shutter of rocket or satellite-borne camera
[NASA-TN-D-3756] 04 p0552 N67-14101
Inspector satellites as intelligence aids in obtaining photographs of military installations
[P-3410] 06 p0877 N67-15341
Gemini IX airglow horizon photography experiment 06 p0873 N67-16024
Orbital photography of earth surface applied to geologic study
[NASA-TM-X-55734] 10 p1627 N67-21397
Technical aspects of meteorological satellite photography 12 p2137 N67-24285
Meteorological satellite photographic and radiation data use in severe storm studies 12 p2137 N67-24289
Production and maintenance of large scale cloud systems, and relationship between calculated fields of large scale vertical motion and Tiros cloud photography 12 p2138 N67-24292
Local circulation patterns observed in satellite cloud pictures 12 p2138 N67-24294
Satellite observations of local circulations - orographic effects and jet stream structure 12 p2138 N67-24295
Exposure predictions for geodetic satellite photography by stellar photometry
[B-3458] 12 p2184 N67-24853
Literature survey and study of geodetic satellite photography and detection of stellar images
[EG+G-B-3455] 13 p2318 N67-25337
Baker-Nunn photography of Intelsat 2-F2 apogee-motor firing
[NASA-CR-84799] 15 p2796 N67-28766
Shipboard station for receiving automatic picture transmission signals from meteorological satellites
[NEL-1435] 16 p2924 N67-29066
Meteorological satellite photography and weather forecasting 17 p3052 N67-30406
Geodetic positioning with satellite borne PC-1000 camera
[ACIC-TR-105] 17 p3061 N67-30729
Weather forecasting and cloud photo interpretations 20 p3672 N67-34307
Optical imagers for small earth resources satellite - photo-optical, electro-optical, and hybrid camera systems
[NASA-CR-82213] 21 p3850 N67-36064
Agricultural applications of photographic sensors and photograph interpretation techniques from orbiting satellites
[NASA-CR-89645] 24 p4449 N67-39649
Post-mission evaluation of supporting data for photographs taken by Lunar Orbiter III
[NASA-CR-66469] 24 p4530 N67-39957
SATELLITE RENDEZVOUS
Simple feedback law for cooperative rendezvous problem 09 p1438 N67-20268
Experiment missions for OSO satellite rendezvous, capture, material retrieval, refurbishment, and extravehicular operation work
[NASA-CR-83772] 13 p2407 N67-25498
Experiment missions for OSO satellite rendezvous, capture, material retrieval, refurbishment, and extravehicular operation work
[NASA-CR-83773] 13 p2407 N67-25499
Experiment missions for OSO satellite rendezvous, capture, material recovery, refurbishment, and extravehicular operation work
[NASA-CR-83782] 13 p2407 N67-25500
Operator performance evaluated in control of simulated remote maneuvering unit during satellite inspection
[AMRL-TR-66-134] 21 p3771 N67-35488
SATELLITE ROTATION
Approximation of forces and momenta acting on axisymmetric bodies rotating in free-molecular stream and in luminous flux
[NASA-TT-F-10759] 15 p2638 N67-28289
Despinning of rotating spacecraft by momentum transfer
[TG-885] 16 p2974 N67-29459
Librational motion of satellite with large panels 21 p3934 N67-36666
SATELLITE TELEVISION
Simultaneous TV and IR cloud cover images from Cosmos CXII satellite
[JPRS-39188] 04 p0571 N67-13702
Satellite meteorology based on televised cloud pictures, radiation measurements, and sounding rocket data 08 p1305 N67-18727
Technical requirements and area applicability for television and ultra-shortwave radio satellite transmissions
[RF.78-O] 11 p1823 N67-22919
Technical and economic aspects of communications satellites for radio and television broadcasts
[JPRS-42194] 21 p3801 N67-36283
Technical study of European telecommunications satellite - design of experimental systems for television distribution by satellites 21 p3938 N67-36664
Satellite television and infrared observations of extratropical cloud vortices and cyclones 24 p4486 N67-39806
SATELLITE TRACKING
SA MINITRACK
SA OPTICAL SATELLITE TRACKING PROGRAM
Review of Russian fiber optics, deterioration of metal strength under effect of liquid metals, Soviet biosatellite program, laser ranging of moon, and satellite and meteor tracking 01 p0112 N67-10096
Equatorial and horizontal coordinate data for Soviet satellites compiled from visual and photographic tracking data - February 1965 01 p0156 N67-10565
Equatorial and horizontal coordinates of Soviet satellites for October, November, and December 1963 01 p0156 N67-10566
Equatorial and horizontal coordinates of Soviet satellites compiled from visual and photographic tracking - January 1964 01 p0156 N67-10567
Satellite tracking data from Stade, West Germany for March 2 to March 7, 1965
[NASA-TT-F-9311] 01 p0039 N67-10755
Time delay and servo at satellite tracking station 04 p0569 N67-13552
Improved precision and timing for photographic satellite tracking 04 p0569 N67-13553
Mathematical model and computer program for minimum variance estimates of orbital parameters, geopotential coefficients, station locations, and tracking systems error coefficients
[AD-640321] 06 p0872 N67-15483
Geodetic error effects on time dependence of satellite tracking data as received by surface tracking station 07 p1191 N67-17329
Satellite tracking, attitude control, and adaptive control systems
[NASA-CR-80003, VOL. II] 07 p1057 N67-18020
Cinetheodolite satellite observation data tables from Malta, 1966 07 p1043 N67-18167
Cinetheodolite satellite observation data tables from Malta, 1966 07 p1043 N67-18168
Cinetheodolite satellite observation data tables from Malta, 1966 07 p1043 N67-18169
Cinetheodolite satellite observation data tables from Malta, 1966 07 p1043 N67-18170
Cinetheodolite satellite observation data tables from Malta, 1966 07 p1043 N67-18171
Cinetheodolite satellite observation data tables from Malta, 1966 07 p1043 N67-18172
Cinetheodolite satellite observation data tables from Malta, 1966 07 p1043 N67-18173
Cinetheodolite operation and satellite tracking modifications
[REPT.-58] 08 p1281 N67-18367
Baker-Nunn camera tracking observation data on several satellite orbits - catalog
[NASA-CR-82599] 08 p1289 N67-19357
Simplified phase lock tracking filter for ground testing of satellite systems
[TG-829] 09 p1415 N67-19740
Method for equalizing observations of positions of earth satellites - celestial mechanics
[FTD-TT-65-2039] 09 p1513 N67-20017
Determination of satellite location by optical measurement methods
[ESRO-TM-42] 09 p1419 N67-20293
Coordinate measurements of satellite positions determined from photographs
[FTD-HT-66-322] 10 p1564 N67-20640
Programming aspects of unified Geodetic Parameters Program /GEOPS/, written in Fortran IV for IBM 7094 computer for satellite tracking system
[AD-640322] 10 p1588 N67-21051
Satellite tracking data for July 1966 from Malta 11 p1977 N67-22264
Atmospheric density data deduced from low-altitude high resolution satellite tracking 12 p2134 N67-23490
Geodetic parameter estimation and associated computer programs for satellite tracking
[AFCRL-66-766] 12 p2097 N67-24956
Random scan-display of predicted satellite positions
[NRL-6453] 13 p2285 N67-25181
Cost effectiveness analysis for design of satellite ground station status monitor
[NASA-TM-X-55793] 14 p2507 N67-27566
Coverage by network of telemetry and tracking stations of satellites on near-earth orbits
[ESRO-TM-9] 15 p2665 N67-27929
Coefficients of eleven harmonics in lunar gravitational potential determined from Lunik X tracking data
[RAE-LIB-TRANS-1211] 15 p2790 N67-28713
Tracking station location uncertainties studied for effect on root-mean-square errors in spacecraft position and velocity
[NASA-TM-X-55804] 15 p2670 N67-28747
Photographic apparatus used for Soviet satellite tracking
[JPRS-40663] 16 p2895 N67-29478
Multivibrator used with small camera to obtain maximum reference marks when photographing interrupted satellite path 16 p2895 N67-29480
Scintillations observed in Explorer XXII
[AGARD-553] 16 p2941 N67-29672
Automation of satellite tracking stations
[NASA-TM-X-55648] 18 p3255 N67-31873
Satellite tracking applications of potential function and force field of spheroid in rectangular coordinates
[NASA-TM-X-55856] 19 p3535 N67-33444
Adaptive and optimal control theory for application to satellite tracking 19 p3423 N67-33597
Conference papers on scientific horizons from satellite tracking
[NASA-CR-87302] 19 p3537 N67-33665
Biosatellite B spacecraft, scientific experiments, flight plan, Delta launch vehicle, flight events and sequence, and tracking and recovery
[NASA NEWS RELEASE-67-217] 20 p3733 N67-34623
Geopotential, gravitational field, and geodetic positions determined from satellite tracking data
[SAO SPECIAL REPT.-200, VOL. 2] 21 p3834 N67-35396
Expressions derived for earth satellite ground track for general elliptical, circular, and circular synchronous orbits
[ESD-TR-67-351] 21 p3930 N67-35547
Building modifications to optical research facility for satellite tracking with lasers
[NASA-TM-X-55888] 21 p3825 N67-35662
Data relay and tracking capability of lunar communication satellites
[TM-X-55886] 21 p3935 N67-35665
Telemetry equipment of satellite laser tracking stations and geodesic applications
[NASA-TT-F-11192] 22 p3994 N67-36695

Cinetheodolite observations during satellite 1962 Beta-Kappa 1 transits between October 1965 and March 1966
[ROE-STS-61] 22 p3990 N67-37350
Satellite photography using electronic-optical converter
[JPRS-43899] 23 p4346 N67-38951
Pointing error measurements for antenna automatic steering system at Scandinavian satellite tracking station 24 p4410 N67-40476
SATELLITE TRACKING AND DATA ACQUISITION NETWORK
SA MINITRACK
SA RANGE AND RANGE RATE TRACKING
Observational formats for geodetic tracking data and supporting documentation for data reduction
[NASA-CR-80477] 03 p0369 N67-13104
Evolution of Satellite Tracking and Data Acquisition Network /STADAN/ from pre-IGY and Minitrack facilities
[NASA-TM-X-55859] 07 p1038 N67-17637
Characteristics, components, and accuracy of TRANET Doppler tracking system for geodetic satellites
[APL-TG-874] 12 p3054 N67-24784
Orbit calculations from minitrack observations
[RAE-TR-66360] 15 p3793 N67-28923
Naval tactical data system incorporating satellite position prediction and display functions as satellite display system
[NRL-6544] 21 p3794 N67-35331
Production control and accounting information storage system used by satellite telemetry data processing system
[NASA-TM-X-55936] 23 p4004 N67-36999
USS Gyatt /DD-712 evaluation of Navy navigation satellite system /NAVSAT/ and very low frequency hyperbolic navigation system /Omega
[IR-67-81] 23 p4282 N67-38113
Antennas, receiver systems, transmitters, instrumentation, and data handling procedures of Ascension Island Deep Space Instrumentation Facility
[NASA-CR-89793] 24 p4426 N67-40326
Spacecraft tracking and communication systems
[NASA FACTS S-2/8-67] 24 p4411 N67-40513
SATELLITE TRANSMISSION
Ground station integrated in satellite-to-satellite radio propagation experiment
[LTIRF-253/IP] 00 p1414 N67-19458
Scientific information transmissions from Pioneer VI and VII space probes
[NASA NEWS RELEASE-67-94] 12 p3212 N67-24635
Telemetry, command and beacon antennas for rockets, probes, and satellites
[PTR0580] 14 p3486 N67-28753
Faraday rotation of satellite signals observations for studying large scale structure of auroral zone F layer 18 p3883 N67-29305
Transmission methods for communication and research satellites
[RAE-LIB-TRANS-1236] 20 p3602 N67-34807
Satellite transmissions to Kiruna Geophysical Observatory used to study ionospheric irregularities in auroral zone
[AFCRL-67-0416] 23 p4040 N67-37689
SATURABLE-CORE REACTOR /SR/
Application of saturable reactors to nonregulated dc power supplies feeding pulsating loads
[PPAD-616D] 17 p3109 N67-30843
SATURATION
SA SUPERSATURATION
Superconvergence relations saturation by nucleon and nucleon isobars within static SU/3/ model
[IC/67/3] 10 p1716 N67-21302
Beta silicon carbide single crystal growth from solution in carbon saturated silicon melts
[AFCRL-67-0218] 15 p3782 N67-28560
Saturation as an approximation to sum rules
[TH/216] 24 p4500 N67-39936
Silicon switching transistor with saturation voltage of 0.1 V at 75 A collector current
[NASA-CR-89756] 24 p4430 N67-40329
SATURN I /SA-1/ LAUNCH VEHICLE
Saturn vehicle stress corrosion failure analyses and preventive methods 16 p3907 N67-29383
Experimental structural damping with model of Saturn I launch vehicle
[NASA-CR-88973] 22 p4150 N67-37878
SATURN I LAUNCH VEHICLE
Matrix-Holser analyses for predicting free vibration modes of clustered launch vehicle configurations including Titan IIIC and uncoupled Saturn I cases
[NASA-CR-592] 03 p0471 N67-13178
Computer program for simulating uprated Saturn I trajectories
[NASA-CR-89756] 24 p4533 N67-40581
SATURN IB LAUNCH VEHICLE
Instrument unit temperature control system for Saturn IB and Saturn V
[NASA-CR-81679] 07 p1068 N67-18037
Functional and environmental testing of compound pressure and vacuum relief valve for Saturn Ib launch vehicle
[NASA-CR-89550] 11 p1891 N67-23278
Explosive release for use in Saturn IB ground support pneumatic system
[NASA-CR-84010] 13 p2321 N67-26261
Operational and environmental tests of check valve for air conditioning ducts used on Apollo spacecraft launch complex
[NASA-CR-85255] 16 p2900 N67-30069
Operational and environmental tests of pneumatic cylinder for Apollo spacecraft escape tower control
[NASA-CR-85254] 16 p2900 N67-30070
Operational and environmental tests of pressure regulator for Apollo spacecraft access arm
[NASA-CR-85255] 16 p2900 N67-30071
Design considerations of central programmer, common address, and data return bus 17 p3030 N67-30567
Inspection and testing of proportional temperature controller for air conditioning system of Saturn IB launch vehicle
[NASA-CR-85607] 17 p3068 N67-31110
Inspection and testing of pneumatically operated control valve for Saturn IB liquid hydrogen system
[NASA-CR-85615] 17 p3073 N67-31111
Wind tunnel studies of pressure distributions on S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86590] 18 p3343 N67-32909
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86575] 18 p3342 N67-32910
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86581] 18 p3342 N67-32911
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86582] 18 p3342 N67-32912
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86576] 18 p3342 N67-32913
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86583] 18 p3342 N67-32914
Feasibility of hydrogen gas leak detector for use on in-flight experiments to be conducted with Saturn IB
[NASA-CR-88039] 21 p3845 N67-35338
Function and strength testing of liquid hydrogen metal flex hose for service module fuel cell of Saturn IB program
[NASA-CR-88004] 21 p3861 N67-36139
Operational and environmental testing of LOX tank relief valve used in Saturn IB program
[NASA-CR-88111] 21 p3883 N67-36221
Environmental testing of pressure regulator for Saturn IB program
[NASA-CR-88213] 21 p3864 N67-36615
Environmental and function tests of nitrogen and helium control valve for pneumatic supply system at KSC Launch Complex 34
[NASA-CR-88554] 22 p4062 N67-36791
Environmental and function tests of solenoid gas control valve for pneumatic distribution system at KSC launch complexes
[NASA-CR-88597] 22 p4062 N67-36797
Environmental and function tests of pressure gauges for systems at Launch Complexes 34 and 37 at KSC
[NASA-CR-88585] 22 p4044 N67-36822
Environmental tests on pressure switches for Saturn IB program
[NASA-CR-88626] 22 p4019 N67-36867
Saturn IB launch vehicle AS-206 operational trajectory range safety analysis
[NASA-CR-89296] 23 p4345 N67-38981
Launch vehicle trajectory data for Saturn AS-205/206 rendezvous mission
[NASA-CR-89235] 23 p4347 N67-39081
Saturn IB launch vehicle AS-206A operational flight trajectory dispersion analysis
[NASA-CR-89294] 23 p4347 N67-39095
SATURN /PLANET/
Use of Jupiter gravity turns for tailoring trajectories to Saturn with considerations of launch opportunities
[NASA-TN-D-3690] 02 p0808 N67-11888
Flyby and orbiter missions to Saturn, Uranus, Neptune, and Pluto using nuclear electric low thrust stage and Saturn-Centaur launch vehicles
[NASA-CR-89646] 04 p0614 N67-14259
Cosmogonic theory of Saturnian ring structure origin including effects of Mimas and Janus satellites
[REPT.-67-09] 19 p3535 N67-33418
Partial corotation of magnetized plasma - results of study applied to cosmogony of Saturnian rings and asteroid belt
[REPT.-67-08] 19 p3530 N67-33961
SATURN V LAUNCH VEHICLE
Implementation approaches for conducting Saturn V launch vehicle program without dummy stages
[NASA-CR-79723] 08 p0467 N67-12281
Instrument unit temperature control system for Saturn IB and Saturn V
[NASA-CR-81079] 07 p1068 N67-18037
Techniques for simultaneous ignition of retro and ullage motors on Saturn V launch vehicle
[NASA-CR-88171] 07 p1184 N67-18192
Human reliability prediction and evaluation for Saturn V launch vehicle ground support equipment
[NASA-CR-83119] 10 p1567 N67-21168
Saturn V program management problems induced by failure to plan for integrated logistics program and contractor logistics activities 11 p1858 N67-21972
Piloted simulation of manual guidance techniques for upper stages of Saturn V launch vehicle
[NASA-TN-D-3901] 11 p1982 N67-22868
Procedure for designing localized shell and finite difference computer program applications to Saturn V vibration testing project
[NASA-CR-83527] 11 p1994 N67-23233
Static aerodynamic characteristics of aborted Apollo-Saturn V vehicle
[NASA-TM-X-53567] 11 p1983 N67-23344
Load relief control system design concept for Saturn V S-IC stage with Voyager payload
[NASA-CR-89737] 12 p2218 N67-24628
Wind-induced responses of Saturn V configuration with fins and engine shroud, third and fourth bending moments, and with different control systems
[NASA-CR-84009] 13 p2410 N67-26325
Pictorial fact sheet listing physical and performance characteristics of Saturn V
[NASA FACTS, VOL. IV, NO. 5] 14 p2610 N67-27418
Effects of atmospheric wind profile disturbances on dynamic responses of space vehicle using statistical methods
[NASA-TM-X-53565] 16 p2975 N67-29981
Manufacturing research for Saturn V component reliability 17 p3071 N67-30566
Time and temperature relationship in solution to various welding problems 17 p3072 N67-30567
Broadband interference tests on Saturn V prototype internal work lamps
[NASA-TM-X-60077] 17 p3068 N67-31117
Localized structure for laboratory vibration testing of shell structure-mounted components for Saturn V launch vehicle
[NASA-CR-87160] 19 p3543 N67-33851
Tracking filter system for Saturn V-501 launch vehicle, and evaluation of fixed and tracking filters for bending mode stabilization applications
[NASA-CR-87436] 20 p3733 N67-34694
Far-field acoustic environmental predictions for launch of Saturn V and Saturn V MLV configuration
[NASA-TM-D-4117] 21 p3895 N67-35775
Dynamic model of Apollo/Saturn V launch vehicle
[NASA-TN-D-4138] 22 p4149 N67-37489
Performance study for application of Saturn V to high energy earth escape

missions
[NASA-TM-X-53639] 23 p4352 N67-38659
Digital coherent memory filter for Saturn V S-IC stage bending mode identification
[NASA-CR-89319] 23 p4216 N67-39238
Aerodynamic hinge moments for scale model boost stage nozzle of Saturn V launch vehicle during cold flow jet simulation
[NASA-TM-X-1470] 24 p4537 N67-40234
Voyager mission study considerations including launch opportunities, trajectory design, performance capability of Saturn V launch vehicle, and vehicle load relief control
[NASA-TM-X-53654] 24 p4532 N67-40336
Press release pertaining to scheduled launch of Apollo/Saturn V spacecraft
[NASA NEWS RELEASE-67-275] 24 p4541 N67-40589

SATURN LAUNCH VEHICLE
Evaluation of corrosion resistant silver alloys for use in lead wires for slip-ring assemblies of Saturn guidance and control systems
[NASA-CR-80081] 02 p0266 N67-12070
Qualification testing of polyurethane elastomeric material for Saturn IB and Saturn V launch vehicles
[NASA-TM-X-57998] 02 p0279 N67-12229
Review of processes developed, program management, and reporting techniques related to manufacturing of various stages of Saturn boosters - conference
[NASA-CR-80274] 03 p0401 N67-12701
Optimized composite welded joint design for Saturn booster common bulkhead
[NASA-CR-80155] 03 p0404 N67-12920
Liquid propellant feed ducting and engine gimbal lines for Saturn vehicles
[NASA-TM-X-53523] 03 p0456 N67-13161
Design and fabrication of high reliability differential dc amplifier for Saturn hydraulic engine control
[NASA-CR-80723] 04 p0520 N67-13669
Reliability data and test arrangements for zener diodes used in Saturn program
[NASA-CR-80678] 04 p0520 N67-13677
Performance of ultrasonic leak detectors for cryogenics and gases, and testing of their applicability to Saturn transfer and checkout operations
[NASA-CR-81124] 05 p0709 N67-15312
Development of nondestructive testing system, using ultrasonic techniques, for detecting disbonds in composite honeycomb heat shields of Saturn launch vehicle
[NASA-CR-81145] 05 p0714 N67-15379
Decay of turbulent eddies in base region of Saturn-type launch vehicles, and transfer of energy through chemical reactions
[NASA-CR-81762] 07 p1211 N67-18104
Saturn integrated circuit reliability tests performed to improve failure mode screening
[NASA-CR-82946] 09 p1428 N67-19953
Freon 22-air injection system for pressurizing tanks for Saturn systems leak check
[NASA-CR-82996] 09 p1516 N67-20012
Testing and evaluation of 2-inch duo-check valve for Saturn IB program
[NASA-CR-83117] 10 p1640 N67-21164
Test program to determine reliability of integrated circuit amplifiers for Saturn program
[NASA-CR-83538] 11 p1840 N67-23265
Tracking system error model regression analysis results from Apollo-Saturn tests
[NASA-TM-X-53585] 12 p2053 N67-24633
Computer programs for synthesizing structural arrangements for ring-stiffened, honeycomb sandwich, and ring-stringer stiffened methods of construction for Saturn nose fairings
[NASA-CR-83809] 13 p2416 N67-25757
Shock and vibration testing of spacecraft and Saturn launch vehicle using four shaker system 14 p2623 N67-26651
Spacecraft and radiator interrelations defined for nuclear Rankine systems using Saturn launch vehicles
[NASA-CR-72345] 14 p2619 N67-27321
Evaluation of sandwich shaped nose fairings for Saturn launch vehicle
[NASA-CR-84832] 15 p2802 N67-28837
Reduction of hazards during testing of Saturn systems - manual
[NASA-TM-X-53563] 16 p2975 N67-29997
Microelectronics program to convert electronic equipment of Saturn launch vehicle 17 p3036 N67-30563
Pulsed mass expulsion attitude control system for Saturn launch vehicle and other spacecraft mission planning 17 p3165 N67-30544
Space vehicle stage checkout in Saturn launch application 17 p3166 N67-30572
Unsteady aerodynamics studied in Saturn launch vehicle development program 17 p2991 N67-30580
Electrical power systems applicable to earth orbital and lunar surface missions 17 p2995 N67-30593
Four approximations to closed loop steering function in application to spacecraft guidance 17 p3101 N67-30594
Reliability and failure mode prevention tests for Saturn integrated circuits
[NASA-CR-85685] 17 p3042 N67-31205
Saturn launch vehicle power integrated circuits and static inverter 18 p3246 N67-31597
Hybrid analog/digital computer analysis of Saturn environmental test response data 19 p3410 N67-33127
Mathematical model equations used in optimization of hydraulic thrust vector control systems of Saturn launch vehicles - computer program formulated from model equations
[NASA-CR-85596] 20 p3569 N67-34235
Analytical evaluation of aerodynamic load growth or steady state aeroelastic effect for Saturn configurations
[NASA-TM-X-53634] 20 p3735 N67-35035
Zero leakage test program for Saturn launch vehicle application 21 p3856 N67-35569
Statistical evaluation of flare dimensions obtainable with current manufacturing processes 21 p3856 N67-35570
Techniques and properties of glass passivation for semiconductor devices for Saturn system
[NASA-CR-88194] 21 p3858 N67-35628
Inhomogeneous radiant heat transfer from Saturn rocket exhaust plumes
[NASA-TM-X-53630] 21 p3949 N67-36226
Heat flux and pressure instrumentation used to measure Saturn rocket exhausts
[NASA-TM-X-53613] 21 p3949 N67-36395
Computer program requirements for onboard checkout and data management system of Saturn/Apollo application program
[NASA-CR-88460] 22 p4003 N67-36767
Digital simulation of Saturn guidance system stabilized platform dynamics
[NASA-TM-X-53628] 22 p4007 N67-37774
Mission rules, guidance and control, flight sequence of events, end conditions, mass characteristics, and trajectory data for Saturn SA-204/LM-1 Launch Vehicle
[NASA-CR-89332] 23 p4347 N67-39119

SATURN S-I STAGE
Numerically controlled equipment for contour formed metal components required by Saturn I and Saturn IB boosters 03 p0402 N67-12706
Bulge forming tool design for gores for Saturn first stage booster 03 p0402 N67-12708

SATURN S-IB STAGE
Payload capabilities of Saturn IB-Centaur for launch opportunities to Mars in 1971, 1973, and 1975 and to Venus in 1972 and 1973
[NASA-TM-X-1327] 03 p0465 N67-12177
Testing of relief valve for air conditioning unit condenser used in Saturn ground support equipment
[NASA-CR-85264] 16 p2900 N67-30056

SATURN S-IC STAGE
Saturn V S-IC electron beam welding system
[NASA-TM-X-57109] 02 p0266 N67-11963
Environmental controlled areas for fabrication of S-IC space vehicle structures
[NASA-TM-X-59978] 02 p0266 N67-12231
Quality assurance of weldments for Saturn S-IC assembly during manufacturing 03 p0403 N67-12717
Automatic malfunction analysis by discrete network simulation for selected networks of Saturn IC stage
[NASA-CR-81313] 07 p1058 N67-16728
Load relief control system design concept for Saturn V S-IC stage with Voyager payload
[NASA-CR-83727] 12 p2218 N67-24638
Cryogenic stretch form helium bottles for Saturn V S-IC vehicle
[NASA-CR-84025] 13 p2331 N67-26332
Qualification test of BACN10EL self-locking nut plate used on Saturn S-IC
[NASA-CR-84462] 14 p2546 N67-27501
Stress corrosion cracking of thrust ring splice angles used on Saturn S-IC vehicle
[NASA-CR-84479] 14 p2546 N67-27519
Qualification test to determine thermal and mechanical properties of two base heat shield panels
[NASA-CR-84857] 17 p3173 N67-30688
Qualification testing of BACB30BG and BACB30BH bolts for use on Saturn S-IC stage
[NASA-CR-84854] 17 p3074 N67-31211
Fatigue, vibration, and environment testing of Saturn S-IC stage hardware 18 p3339 N67-31690
Post foam expansion in Saturn S-IC electric distributors
[NASA-CR-88511] 22 p4012 N67-36987
Digital coherent memory filter for Saturn V S-IC stage bending mode identification
[NASA-CR-89319] 23 p4216 N67-39238
Surface preparation effects on defect potential in welded aluminum alloy Saturn S-IC
[NASA-CR-89608] 24 p4458 N67-39962

SATURN S-II STAGE
Dynamic response of buckled stiffened panels typical of S-II stage forward skirt under acoustic loads
[NASA-CR-79036] 02 p0315 N67-11692
High energy forming of compound contours and complex cross sections for Saturn S-II program 03 p0402 N67-12700
Heat transfer and ablation rate measurement in Saturn S-II ullage motor exhaust plume
[NASA-CR-82850] 08 p1385 N67-18320
Vibration measurement data reduction techniques applied to Saturn S-II vehicle 19 p3409 N67-33128

SATURN S-IV STAGE
Mechanical impedance/admittance testing of Saturn S-IV thrust structure /Boattail/ and correlation with tests on dummy aluminum beam
[DOUGLAS PAPER-4048] 20 p3742 N67-35217

SATURN S-IVB STAGE
Weld repair of aluminum fuel and liquid oxygen containers for Saturn S-IVB program 03 p0402 N67-12704
Reliability study of three-motor, majority voting
[NASA-CR-82512] 08 p1222 N67-18556
Failure characteristics analysis of majority voting mechanical feedback servoactuator for Saturn-IV B
[NASA-CR-82651] 08 p1224 N67-19219
Orbital investigation of liquid hydrogen dynamics in propellant tank of S-IVB stage
[NASA-TN-D-3968] 14 p2605 N67-26546
Orbital motion of lunar module/Apollo telescope mount tethered to S-IVB orbital workshop
[NASA-TM-X-53643] 22 p4141 N67-37464

SCALAR MAGNETIC FLUX
Quantum theory of scalar field with nonstatic source
[JINR-P2-3040] 11 p1942 N67-23194

SCALE
SA TIME SCALE
Measurement of atmospheric turbulence inner scale as function of dissipated energy and kinematic viscosity of alkaline clouds
[NASA-TT-F-10309] 01 p0065 N67-10210
Scale or focal length transfer for lunar photographs 11 p1975 N67-22514
Electronic scale for measuring mass flow rate of volatile material
[LA-3659] 18 p3270 N67-32107
Apparatus for weighing heavy loads to accuracy of 0.001 percent
[RFP-859] 19 p3454 N67-33506
Proposal for pointer and scale display system covering wide range of values with good sensitivity
[RAE-TR-66364] 21 p3762 N67-35905
Scale resistance of titanium-aluminum alloys during oxidation at high temperatures
[NASA-TT-F-11203] 23 p4074 N67-38055
Interfacial factors in evaporator surface fouling
[MEL-34/67] 23 p4201 N67-38274
Criteria for improving scales of nomographs 24 p4481 N67-39875

SCALE EFFECT
Scale-up analysis in experiments on fission product behavior in reactor safety program
[ORNL-3901, PT. I] 01 p0106 N67-10539
Reversible decimal counter in relation to logic gate, Boolean algebra, and scalar concepts

[EUR-3062.I] 02 p0241 N67-11978
Atmospheric mesoscale and convective-scale of motion related to rainfall distribution 10 p1679 N67-36425
Scale factor and stress concentration effects on fatigue strength of aluminum alloy 12 p2113 N67-23522
Richardson number for clear air turbulence dependent on atmosphere scale length 20 p3631 N67-34426
SCALE HEIGHT
Tabulations and graphs of electron density and plasma scale height data computed from Alouette I topside sounder ionograms [NASA-SP-3038] 08 p1277 N67-18948
Atmospheric density exponential, scale height, and base density as function of altitude tabular data for six atmospheric models [SC-RR-66-3675] 14 p2525 N67-27342
Electron densities and scale heights in topside ionosphere, and Alouette I observations over American continents [NASA-SP-3034] 21 p3843 N67-36446
SCALE MODEL
Stability and control data from wind tunnel testing of scale model target missile [NASA-TM-X-1304] 01 p0002 N67-10234
Rules for scale models to investigate sound radiation from ship to surrounding water [TDCK-46172] 01 p0115 N67-10572
Atmospheric density models [NASA-CR-79307] 02 p0258 N67-12226
Thermal scale modeling in simulated space environment [NASA-CR-86372] 03 p0473 N67-12998
Heat transfer experiments conducted with electrically heated scale models of ATR fuel element channels at conditions expected in reactor [BNWL-216] 04 p0574 N67-13660
Spin calculation method and results of vertical wind tunnel testing on delta aircraft scale model [TP-388] 04 p0569 N67-14198
Inertia constants determination by ground vibration testing and results obtained with rigid and flexible aircraft scale models [TP-386] 04 p0582 N67-14304
Seismic scale model study of refraction arrivals in three-layer structure [AFCRL-66-571] 06 p0673 N67-16139
Cold air performance of scale model fuel pump turbine for M-1 hydrogen-oxygen rocket engine [NASA-TN-D-3819] 07 p1181 N67-17503
Static longitudinal aerodynamic characteristics of decelerator vehicle scale model [NASA-TN-D-3862] 08 p1216 N67-18409
Safety design criteria for structural engineering of explosive facilities and operations, scale model tests of concrete slabs, and weapon storage tests [PA-TR-3484] 10 p1602 N67-31357
Water landing characteristics of winged missile scale model [NASA-TN-D-3799] 11 p1962 N67-23282
Geometries, construction, materials, and other criteria derived for thermal models 12 p2337 N67-24643
New model to prototype reliability of acoustical scale models [REPT.-606.132 V] 13 p2416 N67-25581
Subsonic wind tunnel graphic test data on aerodynamic characteristics of .125 scale model of OV-10A aircraft [CAL-AA-2313-W-1, VOL. III] 14 p2512 N67-26820
Test firings and analytical model used to evaluate chugging instability in subscale experiments with LOX-gaseous hydrogen combustors [NASA-TN-D-4005] 14 p2632 N67-27227
Subscale and full scale test firings of M-1 injector to improve combustion efficiency [NASA-TM-X-52389] 14 p2607 N67-27238
Longitudinal vibration characteristics of scaled dynamic model of liquid propellant multistage launch vehicle [NASA-TN-D-3975] 14 p2627 N67-27415
Modeling method for determining operating qualities of automobile tires - fiber diameter, tire pressure, stress in fiber, and cord angle [RAE-LIB-TRANS-1198] 15 p2809 N67-28710
Integrated circuitry for ultrahigh frequency amplifier and scale model tests [REPT.-3] 15 p2681 N67-28718
Stage separation dynamics and system related to staging of Atlas Centaur launch vehicle - full scale model tests [NASA-TM-X-52392] 16 p2963 N67-29426
Thermal scale model test to determine temperature distribution in Nimbus B sensory ring with antennae removed - SNAP 19 expanded safety program [MND-3607-94] 17 p3178 N67-31138
Aerodynamic characteristics of full scale airplane wing model employing sailwing concept and having aspect ratio of 11.5 [NASA-TN-D-4063] 17 p2995 N67-31143
Dynamic stability measurements of TSR 2 aircraft scale models in free flight [ARC-CP-918] 17 p2995 N67-31343
Heat distribution on 10 percent scale model Nimbus B sensory ring and SNAP-19 generator at Mach 10 [MND-3607-95] 17 p3180 N67-31388
Full-scale model flight testing of abort-escape system for manned space capsule used in case of booster rocket malfunction at or near takeoff [NASA-TM-X-351] 18 p3216 N67-31808
Dimensional analyses and model techniques for evaluating and predicting off-road vehicle performance and soil behavior 18 p3263 N67-31927
Static aerodynamic characteristics of scale model of escape and exit configurations of Mercury spacecraft [NASA-TM-X-701] 18 p3343 N67-32146
Full-scale wind tunnel determination of effect of corrugated canister surface on static aerodynamic characteristics of reentry capsule [NASA-TM-X-230] 18 p3189 N67-32155
Scale model tests to determine acoustical field generated by hydrogen-fueled rocket engine [NASA-CR-87315] 19 p3528 N67-33343
Oscillation of aeroelastic models of cathedral pinnacles in wind tunnel [NPL-AERO-1190] 20 p3735 N67-34036
Construction and optical system details of scale model of 14-ft bubble chamber [BNL-11313] 20 p3618 N67-34240
Bonding agents evaluated as substitutes for welded joints for acoustic scale models of ships [REPT.-708.122] 20 p3646 N67-34323
Scaling method to predict opening characteristics of parachute from model drop test results [NASA-TN-D-4123] 21 p3754 N67-35778
Scale model tests of parabolic circularly polarized monopulse tracking antenna with dual frequency operation [WRE-TN-PAD-107] 21 p3801 N67-36151
Scaling of geophysical phenomena for laboratory simulation experiments 22 p4041 N67-37839
Scale model experiments of plasma flow such as solar wind or ionosphere past unmagnetized body such as moon, comet, meteor, or satellite 22 p4121 N67-37830
Scaling considerations for magnetospheric model experiments 22 p4122 N67-37831
Scale model experiments on interaction of solar wind with magnetosphere 22 p4122 N67-37832
Model scale effect on structural joint damping [NASA-TN-D-4192] 23 p4256 N67-38397
Dynamic scale model of lunar module type spacecraft - overturn stability for nonlevel surface landings [NASA-TN-D-4215] 23 p4351 N67-38613
Survey on experimental studies of forces exerted on scale model structures by wind and blast waves [AWRE-E-6/67] 24 p4547 N67-40406
SCALING
Scaling of burnout data for two different systems in same fluid at fixed pressure [AEEW-M-696] 17 p3178 N67-30379
Geometric scaling effect on performance of stacked clone contactor [ORNL-4068] 17 p3068 N67-31048
Scaling procedure for case of shock in spherically symmetric, exponential, ideal gas atmosphere [NOLTR-67-30] 21 p3841 N67-36053
Scaling theory and energy balance analysis of six-level model equations 24 p4486 N67-39813
Optimal scaling of matrices with respect to vector norms, matrix bounds, and condition numbers of matrices [ITR-15] 24 p4482 N67-40034
SCALING LAW
Scaling laws of similarity hypothesis applied to coaxial electrodes with high ratios of outer to inner radii 06 p1336 N67-16344
Two-dimensional turbulent mixing scaling laws of mixing, heat transfer and skin friction for use in design of scramjet engine combustors 19 p3328 N67-32386
Scaling of geophysical phenomena for laboratory simulation experiments 22 p4041 N67-37839
Scale model experiments of plasma flow such as solar wind or ionosphere past unmagnetized body such as moon, comet, meteor, or satellite 22 p4121 N67-37830
Scaling considerations for magnetospheric model experiments 22 p4122 N67-37831
SCANDIUM
Two-nucleon stripping reaction calcium 40 helium 3-proton scandium 42 02 p0434 N67-12559
Energy levels of scandium 48 nucleus [NP-491/PL] 10 p1717 N67-21405
Grazing-incidence spectrometer and low inductance spark source used to study lines of high degrees of ionization of Sc, Ti, and V [NASA-TM-X-55734] 11 p1931 N67-23080
Energy level structure angular distribution of alpha particles in scandium 48 from titanium 50 scandium 48 nuclear reaction [INP-491/PL] 12 p2159 N67-23574
Mass spectrometric studies of scandium, yttrium, lanthanum, and rare-earth fluorides [ORO-2907-16] 12 p2038 N67-23582
Metallography of scandium, thulium, and erbium targets before and after irradiation 12 p2148 N67-24948
Azo arsine as color comparison reagent for scandium determination [NASA-TT-F-10849] 13 p2270 N67-25615
Mechanism of lanthanum, europium, and scandium sorption on iron hydroxide 21 p3778 N67-35807
Differential cross sections for Sc-45/deuteron, alpha particle/Cs-42 reaction [NASA-TN-D-4140] 21 p3899 N67-35965
Heat capacity of polycrystalline scandium from 1 to 23 deg Kelvin 21 p3789 N67-36269
SCANDIUM COMPOUND
Phase diagram and relationships for zirconium oxide-scandium oxide system [ARL-66-0230] 15 p2730 N67-28090
SCANNER PROJECT
Mechanical design and properties of Surveyor star tracking guidance system and Scanner project dual radiometer 21 p3832 N67-36213
SCANNING
SA CONICAL SCANNING
SA FREQUENCY SCANNING
SA OPTICAL BEAM SCANNING
SA PANORAMIC SCANNING
SA RADAR SCANNING
Scanning slit influence on line profile observed by spectrograph [SR-3] 09 p0429 N67-13655
Automatic scanning and computer processing of micrographs - computer application to quantitative analysis of image microstructures [NBS-9428] 04 p0551 N67-13717
Haystack pointing system for superposition of one-dimensional, and area covering scans [ESD-TR-66-563] 06 p0644 N67-16497
Efficient signal processing techniques for celestial scanning optical systems - models of energy received by sensors from star and stellar background radiation - photodetectors [NASA-CR-673] 08 p0968 N67-16687
Reduction of photographic film by scanning microdensitometer 07 p1084 N67-17789
Vidicon scan converter and super bright radar display system [FAA-RD-66-40] 07 p1121 N67-18070
Mechanical design features of prototype facsimile scanner using fiber optics [QR-7] 09 p1448 N67-19702
Cost estimates of bubble chamber events for different scanning and measuring methods [UCRL-17086] 09 p1421 N67-20150
Burn-up determination by high resolution gamma spectrometry - axial and diametrical scanning experiment on irradiated fuel element [AE-287] 10 p1731 N67-21773
Minimum energy reaction wheel control for Advanced Orbiting Solar Observatory

performing raster scan over small celestial area
[NASA-TN-D-3923] 11 p1848 N67-22870
Flaw detection by ultrasonic scanning using triangulation methods 14 p2541 N67-27754
Fission product migration studies using lithium drifted germanium detector for gamma scanning experiments on irradiated uranium dioxide pellets
[AE-373] 15 p2743 N67-27854
Coherent light beam scanning technique for real time laser display system
[U4-912006] 17 p3076 N67-30721
Control system for X-ray diffractometer scanning
[DP-906] 18 p3271 N67-32332
Magnetic tape recorder data storage system for scanned images 19 p3459 N67-33821
Scanning electron microscopy, and fiber optics and image intensifier technique for image magnification 19 p3459 N67-33823
System of pattern recognition independent of displacement, scale, and orientation
[RAE-TR-66367] 23 p4230 N67-38443
Scanning performance of human operator exposed to space flight factors 23 p4195 N67-39111
Interpretation of line-scan pictures produced by flying-spot scanner system - image degradation by addition of noise and by varying line frequency
[IZF-1967-16] 24 p4452 N67-40007
Laser radiation for spectrometer scanning function calibration
[AD-654214] 24 p4483 N67-40055

SCANNING DEVICE
SA HORIZON SCANNER
SA IMAGE TRANSDUCER
SA INFRARED HORIZON SCANNER
SA INFRARED SCANNER
Solid state raster scan character generator for facsimile annotation
[TG-831] 01 p0053 N67-10515
Automatic cytogenetic analysis system with digital computer, scanning device, and microscope for mitotic cell detection and classification
[NASA-CR-79746] 01 p0017 N67-10983
Information transmission problems - method of correcting error bundle and device for recognizing continuous functions
[FTD-TT-65-980] 02 p0232 N67-11397
Device for recognizing continuous functions 02 p0233 N67-11399
Feasibility of combining wavelength dispersing and optical-mechanical line scanning techniques
[NASA-CR-79916] 02 p0259 N67-11848
Scanning beam guidance system for aircraft approach and landing 04 p0572 N67-13935
Electronic scanning of aerial beams using phased array antennas 04 p0614 N67-13943
High field Zeeman effect measurements using scanning device and pulsed magnetic fields
[TR-5] 05 p0752 N67-15068
Sector display scope using flat cathode ray tube with distance scanning device
[FTD-TT-65-997] 05 p0677 N67-15222
Open and closed-loop actuation and electronic control mechanism for advanced scan platform 06 p0857 N67-15706
Generation of horizontal jitter requirements in analog scan video system 06 p0879 N67-15733
Line scan television for earth observation satellites
[TG-853] 06 p0841 N67-16141
Design, development, and performance of Mariner IV scan platform and actuator 07 p1195 N67-16914
Design and construction of continuous facsimile transmitter with fiber optics scanner
[IITRI-A6093-15] 07 p1078 N67-17096
Continuous facsimile transmitter employing fiber optics scanner
[IITRI-A6093-18] 07 p1138 N67-17200
Aerial reconnaissance facilities and instruments, and resolving power, haze and rain effects, scanning devices, and optical and photographic media
[TIL/T-5899] 09 p1451 N67-20319
Scanning and measuring projector for particle interactions from bubble chamber photographs
[COO-1105-81] 10 p1635 N67-21660
Scanning table for bubble chamber photography
[CEA-R-3045] 10 p1636 N67-21809
Continuous facsimile scanner employing fiber optics
[IITRI-A6093-24] 11 p1821 N67-22689
Scanning Celestial Attitude Determination System /SCADS/ for three axis attitude determination at Command and Data Acquisition /CDA/ station
[NASA-CR-83533] 11 p1886 N67-23052
High frequency antenna array scanned in elevation for ionospheric propagation studies of vertical angle of arrival radio waves
[IER-11-ITSA-11] 11 p1835 N67-23158
Psychovisual factors of pseudo-random dot-scanning television systems
[SRRC-CR-66-49] 12 p2053 N67-24492
Spectral radiance measurements of scale model rocket engine exhaust gases at simulated altitude using high speed scanning spectrometer
[NASA-CR-83927] 13 p2302 N67-25891
Brenner information marks for frame location in detectors for automatic film stop devices
[CERN-66-36] 13 p2322 N67-26163
Demountable vacuum scanner and vacuum sealed crystal specimens
[ARL-65-186] 13 p2323 N67-26252
Effects of cesium fluoride in thermionic converters investigated with thermionic scanner
[NASA-CR-84148] 14 p2448 N67-26516
HFIR homogeneity scanner - operation and maintenance manual
[ORNL-TM-1687] 14 p2577 N67-27335
Variable waveguide coupler with 360 degrees of phase control for slot antenna having rapid scanning capability
[P67-01] 15 p2667 N67-28268
Semiautomatic device for scanning and measuring spark chamber photographs
[NP-TR-1416] 15 p2712 N67-28451
Modified program for particle track following with scanning devices
[BNL-11140] 15 p2787 N67-28498
Two-dimensional activation analysis using neutron activation and scanning methods for studying localization of impurities in irradiated aluminum foil 16 p2943 N67-29594
Breadboard model of high speed low jitter optical beam scanner using gas laser light source for radar simulation
[AMRL-TR-66-176] 16 p2903 N67-29482
Construction and incorporation of automatic scanner for Hummingbird computer
[SLAC-PUB-255] 16 p2875 N67-29954
Mechanized ultrasonic scanning system for testing butt welds in large aluminum propellant tanks
[NASA-TM-X-53596] 16 p2898 N67-30160
Instrumentation for nuclear particle detection in spark and bubble chambers, digitized readout systems, and automatic scanning processes
[CONF-660918] 17 p3043 N67-30955
State-of-art in flying spot digitizers for particle tracking in bubble chambers 17 p3067 N67-31005
Improved image plane measuring machine for digitized scanning of bubble chamber film 17 p3067 N67-31006
Automatic scanning and measuring system for leptonic and radiative decay modes in bubble chamber events 17 p3067 N67-31007
Applicability of magnetic or integrated circuits to micrometeoroid sensor scanning 18 p3246 N67-31596
Scanning electron microscope for evaluating failure mechanisms in semiconductor devices, and for three-dimensional representation of biological specimens 18 p3246 N67-31599
Fast scan infrared microscope for measuring thermal and electromechanical parameters affecting reliability of microelectronic devices 18 p3246 N67-31600
Fast scan infrared detection and measuring instrument to predict failure of power transistors
[NASA-CR-85602] 18 p3270 N67-31723
Airborne all-electronic ultra-fast scanning spectrometer for studying transient optical emission phenomena
[SR-1] 20 p3837 N67-34062
Integrated electronic digital-to-analog converter for driving cathode ray tube display of electronic scanner radar set
[ECOM-2822] 20 p3860 N67-34154
Dual high speed and low speed scanner system for monitoring reactor temperatures
[DUN-SA-32] 20 p3643 N67-34954
Magnetic field scanning device and magnet system for 4 MeV experimental separated orbit cyclotron
[ORNL-P-2092] 21 p3834 N67-35441
Aircraft flight tests of electric scanning microwave radiometer designed for meteorological satellite
[NASA-TM-X-55893] 21 p3847 N67-35540
Spatial filtering characteristics of electronic optical direction-finder scanning devices 21 p3798 N67-35823
Step scanner for use with stepping motors or with standard ac induction motors
[TR-5] 21 p3848 N67-35929
Conference on programming for flying spot devices 21 p3865 N67-36241
Automatic analysis of spark chamber film at CERN using LUCIOLE cathode ray tube flying spot digitizer 21 p3907 N67-36249
Simple computer controlled flying spot digitizer for scanning and measuring spark chamber film 21 p3907 N67-36250
Columbia University studies of automatic scanning system for bubble chamber film 21 p3811 N67-36279
Flying spot scanner used for semiconductor device screening and identification of surface and junction phenomena 23 p4223 N67-38464
Photoresponse measurements on semiconductor device junctions by modified flying spot scanner techniques to obtain topological photoresponse displays 23 p4223 N67-38465
Under-sodium scanning device using narrow-beam ultrasonic transducer for liquid sodium cooled reactors
[APDA-205] 24 p4454 N67-40482

SCAT
S SUPERSONIC COMMERCIAL AIR TRANSPORT /SCAT/

SCATTERING
SA ACOUSTIC SCATTERING
SA ATMOSPHERIC SCATTERING
SA BACKSCATTER
SA COHERENT SCATTERING
SA DIFFRACTION
SA DIFFUSION
SA ELASTIC SCATTERING
SA ELECTROMAGNETIC SCATTERING
SA ELECTRON SCATTERING
SA FEYNMAN DIAGRAM
SA FORWARD SCATTER
SA INCOHERENT SCATTERING
SA INELASTIC SCATTERING
SA ION SCATTERING
SA IONOSPHERIC F-SCATTER
SA LIGHT SCATTERING
SA MICROWAVE SCATTERING
SA NEUTRON SCATTERING
SA NUCLEAR SCATTERING
SA NUCLEON-NUCLEON SCATTERING
SA PROTON SCATTERING
SA RADIO SCATTERING
SA RAMAN SCATTERING
SA RAYLEIGH SCATTERING
SA RESONANCE SCATTERING
SA TRANSMITTANCE
SA TROPOSCATTER
SA WAVE SCATTERING
SA X-RAY SCATTERING
Integral neutron thermalization
[GA-7091] 01 p0165 N67-10677
Dynamics of scattering with coupled two-particle channels using strip approximation
[UCRL-16874] 01 p0126 N67-10726
Estimation of local anisotropic scattering properties using measurements of multiply scattered radiation - numerical analysis
[RM-5075-PR] 01 p0118 N67-10970
Scattering properties of dull dielectric surface in polarized light
[NASA-TM-X-59178] 03 p0430 N67-13024
Partial differential integral equations for diffuse light transmission from central source through inhomogeneous spherical shell with isotropic scattering
[RM-5126-PR] 03 p0739 N67-14701
Microwave radiation receiver for plasma scattering experiments
[CLM-P113] 06 p0832 N67-15437
Tabulated atomic scattering parameters calculated from screened Coulomb potential
[SC-RR-66-506] 06 p0940 N67-16398
Digital solution of integral transport equation in one-velocity and isotropic scattering approximation for square cell containing four-rod cluster element
[EUR-3124.I] 07 p1126 N67-18064

Space-time correlation functions of scattered fields
[JPRS-39414] 08 p1305 N67-16303
Space-time correlation functions of scattered fields 08 p1244 N67-16204
Thermal reactor parameter sensitivity to scattering models for common moderators 08 p1310 N67-18503
Neutron resonance parameters from combined data on transmission, capture, and scattering areas 08 p1313 N67-18784
Sensitivity of water, graphite, and deuterium oxide moderating materials to scattering model for predicting thermal reactor parameters 08 p1314 N67-18792
Mode coupling effects due to scattering in traveling wave helium-neon ring laser
[NASA-CR-82490] 08 p1386 N67-19006
Induced scattering of plasma particle oscillations in strong magnetic field 09 p1496 N67-20340
Proton-proton scattering angular distributions and shape dependent scattering parameters
[UCRL-16991] 10 p1713 N67-30096
Radioactive control of drilling tool in coal boreholes, based on continuous measurement of scattered gamma radiation 10 p1775 N67-31315
Scattered beta radiation method of determining lead content percentage in ores and concentrates 10 p1577 N67-31316
Integral neutron thermalization - computer codes for calculating neutron scattering kernels and generating scattering laws
[GA-7283] 10 p1726 N67-31618
General solution of one-channel scattering singular integral equation
[IFA-FT-58] 10 p1732 N67-31795
Atomic resonance and scattering - magnetic moment of proton and spin-exchange scattering 11 p1937 N67-23644
System of coupled differential equations describing scattering processes with particle redistribution
[JINR-P4-2983] 11 p1944 N67-23224
Mu-meson scattering in thin copper and iron plates 12 p2157 N67-23510
Dispersion sum rules connecting high energy scattering parameters with integrals of low energy cross sections - theoretical physics
[JINR-E2-3077] 12 p2160 N67-23562
Behavior of non-Rayleigh statistics of microwave forward scatter from random water surface
[D1-82-0587] 12 p2055 N67-24872
Nuclear physics technological developments
[PAECL/NP-5] 13 p2374 N67-25593
Separation energies, single particle energies, and proton-proton and electron-proton scattering reactions
[ISS-66/40] 13 p2379 N67-26003
Solid state physics research on nuclear magnetic resonance 14 p2001 N67-26819
Computer programs for reconstructing gamma ray scattering using moments method
[USNRDL-TR-67-9] 15 p2762 N67-28397
Computer program on far field scattering pattern of arbitrary spherical wave by arbitrary surface of revolution 15 p2669 N67-28727
Computer program to determine E and H plane phase centers of electromagnetic wave fields scattered from surfaces of revolution 15 p2669 N67-28728
Computer program for converting scattering data 15 p2669 N67-28729
Lambda hyperon-proton scattering and lambda hyperon-neutron interaction
[IC/67/16] 15 p2771 N67-28801
Polarization measurements of proton beam obtained by scattering beryllium target inside synchrocyclotron
[JINR-P1-3189] 17 p3123 N67-30232
Supersonic molecular beams applied to study of interactions of neutral-particle beams with solid surfaces
[NASA-CR-80653] 18 p2307 N67-31556
Photon scattering by giant magnetic dipole states in carbon, magnesium, and silicon
[AD-651902] 19 p3501 N67-33668
Operator for time delay induced by scattering 19 p3502 N67-33941
Scattering variational principles 19 p3502 N67-33942
Nuclear structure and atomic research on scattering, cross sections and related physics research 19 p3504 N67-33307
Multiple scattering of gamma rays in medium with low atomic number
[BMWF-FBK-67-69] 19 p3509 N67-33830
Quasi-particle scattering by s-d exchange interactions due to magnetic impurities in superconductors calculated by perturbation method
[TUEP-67-9] 20 p3712 N67-34127
Scattering of molecular gas beams from platinum and tantalum surfaces
[F910439-7] 20 p3691 N67-34246
Theory of oscillating-vane vacuum gauges based on effects of cosine law scattering and nonzero accommodation coefficients
[RAE-TR-67024] 20 p3641 N67-34733
Ionization loss, range, straggling, and multiple scattering for hydrogen-neon mixture in bubble chamber
[BNL-11368] 21 p3900 N67-35838
X-ray diffractometer for single crystal damage studies, and theoretical evaluation of cesium gas scattering problem
[NASA-CR-80112] 21 p3916 N67-35944
Molecular collision investigation using molecular beam techniques to measure flux distribution and speeds of thermal energy particles scattered from polycrystalline nickel surfaces
[NASA-CR-80758] 23 p4036 N67-37369
Sound transmission from plane source into scattering medium and incident wave reflection by scattering half-space applied to sound propagation in bubbly liquid
[REPT.-65-41] 23 p4235 N67-38719
Single scattering albedo effect on reflected and transmitted light from clouds
[NASA-CR-80337] 23 p4348 N67-39073
Steady state sound scattering by elastic cylinders
[REPT.-1-67] 24 p4496 N67-39901
Calculation of electron temperature and mobility by means of hot electron polar scattering in indium antimonide
[SR-20] 24 p4518 N67-40177
Classical and quantal nonrelativistic scattering between simple atomic systems and approximate calculations on electron capture
[AFCRL-67-0351] 24 p4503 N67-40466

SCATTERING AMPLITUDE
Integrated intensity of scattered neutrons in diffraction structure studies on powdered crystal 06 p0937 N67-16254
One-dimensional dispersion relations in meson and nucleon scattering amplitudes 07 p1144 N67-17204
Double representation for scattering amplitude from one-dimensional dispersion relations 07 p1145 N67-17207
Integral equations expressing unitarity in system of relativistically invariant scattering amplitudes 07 p1145 N67-17208
Extrapolating pion-nucleon amplitude by dispersion relation and unitarity condition 07 p1145 N67-17210
Scattering amplitude of unstable particles at zero energy, and three-particle singularity 07 p1145 N67-17211
Neutral kaons with measurable mass differences, and experiments dealing with scattering, transitions, and parity changing 07 p1146 N67-17215
Asymptotic behavior of scattering amplitudes in complex energy plane
[JINR-P-2973] 08 p1333 N67-18509
Completeness condition and asymptotical behavior of wave function shown equivalent to nonrelativistic dispersion relations in potential scattering theory
[JINR-P-2989] 08 p1333 N67-18600
Scattering amplitude analysis for symmetry group with infinite multiplets
[JINR-E2-2923] 10 p1702 N67-30002
Three-body scattering amplitude equations for analysis of pion-pion interaction parameters during decay modes
[UCR-34P107-35] 10 p1709 N67-30043
Large aperture seismic array amplitude scatter
[LL-2] 10 p1586 N67-31351
Scattering field and reflection amplitude of surface wave diffraction on rectangular wedge 11 p1949 N67-21898
Integral expressions for approximating phase shift and scattering amplitude 11 p1931 N67-22103
Born approximation for scattering amplitude and convergence of Born series 11 p1931 N67-22106
General theory of electron exchange and approximation methods for determining contribution to total amplitude 11 p1932 N67-22110
Approximation methods for defining direct and exchange ionization amplitudes 11 p1932 N67-22111
Transition amplitude approximation methods 11 p1932 N67-22112
Particle production and scattering amplitude involving pions and nucleons
[TH/177] 11 p1936 N67-22939
Analysis of di-pion state when I equals J equals O having inverse scattering amplitude 11 p1940 N67-23005
Analyticity properties of unitary integrals
[DOUGLAS PAPER-4347] 13 p2130 N67-24019
Sum rules based on Regge pole model for high energy scattering amplitude problems
[UR-875-178] 13 p2375 N67-25645
Stationary phase approximation for two-channel atomic scattering system amplitude
[NASA-CR-83857] 15 p2776 N67-28833
Diffraction intensities of helium beam scattered from cleavage plane of lithium fluoride
[K-L-6136] 13 p2377 N67-25917
Analytic properties of scattering amplitude in local field theory and asymptotic behavior
[NYO-2262TA-146] 14 p2390 N67-27447
Relation between lower bound of large angle scattering amplitude and backward scattering peak widths
[JINR-P2-3139] 14 p2390 N67-27453
Four-dimensional relativistic model for Green functions and scattering amplitude of scalar particles
[JINR-P2-3114] 14 p2590 N67-27455
Discrete impact parameter representation of scattering amplitude
[TH/189] 14 p2593 N67-27763
Mass formulas based on additivity hypotheses for hadron scattering amplitude
[JINR-P2-3170] 16 p2945 N67-29689
Absolute normalization measurements for proton-proton scattering experiments
[SLAC-PUB-238] 16 p2949 N67-29810
Monostatic acoustic scattering from ocean volume measured in Atlantic and compared with model calculations
[NRL-6533] 17 p3119 N67-30430
Pion-proton and proton-proton forward scattering amplitudes
[BNL-11175] 19 p3505 N67-33435
Kaon-nucleon forward scattering amplitude evaluated from dispersion relations, and evidence for resonance
[HEP-67-3] 19 p3508 N67-33694
Sum rules of superconvergent type for gamma N helicity-flip and helicity-nonflip scattering amplitudes 20 p3696 N67-34601
Real part of nuclear elastic scattering amplitude determined from interference of Coulomb and nuclear interactions
[JINR-E1-2267] 20 p3698 N67-34800
Scattering length as function of complex angular momentum and application to I equal O pion-pion S-wave scattering length studies 20 p3698 N67-34820
Low energy behaviors of S-wave pion-pion scattering phase shifts studied in terms of forward dispersion relation 20 p3699 N67-34832
S-wave pi-pi scattering with small scattering lengths 20 p3699 N67-34714
Asymptotic integral representations for relativistic amplitudes of particle and antiparticle scattering
[JINR-P2-3250] 20 p3701 N67-34943
Pion-pion scattering and sum rule for axialvector coupling constant 20 p3702 N67-35041
Solution of Bethe-Salpeter equation for lepton scattering via vector meson interaction
[ITF-67-4] 21 p3902 N67-36023
Unitarity representations of Lorentz group and functions with spin that form basis for integral representations of scattering amplitudes
[JINR-E2-3254] 22 p4110 N67-37029

SCATTERING COEFFICIENT
Model study of ionospheric perturbations and propagation between two sites - excitation of curved model waveguide, scattering coefficients, surface impedance, and volume loading
[QR-20] 13 p2378 N67-25126
Acoustic scattering coefficients and the distribution of underwater resonant scatterers, and sound scattering in surface layers of the ocean
[JPRS-40765] 17 p3057 N67-31461
Treatment of hydrogen scattering in

multigroup Monte Carlo criticality calculations
[K-DP-2253] 22 p4106 N67-37482
SCATTERING CROSS SECTION
Thermal scattering cross section determinations and predictability of neutron spectra in thermal reactor systems
[GA-7072] 01 p0100 N67-10767
Meson-nucleus reactions study for estimating cross sections of various processes involving elementary particles - tests of unitarity symmetry in nuclei
[BNL-10430] 01 p0128 N67-10818
Total cross section of double charge exchange of 50 to 176 MeV pion mesons in photo emulsions
[JINR-P-2806] 01 p0129 N67-10819
High energy scattering lectures on experimental survey, cross section bounds, nonforward scattering, crossing symmetry, partial wave amplitudes, and dispersion relations
[NP-16231] 01 p0129 N67-10830
Measurement of interactions after exposure of liquid hydrogen bubble chamber to separated beam of pion mesons
[UR-875-151] 01 p0130 N67-10907
Absolute measurements of total cross sections for scattering of low energy electrons by atomic and molecular oxygen
[AD-639196] 01 p0131 N67-11185
Literature survey of radiochemical cross sections below 425 MeV
[NASA-CR-79100] 02 p0230 N67-12214
Nonelastic scattering cross sections of nuclei for fast neutrons 02 p0433 N67-12550
Electron-electron scattering cross section measured by transverse beta-ray spectrometer 02 p0436 N67-12574
Empirical formula for coherent scattering cross section of gamma rays 02 p0439 N67-12595
High energy nucleon-nucleon bremsstrahlung 02 p0441 N67-12685
Orbital angular momentum of polarized sigma-positive decay
[COO-881-76] 02 p0444 N67-13279
Activation cross section of neutron reactions in selenium and iron samples measured with high resolution detectors at 14.4 MeV
[ORO-3946-2] 02 p0445 N67-13300
SU/3/ symmetry used to obtain relations between cross sections for baryon-baryon reactions
[TR-545] 02 p0447 N67-13333
Small angle electron-proton elastic scattering cross sections for momentum transfers between 10 and 105 f super minus 2
[DESY-66/20] 04 p0592 N67-14097
Alpha-particle stripping cross section from nuclei of beryllium 9, carbon 12, and oxygen 16 06 p0921 N67-15571
Angular distributions and absolute differential cross sections of alpha particles in reactions on aluminum 27, beryllium 8, and fluorine 19 06 p0923 N67-15581
Inelastic scattering cross sections of neutrons with iron, nickel, and niobium nuclei 06 p0924 N67-15586
Factors affecting experimental and calculated scattering cross sections of fast neutrons at small angles 06 p0924 N67-15587
Inelastic scattering of protons calculated by distorted wave method using nickel 58 06 p0925 N67-15592
Optical model parameters for elastic scattering differential cross sections of 6.8 MeV protons on nuclei of chromium, copper, and nickel isotopes 06 p0925 N67-15594
Anomalous pattern of scattering cross sections of neutrons at small angles on uranium and plutonium 06 p0925 N67-15596
Spectra for inelastic scattering of 3 MeV neutrons on bismuth, lead, silicon, and sodium 06 p0927 N67-15606
Optical model to calculate elastic scattering and reaction cross sections of deuterons on helium 4 06 p0927 N67-15607
Angular distribution in quasi-elastic high energy proton-proton scattering on lithium 06 p0927 N67-15610
Charged particle yield and angular distribution cross sections for 9.85 MeV protons 06 p0928 N67-15612
Coulomb excitation cross sections of nuclei energy levels of target elements bombarded with multiply charged ions 06 p0928 N67-15615
Energy and angular dependence of elastic scattering cross sections in heavy ion interaction mechanisms, and determination of low energy resonance parameters 06 p0929 N67-15622
Absorption and scattering of photons by protons of deformed nuclei, shape of giant resonance, and interpretation of activation or yield curve data 06 p0930 N67-15627
Total slow neutron scattering cross section per proton bound in benezene molecule 06 p0936 N67-16294
Differential cross section for deuteron production in proton-proton collisions measured for kinetic energies of 1.85, 2.5, and 2.9 GeV
[BEPT.-03106-26-T] 06 p0940 N67-16413
Time-of-flight spectrometer for measuring total collision cross section of electrons
[AD-641394] 06 p0982 N67-16427
Quasiclassical model of asymptotic behavior of cross sections obtained in high energy interactions of pions with nucleons 07 p1145 N67-17209
Oxygen 16 triton-alpha nitrogen 15 and oxygen 16 triton-proton oxygen 18 differential cross sections
[JINR-P-2796] 07 p1151 N67-17534
Relations between total cross sections for scattering from singlet and triplet states following from collinear symmetries for baryon-baryon forward scattering
[JINR-P-2872] 07 p1155 N67-17695
Theoretical photodetachment cross section for negative atomic oxygen ion
[NASA-CR-69846] 07 p1156 N67-17774
Excitation cross sections for electrons incident on atomic systems
[NASA-TM-X-57271] 07 p1158 N67-18185
Differential scattering of neutrons from oxygen and intermediate states
[ORNL-P-2434] 08 p1332 N67-18562
Absorption and scattering cross section data for predicting neutron spectrum in thermal reactor 08 p1314 N67-18788
Polyethylene double differential inelastic scattering cross sections for epithermal neutrons 08 p1314 N67-18790
Isomeric cross section ratios for spin dependence calculation on fast neutron capture at nuclear level density 08 p1340 N67-18839
Adequacy of fast and intermediate cross section data from measurement of neutron spectra in bulk uranium 238 and uranium 235 08 p1317 N67-18845
System for evaluation and processing of nuclear data for reactor calculations
[NAA-SR-11999, VOL. I] 08 p1319 N67-18892
Tabulated values of total cross sections for annihilation processes, and differential cross sections for bremsstrahlung processes for fixed photon scattering angle and positron energy
[SLAC-67] 08 p1343 N67-18894
Nonspherical optical model for computing fast neutron scattering cross sections
[NAA-SR-11706] 08 p1339 N67-18917
Approximate formulas for effective cross sections of atoms excited by electron bombardment
[NASA-TT-F-10691] 08 p1343 N67-18933
Differential cross section for eta photoproduction in region from threshold to 940 MeV
[HEPL-445] 09 p1489 N67-19760
Cross section data required for calculating propagation of cosmic radiation through interstellar space
[NASA-TM-X-55715] 09 p1506 N67-19863
Specification of nucleon-nucleon phase shift analysis at 23.1 MeV
[JINR-E1-2952] 10 p1701 N67-20797
Specification of nucleon-nucleon phase shift analysis at 147 MeV
[JINR-E1-2953] 10 p1701 N67-20798
Neutron elastic and inelastic interference scattering cross section in crystalline lattices of solids
[NASA-CR-83201] 10 p1703 N67-20821
Cross sections for electron capture by fast protons in hydrogen, helium, nitrogen, and argon
[UCRL-16765] 10 p1720 N67-21527
Experiments on Regge poles in high energy scattering
[CALT-68-106] 10 p1723 N67-21576
Angular distribution, spectra, cross section, and elastic and inelastic scattering analyses of various nuclear reactions
[USC-136-114] 10 p1725 N67-21603
Energy dependence of differential cross section of elastic backward positive pion-proton scattering
[JINR-P1-3008] 10 p1729 N67-21673
Inelastic negative pion-proton interactions four prong events with neutrons
[JINR-P1-2963] 10 p1729 N67-21679
Characteristics of positive pion-proton momentum reaction
[JINR-P1-2997] 10 p1730 N67-21680
High energy electron processes inducing nuclei reactions, cross section formula in impulse approximation, and scattering theory survey
[188-66/45] 10 p1731 N67-21757
Particle scattering through short range central field - definition of scattering cross section 11 p1931 N67-22102
Static approximation for electron scattering by atomic hydrogen 11 p1931 N67-22106
Electron scattering by complex atoms - theory and methods for defining asymptotic states 11 p1932 N67-22107
Partial wave Born approximation for analyzing excitation behavior of electrons with hydrogen atoms at high energies 11 p1932 N67-22109
Classical theory for calculating scattering cross section for two particles interacting through Coulomb potential 11 p1932 N67-22112
Introduction to atom-atom collisions - classical path method for analyzing elastic scattering between two heavy particles 11 p1934 N67-22124
Total reaction cross sections for high energy alpha particle interactions with chromium, iron, nickel, cobalt, copper, and zinc nuclei
[NP-503/PL] 11 p1938 N67-22911
Thirty-three group cross section library for sodium cooled fast reactor calculations
[AEEW-R-491] 11 p1924 N67-22967
Relations between total cross sections at high energy 11 p1947 N67-23467
Electron scattering by polarized hadron targets
[JINR-P2-2991] 12 p2158 N67-23565
TRNRX Fortran computer program for calculation of gamma ray angular distribution and production cross sections for neutron inelastic scattering
[ORO-2791-20] 12 p2159 N67-23570
Absolute cross sections and isomer yields ratios for deuteron proton nuclear reactions
[NYO-2771-19] 12 p2159 N67-23572
Electron transmission measurements for aluminum and gold, and backscattering measurements on targets of iron, tin, aluminum, and gold
[NASA-CR-759] 12 p2161 N67-23717
Scattering cross section data for high plutonium isotopes
[IA-1094] 12 p2163 N67-23752
Tabulation of total neutron cross section of uranium 232 determined with materials testing reactor fast chopper
[IN-1015] 12 p2169 N67-24559
Isobaric cross-section ratios from alpha and proton reactions at high energies
[UCD-34P75-1] 12 p2170 N67-24668
Tables of differential cross sections for neutron scattering from beryllium, calcium, carbon, lead, lithium, oxygen, silicon, sulfur, and tin nuclei
[ANL-6172] 12 p2171 N67-24687
Photon emission during large angle scattering of high energy electrons
[SLAC-TRANS-52] 13 p2374 N67-25697
Gas density measurements using electron scattering method
[AEDC-TR-66-212] 13 p2306 N67-25633
Analytic representation of nonelastic cross sections and particle emission spectra from nucleon-nucleus collisions in 25 to 400MeV energy range
[NASA-CR-83201] 13 p2378 N67-26017
Regge pole model applied to high energy particle scattering by nuclei
[AD-648017] 14 p2585 N67-26667
Tabular and graphical representations of photon cross sections
[UCRL-50178] 14 p2592 N67-27582
Composite model of pion use to derive relation between total cross section of pion nucleon scattering 14 p2598 N67-27761
Differential scattering cross sections of heavy water at 540 deg K - Tables
[AERE-R-5406] 15 p2756 N67-27864
Elastic scattering cross sections of high energy nucleons scattered from nuclei and

numerical results for He-4 target nucleus
[INP-526/PL] 15 p2756 N67-27877
Cross sections for proton scattering by carbon-12
[CEA-R-3006] 15 p2761 N67-28319
Direct measurement of neutron-neutron scattering cross sections in magnetosphere using pulsed reactor
[AEC-TR-6783] 15 p2764 N67-28439
Method for studying inelastic scattering of slow neutrons in multiparticle systems
[NP-TR-1404] 15 p2764 N67-28450
Linear accelerator experiments in neutron scattering, scattering cross sections, and energy spectra
[RPI-329-71] 16 p2941 N67-29269
Neutron and scattering cross section, elastic scattering, angular correlation, and decay data
[AEET-267] 16 p2943 N67-29337
Representation of resonance cross section of uranium 238 and plutonium 239 in calculations of fast and intermediate reactors
[BNL-TR-119] 16 p2934 N67-29826
Analytical approximations for photoelectric, incoherent scattering, and energy transfer X-ray cross sections
[SC-RR-66-452] 16 p2949 N67-29840
Scattering cross section measurement near 180 degrees using filmless spark chamber technique
[JINR-P13-3122] 16 p2950 N67-29866
Numerical differential cross sections of elastic and inelastic scattering of 14 MeV protons from cadmium 111, cadmium 112, and cadmium 113 nuclei
[INSJ-163] 17 p3124 N67-30238
Differential cross sections for alpha particle beam scattering on magnesium, calcium, titanium, chromium, iron, nickel, copper, zinc, tin, and lead targets
[CEA-R-3147] 17 p3126 N67-30325
User manual for one-dimensional discrete ordinates transport code with anisotropic scattering
[K-1693] 17 p3030 N67-30529
Energy dependence of average direct reaction cross sections and partial nuclear level densities
[TID-23787] 17 p3134 N67-31036
Fission of gold-197 by 13.4 MeV deuterons
[REPT.-772/I/IA/PL] 17 p3136 N67-31134
Method of removal of neutron absorption, elastic scattering, and inelastic scattering cross sections, and application to heavier shielding media 17 p3112 N67-31245
Neutron absorption and scattering cross section method for radiation shielding calculations 17 p3113 N67-31247
Cross sections of inelastic scattering of neutrons by levels of iron, nickel, and niobium determined by spectra of gamma rays from decay of excited states 17 p3114 N67-31255
Effect of plasma compressibility and sheath upon scattering cross section of electromagnetic waves from infinite perfectly conducting cylinder
[NASA-CR-86631] 18 p3313 N67-31813
Calculation of scattering and reaction cross sections of atmospheric gases
[TM-560] 19 p3502 N67-32940
Semiempirical calculation of dissociative attachment in hot oxygen 19 p3503 N67-32944
Formula for electron loss rate from stored beam due to Touschek effect using exact Moeller scattering cross section
[DESY-67/5] 19 p3503 N67-33000
Experimental and theoretical studies in spectroscopy and transport problems of electron shielding
[NASA-CR-97142] 19 p3506 N67-33567
Pauli exclusion principle taken into account for identifying scattered particles
[JINR-P4-3300] 19 p3508 N67-33678
Scattering cross section computations of possible electron optical contrast mechanisms for electron microscope 19 p3456 N67-33791
Multigroup diffusion perturbation ALTAC code for Philco 2000 computer
[IA-1069] 19 p3494 N67-33863
Research papers presented at Atomic Energy Commission Nuclear Cross Sections Advisory Group Meeting at Argonne, Illinois
[WASH-1071] 20 p3699 N67-34672
Electromagnetic form factors for four momentum transfers involving elastic electron-proton cross sections
[NP-16765] 20 p3702 N67-35001
Effective cross sections for deuteron induced nuclear reactions in rhodium
[IAN-F-2] 21 p3898 N67-35427
Electron scattering cross section by strongly polar molecules
[ISAS-412, VOL. 22, NO. 5] 21 p3902 N67-35955
Bounds for correction to Born term and applications to proton-proton scattering for generalized dispersion model
[UCRL-17571] 21 p3907 N67-36500
Electromagnetic scattering from absorbing spheres
[NASA-CR-88226] 21 p3897 N67-36604
Elastic scattering cross sections of low energy electrons from molecular hydrogen
[TR-1001/2340-20/-14] 22 p4102 N67-36804
Abstracts on nuclear physics reactions - proton and neutron scattering cross sections, particle capture, dipole moments, shell models, fission, emission, and radiative transition in isotopes
[ORNL-4082] 22 p4106 N67-37494
Cut-offs in complex I-plane and behavior of inelastic scattering cross sections
[JINR-P2-3237] 22 p4109 N67-37910
Coincidence measurements of absolute cross sections for breakup of deuterons by 42 MeV alpha particles
[NASA-TN-D-4202] 23 p4299 N67-38320
Monte Carlo program for calculating Doppler coefficients in arbitrary neutron flux spectra
[NASA-TN-D-4396] 23 p4284 N67-38324
Low energy sigma hyperon elastic scattering cross sections for proton-hyperon interactions
[ORO-2504-102] 23 p4301 N67-38382
Differential cross section for elastic scattering of pions by protons between 2.5 and 6.0 GeV/c
[COO-1112-106] 23 p4303 N67-38526
Differences between positive pion-proton and negative pion-proton elastic scattering in diffraction peak region
[COO-1112-103] 23 p4303 N67-38528
Thermal energy molecular beam measurements of atom-atom scattering cross sections 23 p4307 N67-38691
Elastic scattering of protons by oxygen-16 and comparison with optical model
[P-80] 24 p4498 N67-39407
Proton-nucleon elastic scattering cross section in high energy range
[INR-P-902/VI/PH] 24 p4496 N67-39432
Crossed molecular beam scattering method for obtaining intermolecular potential energies - scattering of lithium atoms
[GDC-DBE-67-017] 24 p4502 N67-40269
Multiple scattering in neutron double differential cross section measurements
[GA-8053] 24 p4502 N67-40280
Mass spectrometric measurements of scattering cross sections of fission product ions interacting with matter
[BMWF-FBK-67-56] 24 p4503 N67-40405
Computer program for calculating differential cross sections and polarizations of elastically scattering particles on complex nuclei
[INP-583/PL] 24 p4504 N67-40486
SCATTERING FUNCTION
SA MIE SCATTERING FUNCTION
Modified adiabatic scattering function applied to positron annihilation in helium
[NASA-TM-X-55574] 05 p0239 N67-11356
Scattering functions for Rayleigh atmospheres of arbitrary optical thickness
[R-452-PR] 05 p0704 N67-15010
Spherical wave representation theory and functions for treating electromagnetic scattering
[LMSC-M-97-66-1] 06 p0841 N67-16123
Neutron scattering law formalism, incoherent scattering laws and width functions, scattering laws for liquid moderators, and Zemach-Glauber treatment for molecules - lectures
[S-335] 07 p1129 N67-17410
Monte Carlo calculation of multiple scattering effects
[ISS-66/20] 08 p1844 N67-19190
Schroedinger equation for system of one dimensional particles with point interaction 12 p2129 N67-33704
Milne problem solution for monoenergetic neutron transport equation with linear anisotropic scattering function in plane geometry
[BMWF-FBK-66-18] 12 p2171 N67-34079
Energy characteristics of scattered electromagnetic field calculated for convex uneven surfaces of arbitrary shape 15 p2738 N67-28149
Neutron-neutron scattering length determinations
[UCRL-16864] 15 p2769 N67-28538
Scatterometry data and algorithm for identifying remote objects, and application to Plaque crater
[NASA-CR-86018] 21 p3847 N67-35533
Phase function and particle distribution of zodiacal cloud 23 p4348 N67-38212
SCATTERING MATRIX
Scattering matrixes in nonrelativistic quantum mechanics and field theory 07 p1144 N67-17203
Scattering theory parameterization of absorption cross sections, and profiles of autoionizing spectral lines
[NASA-CR-83009] 08 p1831 N67-18580
Tungsten neutron cross section, resonance parameters, and scattering matrixes for certain nuclear reaction concepts
[NASA-CR-83023] 10 p1708 N67-20231
Existence of N/D representation for scattering matrices
[IC/67/2] 10 p1688 N67-21771
Configuration interaction method for describing resonant or autoionizing states 11 p1933 N67-23117
Solid state scattering theory for localized defects
[U-3936] 11 p1834 N67-23143
Reconstruction of scattering matrix for collinear production of baryon resonances in baryon collisions
[JINR-P2-3069] 12 p2172 N67-34692
Characterization of class of nonlossless scattering matrixes by biorthonormal step-up vectors
[SEL-67-005] 16 p2871 N67-29240
Computer calculations of scattering data for elements and isotopes used in epithermal molten-salt reactor /MOSEL/
[JUL-419-RG] 20 p3680 N67-34272
Measurement of nuclear matrix element for 19.4 MeV level in carbon 12 following inelastic electron scattering
[SAL-6] 20 p3702 N67-35025
SCAVENGING
Atmospheric research on precipitation scavenging, raindrop evaporation, stream functions and trajectories, observation networks, sampling, exposure prediction, and turbulence spectra
[BNWL-235-1] 07 p1070 N67-17312
Washout coefficients for inorganic iodides in process stack gases measured in three snowfalls and one rainfall 07 p1070 N67-17313
SCF
S SELF-CONSISTENT FIELD /SCF/
SCHEDULING
Plan, scheduling, costs, and interactions of development program for automated biological laboratory for exploration of life on Mars
[NASA-CR-81312] 06 p0972 N67-16578
Model for multiprocessor control of real-time task schedules 07 p1030 N67-17371
Design Point Vehicle and comparative resource planning data for LUNAR Surface Mobility Systems Comparison and Evolution /MOBEV/
[NASA-CR-82747] 09 p1566 N67-19365
Mathematical formulation, optimization, and Algol computer programs for class assignments and transportation schedules
[REPT.-3723] 10 p1688 N67-21752
Preplanning logistics support and role in Air Force Systems Command program scheduling 11 p1851 N67-21967
Scheduling error dependency on nature of disturbance effects 12 p2070 N67-34204
Reliability and maintenance control of complex automatic technical systems - scheduling theory 12 p2070 N67-34213
Critical path technique for automatic control of complex systems design planning 13 p2289 N67-25769
Tabular line of balance production control system for production scheduling and control of weapons components
[Y-KA-17] 14 p2497 N67-26827
Critical path time cost scheduling for research and development projects
[ORNL-4112] 19 p3567 N67-33183
European telecommunications satellite program organization and management, time schedule, and cost estimate 22 p4147 N67-36843
Overall management, scheduling.

manpower, and financial aspects of Voyager data management
[NASA-CR-89713] 24 p4427 N67-40420
SCHIST
Geologic and petrologic data on rock formations in East Antarctica, and chemical compositions of schists 11 p1867 N67-22346
SCHIZOPHRENIA
Hallucination by electric stimulation of temporal lobe in schizophrenic patients 18 p3212 N67-32310
SCHLIEREN PHOTOGRAPHY
SA SHADOW PHOTOGRAPHY
Observation methods of turbulent flow using hot wire anemometers and schlieren photography - wakes
[TP-417] 04 p0481 N67-14297
Base pressure and surface pressure measurements in conjunction with schlieren and shadowgraph observations of half angle wedges with various seperation edge shapes - lip shock
[NASA-CR-81031] 05 p0695 N67-14905
Schlieren photography, and heat transfer and pressure surface measurements of transitional and laminar boundary layer separations 08 p1271 N67-19285
Laser interferograms, holographic data sorting for transmission, pulsed laser holograms, holography resolution and image degradation, schlieren holography-ray tracing, and dynamic measurements
[NASA-CR-82823] 09 p1455 N67-19461
Schlieren field effect on holographic reconstruction of grating or recorded interference pattern 09 p1456 N67-19462
Schlieren holography-ray tracing 09 p1456 N67-19465
Schlieren and hot wire exploration of wakes in wind tunnel supersonic flows
[NASA-TT-F-10660] 12 p3694 N67-25907
Schlieren photography and phase contrast methods for hypersonic and supersonic flow visualization
[TP-483/1967/] 23 p4020 N67-37085
Schlieren photographs analyses to determine statistical properties of turbulent wakes of hypervelocity spheres 23 p4028 N67-37524
Schlieren optics theory for light amplifiers with diffraction gratings
[PROM.-3786] 24 p4497 N67-40460
SCHMIDT METHOD
Approximation method, and potential theory to study class C potentials
[TH/200] 17 p3138 N67-31306
SCHOTTKY EFFECT
Characteristics of Schottky barriers and development of semiconductor-metal cathode
[AFCRL-66-479] 05 p0624 N67-15110
Schottky data used in analysis of metal-vacuum surface barrier for thermionic emitters - rhenium
[SR-1] 17 p3146 N67-30218
Schottky barrier heights for semiconductor-metal thermionic emission cathodes
[AFCRL-67-0296] 19 p3530 N67-33703
SCHROEDINGER EQUATION
Schroedinger equation and Green function considered in iterative solutions for quantum mechanical bound states
[MRC-TSR-669] 03 p0416 N67-12595
Certain peculiarities of Schroedinger equation solutions for potentials with Coulomb tails - Asymptotic form of Coulomb potential wave function
[NP-16380] 07 p1153 N67-17569
Transition from relativistic mechanics to relativistic quantum dynamics through homogeneous canonical formalism - Schroedinger and Klein-Gordon equations
[NASA-TM-X-58005] 06 p1334 N67-18636
Schroedinger equation for system of one dimensional particles with point interaction 12 p2129 N67-23704
Method to solve Schroedinger equations allowing calculation of energies and wave functions of deformed axially symmetric nucleus single particle states
[JINR-P4-2976] 13 p2171 N67-24688
Schroedinger equation for three particle problem in internal coordinate sets for body axes motion
[NASA-CR-85909] 17 p3019 N67-31334
Solution of Schroedinger equation expressed algebraically through solution of classical Hamiltonian equations in quadratic form of coordinates and momenta
[JINR-P2-3223] 19 p3508 N67-33709
Analytic solution of Schrodinger equation for ground state of two-electron atom and extension of method to hydrogen molecule
[NASA-CR-88016] 21 p3898 N67-35846
Schroedinger equation for Hamiltonian operator for quantum fields with nonlinear nonlocal scattering
[NP-16735] 21 p3906 N67-36513
Accurate and stable numerical solutions to Schroedinger equations
[NRL-6558] 22 p4000 N67-36828
Uniformity of Holder continuity with respect to Bessel function order in Schroedinger equation
[MRC-TSR-745] 24 p4477 N67-39487
Perturbation method for eigenfunction expansion of Schroedinger operator
[MRC-TSR-744] 24 p4480 N67-39707
SCHUMANN MODE
Molar extinction coefficients of hydrogen iodide in Schumann region to determine radiation absorption characteristics 06 p0818 N67-15741
Ionospheric perturbations and Schumann resonance data
[AD-656761] 22 p4036 N67-37087
SCHWARZSCHILD ANTENNA
Two-reflector antenna system design parameters, and Fortran program for evaluating Cassegrain and Schwarzschild antenna designs
[RADC-TR-66-562] 08 p1252 N67-19236
SCHWARZSCHILD METRIC
Spectrometer for simultaneous NMR spectra, gas chromatography, relativistic collapse to Schwarzschild sphere, and Gibbs phenomenon 16 p2988 N67-29161
SCIENCE
SA ENVIRONMENTAL SCIENCE
SA LIFE SCIENCE
SA MATERIALS SCIENCE
SA NEUROSCIENCE
SA PHYSICAL SCIENCE
SA SPACE SCIENCE
Symposium on computer technology for scientific and technological progress in U.S.S.R.
[LT-66-56] 06 p0849 N67-16463
Air Force science and engineering programs symposium
[AD-641923] 07 p1211 N67-16963
Mathematics definition and relation to science
[NASA-CR-82008] 08 p1300 N67-18541
Science and technology needed to solve economic and sociological problems of cities
[HUD-MP-39] 08 p1389 N67-18962
Communication and technology transfer among engineers and scientists in research and development programs
[NASA-CR-82400] 08 p1389 N67-18975
Soviet science and technology review, and summary data on bioastronautics and aerospace medicine conferences 11 p2006 N67-23587
Concepts for emplaced scientific station on lunar surface 12 p2211 N67-24277
Recent U.S.S.R. publications of scientific studies in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space
[JPRS-40672] 13 p2316 N67-26383
Eighth meeting proceedings of Panel of Science and Technology presented before Committee on Science and Astronautics of House of Representatives 13 p2442 N67-26480
Generation of science-based technology in field of crystallization
[SU-DMS-67-1] 14 p2581 N67-27010
Papers presented at 1966 United States Army Conference on science and technology
[AD-634615] 15 p2807 N67-27941
Supplement to military science conference - practical problems and applications of Army research and development studies for military technology
[AD-647010] 15 p2808 N67-27997
Scheme to aid decision making in allocating public resources for support of science and technology
[NASA-CR-84798] 15 p2810 N67-28780
Impacts of modern science and technology on urban society 15 p2810 N67-28782
Economics of technical and scientific information systems - conference report
[NASA-TT-F-10691] 16 p2968 N67-29004
Continental shelf and scientific and industrial research
[JPRS-46594] 16 p2987 N67-29561
Potentiality of computers in planning and processing data for scientific experiments
[JPRS-41090] 16 p2988 N67-30018
Conference on history and development of scientific study
[JPRS-41086] 17 p3182 N67-30613
Cost analysis of Department of Defense basic scientific research expenditures in Europe and Israel 1956 - 1966
[RM-5275-PR] 18 p3358 N67-32175
Effects of science and newly emerging technologies on contemporary urban management
[NASA-CR-86664] 18 p3360 N67-32557
Planning, organization, and management of science and technology programs in Soviet Union
[FTD-MT-67-17] 19 p3557 N67-33428
Systems and subsystems requirements, astronaut mobility and capability, and experimental - systems, technology, and operational requirements for lunar scientific programs
[NASA-CR-87480] 20 p3723 N67-34066
Scientific experiments, equipment, sequence, and related requirements for extended lunar exploration
[NASA-CR-87401] 20 p3724 N67-34106
Prospective manpower situation for science and engineering staff in universities and colleges
[NSF-67-11] 20 p3750 N67-34449
Computer printouts of numerous scientific experiments conducted in mission support for extended lunar exploration
[NASA-CR-87405] 20 p3725 N67-34594
Technological innovations for January-June 1967, abstracts and subject index
[NASA-SP-5021/05/] 21 p3951 N67-35598
Interdisciplinary study of organization, planning, and management of science and technology
[JPRS-42057] 21 p3951 N67-35600
Science and technology assessment policy 21 p3953 N67-35980
Subject and personal name indexes for hearings before House Committee on Science and Astronautics of first session of 90th Congress 21 p3953 N67-36425
Applied science and technology progress related to industry, government, society, and human behavior - report to House Committee on Space and Astronautics 23 p4367 N67-38500
Product-process relationships, automatic process control, and dependence of manufacturing research on scientific innovations 23 p4368 N67-38517
SCIENTIFIC DATA CONDITIONING SYSTEM
Scientific programming of transformations of direction fields and autonomous systems of ordinary differential equations - Optimization of electron-optical potential for star tracker 12 p2128 N67-23643
SCIENTIFIC SATELLITE
Small scientific satellite PFM telemetry encoding system evolution
[NASA-TM-D-3757] 04 p0511 N67-13781
Scientific objectives and payload definition for automated biological laboratory for exploration of life on Mars
[NASA-CR-81310] 06 p0869 N67-16578
United States and U.S.S.R. use of scientific satellites, sounding rockets, and space probes for upper atmosphere studies
[NASA-TT-F-390] 06 p1278 N67-18967
Instrumentation problems of scientific satellite telemetry, localization, and synchronization
[ESRO-TM-41] 09 p1451 N67-20232
Biological experiments program for orbiting satellites 12 p2034 N67-24426
Summary of extraterrestrial biological research in U.S.S.R. satellite experiments 12 p2034 N67-24428
ESRO spacecraft technology - launch vehicle effect on spacecraft design, ESRO construction and scientific payload program, spacecraft orbit mechanics, and composition of space radiation
[ESRO-SP-9] 12 p2214 N67-24451
Space radiation and measurement techniques 12 p2296 N67-24483
Mariner V - Venus scientific space probe
[NASA NEWS RELEASE-67-124] 14 p2619 N67-27316
Computer programming services in support of scientific satellites
[NASA-CR-84797] 15 p2675 N67-28795
Chronological summary listing of AFCRL rocket and satellite borne scientific experiments from 1946 to 1966
[AFCRL-66-868] 15 p2790 N67-28890

Press releases on Soviet exhibit at International Aeronautical and Astronautical Exhibit in Paris
[NASA-CR-84881] 15 p2796 N67-38929
Comparison of various determinations of harmonic coefficients in expansion of earth gravitational field with satellite geoids and gravity anomalies
[REPT.-80] 18 p3267 N67-32492
Biosatellite environmental control and life support system design
[NASA-CR-73116] 21 p3770 N67-35374
Adaptability of four lunar orbiter spacecraft configurations to other space related and surface related experiments
[NASA-CR-66449] 21 p3934 N67-35883
Simultaneous satellite and balloon observations of auroral zone precipitation
[NASA-TM-X-60236] 21 p3944 N67-36485
Feasibility estimate, mission profile, and design Orbital Experiment Capsule /OEC/ Mars satellite to be used in Voyager Project
[NASA-CR-73126] 22 p4146 N67-36792
Spin stabilization performance of DME-A satellite
[TG-929] 22 p4148 N67-37290
Radiation damage to orbiting solar cells and transistors - degradation of radiation
[TG-886] 23 p4180 N67-38181
Multiple satellite mission analysis, specification requirements and configuration concepts
[NASA-CR-73140] 23 p4349 N67-38392
Multiple satellite system for measuring interaction of solar wind and interplanetary magnetic field with geomagnetic field - appendices to feasibility study
[NASA-CR-73143] 23 p4344 N67-38549
Space flight missions in astronomy, solar physics, particles and fields, ionospheres and radio physics, planetary atmospheres, planetology, bioscience, and spacecraft applications
[NHB-8030.2A] 23 p4344 N67-38579
Literature review on genetic experiments in upper atmosphere and space flights
[NASA-TT-F-11251] 24 p4587 N67-40433
SCIENTIST
Directory of scientific government personnel in plastics
[PLASTEC-5B] 09 p1547 N67-32344
Additional follow-up criterion for validating predictor scores for measuring psychological characteristics of sample of Air Force scientists
[AFOSR-67-0896] 16 p2834 N67-29665
Future size of scientific establishment, rising social consciousness among scientists, development of Delphi technique, and second computer revolution
[P-3607] 18 p3360 N67-32532
SCINTILLATION
Computer program for reduction of Beacon Explorer satellite scintillation data for F layer spacial morphology
[APD-4] 04 p0543 N67-14122
Observational results on star scintillation during 1956 to 1960 obtained by Pulkovo expeditions 06 p0961 N67-15472
Interplanetary scintillation observations from solar wind inhomogeneities
[NASA-CR-82481] 06 p1366 N67-18989
Interplanetary scintillation in Jupiter decametric radiation
[NASA-CR-82374] 06 p1359 N67-19045
Scintillation observations at medium latitude geomagnetically conjugate stations
[NASA-CR-83967] 13 p2314 N67-26077
Scintillation dosimeter for X-ray and gamma radiation dosage rate measurement
[ORNL-TR-1476] 14 p2538 N67-27340
Scale size of scintillation-producing irregularity in auroral F-layer
[NASA-CR-84900] 15 p2706 N67-28907
Spread-F effects on radio propagation and communication, ionospheric irregularities, and scintillation and radio propagation
[AGARDOGRAPH-95] 16 p2836 N67-29231
Statistical analyses on spread-F and radio signal scintillation data in middle latitude 16 p2857 N67-29283
Satellite radio signal scintillations during descending half of solar cycle 16 p2854 N67-29295
Geophysical aspects of radio star and satellite signal scintillation 16 p2882 N67-29296
Phase swept interferometer analysis on scintillating radio source in Cassiopeia constellation 16 p2904 N67-29297
Statistical analysis of interferometer data on scintillating radio source in Cassiopeia constellation 16 p2907 N67-29298
Radio star scintillation and spread-F in auroral zone 16 p2863 N67-29299
Correlation analysis on nighttime scintillation of satellite radio signals and F-layer at equator 16 p2898 N67-29300
Statistical properties of radio signal scintillation pattern and ionospheric diffracting layer 16 p2856 N67-29301
Radar signal reflection from satellite for ionospheric scintillation analysis 16 p2836 N67-29302
Scintillation measurements on radio signals from Discoverer XXXVI satellite 16 p2850 N67-29303
Satellite scintillation occurrence in auroral zone 16 p2859 N67-29304
Scintillations observed in Explorer XXII [AGARD-558] 16 p2861 N67-29672
Satellite scintillation studies 19 p3401 N67-32986
Scintillation camera system with three-stage image intensifier for radiation medicine diagnostic tests 22 p4050 N67-37782
SCINTILLATION COUNTER
Low weight scintillation counter with focusing collimator for study of lung function during positive acceleration
[FPRC/MEMO-218] 01 p0071 N67-10055
Underground scintillation detector for recording high energy fragments from baryon nonconserving nucleon decay
[COO-818-67] 01 p0128 N67-10601
Compact electronic unit for use with NaI scintillation counters and in applications where great experimental flexibility is not required
[AERE-R-5225] 02 p0344 N67-11861
Pulse height distribution curve analyzed for plastic scintillator fast neutron detectors 03 p0440 N67-12612
Observation of gamma ray background dose rates in Warsaw with scintillation static monitor
[CLOR-50/D] 04 p0542 N67-13220
LSU-2 universal scintillation counter 06 p0681 N67-16247
Small beta activity measurements by 4pi scintillation counter 06 p0938 N67-16285
Coupled scintillation counters as whole-body radiation detectors 06 p0862 N67-16391
Low background beta scintillation counter for measuring radioactive nuclides 06 p0881 N67-16808
Rapid technique for liquid scintillation counting of carbon-14-labelled barium carbonate
[NASA-CR-81342] 06 p0839 N67-16616
Sensitivity of scintillation survey meter to gamma radiation point source
[HASL-177] 07 p1078 N67-17078
Algol computer program for detection efficiencies around cylindrical scintillation crystal
[SFL-A5] 08 p1221 N67-18611
Light transmission in dispersed scintillation counter
[FTD-HT-66-417] 09 p1485 N67-19975
Promethium 147 detection with liquid scintillation counts using channel-ratio method for quenching effect correction
[JUL-377-PC] 09 p1413 N67-20266
Standardization of alpha emitting nuclides by liquid scintillation counting
[JUL-411-PC] 10 p1576 N67-21209
Improved method avoiding wall adsorption in alpha radiation counting of plutonium isotopes with liquid scintillators
[JUL-137-PC] 10 p1576 N67-21217
Gamma flaw detection using scintillation counters 10 p1642 N67-21342
Sodium iodide scintillation counter activated with large thallium crystals for recording gamma radiation from cobalt 60 10 p1646 N67-21373
High efficiency apparatus with slow neutron scintillation counter and low activity polonium-beryllium source for analyzing elementary composition of mineral raw materials 10 p1577 N67-21385
Scintillation counter for field emanation surveys, radiochemical analyses, and alpha radiation recording 10 p1632 N67-21218
Transistorized airborne scintillometer for measuring gamma radiation
[RISO-56] 10 p1586 N67-21775
Charge and energy spectra of primary cosmic rays made with large area Cerenkov scintillation counter on balloon flights - heavier than iron nuclei
[NASA-CR-83419] 11 p1987 N67-22870
Spectrometry of primary and solar protons by meteorological balloons over Iceland using scintillation and Cerenkov counters 11 p1971 N67-22918
Sodium iodide /thallium/ scintillation crystal measurements of photomultiplier tubes
[USNRDL-TR-1099] 13 p2044 N67-24060
Scintillation counter, and magnetic field intensity measurements at Adonis facility
[LNF-67/3] 13 p2269 N67-26129
Three conversion coefficients in decay of gold with semiconductor counters
[LR-15] 14 p2507 N67-27120
Thermal neutron capture gamma-ray spectra measured using NaI/Tl/ scintillation detectors
[ITRI-578P11-53, VOL. 1-3] 14 p2529 N67-27544
Upper limit on quiet time solar neutron flux at energies above 60 MeV determined by using balloon flights with Cerenkov scintillation counters
[NASA-CR-84883] 15 p2787 N67-28939
Alpha radiation hand and foot monitor using aluminized Mylar-covered scintillation counters
[DP-1060] 15 p2851 N67-28966
Determination of conversion coefficients in decay of barium 133 by lithium drifted semiconductor scintillation counters
[LR-11] 16 p2844 N67-29309
Gamma ray counting with sodium iodide well-type scintillation detector
[REPT.-1500-562-67] 16 p2849 N67-29547
Application of Harwell 2000 series adapter units to detection and measurement of radioactivity
[AERE-M-1822] 16 p2898 N67-29613
Airglow and enhanced penetrating electromagnetic radiation in southern radiation anomaly observed with photometers and scintillation counters 16 p2950 N67-30119
Electronic circuitry for scintillation counters in high energy physics 17 p3041 N67-30767
Scintillation and neutron counters and dosimeters for studying nuclear reactor shielding and shielding materials properties 17 p3116 N67-31274
Scintillation counters for measuring gamma radiation of tracers in nuclear reactor shielding studies 17 p3117 N67-31275
Reduction of background noise and radiation in beta scintillation counter using thin plastic foil as detector
[INR-700/XIX/D] 18 p3269 N67-31661
Conversion coefficient in decay of barium-133 determined with semiconductor counters
[NP-16071] 19 p3501 N67-32913
Computer program for analysis of gamma radiation counting foil data
[AERE-R-5315] 20 p3694 N67-34431
High powered scintillation counter for improved time measurements
[LNF-67/31] 20 p3643 N67-34599
Labeled technetium 99m human serum albumin for scintillation scanning of lungs
[CNEA-193] 20 p3699 N67-35066
Lithium drifted germanium and silicon semiconducting detectors compared with thallium activated sodium iodide crystal scintillation counter for gamma spectrometry
[NASA-TT-F-11368] 22 p4049 N67-37732
Scintillation counters with photomultiplier for observing microvariation in cosmic ray intensity 23 p4289 N67-38281
Digital recording of scintillation counter pulses for extensive air shower experiment at Kiel
[BMWF-FBK-67-19] 23 p4344 N67-38548
Estimate of relative contribution from different components in organic scintillation counters 23 p4312 N67-38981
Air shower experiments - data processing and preliminary results of scintillation counter data
[BMWF-FBK-67-43] 23 p4348 N67-39140
Electronic equipment for simultaneous operation of scintillation counters, Cerenkov counter, neon hodescope, and meson spectrometer - digital recorder for air showers
[BMWF-FBK-67-41] 23 p4339 N67-39980
Single channel scintillometer to detect gamma radiation for radiobiological application
[AECL-2767] 24 p4480 N67-39723

SCINTILLATION SPECTROMETER
Gamma ray scintillation spectra of bromine 86, bromine 87, and bromine 88 decay
[IFA-NR-24] 01 p0033 N67-10816
Lunik X scintillation spectrometer studies of lunar gamma radiation intensity and spectral composition
[NASA-CR-80367] 03 p0457 N67-13006
Fast coincidence circuit, gate, and linear summing circuit for low energy gamma radiation spectrometer 06 p0854 N67-16323
Response functions obtained with organic scintillators in proton-recoil neutron spectrometry
[ORNL-P-2471] 07 p1149 N67-17424
Gamma scintillation spectrometry of neutron deficient radio active nuclide decay
[IDO-17188] 07 p1151 N67-17528
Measurements of energy spectra of secondary cosmic ray photons using balloon-borne lead scintillator sandwich spectrometer 06 p1276 N67-18375
Stabilization of scintillation spectrometers - pulse amplitude drift of light source
[FZI-37] 10 p1630 N67-20912
Two-channel differential scintillation gamma spectrometer for gamma-gamma and gamma-ray logging, and energy spectra recording of scattered and natural gamma radiation 10 p1634 N67-21300
Scintillation gamma spectrometer technique for simultaneously determining element concentration in rock sample 10 p1635 N67-21304
Performance and packaging of stilbene spectrometer for simultaneous detection of neutron and gamma rays in mixed radiation field
[BRL-R-1335] 10 p1634 N67-21423
Balloon-borne scintillation spectrometer used in auroral X-ray measurements over Iceland 11 p1972 N67-22932
Fluxes and spectra of electrons and protons in atmosphere measured by spectrometer experiments on Gemini spacecraft
[NASA-CR-65604] 11 p1973 N67-23326
Thermostability of stilbene spectrometer used to measure neutron and gamma ray spectral distribution and intensity
[BRL-MR-1866] 15 p2715 N67-28684
Monte Carlo method of analyzing characteristics of spectrometer with boron-hydrogen scintillator 17 p3137 N67-31278
Gamma scintillation spectrometer design based on electron-positron pair formation 17 p3070 N67-31281
Energetic electron intensities obtained from scintillation spectrometer aboard Hitch-Hiker I 18 p3324 N67-31789
Scintillation detector for gamma ray spectrometry
[ISO-495] 19 p3393 N67-33453
Ionization spectrometer design for hadron detection using iron and scintillators
[MURA-725] 22 p4048 N67-37588
Continuous fast neutron spectra from single crystal scintillation spectrometer 23 p4311 N67-38968
Anticoincidence scintillation shield gamma spectrometer 23 p4254 N67-38970
Optimal size of scintallator for single crystal fast neutron spectrometer 23 p4254 N67-38982
Stabilization circuit for amplifier channel of fast neutron scintillation spectrometer 23 p4254 N67-38984

SCINTILLATOR
Absolute thermal neutron density measurements by activation method using liquid scintillators 06 p0937 N67-16370
Absolute beta activity measurements of thermal neutron activation cross-sections of phosphorus, iodine, and indium in relation to sodium and manganese using liquid scintillators 06 p0938 N67-16380
Journal of Applied Spectroscopy articles on ruby lasers and activated alkali halide scintillators
[FTD-HT-66-310] 07 p1096 N67-17169
Emission telescope for studying light intensity versus time of scintillators and Cerenkov radiators in subnanosecond time domain
[EGG-1183-2122] 10 p1701 N67-20780
System for measuring fast scintillation decay times
[ORO-3349-2] 10 p1634 N67-21471
Oxygen and organic compound effects on quenching of toluene scintillators
[EGG-1183-2111] 10 p1579 N67-21590
Determination of gravity center of particle shower using scintillator double wedge
[BMWF-FB-W-66-03] 14 p2588 N67-27196
Low energy beta counts of labeled compounds with liquid scintillators
[CEA-R-3067] 15 p2647 N67-27918
Neutron capture cross section measurements for medium and heavy nuclei using large liquid scintillator
[KFK-455] 15 p2767 N67-28490
Modified stethoscope acceptability and effectiveness for use in areas of high noise levels on aircraft carrier
[AFCRL-66-528] 16 p2896 N67-29636
Methods for rapid measurement of decaying luminescence processes of scintillators
[BMWF-FBK-67-17] 21 p3917 N67-36693

SCORPIO CONSTELLATION
Balloon telescopic measurements of strongest X-ray source in Scorpius
[NASA-CR-79717] 01 p0148 N67-10873
Variability in fluxes received from astronomical X-ray sources - identification of Sco X-1 in Scorpio
[NASA-CR-81747] 07 p1194 N67-18091
Sounding rocket data analyzed for X-ray source in Scorpio constellation 09 p1510 N67-19651
X-ray emission from Sco X-1, Scorpio constellation 09 p1510 N67-19652
Location of Sco X-1, strong X-ray source in Scorpio constellation, from analysis of sounding rocket observations 09 p1510 N67-19653
Optical identification of Sco X-1, Scorpio constellation 09 p1510 N67-19654

SCOUT LAUNCH VEHICLE
Design, development, and qualification testing of Castor IIA rocket engine for second stage Scout launch vehicle application
[NASA-CR-66250] 04 p0603 N67-13570
Feasibility study of long term storing of Scout and other solid propellant launch vehicles in assembled, flightworthy configuration and facility requirements
[NASA-CR-66321] 11 p1983 N67-22887
Press kit on United Kingdom UK-E third Ariel satellite launching
[NASA NEWS RELEASE-67-96] 11 p1983 N67-23337
Transfer function used to calculate expected vibration levels at locations of Scout Launch Vehicle from noise levels during flight 14 p2625 N67-27068
Program considerations and results of feasibility study for small, recoverable lifting reentry vehicle test bed launched by Scout vehicle
[NASA-CR-66390] 17 p3168 N67-31235

SCR
S SILICON CONTROL RECTIFIER /SCR/

SCRAMJET ENGINE
Chemical kinetics of supersonic combustion and heterogeneous turbulent jet mixing related to design and operation of scramjets
[AFOSR-66-1855] 01 p0145 N67-10510
Research summarized on scramjet combustion, including diffusion flames, fuel oxidizer system, mixing process, and chemical reaction
[AFOSR-66-2479] 06 p0981 N67-16446
Air Force scientific and engineering programs in mechanical systems control, nuclear spectrometry, aircraft guidance, fuels and supersonic test facilities, and thermodynamic processes
[AD-641921] 07 p1211 N67-16941
Hypersonic hotshot tunnel facilities for scramjet engine testing 07 p1058 N67-16949
Calculations for diffusion controlled combustion of hydrogen for application to scramjet engines
[NASA-CR-66363] 13 p2396 N67-25990
Flow models using combustion process to assist in engine compression 19 p3533 N67-33384
Two-dimensional turbulent mixing scaling laws of mixing, heat transfer and skin friction for use in design of scramjet engine combustors 19 p3523 N67-33386

SCREEN
Optical and physical properties of projection viewing screens
[NAVTRADEVCEN-IH-63] 12 p2103 N67-24739
Evaluation of large screen television display for air traffic control applications
[RD-66-69] 12 p2145 N67-24873

SCREEN EFFECT
Intensification of front lead screen for gamma ray radiography
[NSJ-TR-66] 23 p4312 N67-39042

SCREENING TECHNIQUE
Method for testing, screening, and lot rejection of integrated circuits for Apollo guidance and navigation computer 01 p0047 N67-10187
High reliability screening of semiconductor and integrated circuit devices
[NASA-CR-81319] 07 p1049 N67-16772
Correlation between noise measurement and failure in transistors as screening technique
[NASA-CR-83896] 13 p2294 N67-25959
Failure modes for transistors and evaluation of stress and noise screening techniques
[NASA-CR-57656] 13 p2295 N67-26279
Effects of overlapping frames on speed and accuracy in screening and interpretation of aerial photographs
[AD-649908] 16 p2896 N67-29670
Corrections for screening in beta decay calculated from solutions of Klein-Gordon equations with Hulthen and Coulomb potentials
[RISO-146] 17 p3132 N67-30852
Pilot process for fabrication of screened resistors on ceramic substrates 18 p3243 N67-31576
Feasibility of fabricating thick film, insulated gate field effect transistor using integrated screened circuit technology 18 p3243 N67-31577
Electronic structure of iron series impurities in copper, impurity screening in inhomogeneous electron gas, crystal potential for grey tin, and branching diagrams
[QPR-64] 19 p3522 N67-33058
Simple random phase approximation impurity screening in inhomogeneous electron gas for determining conduction band electron behavior in real metals 19 p3523 N67-33060
Screening test for measuring electric parameters of commercial power transistors
[NASA-TM-X-52301] 21 p3812 N67-35316
Screening and overlapping imagery effect on speed and accuracy of aerial photograph interpretation
[BESRL-TRN-83] 21 p3851 N67-36184
Flying spot scanner used for semiconductor device screening and identification of surface and junction phenomena 23 p4223 N67-38464
Integrated circuit reliability screening techniques which can be used with standard process that produces material suitable for less stringent reliability applications 23 p4223 N67-38467
Screening tests of hydrogen barrier coating for zirconium alloys used in heavy water organic cooled reactor
[AI-CE-27] 24 p4491 N67-39720
Mountain clear air turbulence measurements by T-33 aircraft, screening principles and methods, and vortex wake measurements behind Douglas DC-8 aircraft
[DME/NAE-1967/2/] 24 p4373 N67-40325

SCREW DISLOCATION
Exact solution for stresses produced by screw dislocation pileup at circular inclusion of finite rigidity
[NASA-CR-79742] 01 p0160 N67-10667
Effects of second phase size and rigidity on stresses associated with blocked screw and edge dislocation arrays
[NASA-CR-83043] 10 p1703 N67-20411
Crystal stress calculations considering free surface, static edge, and screw dislocations
[JUL-142-RW] 10 p1705 N67-21079
Field ion microscopic determination of screw dislocations during degradation of tungsten, tantalum, and nickel monocrystals
[TIL/T-5046] 15 p2782 N67-28843
Germination, growth, and properties of screw dislocations
[CEA-R-2916] 19 p3523 N67-33161
Dislocation velocity in copper and zinc
[CALT-473-13] 22 p4074 N67-38013

SDCS
S SCIENTIFIC DATA CONDITIONING SYSTEM

SDP
S SITE DATA PROCESSOR /SDP/

SEA
S BALTIC SEA
S MARE
S OCEAN
SEA LAUNCH
Sea launched San Marco-B design, communication system, and instrumentation for equatorial atmospheric density measurements
[NASA NEWS RELEASE-67-93] 11 p1982 N67-23886
SEA WATER
Bacteria destruction in sea water by self-purification processes of diatomic and peridinian algae
[FTD-TT-65-1006] 01 p0019 N67-11096
Rate and extent of plutonium reaction in natural sea water and in sea water solutions containing added salts - radioactive contamination
[USNRDL-TR-1050] 03 p0357 N67-13863
Sea surface temperature determination from Tiros VII satellite data 04 p0537 N67-13499
Temperature of surface water and radiation components of Hudson Bay surveyed by airborne instruments
[TR-26] 06 p0070 N67-15350
Surface and reflection effects on microwave propagation path across sea water
[NSTIC/67072/66] 06 p0644 N67-16500
Salt spray tests conducted to determine corrosion resistance of submarine magnesium signal coated with plastic film
[NOLTR-66-110] 06 p0695 N67-16592
Chemistry and analysis of trace metals in sea water
[TID-23296] 07 p1072 N67-17482
Corrosion and service life of carbon and alloy steels in sea water
[ORNL-TM-1612] 07 p1102 N67-17685
Normal mode sound field for harmonic point source in shallow water with negative gradient 08 p1326 N67-18496
Radiation measurements, atmospheric chemistry, sea ice physics, and carbon dioxide in surface water
[AR-6] 10 p1617 N67-20453
Measurement of carbon dioxide in surface waters of Puget Sound, Washington 10 p1618 N67-20455
Electromagnetic wave propagation in conducting media of sea water - annotated bibliography
[TG-230-B6] 10 p1585 N67-20707
Experiments in deep ocean environments to determine whether unusual corrosion phenomena exist at great depths that are not present in water near surface
[MEL-429/66] 10 p1659 N67-21875
Intermediate and microwave radiative measurements from weather satellites to determine reflections and surface emissions from sea water
[NASA-CR-83518] 11 p1865 N67-22259
Soviet techniques and instruments for measuring temperature, optical density, salt content, electric conductivity, depth, and current velocity of sea water
[JPRS-39881] 11 p1878 N67-22358
Hydroacoustic system for telemetering data on sea water transparency 11 p1878 N67-22359
Multipass photoelectric photometry system for sea water transparency measurements 11 p1879 N67-22360
Digital technique for computing position of photometric wedge when measuring optical density of sea water 11 p1879 N67-22361
Shipboard adjustment techniques and operation of contactless laboratory meter for measuring salinity of salt water 11 p1879 N67-22362
Induction salinity meter for measuring sea water salinity and transmitting data to ship in binary code 11 p1879 N67-22364
Induction-type sensor for determining electrical conductivity of sea water 11 p1879 N67-22365
Deep water temperature measurement sensors with multiple frequency bands 11 p1880 N67-22367
Sounding thermometer design with induction pressure sensor and two-coordinate recorder for temperature and depth measurements of sea water 11 p1880 N67-22368
Copper resistance thermometer as sensor for measuring sea water temperature 11 p1880 N67-22369
Thermoelectric sensors for temperature fluctuation of sea water, and technology for multijunction radiation scattered by water 11 p1880 N67-22370
Sea water current velocity measurements based on recording of Doppler frequency shifts in radiation scattered by water 11 p1880 N67-22371
Device for visual readout of binary data on sea water measurements 11 p1881 N67-22376
Device for measuring turbulent fluctuations of electric conductivity and temperature in sea water 11 p1881 N67-22379
Acoustic reverberation at sea surface - wind driven sea surface statistics for determining scattering and reflection strength of surface and subsurface
[P-284] 11 p1938 N67-22540
Long term distributions of visually estimated wave heights and periods for sea zones on North Atlantic and North Pacific Oceans using Weibull distribution function
[REPT.-66-12-S] 11 p1871 N67-22904
Detection of neutron capture gamma rays produced in sea water 13 p2371 N67-25483
Vertical water motions in ocean
[REPT.-17] 15 p2695 N67-27806
Lubrication effects of chemical compounds contained in sea water
[NAEC-AML-2556] 15 p2719 N67-28038
Airborne measurements of infrared sea temperature in northern Gulf of Mexico
[TR-2] 16 p2806 N67-29516
Shallow sea seismic investigations and nuclear research in Chinese Peoples Republic
[JPRS-40689] 17 p3181 N67-30892
Seismic investigations in shallow sea water 17 p3051 N67-30893
Interaction between surface and internal waves in shallow water
[NEL-1432] 17 p3049 N67-31310
Approach to analysis of sea surface temperature data recorded by merchant vessels for use in hurricane forecasting in Gulf of Mexico
[AD-653369] 18 p3291 N67-33462
Formation of ocean waves from wind cyclones, and dynamic propagation of wind waves over ocean surface
[JPRS-41349] 19 p3449 N67-33821
Tank in conjuction with wind tunnel used to test effect of water waves and wind on model ships 20 p3518 N67-34614
Degrading effects of sea reflection multipath fading on synchronous satellite 21 p3795 N67-35582
Monthly hydrographic phenomena in transition region between ocean coastal and slope water
[AD-655839] 23 p4089 N67-37581
Cold worked aluminum alloy sensitivity to directional variations of stress-corrosion cracking in sea water
[NSRDC-2436] 23 p4072 N67-37582
Measurement and interpretation of motional electric fields in ocean currents
[AD-655891] 23 p4241 N67-38128
Electrochemical characteristics of aluminum alloy anodes determined in sea water
[NRL-MR-1792] 23 p4262 N67-38172
Electrochemical corrosion rate measurements of Haynes 25 alloy in sea water
[USNRDL-TR-67-64] 23 p4263 N67-38175
Environmental testing - corrosion behavior of stainless steels in sea water
[NRL-MEMO-1795] 24 p4464 N67-39544
SEALANT
Adhesives, sealants, and gaskets developed to operate in space environment
[NASA-SP-5066] 06 p0697 N67-16660
Thermal and mechanical properties of elastomers and sealants
[RAE-TN-CPM-53] 11 p1962 N67-22711
Solvent-resistant urethane-type sealants with high mechanical properties and excellent adhesion to aluminum substrates
[AD-650215] 16 p2843 N67-29231
Plastics, elastomers, polymeric coatings, adhesives, and sealants in military applications
[PLASTEC NOTE-16] 20 p3463 N67-34350
Foamed nonrigid plastic use as seal of sleeve-type penetrations into cells maintained under negative pressures in radioactive processing
[ORNL-TM-1858] 23 p4270 N67-39060
SEALING
SA GASKET
SA HERMETIC SEAL
SA PUMP SEAL
Operation of cascade contact seals
[FTD-HT-66-351] 01 p0079 N67-11171
Performance characteristics of conical face high pressure rotary shaft seals
[AECL-2351] 04 p0686 N67-13986
Hydroproof, pneumatic proof, cycle, and seat erosion qualification tests on low torque three piece valve seats with various material components for upper seat ring
[NASA-TM-X-53866] 05 p0712 N67-14918
Lubricant leakage rate through noncontact slinger pump and screw seal assembly to simulated space vacuum environment
[NASA-TN-D-3642] 07 p1062 N67-17506
Design concepts and engineering developments for mainshaft seals of advanced gas turbine
[NASA-CR-53453] 08 p1356 N67-19126
Sealing of plastic film by electronic welding to aid in control of alpha contamination in plutonium manufacturing facility
[ISO-SA-23] 10 p1639 N67-20990
Compilation of abstracts on screw-type rotary shaft seals
[BIB-23] 11 p1890 N67-23027
Force cycle of vacuum gasket seals
[IA-1089] 12 p2106 N67-23737
Design of compressor end, stator interface, and stator pivot seals for advanced air breathing engines
[NASA-CR-53786] 13 p2356 N67-25457
Improved performance of face contact seal in liquid sodium by incorporation of spiral groove geometry
[NASA-TN-D-3943] 13 p2336 N67-25642
Load deflection data for grooves and between flanges with toroidal elastomer sealing rings
[AWRE-O-82/66] 13 p2330 N67-26312
Pile type high discharge rate nickel-cadmium squib batteries - cell sealing using rubber to metal adhesive bonding
[NASA-CR-84470] 14 p2449 N67-27514
Deflection and thermal analyses of main shaft seals for advanced air breathing propulsion systems
[NASA-CR-85806] 17 p3073 N67-31128
Design and feasibility analyses on diaphragm thin strip seal, one side floated shoe compressor end seal, and stator pivot seal
[NASA-CR-85891] 17 p3073 N67-31131
Theory and performance of viscoseal and buffered seal under laminar and turbulent conditions
[NASA-CR-85893] 17 p3074 N67-31930
Conference on design of leak tight separable fluid connectors
[NASA-TM-X-69234] 21 p3866 N67-35563
Surface interactions against leakage from metal to metal sealing 21 p3897 N67-35572
Functional analysis and model construction of helium leak tight seal 21 p3857 N67-35575
Component reliability and behavior of sealing systems 21 p3858 N67-35580
Longitudinal and circular pressure sealing closures for full pressure protective suit assemblies
[AMRL-TR-67-59] 24 p4389 N67-39794
SEAPLANE
Low speed wind tunnel tests of powered scale model of open-ocean V/STOL aircraft
[DTMB-2181] 16 p2817 N67-29049
Hydrodynamic characteristics of six-engine hull-type seaplane model designed for supersonic flight
[NACA-RM-L58E13] 18 p3192 N67-31965
SEARCH RADAR
Optimal algorithm for multi-step search procedure with mathematical model for radar search problem 03 p0375 N67-13866
Analysis of relationships between radar and mission parameters pertaining to search and acquisition of target spacecraft 04 p0611 N67-13823
Clutter model for design and performance of early warning system radars
[NADC-AE-6630] 06 p1282 N67-19234
Optimization of scan pattern of search radar
[TG-844] 10 p1583 N67-20529
Pulse coding to reduce effect of ground clutter on airborne search radars
[NRL-6589] 15 p2668 N67-28222
Incoherent sequential detector performance evaluation for search radar

system design application
[RM-5318-PR] 20 p3800 N67-34352
SEASONAL VARIATION
Atmospheric circulation and seasonal climatic variations, drifting radiometeorological stations, and heat balance measurements
[JPRS-38779] 03 p0418 N67-12801
Lower stratospheric circulation and seasonal variations in troposphere 03 p0419 N67-12802
Secular and seasonal variations of atmospheric droughts in Ukraine 03 p0419 N67-12805
Annual and seasonal trends and fluctuations of temperature and precipitation in various regions of British Columbia
[CIR-4296] 04 p0571 N67-12900
Quantitative estimates of variation of reflection coefficient with angle of incidence for low frequency radio waves using ionospheric model
[RAE-TR-66221] 04 p0646 N67-14310
Use of averaging in climatological research 05 p0721 N67-14390
Model atmospheres representing conditions for summer and winter at latitudes to 60 degrees as functions of solar flux and time-of-day above 120 kilometers
[AFCRL-66-564] 05 p0707 N67-15336
Weather forecasting based on studies of cloud physics and seasonal variations during monsoon period in Arizona
[ECOM-2761] 09 p1473 N67-19736
Conference on diurnal, seasonal, and synoptic aspects of tropical meteorology
[ML-66310] 10 p1669 N67-20422
Disturbance lines, scattered and local thunderstorms, dry season, and harmattan dust haze - mesoscale meteorological phenomena in Nigeria and West Africa 10 p1671 N67-20430
Diurnal circulations and their climatic significance in eastern Africa 10 p1671 N67-20435
Seasonal variations of atmospheric ozone 10 p1619 N67-20491
Multicolor photographic and visual patrol of atmosphere and surface of Martian northern hemisphere during spring and summer of 1964-1965 apparition
[NASA-CR-83123] 10 p1761 N67-21180
Statistical approach and two curve fitting approaches to analysis of 15 mu infrared horizon radiance profile variations over range of meteorological, and geographical conditions
[NASA-CR-725] 11 p1916 N67-22776
Seasonal variations in concentration of airborne radon and thoron daughters 13 p2311 N67-25470
Seasonal and regional hail intensity indices for wheat, corn, soybeans, and cotton in midwestern states - insurance risk
[RR-36] 14 p2569 N67-27767
Temporal variations of intensity and temperature in hydroxyl bands of auroral emission 15 p2696 N67-27886
Time-lapse color photography to determine military implications of seasonal environmental changes
[AD-634676] 15 p2697 N67-27955
Seasonal variation factor in rate of earth rotation during 1960 and 1961 15 p2701 N67-28000
Diurnal and seasonal variations in trough seen in ionospheric electron content observed at high altitudes
[SR-12] 16 p2983 N67-29225
Spread-F irregularities, and diurnal, seasonal, and sunspot cycle variations in relation to other ionospheric parameters 16 p2856 N67-29283
Spread-F characteristics near magnetic equator studied from hourly and seasonal variations in echo displays from zenith probes of F region 16 p2856 N67-29284
Seasonal variation of movement and turbulence in equatorial F layer ionization 16 p2859 N67-29309
Sound velocity and temperature data for North Atlantic area in terms of monthly and seasonal variations
[NADC-AE-6719, VOL. I] 16 p2867 N67-29455
Seasonal variation of damaging hail in fixed areas of Illinois
[CHIAA-RR-33] 16 p2925 N67-29845
Long waves, seasonal variations, and long range weather forecasting 17 p3007 N67-30410
Seasonal variation, interstellar meteors, and sporadic meteor activity observed with radar 18 p3330 N67-32048
Seasonal climatic changes revealed by time-lapse photography
[TR-67-34-ES] 18 p3368 N67-32684
Diurnal and seasonal variations in ionization and recombination processes in F-2 layer 19 p3437 N67-32820
Seasonal variations of endocrine-metabolic indices for men in subtropics
[AD-647620] 19 p3373 N67-33033
Stochastic models for forecasting seasonal time series
[TR-104] 19 p3484 N67-33094
Diurnal and seasonal-latitudinal variations in upper atmosphere
[NASA-CR-87278] 19 p3442 N67-33363
Atmospheric ozone measurements at Barrow, Alaska
[AD-652745] 20 p3631 N67-34418
Variations in data with season and latitude of density, temperature, and composition in lower thermosphere
[AFCRL-67-0161] 21 p3841 N67-36164
Model atmospheres for latitude and seasonal variations in thermosphere
[AFCRL-67-0330] 22 p4033 N67-36752
Seasonal and annual variations in cosmic ray bursts and meson component 23 p4338 N67-38220
Seasonal variation of standard deviation of hourly values of F-2 layer 23 p4242 N67-38234
Seasonal, diurnal, and 27-day variations of mesospheric temperature determined by underground cosmic ray measurements 23 p4242 N67-38226
Seasonal wind statistical data applied to zonal and meridional wind components over Northern Hemisphere
[REPT.-63] 23 p4242 N67-38247
Monthly and annual mean values of geomagnetic element variations for Nurmijarvi observatory, Finland, 1953-1965 - tables 23 p4243 N67-38413
Latitude gradient hypothesis explaining semiannual effect in satellite orbit decay data
[LMSC-6-77-67-40] 23 p4345 N67-38875
SEAT
SA EJECTION SEAT
Collar and chain procedure for transporting and seating monkeys
[ARL-TR-66-14] 01 p0016 N67-10483
Human factors requirements for design of helicopter aircrewmen seat and groin protective units
[EPR-11] 07 p1020 N67-17248
Fire and flame resistant fabric for aircraft upholstery
[NAEC-AML-2553] 12 p2125 N67-24484
Surface finish, piping configuration, and leak tightness evaluations on seat materials for pressurizer steam relief valve
[Y-EF-22] 15 p2747 N67-28414
SEAT BELT
Feasibility of upper body restraint installation in general aviation aircraft
[AM-66-23] 12 p2015 N67-24044
SECOND
SA NANOSECOND
Theoretical basis for double precision orbit determination program - formulation for computing two-way Doppler and round-trip range 06 p0837 N67-15906
SECOND STAGE
Extra thin stainless steel structures used in second stage of ELDO launch vehicle 08 p1370 N67-18422
Chemical aspects of nitrogen peroxide and dimethyl hydrazine propellants used for second stage of launch vehicle Europa 1 11 p1810 N67-23492
Solar and terrestrial optical radiation measurements for determining heat loads of second stage fuel and oxidant tanks and equipment of European I launch vehicle
[WRE-TN-PAD-123] 13 p2314 N67-26195
Aerodynamic stability of Tomahawk sounding rocket flown as second stage of Nitehawk 9 system
[CONF-670309-1] 19 p3539 N67-32930
SECONDARY AIR
Influence of base bleed on base drag of model internal expansion propelling nozzles
[ARC-CP-892] 09 p1505 N67-20332
SECONDARY EMISSION
Least squares method used for determining momentum spectra of secondary particles in anti p,N interactions at 7 GeV
[JINR-E-2738] 03 p0445 N67-13299
Secondary electron emission from copper surfaces in multipactor effects study 06 p0833 N67-15745
Secondary electron distribution for heavy ions 06 p0802 N67-15951
Secondary electron emission statistics of nickel and iron determined and compared with Poisson distribution
[TIL/T-5706] 09 p1504 N67-20315
Power law and constant loss models in secondary electron emission
[AFCRL-66-697] 12 p2161 N67-23635
Linear electron multiplier and physical properties of secondary emission
[NP-16430] 13 p2293 N67-25541
Secondary emission in ion energy experiment 14 p2600 N67-27605
Suitability of angular parameters of neutron reactions as measures of neutron energy
[AERE-M-1850] 17 p3107 N67-30421
External photoelectric effect and secondary emission in photoelectric detector - cathode illumination
[CEA-R-3143] 19 p3526 N67-33679
Secondary emission and charge transport from targets in proton beam
[CERN-67-17] 20 p3696 N67-34580
Mathematical model for secondary electron emission and radiation induced conductivity in insulating materials
[AFCRL-67-0459] 24 p4517 N67-40110
SECONDARY FLOW
Secondary flow phenomena in general viscoelastic fluids 05 p0692 N67-14475
Secondary water flow rates in vertical diffuser of decreasing length using rocket exhaust jet as motive fluid - model sound compressor
[NASA-TM-X-53543] 06 p0955 N67-16050
Approximation method for calculating axially symmetric turbulent boundary layers with secondary flow in cyclone separator and in vortex classifier
[DLR-FB-67-56] 24 p4434 N67-40438
SECONDARY HARMONIC GENERATION
Plasma studies dealing with statistical theory of radiation, bremsstrahlung and conductivity, and generation of second harmonics by spatial inhomogeneities of charge distribution
[AD-644368] 09 p1491 N67-19580
Nonlinear second harmonic generation in lossy plasma using method of coupled modes
[RADC-TR-67-276] 17 p3142 N67-30516
SECONDARY INJECTION
Mixing chamber employing upstream injection of secondary airflow designed and tested in conjunction with Mach 4.0 nozzle
[AEDC-TR-66-148] 06 p0868 N67-16403
Secondary jet flow interaction in hypersonic free stream - structure and flow separation ahead of jet 08 p1274 N67-19304
SECRETION
Influence of transverse radial accelerations on pancreatic secretion of animals 02 p0185 N67-11450
Reduced barometric pressure effect on secretory function of salivary glands in humans and dogs
[FTD-TT-65-1678] 11 p1792 N67-22724
SECTION
S AIRFOIL SECTION
SECURITY
Security problems in processing classified information, and in time sharing computer environment
[SP-2440/000/01] 07 p1043 N67-16940
National security and control of outer space by international efforts of United Nations 13 p2431 N67-25252
National sovereignty and security related to space flights and international controls 13 p2434 N67-25271
Role of United Nations in fostering cooperative efforts for world security and peaceful uses of outer space 13 p2435 N67-25283
National security and sovereignty and international laws for use of outer space 13 p2438 N67-25306
Space law problems, legal implications of national sovereignty and security, and liability for damage caused by spacecraft 13 p2439 N67-25310
Legal thinking and policies resulting from space exploration, military restrictions from use of outer space, and security of sovereign states 13 p2439 N67-25311
SEDAN PROJECT
Mathematical expressions for washout of particulate matter in radioactive clouds produced by nuclear explosions - Sedan

event
[UCRL-14700] 03 p0392 N67-13252
SEDIMENT
Archaic hemorheology and historical significance of blood sedimentation 05 p0641 N67-14563
Sedimentation, and bed-material movements in waterway studied by luminescent and radioactive tracers
[EUR-3130.F, VOL. IV] 07 p1068 N67-17921
Underwater shock wave propagation in vicinities of sloping bottom, icecap, and sedimentary bottom
[U-246-174] 09 p1441 N67-19635
Chemical aspects of decomposition of brake fluids - brake fluid sediment caused by rubber cups
[CCL-221] 12 p2126 N67-24861
Calculation of shear stress caused by sedimentary flow at wall in closed tube using Reynolds equations for turbulent flow
[REPT.-37] 13 p2314 N67-26112
Stratigraphy and absolute age determined on cores of deep-sea sediments in western Pacific
[REPT.-14] 14 p2528 N67-27631
Sedimentologic studies of Colorado delta
[USC-GEOL-67-1] 22 p4035 N67-36900
Normally-incident reflectivity of sea floor and its correlation with physical and geological properties of sediment
[REPT.-67-16] 22 p4037 N67-37317
SEDIMENTARY ROCK
Stratigraphy of uppermost part of basalt sequence beneath Hanford, Washington region 04 p0541 N67-13742
Extraterrestrial particles in sedimentary rocks
[AFCRL-66-628] 05 p0706 N67-15306
Aliphatic hydrocarbons in Precambrian rocks
[NASA-CR-81776] 07 p1075 N67-18140
Isolation and identification of organic components of meteorites, and ancient sediments
[NASA-CR-82659] 08 p1240 N67-19130
Density characteristics of sedimentary rocks in Black Sea region determined from analyses of physical properties
[ACIC-TC-1146] 10 p1636 N67-21347
Mass spectrometric determination of rare earth trace elements in aged sediments
[NASA-TM-X-55796] 14 p2528 N67-27577
Preparation and separation of magnetite spherules from sedimentary rocks 16 p3334 N67-32963
Recovery of magnetic spherules in sedimentary rock
[AFCRL-67-0515] 22 p4035 N67-36898
SEEBECK COEFFICIENT
Seebeck coefficients of iron and tungsten 09 p1499 N67-19632
Seebeck coefficient of semiconducting glasses based on vanadium pentoxide
[TR-4] 14 p2602 N67-26873
SEEBECK EFFECT
SA PELTIER EFFECT
SA THOMSON EFFECT
Electrical resistivity and Seebeck effect of thulium single crystals 21 p3923 N67-36378
Seebeck effect and electrical conductivity of stannic oxide as function of temperature and ambient pressure
[NASA-CR-89345] 23 p4333 N67-39067
SEEDING
SA CLOUD SEEDING
Magnetohydrodynamic generator experiments in seeded hypersonic air flows for attitude control systems, and plasma accelerator for increased kinetic energy in unseeded air flow
[R66SD50] 05 p0744 N67-14731
Space flight effects on wheat seeds and plants produced from them 05 p0652 N67-14877
Classification of fog nuclei, and determination of drop sizes and concentration in seeded and unseeded fogs
[NASA-CR-81755] 07 p1119 N67-18084
Project Cold Fog I - ground-based techniques for dry-ice seeding of supercooled fog and stratus 12 p2134 N67-23488
Evaluation of fog seeding experiments in thermal diffusion chamber
[NASA-CR-83854] 13 p2352 N67-25636
Thermal absorption in seeded gases
[NASA-CR-811] 16 p2963 N67-29399
Warm fog properties and fog modification by preseeding atmosphere with sodium chloride
[NASA-CR-86686] 18 p3291 N67-32510
Meteorological fluctuations in clouds, cirrus cloud seeding as trigger for storms, raindrop evaporation, natural ice crystals, and convective clouds - papers on cloud physics
[TN-36] 22 p4067 N67-37344
Nuclear reactor seeded helium plasmas used in magnetohydrodynamic generators
[AD-657199] 23 p4316 N67-38280
Engineering parameters calculated for gas cooled reactor for seeding and gas heating in magnetohydromagnetic generator 23 p4284 N67-38284
SEEKER
SA HOMING DEVICE
SEGRE CHARACTERISTIC
Relativistic space-times having corresponding geodesics, classified according to Segre characteristics
[NASA-CR-89771] 24 p4483 N67-40473
SEGREGATION
Microsegregation in dendritic solidification of ternary iron-carbon-chromium alloys
[AMRA-CR-63-04/4] 13 p2115 N67-23638
SEISMIC ENERGY
Problems of seismic force, vibrational resistance, and hydraulic structures in earthquake engineering 07 p1071 N67-17334
Absorption analysis for elastic waves in seismological frequency range
[AWRE-O-43/66] 07 p1074 N67-18059
Tectonic movement, regional faults, and a seismic nature of Antarctica 11 p1867 N67-22344
Endogenous seismicity of moon and role in producing morphological features and modifications of lunar surface 18 p3237 N67-31943
SEISMIC WAVE
SA MICROSEISM
Short period seismic noise studies on spectral moments, sources of microseisms, surface waves, and statistical analysis
[TR-66-30] 01 p0069 N67-11005
Analysis of Long Shot nuclear explosion data from Canadian seismograph stations
[SR-13] 01 p0070 N67-11198
Focal mechanisms of earthquakes, azimuthal departure of P wave motion from great circle path, depth of focus determinations, and phase velocity of surface waves
[AD-640637] 05 p0699 N67-14380
Crustal seismic refraction and reflection measurements
[AFCRL-66-519] 05 p0702 N67-14789
Depth of focus effect on seismic waves
[AFCRL-66-569] 05 p0706 N67-15307
Soviet literature on computer reliability, seismic waves, semiconductors, ocean sediments, mobile lunar station, scientific conferences, and other technical activities 06 p0885 N67-16075
Seismic scale model study of refraction arrivals in three-layer structure
[AFCRL-66-571] 06 p0873 N67-16139
Procedure for spectral analysis of seismic body waves
[AFOSR-66-1835] 06 p0874 N67-16184
Method using motion equation for solving problems in seismic wave radiation from sources moving over finite distance
[SUDAAR-288] 06 p0875 N67-16443
Method of determining natural earthquake focal depths applied to underground nuclear explosions
[AFCRL-66-570] 06 p0875 N67-16468
Geophysical study of Baltic shield earth crust structure by deep seismic sounding
[ACIC-TC-1169] 07 p1069 N67-17000
Photoelastic modeling techniques for seismic wave propagation
[ECOM-2769] 09 p1441 N67-19780
Travel time and amplitude anomalies of teleseismic signals observed and corrected at Montana Large Aperture Seismic Array
[LL-1] 10 p1586 N67-21429
Ground motion due to surface sources determined by use of mechanical vibrator
[REPT.-S-158] 11 p1870 N67-22548
Least squares program used to estimate seismic data
[AWRE-O-54/66] 11 p1872 N67-22307
Effect of depth of focus on seismic pulses from nuclear explosions and earthquakes
[AFCRL-66-764] 13 p2092 N67-24008
Construction of earth crust models for seismic wave propagations from underground explosions and earthquakes
[AFOSR-67-0519] 14 p2521 N67-26889
Amplitude anomalies from various seismic events recorded by large aperture seismic array
[LL-4] 14 p2522 N67-27078
Signal processing in large aperture antenna arrays used for detecting seismic waves
[ESD-TR-67-220] 16 p2987 N67-29640
Spectral estimates of seismic events, detection of nuclear explosions in presence of large natural events, and location of epicenters by beam splitting in large aperture seismic array study
[ESD-TR-67-262] 17 p3054 N67-30628
Regional differences in travel times of shear and dilatational waves
[AFCRL-67-0285] 19 p3496 N67-33906
Analysis of travel times of S-waves from earthquakes
[AFCRL-67-0264] 19 p3497 N67-33909
Statistical correlation of gravimetric and seismic data applied to examination of diagram of Paleozoic basement structure 19 p3448 N67-33744
Site selection for seismic array station and crustal studies in Norway 1965
[AFOSR-67-1370] 20 p3622 N67-34186
Amplitudes and travel times calculated for first half-cycle of seismic P waves generated by nuclear explosions
[UCRL-50222] 21 p3836 N67-35454
Data analysis of long period seismograph network recordings
[AR-1] 21 p3838 N67-35841
Dispersion analysis of earthquakes and study of teleseismic signals with analog model data
[AFOSR-67-1581] 23 p4034 N67-36840
Seismic array response to wideband signals
[TN-1967-30] 22 p4061 N67-37609
Mathematical model of distortions in seismic waves due to crustal layers
[AFOSR-67-2077] 24 p4437 N67-39691
Geophysical subsurface structure analyses of tectonically active valley basin in Nevada - seismic and gravity measurements, aerial magnetic and geodetic surveys, and elevations
[AFCRL-66-848] 24 p4443 N67-40021
Seismic wave refraction analysis on rock formation and fault structures in Nevada valley 24 p4442 N67-40023
Seismic refraction profiles for fault zone and crystalline basement analyses of Nevada valley 24 p4443 N67-40024
Reversed seismic refraction profile analyses for valley structures in Nevada 24 p4444 N67-40022
Reversed seismic refraction profiles of central Nevada rock formations 24 p4444 N67-40030
SEISMOGRAPH
Short-period noise in data recorded at four-seismograph array in Greenland
[TR67-9] 13 p2094 N67-24971
Network organization, instrumentation, and data analysis summaries for worldwide network of long period seismographs using magnetic tape recording systems
[AFCRL-67-0449] 23 p4343 N67-38183
SEISMOLOGY
Seismic wave propagation and seismology data analysis
[AFCRL-66-478] 01 p0069 N67-10994
Error analysis of digital equalizing filters related to seismic wave propagation data
[REPT.-5178-64-F2] 01 p0070 N67-11056
Improved high resolution seismic reflection refiling system for obtaining visual analog of underwater geologic cross sections
[AD-639180] 02 p0254 N67-11254
Earthquakes in U.S.S.R. during 1962
[JPRS-30678] 03 p0385 N67-12223
Bibliography of technical reports and translations in field of seismology
[AD-631056] 03 p0397 N67-12457
Seismologic detection and signal processing, simulation, and communication
[ESD-TR-66-463] 03 p0391 N67-12322
Research projects and seismic and gravimetric instrumentation at Swedish university and geophysical observatory 04 p0530 N67-14234
Seismic survey northwest Greenland - 1964
[CRREL-RR-191] 05 p0705 N67-15281
Theoretical seismograms for propagation in flat and spherical earth, seismic travel times from Pacific nuclear explosions, and abstracts of papers on seismological research

[AD-641201] 06 p0870 N67-15354
Geophysics review of achievements in meteorology, climatology, and seismology
[NASA-TT-F-383] 06 p0870 N67-15421
Seismological instrumentation, earthquake and nuclear explosion detection, and engineering construction applications 06 p0870 N67-15426
Signal processing, simulation, and communications system parameters in seismology study
[ESD-TR-66-514] 06 p0874 N67-16329
Seismological studies of velocity structure in earth mantle and wave propagation in atmosphere-ocean system
[AFOSR-67-0178] 07 p1074 N67-17859
Seismic data recorded from LONG Shot underground explosion
[AWRE-O-67/66] 07 p1075 N67-18070
Establishment and operation of New England seismic network - refraction studies, anomalous delays in teleseismic arrivals, local earthquakes, and crustal transfer function
[AFCRL-66-757] 09 p1441 N67-19608
Dependency of value of Bouguer anomaly on thickness of earths crust
[ACIC-TC-1145] 10 p1636 N67-21349
Large aperture seismic array amplitude scatter
[LL-2] 10 p1586 N67-21351
Fast automatic station bulletin program - real time computer program using seismology data as input
[TN-1967-3] 11 p1831 N67-23170
Internal structure and physics of Earth, including thermal history, seismological data, gravitational field, rheology, and bibliography
[NASA-TT-F-395] 11 p1872 N67-23321
Catalog of earth gravity, tsunami, seismology, and longitude and latitude data received by World Data Center-A for international exchange of information 13 p2317 N67-26479
Research conducted by Soviet geophysical institute in auroras, geomagnetism and geoelectricity, ionospheric and radio wave propagation, cosmic rays, and seismology 16 p2887 N67-29570
Shallow sea seismic investigations and nuclear research in Chinese Peoples Republic
[JPRS-40669] 17 p3181 N67-30392
Seismic investigations in shallow sea water 17 p3951 N67-30393
Data links for dissemination of information from large aperture seismic array
[ESD-TR-67-221] 19 p3436 N67-32701
Seismic diffraction by crustal discontinuities - Rayleigh wave transmission and fiber optics
[AFCRL-67-0122] 19 p3445 N67-32684
Rare earth chelate lasers, helium production, gas lasers, cryogenics, noise in magnetic films, seismology, cosmic rays, vacuum physics, and geomagnetic field and paleomagnetism 20 p3539 N67-34518
Signal and noise responsiveness at large aperture seismic array
[ESD-TR-67-24] 21 p3837 N67-35735
Large aperture seismic array signal processing, simulation, and communications study
[ESD-TR-66-635] 22 p4000 N67-37652
Seismological study of ground vibration characteristics at site of future linear accelerator facility
[LA-DC-8718] 23 p4347 N67-39080
Seismological studies including work on mode filters, earth core models, surface wave velocity, wave excitation, and seismograph array data processing techniques
[AD-657087] 23 p4345 N67-39156
Synthesis of dilatation and rotation seismograms 23 p4348 N67-39157
Construction of optical mode filters for application with seismic data 23 p4348 N67-39158
Seismology and tectonics in northeastern U.S.S.R.
[JPRS-42710] 23 p4349 N67-39326

SEISMOMETER
Reliability and continuity of observation, and signal to noise ratio of large aperture seismic array
[TR-421] 02 p0254 N67-11237
Subarray patterns and geometry of large aperture seismic arrays
[TN-1965-64] 03 p0387 N67-12529
Characteristics of ambient noise fields, and instrument response of subarrays for determining optimum design criteria for predetection multichannel filters - seismic array
[ESD-TR-66-553] 10 p1629 N67-20600
Lightning activity, damage to equipment, and protection circuitry in Montana Large Aperture Seismic Array /LASA/ during 1966
[AD-658177] 24 p4447 N67-40296

SEIZURE
S CONVULSION

SELECTION
S PERSONNEL SELECTION

SELENIDE
SA CADMIUM SELENIDE
SA GALLIUM SELENIDE
SA ZINC SELENIDE
X-ray analysis method during synthesis of lead, zinc, mercury selenites, and mercury selenide
[FTD-TT-65-1535] 01 p0035 N67-11072
High pressure synthesis of new crystalline lead dichalcogenides
[TR-51] 06 p0831 N67-16852

SELENIUM
Sphere-sphere technique for sintering partially vitreous arsenic-sulfur-selenium systems, and viscous flow mechanism relationships
[IS-T-60] 01 p0029 N67-10602
Excited states of arsenic 75 following decay of selenium 75
[NP-492/PL] 04 p0584 N67-13598
Diffusion of selenium in cadmium selenide at 800 deg 06 p0947 N67-16030
Neutron activation analysis to determine copper, zinc, arsenic, and iron traces in high purity selenium 06 p0827 N67-16322
Lasing potentials of compounds prepared from elements of group II and group IV in periodic table 07 p1174 N67-16953
Impurity effects in nucleation of selenium vapor onto Pyrex glass
[NASA-CR-81704] 07 p1032 N67-18042
Absorption technique for determining concentration of selenium in zirconium selenium alloys
[AERE-R-5293] 15 p2663 N67-28856
Aromatic o-diamines used in chemical analyses to determine selenium in sources of potable water 20 p3595 N67-34748
Crystal structure of rare earth compounds with antimony, selenium, and tellurium 21 p3786 N67-36319

SELENIUM OXIDE
Solid chemical analyses of selenium, americium, and titanium oxides with zirconium, hafnium, thorium, neptunium, and plutonium dioxides
[KFK-433] 16 p2843 N67-29262

SELENOGRAPHY
SA LUNAR GEOLOGY
SA LUNAR MAP
SA LUNAR SURFACE
SA LUNAR TOPOGRAPHY
Design and analysis of solid and hollow cube corner reflectors which, when placed on lunar surface, will be used in connection with earth laser system for selenodetic studies
[AFCRL-66-563] 05 p0739 N67-15043
Photographs and interpreted drawings of west lunar limb 06 p0966 N67-16104
Size of lunar craters and chronology of moon
[T-92-J] 08 p1368 N67-19215
Selenography and lunar photography 11 p1975 N67-22511
Validity of selenodetic positions 11 p1975 N67-22515
Method for determining lunar rotation constants from measurements on scaled and oriented lunar photographs 11 p1975 N67-22516
Selenodetic measures on lunar photograph 11 p1976 N67-22517
Selenodetic measures on lunar photograph 11 p1976 N67-22518
Mechanical ellipticities of the moon obtained from Lunik X motion
[D1-82-0595] 14 p2612 N67-26871
Spherical harmonic analysis of Department of Defense selenodetic control system 1966
[D1-82-0631] 24 p4527 N67-39592

SELENOLOGY
Selenodesy experiment, data compression, Mars and Venus mass data, Earth-Moon mass ratio, orbits for three-body problem, and unbraked impact time for lunar landing mission - systems analyses 12 p2208 N67-23642
Penetrometer technique applied to lunar surveying staff concept
[NASA-TN-D-3937] 12 p2099 N67-23819
Lunar crater chronology and lunar gravitation 13 p2403 N67-26132
Geology of Moses Rock intrusion studied as analog to subsurface of lunar rills 19 p3442 N67-33174
Lunar soil and rock program in support of lunar exploration
[NASA-CR-61178] 24 p4526 N67-39402

SELF-ADAPTIVE SYSTEM
SA ADAPTIVE CONTROL
Correlation between adaptability of human operator to external environmental changes and dynamics of physiological functions 02 p0220 N67-11581
Body adaptation to temperature fluctuations 03 p0338 N67-12391
Quality evaluation of oscillatory transient processes in high-speed search-free self-adjusting systems 03 p0377 N67-12527
Continuous self-adaptive system for controlling parallel linear filters, and derivation of auxiliary operator equations 05 p0687 N67-14362
Adaptive antenna techniques with very broad bandwidth capabilities for millimeter wave applications
[AFCRL-66-724] 06 p0840 N67-16079
Digital mechanization of triple redundant self adaptive flight control system compared to analog mechanization of system
[GGC/EE/66-17] 06 p0858 N67-16203
Method for making exhaustive and systematic analysis of possible causes of failure of adaptive machines to give accurate answers in suitable time
[AD-640064] 06 p0848 N67-16415
Theoretical and experimental research summaries on suboptimal self-adaptive binary communication systems
[NASA-CR-81438] 07 p1034 N67-16931
Adaptive decomposition of superposed patterns of probability density functions
[RADC-TR-66-540] 08 p1252 N67-19329
Multilayer logic networks adaptable in response to error signals relating to network performance
[U-3813] 10 p1596 N67-20673
Forced conditions of self adjustment in systems with search modulation of parameters 11 p1844 N67-22422
Abstract and research summaries of studies on suboptimal second and third generation self-adaptive binary communication systems
[NASA-CR-85900] 17 p3027 N67-31218
Conference report abstracts on automatic control and self-adaptive systems, computer technology, and mathematical modeling methods
[NASA-TT-F-11144] 17 p3034 N67-31482
Orthogonal filters applied to optimization of statistical properties of errors of self-adjusting systems
[FTD-MT-66-67] 20 p3614 N67-34718
Design feasibility and applications of adaptive antenna circuits for deep space communication - antenna concepts, environmental effects, and phase lock loops and adaptive circuitry
[NASA-CR-73119] 21 p3795 N67-35372
Self-adaptive and self-steering antenna arrays for Mars probe
[NASA-CR-73118] 21 p3800 N67-36102
Cylindrical antenna configurations spinning around axes examined for effects on received or transmitted CW signal spectrum
[NASA-CR-73120] 21 p3802 N67-36606
Concepts and applications of information theory, learning systems, and self-organizing control systems
[AD-656962] 22 p4015 N67-36841
Self-adaptive model reference automatic control system
[AD-655656] 22 p4016 N67-37268
Use of chatter mode in self-adaptive control systems where switching function describes model dynamics
[NASA-CR-88700] 22 p4017 N67-37394
Trainable multicategory pattern classifier and learning procedures studied in self-organizing machine research program
[AD-658527] 24 p4417 N67-40301

SELF-CONSISTENT FIELD /SCF/
Plasma stability in relation to minimum B configurations 12 p2180 N67-24164
Hartree Fock self consistent field wave functions of atoms and ions

[ARL-87-0014, SUPPL. III] 15 p2789 N87-28552

SELF-DIFFUSION
Self-diffusion coefficients of copper and silver evaporated deposits
[RAE-TR-66005] 01 p0137 N67-10089
Particle self-diffusion coefficients of sodium in vermiculite using thin bed technique 04 p0502 N67-13751
Self-diffusion coefficients of uranium and plutonium measured in uranium oxide at 2400 deg C
[GEAP-4877] 06 p1311 N67-18583
Diffusion and growth in anthracene crystals
[B-2130-T-11] 16 p2956 N67-29236
Viscosity and self diffusion of liquid metals and their correlation by simple kinetic theory of liquids
[RITU-1966-30] 16 p2953 N67-29677
Model for explaining chalcogen self-diffusion data in II-VI compounds 19 p3525 N67-33431
Thermodynamic properties of self-diffusion in alpha-uranium 22 p4160 N67-36959
Oxygen self-diffusion profile in solid uranium dioxide samples
[CEA-R-3179] 23 p4271 N67-39250
Homogeneity of Thailand tektites and self-diffusion measurements of silicon, strontium, and potassium
[NASA-CR-89773] 24 p4474 N67-40337

SELF-ERECTING ANTENNA
425-foot diameter passive communication satellite with self erecting properties
[NASA-CR-83807] 13 p2408 N67-25759
Optimum antenna weight distribution curves for six techniques to erect large aperture antennas
[NASA-CR-89572] 24 p4406 N67-39726

SELF-EXCITATION
Self-exciting vibrations in high performance and large load carrying axial compressors 09 p1516 N67-19490

SELF-INDUCED VIBRATION
Conference on problems of surface wave propagation and amplification, self-induced vibration, aeromagneto flutter, Rayleigh wave scattering, and traveling waves in various media 12 p2154 N67-24141
Parametric self-induced vibration of finite length plate in plane supersonic flow 12 p2222 N67-24143
Effect of self-induced thermal acoustic oscillations on forced convective heat transfer to hydrogen
[LA-3616] 22 p4161 N67-37110

SELF-IONIZATION
Configuration interaction in helium continuum and autoionization levels
[NASA-CR-71233] 07 p1156 N67-17775
Configuration interaction method for describing resonant or autoionizing states 11 p1933 N67-22117
Autoionization in anthracene through photoelectric effect produced by single photon and exciton-exciton processes
[AD-652401] 19 p3522 N67-32892

SELF-LUBRICATING MATERIAL
Formation and life histories of transfer films of self-lubricating retainer materials on ball bearings operating in hydrogen gas at 33 deg K
[NASA-TN-D-3730] 02 p0265 N67-11813
Relative wear of low and high temperature self lubricating polytetrafluoroethylene cage materials tested in ball bearings operating at high speeds at various temperatures
[NASA-TM-X-53262] 06 p0686 N67-16043
Compaction of copper and copper-molybdenum disulphide as self lubricating bearing materials
[RAE-TR-66136] 09 p1463 N67-20165

SELF-LUMINOUS BODY
S ELECTROLUMINESCENCE

SELF-MANEUVERING UNIT
Maneuvering work platform and space taxi for space exploration - independent manned manipulator units
[NASA-CR-86678] 18 p3237 N67-32572

SELF-OSCILLATION
Radio wave propagation in ionized media - signal amplification by self-oscillation, coupled wave equations in magnetoionic plasma, and transient response of isotropic medium
[AFCRL-66-894] 02 p0231 N67-11263
Amplification properties and self-oscillations of pumped ionized plasma of finite width 02 p0231 N67-11264
Wind tunnel experiments on self-excited oscillations of aircraft control surfaces in transonic flow
[NPL-AERO-1191] 06 p0787 N67-16194
Method for calculation of self-oscillations in pneumatic regulators 07 p0994 N67-16962
Methods of calculating short shells and reinforced shells, and experiments on self-oscillations of cylindrical panels in supersonic gas stream 09 p1527 N67-20062
Magnetometers for rocket and satellite experiments using optical pumping techniques - self-oscillating helium magnetometer
[REPT.-1966/3] 19 p3466 N67-33896
Hard and soft operation modes of combustion chamber model as self-oscillating thermoacoustic system
[NASA-TT-F-11268] 22 p4134 N67-37626

SELF-REPAIRING SYSTEM
Magnetic element with forked magnetic circuit to be used as self-repair unit of redundant systems 03 p0376 N67-12514
Multiprocessor organization, integrated circuit techniques, self-repairing systems for spaceborne computer designs - conference
[NASA-TM-X-53963] 07 p1044 N67-17101
Automation techniques for self-repairing digital computers in spaceborne multiprocessor systems 07 p1045 N67-17106
Error detection techniques and parallel processing evaluated for use in self-repairing digital computer systems
[MDE-1404] 10 p1587 N67-20005
Self-repair theory for digital networks based on Sequential Prime Implicant Form Technique
[ECOM-02344-1] 11 p1845 N67-22523
Spares switching method for design and construction of self repairing digital systems
[ECOM-02343-3] 13 p2296 N67-25435
Design and construction techniques for self repairing digital systems
[ECOM-02343-3] 18 p3340 N67-32688
Development of self repair theory in digital nets using fault diagnosis and automatic circuit replacement
[U67-1027] 23 p4239 N67-38314
Design and construction techniques for parts switching self-repairing digital system
[MDE-2568] 23 p4321 N67-39299
Sequential prime implicant form of fault diagnosis and automatic circuit replacement in self-repairing sequential digital nets
[ECOM-02344-3] 24 p4423 N67-39570

SEMANTICS
Problems of philosophy - semiotics, semantics, information theory, and creation of living matter
[JPRS-32976] 01 p0012 N67-10156
Definition of science of semiotics - pragmatics, semantics, and syntactics 01 p0021 N67-10157
Computer-based question-answering system capable of conversing with user in natural language
[BBN-1439] 01 p0045 N67-10986
Formulation of transformational grammar - syntax theory
[NASA-CR-79496] 02 p0327 N67-11399
Semantic memory model
[AFCRL-66-189] 06 p0650 N67-16857
Methodological study of behavioral and semantic differential scales relevant to intercultural negotiations
[TR-32] 10 p1565 N67-21715
Characteristics determining speaker recognition
[ESD-TR-66-636] 11 p1800 N67-22057
Linguistic relativity and language learning process
[RM-5210-PR] 11 p1800 N67-22102
Psycholinguistic determination of grammatical aspects of language behavior by studying contextual predictability and frequency factors of two Italian prose passages
[TR-41] 15 p2453 N67-26544
Computer machine logic, optimization of codes, and basic concepts and problems of semiotics, information theory, semantics, and mathematical linguistics
[JPRS-41633] 18 p3231 N67-32322
Definition of basic concepts of semiotics including semantics, pragmatics, and syntactics - structural linguistics and language translation 18 p3232 N67-32343
Semantic interpretation of statistical concepts of information theory and entropy of selection 18 p3232 N67-32344
Quantitative determination of combinability of any semantic class of forming roots and any affix morpheme with any affix morpheme 18 p3232 N67-32346
Semantics and interpretation of scientific terms relating to structures, phenomena, and rules of quantum mechanics
[TH/213] 23 p4290 N67-38290

SEMICIRCULAR CANAL
Physical constants of semicircular canals from measurement of single neural activity in anesthesized cat brain stem under constant angular acceleration 05 p0636 N67-15139
Lack of response to thermal stimulation of semicircular canals during parabolic flight weightlessness for study of caloric nystagmus mechanism in man 05 p0637 N67-15140
Vestibular responses to lateral canal stimuli of various accelerations
[NASA-CR-89670] 24 p4383 N67-39776

SEMICONDUCTOR
SA EXCITON
SA INTERMETALLICS
SA JUNCTION TRANSISTOR
SA METAL OXIDE SEMICONDUCTOR /MOS/
SA N-TYPE SEMICONDUCTOR
SA ORGANIC SEMICONDUCTOR
SA P-I-N DIODE
SA P-TYPE SEMICONDUCTOR
Analysis of seven semiconductor metallurgy systems used on silicon planar transistors 01 p0046 N67-10104
Electric properties of organic semiconductors and photoconductors
[ATD-66-49] 01 p0088 N67-10180
Period of identity and microhardness of semiconductor indium phosphide-gallium arsenide solid solutions
[FTD-TT-65-2000] 01 p0142 N67-11155
Burnup measurement on spherical fuel elements by high resolution semiconductor-gamma spectrometer
[THTR-8] 02 p0287 N67-11977
Ionization waves in semiconductors and gaseous plasmas
[AFCRL-66-537] 02 p0296 N67-12190
High frequency conductivity, carrier waves, and acoustic amplification in drifted semiconductor plasmas
[AFCRL-66-567] 02 p0296 N67-12195
Luminescence phenomena of semiconducting diamonds
[SR-8] 03 p0451 N67-12322
Solid state physics - semiconductor energy gap materials, crystal structure, epitaxial vacuum vaporization, magnetic behavior, and optical transmission
[NASA-CR-80478] 03 p0454 N67-13103
Submillimeter wave amplification in periodic structure, and high frequency conductivity, carrier waves, and acoustic amplification in drifted semiconductor plasmas 04 p0598 N67-13643
Photodiffusion and p-n junction roles in high photovoltaic effect in semiconductor films
[NASA-TT-F-10470] 04 p0600 N67-13796
Conference on crystal lattice defects in semiconductors
[TR-39] 04 p0602 N67-14327
Photoconductivity laws in liquid organic semiconductors
[FTD-TT-65-923] 05 p0665 N67-14751
Cyclotron resonance, helicon propagation, and DE Haas-van Alphen effect experiments for studying transport properties of semiconductors semimetals
[ARL-66-0078] 05 p0731 N67-14949
Electrical conductivity and width of forbidden zone of solid solutions of semiconductor compounds of indium phosphide and gallium arsenide
[FTD-TT-65-1099] 05 p0761 N67-15029
Characteristics of Schottky barriers and development of semiconductor-metal cathode
[AFCRL-66-479] 05 p0824 N67-15110
Semiconductor/metal hot electron cold cathodes
[NASA-CR-81128] 05 p0885 N67-15269
Plasma oscillations in solids - nonlinear wave interaction in plasmas, amplification of optical phonons in polar semiconductors, and ionization waves in semiconductors and gaseous plasmas
[AFCRL-66-685] 05 p0782 N67-15274
Vacuum diffusion of indium antimonide and indium arsenide thin semiconducting films on glass and ceramic supports
[ERDL-T-1277-66] 06 p0945 N67-15488

Soviet research on electric properties of organic semiconductors and photoconductors
[ATD-66-84] 06 p0618 N67-15776
Nonstoichiometric gallium and indium semiconductor compounds with selenium or tellurium atoms 06 p0947 N67-16077
Charge sensitive preamplifier for semiconducting nuclear radiation detector stability 06 p0854 N67-16260
Ionic migration and transport processes of thermal growth in semiconductor oxide films 07 p1174 N67-16858
Interferometric effect with semiconductors in millimeter wave region
[ECOM-3774] 07 p1176 N67-17244
Charge collection in semiconductor particle detectors
[ANL-7226] 07 p1661 N67-17467
Conduction electron-optical phonon interaction in polar semiconductors
[SR-3] 07 p1179 N67-17863
Direct current differential voltmeter and ratiometer for high precision measurements - automatic system for measuring Hall effect in semiconductors 06 p1230 N67-18258
Automatic system for measuring Hall effect in semiconductors 06 p1200 N67-18260
Atomic absorption and emission spectroscopy, and neutron activation for ultratrace chemical analysis of materials for semiconductor
[NASA-CR-82911] 06 p1237 N67-18519
Thermal control coatings, cathodic processes on semiconductor zinc oxide, and semiconductor electrolyte interface capacitance
[NASA-CR-82100] 06 p1237 N67-18549
Cathodic reduction of aqueous ferricyanide ion on single crystal zinc oxide electrode 06 p1237 N67-18550
Electrolyte-semiconductor capacitance 06 p1237 N67-18551
Titanium trivalent cation influence in titanium oxide lattice on semiconducting and photochemical properties of crystal 06 p1352 N67-19167
Anisotropic electron distribution in pure semiconductors in neighborhood of avalanche 06 p1353 N67-19240
Electric and optical properties of metals and semiconducting materials
[NEL-1297] 09 p1501 N67-19777
Crystal field spectra of energy level state impurities in periodic groups II to VI and III to V compound semiconductors
[NASA-CR-82959] 09 p1502 N67-19901
Microhardness of diamond-like semiconductor heterovalent compounds
[FTD-HT-66-114] 09 p1503 N67-20199
Knight shift in lead telluride used to test relativistic augmented plane wave calculations
[TR-4] 10 p1746 N67-20579
Low temperature studies and investigation of electrical, physical, optical, and transport properties of semiconductors
[PRF-3334] 10 p1746 N67-20604
Electron temperature, transport, and velocity obtained for electric field in polar semiconductor
[SR-8] 10 p1748 N67-20606
Synthetic polymers, silicate materials, metallic powders and cermets, alloys, and semiconductors for engineering applications
[FTD-HT-66-269] 10 p1660 N67-20661
Miniature semiconductor pressure sensor containing strain-gauge elements
[FTD-HT-66-314] 10 p1629 N67-20711
Four component semiconductive phase
[FTD-HT-66-173] 10 p1751 N67-21331
Radiation effects in semiconductors
[ORNL-P-2515] 10 p1753 N67-21629
Semiconducting doping using ion implantion
[ORNL-TM-1495] 10 p1753 N67-21797
Thermoelectric power and electric conductivity of semiconductor compounds containing copper, cadmium, indium, and tellurium 11 p1965 N67-22162
Electromagnetic properties of drifted semiconductor plasmas - normal modes in infinite medium
[TR-1] 12 p2188 N67-23500
High frequency semiconductor instability due to ambipolar diffusion
[SR-11] 12 p2189 N67-23839
Electron probe analysis of semiconductors, impurities in doped gallium arsenide crystals, charge transport in silicon thin film, and growth of gallium-indium arsenide films 12 p2189 N67-23842
Handbook on organic semiconductors 12 p2190 N67-23994
Two-carrier injection electroluminescence
[AFCRL-67-0085] 12 p2191 N67-24020
Diffusion semiconductors for measuring ionizing space radiation 12 p2206 N67-24433
Dispersion equations for electromagnetic wave propagation in polar semiconductor in presence of magnetic field
[SR-14] 12 p2192 N67-24800
Capture center effect on photoconductivity of semiconductors at high illumination levels
[NASA-TT-F-10765] 12 p2195 N67-25011
Electric, magnetic, and thermal properties of single crystal semiconductors, and crystal structure 13 p2388 N67-25124
Electronic band structure, transport theory, laser scattering, and magnesium and Heisenberg models - solid state physics research 13 p2388 N67-25125
Electronic computer for complex research on characterizing semiconductor materials, and controlling physical experiment using closed loop automation system 13 p2392 N67-25730
Electric conductivity and electron transport mechanisms in amorphous semiconductors
[NASA-CR-83877] 13 p2393 N67-25867
Seebeck coefficient of semiconducting glasses based on vanadium pentoxide
[TR-4] 14 p2602 N67-26873
Semiconductor compounds and mechanisms for achieving visible luminescence by means of p-n junctions or current-driven diode structures
[SR-7] 14 p2603 N67-26980
Optical properties of metal, semiconductor, and dielectric thin films - plasma oscillations in silver film
[SAR-14] 14 p2603 N67-27009
Production mechanisms of radiation induced defects in semiconductors
[NASA-CR-84426] 14 p2605 N67-27705
Electrical domain in semiconductors with hot electrons - velocity spectrum, field distribution, and charge density
[TIL/T-5710] 15 p2777 N67-27787
Adaptation of dc electron Van de Graaff accelerator for pulse radiation damage investigations in semiconductors
[INR-764/II,III/E] 15 p2686 N67-27879
Relaxation and continuous vibration modes in semiconductor polyphase multivibrator 15 p2683 N67-28104
Functional converter design based on nonlinear semiconductor resistors for reproducing power relationships 15 p2677 N67-28119
Pulse distortion due to nonlinear elastic behavior in cadmium sulfide, ultrasonic attenuation inf cadmium sulfide, and thin film vacuum evaporated piezoelectric transducers
[ARL-66-0225] 15 p2781 N67-28337
Contact resistivity of metal-semiconductor area contact calculated as function of semiconductor doping density
[ECOM-3800] 15 p2680 N67-28624
Semiconductor interaction between electromagnetic waves and free carriers moving under electric or magnetic field
[AFCRL-66-729] 15 p2785 N67-28952
Effective mass of free carriers in semiconductors as determined from infrared reflectivity measurements
[NOLTR-67-16] 16 p2950 N67-29601
Transient responses of semiconductors and circuits to ionizing radiation
[SC-DC-66-2443] 16 p2970 N67-29955
Thermoconductivity in metals, alloys, and semiconductors, as well as in contacts and junctions
[ECOM-2799] 17 p3175 N67-30190
Raman effects, semiconductor oscillations, thin film electroacoustic amplifiers, acoustic microscope, geometrical optics of acoustic waves, and acoustic waves in semiconductors
[ML-1515] 17 p3034 N67-30228
Design parameters and procedures for functional electronic structures
[EU-345] 17 p3037 N67-30630
Instability of electron flow in dielectric or semiconductor media 17 p3148 N67-30797
Electron energy of chemical adsorption on semiconductors and metal surfaces
[NASA-TT-F-11086] 17 p3083 N67-31441
Calculation of effect on bound electrons in donor levels by conduction band electrons in n-indium antimonide
[TR-3] 18 p3317 N67-32256
Theory of diffusion instabilities in semiconductors
[RADC-TR-67-321] 18 p3318 N67-32484
Microprobes for medical research, photodetectors, crystal growth, semiconductor fabrication and characteristics, and p-n junction amplifier and MOS transistor construction 18 p3251 N67-32504
Summary on optical spectroscopic studies of semiconductor materials
[AFCRL-67-0283] 18 p3318 N67-32548
Magetoplasma phenomena in multi-ellipsoid semiconductor PbTe
[TR-11] 18 p3318 N67-32672
Optical and electrical properties of semiconducting and insulating diamonds
[AFCRL-67-0322] 19 p3521 N67-32752
Electromagnetic wave propagation of drifted semiconductor plasmas
[REPT.-3] 19 p3522 N67-32776
Polymerization and copolymerization of tetracyanoethylene under effect of polymers with conjugated systems - organic semiconductors
[FTD-HT-66-729] 19 p3387 N67-32880
Gallium arsenide semiconductor materials
[FTD-HT-66-580] 19 p3525 N67-33415
Microwave oscillations produced in crystal semiconductor by application of strong electric field
[CEA-BIB-77] 19 p3526 N67-33891
Radiation effects on semiconductors, and recombination lifetimes in gamma-irradiated, boron-doped silicon
[NASA-CR-87410] 20 p3711 N67-34022
Large area metal, vanadium pentoxide, silicon semiconductor diodes with highly variable capacitances
[ECOM-2815] 20 p3610 N67-34129
Junction effects in gallium arsenide semiconductor
[AFCRL-67-0292] 20 p3713 N67-34519
Crystal field theory applied transition metal impurities in semiconductors
[NASA-CR-87515] 20 p3714 N67-34740
Literature survey on intermediate state of semiconductors
[REPT.-66-C-328] 20 p3715 N67-35014
Improved semiconductor mixer diodes for frequency converters
[QR-6] 21 p3817 N67-35560
Annotated bibliography on preparation, properties, applications, and theory of semiconducting thin films
[NOLC-712] 21 p3916 N67-35938
Quantum theory of thermogalvanomagnetic phenomena in metals and semiconductors
[NASA-TT-F-11156] 21 p3917 N67-36176
Measurement of heat capacities of metals and semiconductors in Bridgman opposed-anvil apparatus
[UCRL-17454] 21 p3923 N67-36426
Quantum theory of thermogalvanomagnetic phenomena in metals and semiconductors - heat flux and space density
[NASA-TT-F-11154] 21 p3924 N67-36530
Quantum theory of thermogalvanomagnetic phenomena in metals and semiconductors - heat density and electric currents
[NASA-TT-F-11155] 21 p3924 N67-36553
Solid state devices, optical techniques, materials and solids
[ESD-TR-67-286] 22 p4124 N67-36740
Microwave propagation in single carrier semiconductor including collision and diffusion effects
[ECOM-3823] 22 p4124 N67-36747
Reactor neutron irradiation of semiconductor single crystals at low temperatures and influence on Hall effect and resistivity
[BMWF-FBK-67-37] 22 p4130 N67-37959
Extension of general theory of covalent bonding in elemental crystals to partially ionic crystals /III to V and II to VI semiconductors/ in zincblende and wurtzite crystal structures
[AD-657433] 23 p4326 N67-38109
Radiation enhanced diffusion in germanium, low temperature annealing of n-type germanium, fast annealing of pulse irradiated germanium, and photoconductivity of electron irradiated silicon
[AD-657365] 23 p4327 N67-38121
Interaction between free electrons and intensive light beam - multiphoton processes of carriers in semiconductors
[FTD-TT-65-1053] 23 p4327 N67-38140
Life test data to determine structural

stability of semiconductor materials /cadmium selenide, cadmium sulfide, and tellurium/ used in field effect transistors 23 p4224 N67-38470
Behavior and physics of failure of metal insulator semiconductor field effect transistors under electron bombardment 23 p4234 N67-38477
Hall effect measurements in shock loaded semiconductors - doped single crystals [SC-DC-66-2449] 23 p4331 N67-38591
Brief summary of results in study of precipitation effects in semiconductors [AD-657381] 23 p4332 N67-38669
Purification and single crystal growth of Group II to VI compounds [ARL-67-0070] 23 p4333 N67-38925
Gamma radiation spectrometers with silicon and germanium semiconductor detectors 23 p4254 N67-38971
Semiconductive properties of lipids and relation to electrical conductivity of lipid bilayers [TR-1] 24 p4382 N67-39650
Calculation of electron temperature and mobility by means of hot electron polar scattering in indium antimonide [SR-20] 24 p4516 N67-40177
Reactor pile radiation effects on thermoelectric properties of compound semiconductors [USNRDL-TR-67-83] 24 p4518 N67-40203
Transparent electrode electroreflectance technique for interband magneto-optical transitions in indium-arsenide and indium-antimonide at 1.5 K [ESD-TR-67-493] 24 p4518 N67-40289
Crystal structure studies of aluminum carbonitride and teroxycarbide, germanium selenide, and mercuric iodide [AROD-5975-7-P] 24 p4518 N67-40340

SEMICONDUCTOR DEVICE
SA DIFFERENTIAL AMPLIFIER
SA ELECTRON TUBE
Failure of large area epitaxial diffused silicon devices 01 p0048 N67-10113
Accumulation and decay of mobile surface charges on insulating layers and relation to reliability of silicon devices 01 p0049 N67-10116
Role of microdefects in silicon starting materials as quality reducing factors in semiconductor devices 01 p0049 N67-10121
Failure modes associated with thermally induced mechanical stress in Minuteman semiconductor devices 01 p0050 N67-10127
Properties of plastic materials and relation to semiconductor device failure modes 01 p0089 N67-10128
Gas chromatographic and mass spectrometric analysis of surface failure modes in semiconductor devices due to gas ambients 01 p0050 N67-10129
Preproduction testing of two terminal and gate high speed semiconductor switches [QR-12] 01 p0053 N67-10375
Stationary field inhomogeneities in homogeneous semiconductors due to negative differential conductivity [AROD-4461-11] 01 p0138 N67-10407
Transient annealing in semiconductor devices following pulsed neutron irradiation [SC-DC-66-1820] 01 p0140 N67-10635
Preparation of lithium-drifted semiconductor nuclear particle detectors [NASA-CR-79718] 01 p0140 N67-10674
Semiconductor devices, optical techniques, and physics of solids [ESD-TR-66-307] 01 p0142 N67-11055
Hot electron triodes using metal-semiconductor Schottky emitters [AFCRL-66-531] 01 p0142 N67-11057
Semiconductor frequency inductive micrometer with linear transformation function 03 p0392 N67-12405
Conference papers on electro-optical devices and techniques in communications, instrumentation, guidance, and radar [AGARD-CP-5] 03 p0420 N67-13061
Response of silicon diode dosimeters to fast neutrons [NDL-TM-31] 04 p0552 N67-13775
Effects of doping type, resistivity, and crystal type on response of silicon diode fast neutron dosimeter [NDL-TR-63-I] 04 p0601 N67-14161
Tuning devices for obtaining stable frequency selective silicon integrated circuits over range from 150 kHz to 150 mHz [REPT.-66-9F1-NEWSC-R1] 05 p0685 N67-15339
Semiconductor high-stability direct current power unit with temperature compensation 06 p0654 N67-16250
Production of improved silicon semiconductor nuclear particle detectors 06 p0938 N67-16316
Nondestructive infrared radiation method for testing reliability and life of transistors [RADC-TR-66-360] 06 p0657 N67-16597
Model calculations and measurements of electrical and radiation responses for semiconductor devices and integrated circuits [ARD-66-49R] 06 p0657 N67-16600
Mathematical models for predicting reliability of semiconductor diodes [NASA-CR-702] 06 p0905 N67-16870
High reliability screening of semiconductor and integrated circuit devices [NASA-CR-81319] 07 p1049 N67-16772
Static electric power inverter techniques using semiconductor devices [IITRI-CR-67.009] 07 p0997 N67-16938
Generalized mathematical model for semiconductor radiation response prediction [QPR-6] 07 p1052 N67-17743
All-varactor limiters for Ku band semiconductor transmission-receiver devices [QPR-2] 09 p1426 N67-20019
Semiconductor devices, optical techniques, materials research, and physics of solids [REPT.-1966-3] 10 p1745 N67-20543
Research in chemical and solid state physics, electronic, magnetic, and optical properties of materials, and metallurgy [AD-642006] 10 p1745 N67-20564
Thermoelectric cooling advantages and physical principles using Peltier effect on semiconductor devices [FTD-TT-65-1762] 10 p1769 N67-20595
Measurement techniques for determining physical, electrical, and thermal characteristics of silicon and integrated semiconductor devices [ASD-TDR-63-316, VOL. XII] 10 p1591 N67-20616
Surface contouring applied to semiconductor radiation detector [NYO-3246-6] 10 p1749 N67-20984
Surface contouring as applied to semiconductor radiation detectors [NYO-3246-7] 10 p1749 N67-20985
Characteristics and detection capabilities of contoured detector-tunnel diode circuits [NYO-3246-8] 10 p1749 N67-20986
Nuclear radiation damage to semiconductor devices and materials, and effect on performance characteristics [ARD-66-42R] 10 p1751 N67-21353
Nuclear particle counters using n-p type and homogeneous semiconductors [FTD-MT-65-138] 10 p1633 N67-21367
Operation of semiconductor Compton spectrometer and performance in determining burnup history of reactor fuels [SGAE-G-4/1966] 10 p1635 N67-21906
Quality control testing of semiconductor switches [W-22] 11 p1838 N67-22676
Sensitive low noise preamplifiers for semiconductor radiation detectors [INR-662/I-A/PL] 11 p1839 N67-22952
Electronic safety device to control current rise in semiconductor detectors [KFK-426] 11 p1587 N67-23215
Transient annealing in semiconductor devices following pulsed neutron irradiation [SC-R-66-923] 11 p1969 N67-23221
Destructive and nondestructive testing, results, and specifications for reliability of integrated circuit and semiconductor devices [NASA-CR-721] 11 p1840 N67-23322
Nuclear spectroscopy with semiconductor detector coincidence system [IS-1478] 12 p2009 N67-23700
Diode-iris controlled waveguide slot radiators [NASA-CR-763] 12 p2007 N67-23718
Magnetoresistance effect in high mobility intermetallic semiconductors, applications, and comparison with Hall effect 12 p2191 N67-23995
Properties of variable capacitance in semiconductor devices [AD-645290] 12 p2006 N67-24940
Network former effects on electric properties determined for semiconducting vanadium oxide glasses [TR-3] 13 p2389 N67-25328
Neutron irradiations of silicon diodes to determine energy dependence and degradation of electrical parameters [NDL-TR-63-IV] 13 p2389 N67-25336
Advanced integrated circuit development [RADC-TR-66-487] 13 p2392 N67-25442
Semiconductor diodes used as neutron detectors [NP-16489] 13 p2393 N67-25544
Physical phenomena and tunneling theory for design of digital transducers [NASA-CR-83984] 13 p2322 N67-26014
Electron-gamma and electron-electron coincidence spectrometers with Li-drifted Si detectors [LR-12] 14 p2522 N67-26988
Six-component balance equipped with semiconductor strain gauges and inertia-compensated for wind tunnels [TP-377/1966] 14 p2540 N67-27686
Steady thermal state of semiconductor thermocooling devices 15 p2809 N67-27852
Semiconductor optical shutter [5-67-1031] 15 p2700 N67-28062
Characteristics of p-n-p-n diodes and silicon control rectifiers for electronic switches [FTD-HT-66-389] 15 p2878 N67-28396
Avalanche type semiconductor radiation detectors obtained through surface contouring [NYO-3246-9] 15 p2884 N67-28434
Charge-sensitive preamplifier and linear pulse amplifier for silicon radiation detector [CLOR-66/D] 15 p2879 N67-28494
Design, fabrication, and performance of hot carrier microwave detectors using high resistivity silicon and bonded point contacts [ECOM-2797] 15 p2713 N67-28609
Bipolar transistor model and integrated circuit element used for prediction of semiconductor radiation response [ECOM-00422-7] 15 p2782 N67-28881
Solid state physics research in semiconductor devices, laser properties, crystal growth, magnetism, and electronic band structure [REPT.-1967-I1] 18 p2887 N67-29041
Nuclear radiation effects on semiconductor materials, device surfaces, and devices [AFCRL-67-0668] 16 p2868 N67-29514
Research and development of semiconductor diodes for harmonic generator applications using single diodes [QPR-1] 16 p2869 N67-29515
Automatic data acquisition system for semiconductor device testing [COO-1624-1] 18 p2870 N67-29717
Application of Harwell 2000 series adaptor units to detection and measurement of radioactivity [AERE-M-1832] 16 p2896 N67-29913
Ion implantation of high energy dopant ions into semiconductors for formation of controlled doped layers [AFCRL-67-0123] 17 p3146 N67-30314
Solid state physics, methods, devices, and materials 17 p3148 N67-30715
Semiconductor detector spectrometer to determine purity of alpha [INR-767/XIII/1] 17 p3068 N67-31084
Energy for electron-hole pair generation in silicon by protons using lithium drifted semiconductor detectors [NASA-CR-85706] 17 p3150 N67-31222
Goddard Space Flight Center microelectronics program - integrated circuit block and semiconductor process development 18 p3341 N67-31563
Fabrication induced surface instabilities in semiconductor devices 18 p3343 N67-31575
Scanning electron microscope for evaluating failure mechanisms in semiconductor devices, and for three-dimensional representation of biological specimens 18 p3246 N67-31590
Fast scan infrared microscope for measuring thermal and electromechanical parameters affecting reliability of microelectronic devices 18 p3246 N67-31600
Effects of spontaneous fluctuations in application of semiconductor diodes as detectors of nuclear radiation [DISS-3045] 19 p3312 N67-32469
Operation and analysis of two-circuit frequency multipliers using nonlinear capacitance of semiconductor diodes for harmonic generators [FTD-MT-65-477] 18 p3151 N67-32621
Moisture semiconductor photodiode detection system for determining horizontal displacement of ballistic pendulum used in laser impulse measurements

[BRL-TN-1651] 18 p2278 N67-32638
Schottky barrier heights for semiconductor-metal thermionic emission cathodes
[AFCRL-67-0296] 19 p2520 N67-32703
Research summaries of work in plasma physics, quantum electronics, radio science, solid state electronics, and systems theory
[SEL-67-030] 19 p3497 N67-32749
Conversion coefficient in decay of barium-133 determined with semiconductor counters
[NP-16671] 19 p2501 N67-32913
Semiconductor field intensity meters and radio wave mapping technique for geological surveys and geophysical investigations
[FTD-MT-65-369] 19 p3402 N67-33C97
Lithium-diffuse semiconducting silicon solar cells
[NASA-TM-X-55869] 19 p3369 N67-33012
Angular incidence effects in millimeter wave semiconductor interferometer
[ECOM-2816] 19 p3454 N67-33348
Hybrid assembly processes for packaging of thin film and semiconductor microelectronic devices 19 p3416 N67-33363
Production capability for specific monolithic and hybrid semiconductor circuits and standard test mask incorporating transistor and resistor patterns 19 p3416 N67-33364
Semiconductor devices such as silicon transistors and germanium triodes
[FTD-TT-65-1066] 19 p3416 N67-33405
Charge transport and light transmission in zinc-selenium-tellurium p-n junctions 19 p3525 N67-33490
Utilization of ion beams in fabrication of semiconductor devices
[NASA-CR-87310] 19 p3418 N67-33707
Conversion coefficients in decay of gold with semiconductor counters
[NP-16672] 19 p3510 N67-33882
Semiconductor device radiation response prediction using lumped model technique
[ARD-67-21R] 20 p3610 N67-34253
Silicon junctions prepared by epitaxial deposition onto GaS and GaP substrates
[RADC-AR2-66] 20 p3611 N67-34271
Avalanche-drift diodes and applications in microwave engineering
[JPRS-47678] 20 p3612 N67-35276
Encapsulation, packaging, and package interconnections of intergrated silicon circuit devices
[ASD-TDR-63-316, VOL. XIV] 21 p3813 N67-35404
Low-noise wide-band current preamplifier for use in fast signal processing systems for semiconductor detectors
[ORNL-P-3664] 21 p3813 N67-35435
Techniques and properties of glass passivation for semiconductor devices for Saturn system
[NASA-CR-88194] 21 p3856 N67-35628
Fortran IV computer program for solving mathematical model of p-n diode operating under extreme doping approximation
[PA-TR-3536] 21 p3804 N67-35669
Ohmic contacts, couplings and decouplings, and isolation methods for integrated circuit silicon devices
[ASD-TDR-63-316, VOL. XIII] 21 p3817 N67-35684
Guide for using capacitance-voltage method to investigate metal oxide semiconductor structures
[ECOM-2831] 21 p3819 N67-36163
Radiation induced charge migration in metal oxide semiconductor, field effect transistors
[BNWL-SA-11015] 21 p3819 N67-36481
Infrared detectors - impurity levels in germanium, magneto-optic effects in indium antimonide, beryllium doping, cadmium arsenide epitaxial films, and semiconductors
[NRL-MEMO-1799] 22 p4127 N67-37273
Semiconductor counting system for high resolution alpha particle spectroscopy
[IN-1063] 22 p4048 N67-37485
Mathematical investigations of semiconductor devices, based on two-dimensional numerical solution of ambipolar diffusion equations
[AFCRL-66-358/II/] 22 p4014 N67-37664
Fast amplitude and time pulse discrimination analysing system for use with semiconductor detectors
[NP-TR-1552] 23 p4061 N67-38028
Hole mobility and electric properties of thin film diodes, gallium arsenide, and zinc telluride semiconductor devices
[S-67-1105] 23 p4222 N67-38159
Flying spot scanner used for semiconductor device screening and identification of surface and junction phenomena 23 p4223 N67-38464
Photoresponse measurements on semiconductor device junctions by modified flying spot scanner techniques to obtain topological photoresponse displays 23 p4223 N67-38465
Detection and prevention of iron nickel cobalt alloy stress corrosion failure in semiconductor device leads 23 p4235 N67-38485
High response transistorized pulse height discriminator 23 p4254 N67-38982
Spontaneous fluctuations in application of semiconductor diodes as nuclear radiation detectors
[NP-16837] 23 p4238 N67-39306
Mathematical models of semiconductor devices for computer aided circuit analysis
[SC-DR-67-479] 23 p4231 N67-39216
Material, design, and manufacturing studies to improve glass passivation of semiconductor devices
[NASA-CR-89617] 24 p4430 N67-40133

SEMICONDUCTOR LASER
Semiconductor lasers for digital computer circuits 03 p0406 N67-13063
Optical pulse amplifiers with active saturable absorption switches 03 p0406 N67-13064
Junction effects in compound semiconductors
[AFCRL-66-617] 05 p0752 N67-15074
Pressure effects on semiconductor laser radiation
[TR-5] 09 p1457 N67-30348
Gas, semiconductor, and ruby lasers
[FTD-HT-66-238] 10 p1649 N67-20681
Gallium arsenide semiconductor laser development, and applications in future satellite light communication systems
[FTD-HT-66-439] 19 p3467 N67-33464
Broadening of spectrum in which laser visible and near-infrared spectroscopy performs effectively
[IPP-3/60] 20 p3653 N67-34628
Laser crystal growth, semiconductors, transistors, storage element alloy films, and pulsed radar
[REPT.-6] 21 p3917 N67-36063
Measurement and evaluation of photon loss in active and passive regions of GaAs laser pumped by electron beam
[REPT.-675] 24 p4462 N67-39615

SEMISPAN MODEL
Longitudinal aerodynamic characteristics of large semispan V/STOL tilt-wing configuration with single propeller rotating in both left and right directions
[NASA-TN-D-3754] 07 p0969 N67-17622

SENARMONT POLARISCOPE
Senarmont polariscope applied to analysis of optical maser light 07 p1096 N67-17278

SENSATION
S TACTILE SENSATION

SENSING
SA HORIZON SENSING
SA LATITUDE SENSING
Aerial photography used for remote sensing of forests 04 p0547 N67-13471
Uses and limitations of multispectral remote sensing 04 p0547 N67-13472
Vegetative, soil, and photographic factors affecting tone in agricultural remote sensing 04 p0535 N67-13475
Utility of multispectral photography for urban research and planning activities 04 p0548 N67-13476
Multispectral sensing tests for obtaining glaciological data from earth-orbiting satellite 04 p0535 N67-13477
Remote sensing of ice and snow thickness 04 p0535 N67-13480
Proceedings of science association conference on remote sensing 04 p0549 N67-13504
Remote sensing of natural and cultural resources from earth orbiting spacecraft 04 p0625 N67-13505
Role of education in civil engineering applications of remote sensing 04 p0625 N67-13515
Environmental analysis, remote sensing, and education 04 p0538 N67-13516
Proposals for solving educational needs in remote sensing 04 p0549 N67-13517
Remote sensing and photo interpretation applied to ecology 04 p0550 N67-13518
Remote sensing applied to archaeology and socio-cultural anthropology of man 04 p0625 N67-13519
Remote sensing of vapors for air pollution, geologic, and oceanographic applications 04 p0538 N67-13523
Remote sensing in soil and water conservation research 04 p0538 N67-13525
Optical cross correlation method for remote sensing applications 12 p2101 N67-24276
Remote multispectral photographic sensing of earths surface for identifying inorganic materials
[NASA-CR-84495] 14 p2540 N67-27656
Remote sensing of environment by radar and infrared imagery and optical sensors - bibliography
[REPT.-4864-12-P] 16 p2893 N67-29134
Turbulent fluctuation measurements with crossed beam method 17 p2992 N67-30583
Sensing, signal processing, and actuation functions of spacecraft flight control
[NASA-CR-830] 17 p3166 N67-30769
Lunar gravity system to evaluate lunar surface vehicle
[NASA-CR-84861] 18 p3255 N67-31857
Current-sensing low impedance preamplifier for high performance 1.5 MHz magnetic tape recorder 18 p3248 N67-31997
Voltage-sensing and current-sensing preamplifiers for magnetic tape recorders 18 p3248 N67-31998
Quantitative parameters of surface roughness for use in geologic remote sensing
[NASA-CR-87223] 19 p3442 N67-33245
Computer program for rapid screening of multivariate data from earth sciences and remote sensing
[NASA-CR-87281] 19 p3450 N67-33962
Laser probe techniques for sensing meteorological variables
[NASA-CR-88872] 22 p4060 N67-38030

SENSITIVITY
SA IMPACT SENSITIVITY
SA NOTCH SENSITIVITY
SA PAIN SENSITIVITY
SA PROPELLANT SENSITIVITY
SA RADIOSENSITIVITY
SA SHOCK SENSITIVITY
Problem of measuring sensitivity and noise factor of regenerative systems
[TIL/T-5616] 01 p0036 N67-10068
Fortran program for calculating frequency response of multivariable system and its sensitivity to parameter changes
[ORNL-TM-1575] 01 p0044 N67-10831
Sensitivity indexes for active circuits based on state vector differential equation for circuit analysis and design 04 p0522 N67-13351
Highly sensitive three-dimensional accelerometer for space use
[TP-393] 04 p0553 N67-14189
Distribution theory approach to time varying sensitivity problem of control system design
[SEL-66-006] 05 p0688 N67-15092
Effect of rhenium on strain rate sensitivity of chromium at room temperature 08 p0893 N67-15838
Application of transversal equalizer to radar receiver with emphasis on Doppler sensitivity
[TR-429] 07 p1036 N67-17237
Simple X-ray spectrometer to analyze light elements
[NASA-CR-81778] 07 p1068 N67-18122
Neutron cross section sensitivity calculations for small hydrogen moderated clean critical cores 08 p1214 N67-18789
Photosensitizing activity of chlorophyll in coacervates
[NASA-TT-F-10711] 08 p1227 N67-18936
Image orthicon television camera system improvements for sensitivity, and application to satellite and underwater technology
[NASA-CR-82870] 08 p1283 N67-19017
Sensitivity of developmental phases of Tradescantia paludosa microspores to Vostkhod spaceflight conditions 10 p1559 N67-20936
Charge sensitivity of tunnel diode voltage threshold discriminator used in time difference measurements
[UCRL-14930-T] 10 p1592 N67-20737
Parameter sensitivity of linear time invariant dynamic systems
[R-315] 10 p1667 N67-21732
Sensitivity analysis of nonlinear control

systems
[R-335] 12 p2073 N67-34960
Relative detection sensitivities of chemical elements in nuclear activation with isotopic neutron-source
[ANL-7242] 13 p2371 N67-25423
Combination statistical design for sensitivity testing
[BM-IC-8324] 13 p2350 N67-36311
Application of A-P algorithm to non-proportion damped vibration problems represented by non-self adjoint matrix differential equation 14 p2535 N67-37111
Flow graph technique for calculating sensitivity coefficients for electric networks
[NASA-CR-84818] 15 p2685 N67-38769
New gap sensitivity methods for explosives
[BM-RI-6947] 15 p2810 N67-38818
Neutron cross section sensitivity calculation for small hydrogen moderated reactor designs
[KAPL-M-6563] 16 p2942 N67-39233
Sensitivity theory for design of spacecraft flight control systems
[NASA-CR-834] 16 p2976 N67-39130
Sensitivity limitations of low current amplification by transistorised current-feedback direct current electrometers
[ORNL-TM-1726] 17 p3041 N67-31068
Sensitivity and precision of apparatus used in continuous measurement thermal neutron flux of gaseous circuits
[CONF-651154-5] 17 p3112 N67-31091
Sensitivity of electrostatic, tridirectional accelerometer for aerospace application
[TP-393/1966/] 17 p3069 N67-31166
Desensitizing microcircuits to variations in temperature and performance parameters - computer aided sensitivity analysis 18 p3344 N67-31584
Desensitizing microcircuits to variations in temperature and production spread - tolerance in performance criteria due to production spread of parameters 18 p3344 N67-31585
General radiation sensitivity of organisms
[NP-16358] 18 p3210 N67-31904
Multiparameter sensitivity in RC active integrated circuits
[TR-400-148] 18 p3350 N67-32133
Increased sensitivity of unsensitized plates for faint images and short exposures - astronomical photography 19 p3453 N67-33196
Feedback structures to reduce parameter sensitivity of linear system derived from solution of classical linear regulator problem for design of automatic control systems
[NASA-CR-87363] 19 p3421 N67-33319
Synthesis of flight control systems subject to vehicle parameter variations - literature survey
[AFFDL-TR-66-200] 19 p3422 N67-33574
Improving photographic film sensitivity to high energy electrons 19 p3459 N67-33816
Vacuum diffraction ultraviolet monochromator for sensitivity evaluation of photomultipliers, photon counters, and ionization chambers
[NASA-CR-83383] 22 p4048 N67-37567
Minimum sensitivity optimal control for nonlinear systems
[NASA-CR-88863] 22 p4018 N67-37683
Decoupled shifting memory filter method for radio tracking of boosted and ballistic phases of space vehicle flight
[ELDO-TM-F-35] 23 p4317 N67-39237

SENSOR
SA GUIDANCE SENSOR
SA OPTICAL SENSOR
SA OXYGEN SENSOR
SA SOLAR SENSOR
SA SPACECRAFT SENSOR
Graphic method of recording pulse using electronic cardioscope and piezoelectric sensor
[NASA-TT-F-10363] 01 p0021 N67-10228
Limitations on inertial sensor testing produced by test platform vibrations
[NASA-TN-D-3683] 01 p0071 N67-10236
Clamp-on sensors for long range telemetering oceanographic buoys
[C184-3] 01 p0073 N67-10363
Radio telescope, rhombic antenna, and sensors studied for feasibility of kilometer wave orbit telescope program
[NASA-CR-79734] 02 p0261 N67-12053
Symposium papers on needs and applications for remote sensor data
[REPT.-4864-11-X] 04 p0547 N67-13461
Current and future needs for remote sensor data in ecology 04 p0534 N67-13462
Current and future requirements for remotely sensed oceanographic data 04 p0534 N67-13463
Geological applications of remote sensors 04 p0534 N67-13464
Remote sensing data in field of air and water pollution control 04 p0534 N67-13465
Remote sensor applications in hydrology 04 p0534 N67-13466
Agricultural remote sensing research expansion 04 p0534 N67-13467
Remote sensors for geographical applications 04 p0534 N67-13468
Remote sensing needs in geoscience engineering and exploration 04 p0535 N67-13469
Remote sensor data requirements in medicine 04 p0469 N67-13470
Applications of air and spaceborne sensor imagery for studying natural resources 04 p0535 N67-13474
Radio receiving system used to sense electromagnetic emission from convective clouds to study cloud behavior 04 p0508 N67-13489
Radar scatterometry used as active remote sensing tool for determining surface properties 04 p0548 N67-13494
Remote sensor returns as historical documents 04 p0549 N67-13508
Gamma ray spectral region analyzed for remote determination of soil trafficability conditions 04 p0537 N67-13510
Pattern recognition method for automatic control of soaking pits using readings from indirect sensors 05 p0696 N67-14344
Hazards monitoring sensors selection and locations for Apollo fuel transfer and tanking system - hypergolic and cryogenic fuel and oxidizer systems
[NASA-CR-80954] 05 p0754 N67-14915
Electronic commutator and rate-sensor for brushless direct-drive solar array reorientation systems
[NASA-TM-X-55441] 05 p0794 N67-16544
Solutions to motion sensing problems associated with Project Wisp
[EGG-1183-2078] 07 p1061 N67-17830
Wind tunnel testing of sensor for measuring aerodynamic angles of incidence and sidewash during ELDO-A launch vehicle firings
[G-43] 07 p1065 N67-17902
Image dissector vacuum tube used in star sensor on Mariner spacecraft 08 p1396 N67-18314
Solid state device for sensing angular rate by detecting presence of coriolis forces
[NASA-CR-86006] 08 p1282 N67-18725
Temperature sensors, and improved thermocouples in process instrumentation development program 09 p1445 N67-19436
Electromechanical remote position sensor for setting timer
[SC-TM-65-289] 10 p1630 N67-20904
Induction-type sensor for determining electrical conductivity of sea water 11 p1879 N67-22365
Deep water temperature measurement sensors with multiple frequency bands 11 p1880 N67-22367
Sounding thermometer design with induction pressure sensor and two-coordinate recorder for temperature and depth measurements of sea water 11 p1880 N67-22368
Copper resistance thermometer as sensor for measuring sea water temperature 11 p1880 N67-22369
Thermoelectric sensors for temperature fluctuation of sea water, and technology for multijunction radiation scattered by water 11 p1880 N67-22370
Omnidirectional pressure gauge for measuring weak blast waves
[NOLTR-65-173] 11 p1889 N67-22556
Gyros used as sensors for satellite attitude control 12 p2142 N67-23806
Cryogenic liquid-level sensor composed of diode heated by resistor
[ANL-7343] 13 p2318 N67-25300
Dynamic response to impact loadings of acceleration sensors having various mounting characteristics
[NASA-TN-D-3973] 13 p2330 N67-25846
Nutation sensor
[NASA-CR-83933] 13 p2330 N67-25895
Airborne sensor system for flight inspection of signal reception from glide slope transmitting facilities
[RD-66-99] 14 p2527 N67-27215
Acoustic attenuation in ultrasonic rheolum sensor for temperature measurements in carbon atmosphere
[NASA-CR-72345] 14 p2536 N67-27218
Aerial photography and remote sensors used in oceanographic survey of Mississippi Delta
[AD-650388] 16 p2986 N67-29483
Probability of locating submarine within stated distance on basis of two-dimensional sensors
[SP-2757/000/00] 17 p3060 N67-30256
Thermally isolated temperature sensor for space application Pegasus satellite 17 p3060 N67-30265
Composite layer conductive-rubber internal insulation malfunction sensor for large solid propellant rocket engines
[REPT.-550] 17 p3152 N67-30634
Evaluation of magnetic-core sensors, microcircuit techniques, electron-coupling techniques, and electro-optic and piezoelectric sensors for automatic checkout system
[SC-CR-66-2053] 17 p3037 N67-30655
Remote sensing, and pattern recognition studies in application to agriculture 19 p3434 N67-33619
Data handling and analysis, statistical analysis, modeling, and field spectroscopy for application to agriculture 19 p3411 N67-33620
Fiberoil sensor used for airborne overheat hazard detection system
[AFAPL-TR-67-62] 20 p3630 N67-34696
Balloon or rocket-borne sensors for measuring meteorological properties of lower atmosphere
[ECOM-01910-F] 20 p3649 N67-34829
Device for protecting and uncovering instrument sensor in vacuum
[FTD-HT-66-669] 21 p3844 N67-35592
Oceanography using remote sensors
[NASA-CR-88102] 21 p3827 N67-35711
Arc, incandescent, and electric discharge light sources for remote sensing systems
[NASA-CR-854] 21 p3853 N67-35450
Soviet developments in radiation, optical, gas, vibration, and plasma temperature sensors, bibliography
[ATD-67-39] 22 p4045 N67-36904
Design, fabrication, testing, and operation of microminiature rate of turn vibratory sensor
[NASA-CR-86715] 23 p4046 N67-37252
Electrochemical carbon dioxide sensor for measuring changes in electrical properties of weak base anion exchange resins
[AMRL-TR-66-237] 23 p4237 N67-37292
Review of biological photoreception, mechanoreception, chemoreception, and electrosensing mechanisms for application to instrument design
[NASA-CR-82901] 24 p4391 N67-40136
Bibliography of biosensor phenomenology based on sampling of world literature from 1960 through 1966
[NASA-CR-89016] 24 p4391 N67-40236

SENSORIMOTOR PERFORMANCE
S PSYCHOMOTOR PERFORMANCE

SENSORY DEPRIVATION
SA CONFINEMENT
Sensory deprivation effect on psychological aspects of personality 02 p0197 N67-11567
Method for investigating sensory deprivation during prolonged sound chamber tests 02 p0198 N67-11569
Sensory deprivation effects on human sensory, perceptual, and physiological mechanisms
[NASA-CR-727] 20 p3220 N67-19856

SENSORY DISCRIMINATION
SA BRIGHTNESS DISCRIMINATION
Diffusion model of perceptual memory
[NASA-CR-82909] 09 p1462 N67-19062
Constant error in amplitude discrimination and inter-stimulus interval
[PRP-26N] 23 p4197 N67-39190

SENSORY FEEDBACK
Role of informational feedback in producing visual adaptation to visual rearrangement and to various head, eye, and arm positions
[NASA-CR-663] 04 p0498 N67-14219
Integral and peak sensitivities defined for state-variable feedback control system
[NASA-CR-88901] 21 p3822 N67-35917

SENSORY PERCEPTION
SA KINESTHESIS

5A PACINIAN CORPUSCLE
5A PROPRIOCEPTION
Limited-state threshold and infinite state signal detectability theories for sensory perception
[PRP-25N] 01 p0023 N67-10413
Algorithm for converting images into sound based on pattern recognition theory 03 p0350 N67-12351
Conversion of image into sound to aid human operator 03 p0350 N67-12352
Psychophysiological afferentation effects of sensory overload conditions in spacecrew
[JPRS-39077] 04 p0491 N67-13306
Tactual perception experiments and models
[NASA-CR-623] 06 p0816 N67-16661
Psychopharmacologic drug effects on sensory inflow in normal subjects, psychiatric patients, and animals
[REPT.-2] 10 p1563 N67-20695
Logic network of human brain used to identify environmental contingencies by use of sensory perceptors 11 p1796 N67-23466
Role of sensation, perception, and ideation in sensory cognition
[FTD-HT-66-431] 12 p2026 N67-24650
Engineering psychology textbook dealing with human operator performance, sensory perception, and information theory
[FTD-HT-66-147] 14 p2467 N67-30681
Sensory motor responses of human operators 14 p2469 N67-30695
Human perception of stimulus display and signal response compatibility in reaction process
[IZF-1967-8] 17 p3068 N67-31067
Electrophysiological correlates of vigilance and learning studied simultaneously by behavioral and electrographic means
[NASA-CR-85043] 18 p3201 N67-31641
Problems in physiology of sensory systems
[NMS-TRANS-2034] 23 p4183 N67-38251
SENSORY STIMULATION
Separate and combined action of vestibular and optokinetic stimuli in rabbits studied by electrodes implanted in cerebral cortexes 02 p0189 N67-11467
Increase in work rate accompanied by decrease in quality when additional sensory information is introduced during performance of tasks which require complex coordinated movements 02 p0218 N67-11500
Correlation between human sensory reaction and vestibular analyzer after radial acceleration 02 p0221 N67-11659
Neuronal connections in sensory epithelia and pathological aspects of vestibular epithelia in squirrel monkeys and cats 05 p0665 N67-15130
Average potentials synchronized with cardiac cycle, motor activity, and auditory and visual stimulation detected and isolated in electroencephalographic activity
[AFOSR-66-1941] 05 p0639 N67-15264
Olfactory sense simulation by functional biological modeling
[JPRS-39994] 07 p1024 N67-18190
Communication by electrical stimulation of skin
[NASA-CR-83572] 08 p1232 N67-19151
Reticular and limbic system post stimulus discharge in rats, cats, and monkeys
[AFOSR-66-2007] 09 p1460 N67-19781
Language communication by electrical stimulation of skin
[NASA-CR-83657] 09 p1408 N67-20251
Digital sequence generator for electric stimulation of walking movements, and mathematical models for spinal control reflex of humans 12 p2031 N67-23853
Conduct studies of auditory information processing emphasizing application of signal detectability theory to auditory sensory responses
[NASA-CR-83812] 13 p2362 N67-25678
Manipulation of observer criteria in auditory detection, intensity effects on critical bands for tonal stimuli determined by band limiting, and azimuth certainty in binaural interactions
[TRACOR-67-373-U] 15 p2650 N67-28546
Reaction of single neurons in visual region of cat cerebral cortex to rocking stimulation of vestibular apparatus 16 p2836 N67-29214
Mathematical model for energy relationships during excitation of nerve tissue 20 p3574 N67-34309
Analog computer calculations of mathematical model for nerve tissue excitation 20 p3575 N67-34510
Mathematical model for auditory perception of musical stimuli
[TR-II] 21 p3772 N67-35673
Stimuli frequency, number, and locus studied for intensity dependence of vibration-evoked cortical response in man
[NASA-TT-F-11193] 21 p3786 N67-35921
SEPARATED FLOW
Separated flow of submicron condensate particles in reversed flow swirl chamber
[ARL-66-0218] 07 p1068 N67-17701
Separated flow theory to study hypersonic slipstream 08 p1267 N67-18685
Conference papers on separated flows, turbulent mixing, reattachment, and laminar boundary layer separation
[AGARD-CP-4, PT. I] 08 p1270 N67-19281
Separated flows induced by shock wave-laminar boundary layer interaction 08 p1271 N67-19287
Numerical method of integrating Navier-Stokes equation for unsteady compressible flow, and application to separated flows 08 p1271 N67-19288
Conference proceedings on separated flows, base flows, bubble separation, boundary layers, and shock wave interactions
[AGARD-CP-4, PT. II] 08 p1272 N67-19297
Oscillating laminar separated flow ahead of forward facing step oscillating transversely to hypersonic free stream 08 p1218 N67-19299
Three-dimensional effects in shock separated flow regions ahead of lateral control jets issuing from slot nozzles of finite length 08 p1274 N67-19302
Dynamics and thermodynamics of separated wake flows - systems analysis using dissipative flow and heat transfer models 08 p1274 N67-19305
Axisymmetric base flow behind bodies of revolution at supersonic speeds 08 p1219 N67-19306
Electron density probe and its application in separated flow region of reentry Apollo spacecraft for typical trajectory
[NASA-CR-84150] 14 p2529 N67-26514
Attached and separated boundary layers on highly cooled, ablating and nonablating models at Mach 13.8
[NASA-TN-D-4041] 16 p2877 N67-29165
Separated flow - steadiness of separation and reattachment, turbulent mixing coefficient, effect of Reynolds number on base pressure, and reattachment problems
[AGARD-548] 16 p2878 N67-29631
Steady state theory for analyzing separated flows on slender wings in unsteady motion, and computations for heaving and pitching oscillations of slender delta wing
[ARC-R+M-3448] 16 p2814 N67-29898
Conference discussions on separated flows from low to hypersonic speeds
[AGARD-CP-4, SUPPL.] 16 p2881 N67-30134
Separated flow effect on dynamic behavior of bulbous-based reentry vehicles
[NASA-CR-66434] 20 p3562 N67-35011
SEPARATION
5A BOUNDARY LAYER SEPARATION
5A DESORPTION
5A EXTRACTION
5A FLOW SEPARATION
5A SPACING
5A STAGE SEPARATION
Solid state counters for immediate determination of actinide and lanthanide elution peak positions during separation of rare earth and transplutonium elements
[UCRL-16869] 01 p0028 N67-10534
Application of ion exchange resins to separation of carrier free fission products
[IEA-101] 01 p0031 N67-10734
Aerodynamic characteristics of external stores in carriage position and their effect on separation characteristics under various delivery conditions
[NASA-TN-D-3562] 02 p0171 N67-11345
Conference on pure materials in science and technology - synthesis of high purity beryllium oxide and separation of titanium, niobium, and tantalum through liquid-liquid extraction
[FTD-TT-65-837] 03 p0350 N67-12339
Separation of titanium, niobium, and tantalum through liquid-liquid extraction 03 p0350 N67-12340
Radioelements, and isotope separation and purification
[MLM-1312] 03 p0359 N67-12371
Separation and radiochemical determination of fission element activities
[KFK-387] 04 p0505 N67-13995
Electromagnetic separation of isotopes
[ORNL-4006] 04 p0587 N67-14661
Reversed phase chromatographic separation of trace amounts of rare earth elements from macroamounts of erbium 06 p0825 N67-16238
Low shock joint design for eliminating spacecraft contamination produced by explosive separation - Zip Project 07 p1198 N67-16806
Compression spring mechanisms for spacecraft and shroud separation 07 p1199 N67-16913
Separation coefficients of carbon 12 and carbon 14 isotopes by equilibrium evaporation of methane
[BNL-TR-84] 07 p1022 N67-17542
Engineering scale studies of boron isotope separation
[K-1638] 07 p1029 N67-17726
Radiochemical methods of separation and analysis 08 p1254 N67-18383
Reactor technology, nuclear chemistry, fission product recovery, separations chemistry, and fuel cycle processing
[ORNL-3945] 08 p1309 N67-18475
Isotope effects on ion exchange columns during separation of rare earth elements
[JUL-402-PC] 09 p1413 N67-20225
Stable gaseous isotope separation and purification by thermal diffusion and chromatography
[MLM-1353] 10 p1705 N67-20847
Analytic chromatography using low pressure electric discharge detectors
[CNEA-180] 10 p1575 N67-21146
Thin layer chromatographic separation of some ketones obtained by pyrolysis of lithium carboxylates
[CNEA-196] 10 p1576 N67-21150
Skin friction, separation, and transition with thin film heated element
[ARC-R+M-3445] 10 p1613 N67-21184
Sulfuric acid separation from anthraquinone sulfonation product with ion exchange resin 11 p1809 N67-22155
Solvent degradation products in development of separations processes for purifying curium-244 produced in Savannah River reactors
[DP-1016] 11 p1808 N67-22315
Total ionization intensity, and separation of its various components
[CEA-R-3880] 12 p2095 N67-24781
Continuous flowing paper electrophoresis cell for separation of petroleum
[BM-RI-6913] 13 p2273 N67-26309
Automatic separation of magnetic material losses due to hysteresis and eddy currents 15 p2683 N67-28197
Rhenium separation from copper, molybdenum, and tungsten and spectrophotometric determination
[LA-3550] 15 p2662 N67-28211
Ion exchange by continuous countercurrent and displacement electrochromatography, and water deuterium oxide separation by selective sorption
[JPRS-40432] 16 p2947 N67-29827
Methods of separation of reaction channels of np-interactions by neutron bombardment
[JINR-P1-3143] 16 p2945 N67-29835
Separation of proteins in mollusk shells by gel filtration
[NASA-CR-85259] 16 p2837 N67-30075
Cyclones studied for steam separation in boiling water reactors
[EURAEC-1754] 17 p3105 N67-30244
Model for transient holdup and separation efficiency of solvent extraction
[RLO-1665-3] 17 p3018 N67-31188
Rare earth elements separated by high voltage electrophoresis on paper strip
[CEA-R-2877] 19 p3308 N67-33699
Quality control testing of 81 mm mortar shell 20 p3646 N67-34469
Dust separation efficiency prediction for wet scrubbers derived by statistical method 20 p3650 N67-35106
Industrial separation methods and plants for producing heavy water
[JPRS-42164] 21 p3780 N67-35631
Latch diaphragm release mechanism for payload separation in space 21 p3907 N67-36305
Release mechanism for separating and ejecting reentry vehicle payload from booster 21 p3937 N67-36214

Ethylenediaminetetraacetate ion exchange elutions used for separating gadolinium and europium, and europium and samarium mixtures 21 p3788 N67-36345
Stable gaseous isotope separation and purification studies
[MLM-1390] 22 p4106 N67-37870
SEPARATOR
SA FILTER
Improved separators for silver oxide-zinc and silver oxide-cadmium cells for spacecraft application
[NASA-CR-80106] 02 p0177 N67-12244
Schematic diagram for electromagnetic isotope separator 03 p0260 N67-13686
Ligand-containing vinyl polymer systems for evaluation as separator materials in Ag-Zn batteries
[NASA-CR-80530] 03 p0356 N67-13211
Filler and matrix composite materials for use in silver-zinc battery separators
[NASA-CR-80529] 03 p0236 N67-13212
Preparation of charge materials for electromagnetic isotope separator
[ORNL-3901, SUPPL. I] 05 p0738 N67-14682
Heat sterilizable batteries and separator materials for planetary landing capsules 05 p0637 N67-14796
Potential separator materials for heat sterilizable silver-zinc battery
[NASA-CR-61161] 06 p0817 N67-15300
Development of membrane separators for sterilizable silver-zinc battery 06 p0701 N67-15705
High voltage performance of electrostatic separators for proton synchrotron
[NP-TR-1419] 07 p0880 N67-17681
Composite separator production for heat sterilizable silver-zinc batteries
[NASA-CR-61611] 07 p1001 N67-17973
Polymer separator materials for heat sterilizable battery
[NASA-CR-61610] 07 p1107 N67-17975
Development program for separator and modified polyethylene separator material for silver-zinc battery, and program for development of sealed heat sterilizable batteries 08 p1232 N67-18212
Data evaluation of isotope analytical results for electromagnetic isotope separator performance analysis
[NP-TR-1423] 08 p1237 N67-18644
Optimization of working parameters for electromagnetic isotope separator
[NP-TR-1422] 08 p1237 N67-18645
Electromagnetic separation and collection of multimilligram quantities of noble gas isotopes
[SGAE-PH-44/1966] 08 p1345 N67-19264
Characteristics of silver-zinc batteries examined through separator mechanisms
[NOLTR-64-136] 10 p1555 N67-20549
Radio frequency beam separator and transport system for alternating-gradient synchrotron
[BNL-10545] 10 p1711 N67-20978
Limitation of initial radial displacement and velocity for mass filter separating isotopes
[MLM-1354] 13 p2373 N67-25531
Heat sterilizable battery separator material prepared from low-density polyethylene film
[NASA-CR-83811] 13 p2343 N67-25679
Evaluation of thin electrodeposited films of calcium and magnesium hydroxides for use as separators in silver-cadmium cells
[NASA-CR-84003] 13 p2350 N67-26175
Microwave systems for superconducting radio frequency separators
[BNL-11081] 15 p2668 N67-28423
Deflector for high energy particle electrodynamic separator
[JINR-P9-3165] 16 p2945 N67-29627
Separator and copper oxide cathodes for thermal cell
[NASA-CR-72363] 16 p2823 N67-29696
Primary zinc, silver oxide battery design 17 p2995 N67-30539
Feasibility of heat sterilization of silver-zinc cell by use of inorganic separator
[NASA-CR-85564] 17 p2997 N67-30638
Development and testing of vinyl polymer separator materials for sterilized silver-zinc secondary battery
[NASA-CR-84863] 17 p2998 N67-30918
Installation, debugging, and testing of radio frequency beam separator in synchrotron 17 p3066 N67-30936
Separators for silver oxide-zinc and silver oxide-cadmium cells - modification of methyl cellulose and effects of radiation, dry heat, and standing in charged cell on membranes
[NASA-CR-85597] 17 p3209 N67-31174
Monoisotopic ion beams used in electromagnetic isotope separators for production of highly enriched stable radioactive isotopes
[SGAE-PH-51/1967] 17 p3139 N67-31453
Brief review of cyclone type separators for use in gas turbine-dust ingestion
[ARL-67-0047] 19 p3529 N67-33751
Separators for zinc-silver oxide battery and cadmium-silver oxide cells for spacecraft applications
[NASA-CR-87823] 20 p3569 N67-34629
Electromagnetic isotope separator for separation of radioactive isotopes and of stable isotopes for isotope-pure target preparations
[KFK-511] 20 p3631 N67-34673
Inertial separators and fibrous filters for helicopter and hovercraft small gas turbines
[EE-6458] 20 p3715 N67-34898
Venturi tube separator for removing dust during metallurgical processes 20 p3651 N67-35107
Barrier properties of membrane separators for silver oxide-zinc and silver oxide-cadmium spacecraft batteries
[NASA-CR-88131] 21 p3763 N67-36023
Improving zinc electrodes for spacecraft electrochemical cells - control of zinc penetration through separators
[NASA-CR-86521] 22 p3964 N67-37197
Design geometry of mixture-inflow axially fed steam separators located in boiling water reactor
[EURAEC-1727] 23 p4094 N67-37873
Quadrupole reversal in high frequency separator at high energies - spatial orientation theory
[CERN-67-22] 23 p4114 N67-37937
Sterilizable battery separator material preparation process
[NASA-CR-89671] 24 p4294 N67-39495
Ethylene/acrylic acid copolymer as separator material for silver-zinc batteries
[NASA-CR-89639] 24 p4279 N67-40131
Wrapping and prewelling techniques, and materials for improved separators for zinc-silver oxide and cadmium-silver oxide cells
[NASA-CR-89615] 24 p4280 N67-40573
SEQUENCE
S BARKER SEQUENCE
SEQUENTIAL ANALYSIS
Bayes sequential strategies for crossing containing absorption points
[TR-117] 01 p0094 N67-10481
Concept of information in experiment used to study alternate hypothesis statistical tests - sequential analysis
[P-3441] 01 p0040 N67-10966
Procedure for ranking means of normal populations extended to arbitrary, finite number of populations
[TR-9] 01 p0099 N67-11180
Psychophysiological characteristics of process by which sequence of movements is learned 02 p0184 N67-11444
Sequential analysis of essentially finite chains
[AFOSR-66-0423] 02 p0231 N67-11940
Sequential analysis methods for recognition of many hypotheses or for partially known distribution laws 02 p0414 N67-12503
Reporting technique and method of sequencing operations based on parts availability and installation 02 p0403 N67-12713
Some nonparametric tests for randomness in sequences
[NASA-TN-D-3786] 04 p0567 N67-13823
Kinematic and geometric properties of movements in linked rod chain problems
[SEL-66-049] 05 p0663 N67-15323
Sequential development of quadratic polynomial into Liapunov function for nonlinear differential equations
[NASA-CR-627] 06 p0902 N67-16010
Optimal assignment methods for instantaneous and sequential automatic fault diagnosis procedures for digital systems with multiple faults - graphic theoretical model
[R-323] 06 p0948 N67-16209
Prediction of noise distorted multivariate nonstationary signal from sequence composed of signal and stationary noise
[TR-19] 06 p0943 N67-16236
Dynamic programming optimization problems on elements of sequential decision processes
[RM-5007-PR] 06 p0905 N67-16858
Combinatorial and sequential analyses for optimization of saturated designs
[TR-99] 07 p1114 N67-17918
Deciding best of k populations by mathematical formulation (bet views, maximum stopping rule and minimax configuration as two person zero sum game
[AD-646479] 07 p1115 N67-18168
Probability of first occurrence of specified sequences 09 p1545 N67-19289
N-armed bandit problem and other problems involving sequential decisions - game theory, decision making, and dynamic programming
[DSR-76217-56] 10 p1668 N67-21561
Self-repair theory for digital networks based on Sequential Prime Implicant Term Technique
[ECOM-0044-1] 11 p1845 N67-22529
Outstanding values in sequence of random variables
[AD-645831] 12 p2130 N67-23073
Sequential decision feedback using orthogonal signaling
[SEL-66-078] 13 p2073 N67-24973
Behavior of sequential predictors of binary sequences
[SEL-66-093] 13 p2133 N67-24905
General formulation of Monte Carlo method and strong laws for certain sequential schemes
[MRC-TSR-690] 13 p2345 N67-25189
Signal flow graph methods for analyzing modulo-m linear sequential circuits and mixed systems containing both modulo-m adders and adders of real numbers
[TR-519] 16 p2960 N67-29686
Search reduction tests for combinatorial production sequencing algorithm
[REPT.-90] 16 p2921 N67-29611
Sequential analysis of symmetric multivariate distribution weight function
[TR-97] 16 p2921 N67-29960
Strong convergence of linear averages proven in sequences of random variables occurring in Monte Carlo sampling
[MRC-TSR-719] 17 p3001 N67-30426
Noncontamination requirements for planetary exploration mission derived by sequential decision model
[NASA-CR-87423] 20 p3570 N67-34644
Construction and comparison of nonorthogonal incomplete factorial designs, nonorthogonal designs of even resolution, and saturated sequential factorial designs
[ARL-67-0021] 20 p3603 N67-34665
Modern control theory application to solution of nonlinear parameter estimation problem associated with radar point target tracking
[TN-1967-3] 21 p3790 N67-35985
Information in rank order and termination of some associated sequential probability ratio tests
[FSU-M122] 21 p3879 N67-35990
Application of Kalman filter to sequential optimal parameter estimation via Householders matrix inversion method
[RO-S-67-1] 22 p4017 N67-37430
Mathematical programming using generalized sequential unconstrained methods
[MEMO-178] 23 p4272 N67-38994
Prior information and bias in sequential estimation
[P-3655] 24 p4482 N67-39444
SEQUENTIAL CONTROL
Switching theory application to control systems 06 p0858 N67-16067
Fluidic circuits used in drilling sequence control with positioning in one axis by means of stops
[H4] 10 p1614 N67-21279
Design method for sequential network using flip-flop circuitry
[EUR-2366.E] 10 p1589 N67-21755
Switching circuit for sequential timing control of high frequency direct current regulator
[DISC-2847] 13 p2349 N67-25182
Time-weighted minimum energy discrete-data control system design with derived matrix to determine control sequence
[NASA-CR-87330] 19 p3433 N67-33494
Random binary sequences for codes with autocorrelation and cross correlation functions
[NWC-TP-4594] 23 p4230 N67-38562
Cross correlation of maximal length binary sequence and its subsequences

[RADC-TR-67-261] 24 p4407 N67-40012
SEQUENTIAL DETECTION
Singular sequential detection of random signal and Gaussian noise with exponential autocorrelation functions
[RADC-TR-66-406] 01 p0037 N67-10324
Sequential probabilities, and learning and retention of tracking task skill
[NASA-CR-79015] 02 p0222 N67-11847
Algorithm for synthesis of binary sequence detectors
[NASA-CR-80099] 05 p0680 N67-14932
Optimum sequential detection of signals in noise compared with conventional detection
[PH.L-1966-16] 07 p1042 N67-18075
Algorithm for synthesis of binary sequence detectors
06 p1290 N67-18333
Binary sequences for rapid signal acquisition with serial binary decisions required
06 p1245 N67-18346
Sequential photoelectric observations on solar energy output variations
[AFCRL-66-792] 13 p2312 N67-34804
Detection of essential ordering implicit in compiler language programs
[REPT.-2] 16 p2864 N67-39418
Incoherent sequential detector performance evaluation for search radar system design application
[RM-5318-PR] 20 p3600 N67-34352
Sequential detection of changes in Gauss-Markov process achieved through probability ratio test
[NASA-CR-87477] 20 p3601 N67-34543
Error decoding probability bound for Wozencraft sequential decoding algorithm
[AFCRL-67-0176] 21 p3661 N67-36452
SEQUENTIAL MACHINE
Technique for generating output regular expression of sequential machine with specified input regular expression
[TR-66-165] 05 p0680 N67-14966
Parallel decompositions of single input automata or autonomous sequential machines without and with state-splitting
[AFCRL-66-673] 06 p0849 N67-16442
Secondary state assignment and decomposition of sequential machines
[PIBMRI-1345-66] 11 p1830 N67-22494
Digital sequence generator for electric stimulation of walking movements, and mathematical models for spinal control reflex of humans
12 p2031 N67-23853
Determining secondary state assignments for sequential machines so that binary memory elements are connected in shift register form
[TR-67-104] 12 p2061 N67-24078
Serial decomposition of sequential machine into specified classes of submachines
[R-338] 14 p2501 N67-26910
Realizability of quasi-linear sequential machines
[R-343] 14 p2501 N67-26920
Mathematical models of information processing systems - algorithm theory, isomorphism invariants for sequential machines, switching theory, and graph model of concurrent computation
[IB-3] 14 p2502 N67-26951
Theory of parallel-acting automaton
[ECOM-3794] 15 p2735 N67-29008
Structure theory for realization of finite state automata
[NASA-CR-85590] 17 p3041 N67-30991
Algorithm for simplifying operations in problem of optimum planning of sequence of operations performed by one or two machines
18 p3285 N67-31844
Algebra of logic functions applied to finding homomorphic images of sequential machines
[PIBMRI-1344-66] 19 p3400 N67-33951
Compatibility and row-column minimization of sequential machine
[R-355] 19 p3410 N67-33297
Research projects on threshold logic, sequential switching network designs, shift registers, and relevant computer programs
[DSR-74631] 23 p4229 N67-38139
Generalized decomposition theory of finite sequential machines
[NASA-TN-D-4108] 23 p4274 N67-38423
Structural properties of state transition graphs of autonomous sequential machines
[TR-13] 24 p4412 N67-39490
Sequential machines realized with trigger or set-reset flip-flop memory elements
[NASA-CR-89531] 24 p4413 N67-39517
Synthesis of sequential machines with modules with single input
[LMSC-L-74-67-1] 24 p4413 N67-39740
SERIES
S FOURIER SERIES
S MACLAURIN SERIES
S POWER SERIES
S TIME SERIES
SERIES EXPANSION
SA CHEBYSHEV APPROXIMATION
SA FUNCTIONAL ANALYSIS
Asymptotic series expansions and large deviations in many dimensions
[TR-118] 01 p0094 N67-10336
Expansions in spherical harmonics - integral form of radial dependence
[NASA-CR-79630] 01 p0114 N67-10426
Enumeration of special class class of permutations - generating function expression and asymtotic expansion for recurrence relation - combinatorial communications
02 p0238 N67-12142
Table of periodic continued fractions for positive nonsquare integers computed by IBM 7090 digital computer
[AD-640524] 06 p0901 N67-15415
Validity of density expansion solution of BBGKY equations
[WIS-TCI-167] 06 p0940 N67-16429
Analytical method using series expansion to determine effect of nonlinearities on output of coherent optical correlator
[NASA-CR-81335] 06 p0919 N67-16630
Method for computing centers and limit cycles in reactor kinetics 07 p1122 N67-17047
Maclaurin series representation of generalized heat equation
[NASA-CR-81746] 07 p1210 N67-18090
Radial heat polynomial transformations in series expansions of heat equation
[NASA-CR-81666] 07 p1211 N67-18164
Mathematical criteria for valid Legendre polynomial expansions of differential neutron cross section values
06 p1336 N67-18809
Integral representation involving Green function of boundary value problem for deriving nonuniform sampling expansions
[AD-642563] 09 p1468 N67-19753
Mathematical procedure leading to better and simpler approximation expansion terms in eigenvalues problem of Ritz and Bubnov-Galerkin method
09 p1531 N67-20690
Performance of digital computer in series transformation calculations with Markov algorithm
[JUL-177-MA] 10 p1686 N67-21084
Variation method of calculating principal terms in series representation of long range ion-atom interaction
[AFCRL-66-817] 10 p1716 N67-21332
Series expansion and direct integration solutions on inviscid magnetohydrodynamic boundary layer of incompressible fluid flow with pressure coefficient parameter
[NAL-TR-110] 10 p1615 N67-21417
Derivation of sampling expansions using integral representation based on property of resolvent operator on Hilbert space
[TR-17] 11 p1907 N67-22524
Asymptotic expansion method for solving certain classes of singular perturbation problems with application in viscous flow
[NASA-TN-D-3890] 11 p1860 N67-22867
Coefficients calculated for Taylor series expansion about two points - application of Taylor expansion to two-body problem
[NASA-TM-X-55759] 12 p2130 N67-23965
Analytical perturbation theory in three-body problem by regularization of variables, and series expansion convergence
13 p2401 N67-25700
Distribution characteristics and asymptotic behavior of expansion coefficients of quantum field operators
[DESY-66/36] 13 p2378 N67-25869
Lie series solution of gravity gradient stabilized motion of satellite in elliptic orbits
[NASA-CR-84079] 13 p2404 N67-26366
Matched asymptotic expansion method applied to ordinary and optimal trajectory problems in hypervelocity flight dynamics
[NASA-CR-84165] 13 p2404 N67-26401
Series expansion with respect to beams used to solve problem concerning propagation of long radio waves over surface of earth
15 p2666 N67-28142
Convergence and truncation error study in time series expansion
[NASA-CR-85616] 16 p2919 N67-29170
Algorithm and recursion formulas for series expansion of three-body problem
16 p2968 N67-29375
Consistency criterion for ferroelectric free energy cluster expansion - convergence of series tested for deuterated potasium biphosphate model Hamiltonian
[NIJS-R-499] 21 p3790 N67-35598
Computer program for applied mathematics to aid in approximate solution of differential equations using series expansion techniques
[MAC-TR-36] 23 p4218 N67-38174
Theorem proving for orthogonal systems of functions relative to convergence in mean of series
[NASA-TT-F-11341] 23 p4273 N67-38279
Poisson approximation to binomial for relating percentiles of beta and chi squared distributions
[SC-DC-67-1788] 23 p4276 N67-38805
Series expansion for incomplete gamma function and first two derivatives
24 p4476 N67-39466
SEROTONIN
Animal studies and human data concerning blood concentration and serotonin contents and effects on high altitude performance
[NASA-CR-79928] 02 p0211 N67-11838
SERUM
SA PROTEIN
Semiautomatic infrared analyzer for serum triglycerides and cholesteryl esters
[UCRL-16880] 01 p0038 N67-10536
Serum-lipoprotein distribution and protein analysis by refractometry 06 p0902 N67-15943
Ion binding properties of human serum lipoproteins
[UCRL-14631] 07 p1014 N67-17737
Radiation effect on oxidasic activity of human serum in presence of paraphenylene diamine
[LFEN.57/ALPHA/] 06 p1230 N67-17207
Serum lipoprotein distribution and protein analysis by refractometry 14 p2457 N67-26768
Beryllium sulfate effects on serum alkaline phosphatase in primates
[AMRL-TR-66-196] 18 p2852 N67-29412
Evaluation of calcium ion electrode for use in measurement of serum ionic calcium
[SAM-TR-67-43] 21 p3760 N67-36427
SERVICE
S METEOROLOGICAL SERVICE
SERVICE MODULE
SA COMMAND MODULE
Full-size pilot-controlled docking simulation of Apollo command and service module with lunar module using only visual information
[NASA-TN-D-3688] 02 p0313 N67-11869
Transient heat transfer and thermodynamic analysis of Apollo service module propulsion system
[NASA-CR-65579] 22 p4182 N67-37222
SERVO LOOP
Open-loop performance of stabilized platform servo electronics system
[NASA-CR-81769] 07 p1054 N67-18047
Optimal values of filter parameters in phase-lock loop 11 p1845 N67-22495
Microelectronics for air bearing gyro and accelerometer servo loops
[NASA-CR-80632] 18 p3250 N67-32269
SERVOACTUATOR
Design of actuators and mechanical positioning subsystems for space missions
02 p0310 N67-11865
Reliability prediction and failure mode analyses for mechanical feedback servoactuator
[MR-1062, REV. A] 04 p0483 N67-13661
Open and closed-loop actuation and electronic control mechanism for advanced scan platform
06 p0857 N67-15706
Reliability study of three-motor, majority voting
[NASA-CR-82512] 06 p1222 N67-16556
Failure characteristics analysis of majority voting mechanical feedback servoactuator for Saturn-IV B
[NASA-CR-82651] 06 p1224 N67-17319
Characteristics of slave hydromotors, regulated hydraulic pumps, and valve mechanisms
19 p3371 N67-33548
SERVOCONTROL
Servocontrolled hydraulic mechanism to plunge one-ton magnet for Nimrod extracted proton beam
[RHEL/R-117] 04 p0534 N67-13354
Hybrid servo-positioning system and experimental facility for computer controlled manipulator - digital-to-analog converter, RC active filter, and phase

switching servoamplifier
[NASA-CR-80851] 04 p0534 N67-14358
Simplified passive system for separating launch vehicle from spacecraft
[APL-TG-870] 13 p2407 N67-35822
Operation and components of density probe high voltage pulse generator, manipulator control, and pressure transducers used for flow visualization
[NASA-CR-83952] 13 p2294 N67-25965
Magnetic tape recorder-reproducer to accept data pulses at varying rates, record data at constant rate, and retrieve recorded data at rate synchronized to external clock
[NASA-CR-84145] 14 p2496 N67-36519
Selection of perturbation coupling operator and calculation of parameters in combined control systems - invariance conditions 19 p3422 N67-33542
Perturbation coupling operator influence on combined control system 19 p3422 N67-33543
Amplitude and phase responses of load current and voltage of ac push pull magnetic amplifier 19 p3371 N67-33549
Breadboard magnetic tape recorder-reproducer with servocontrol and data synchronization
[NASA-CR-88197] 21 p3848 N67-35754
SERVOMECHANISM
SA ACTUATOR
Stability of periodic solutions of nonlinear differential equations arising in servomechanism theory
[COA-AERO-191] 02 p0281 N67-11970
Hydraulic fluid interaction servovalves - valve design, torque motor specification, environment tests, and vortex valve tests
[NASA-CR-79761] 02 p0176 N67-12079
Neuron-like network used to control opposing actuator device
[GGC/EE/66-14] 05 p0688 N67-15267
Simulated space environment life testing of step-servo assembly for radiation experiments on OSO D satellite
[NASA-TM-X-55754] 12 p2101 N67-23944
Design and construction, operation of servo system, and sweep circuit input for interferometer applicable to Fourier spectroscopy
[AFCRL-66-647] 12 p2101 N67-24041
Quality performance of servomechanism with gap-type nonlinearity in feedback circuit 15 p2683 N67-28111
Analog computer simulation of level quantization in digital servomechanisms 15 p2683 N67-28112
Harmonic linearization analysis of autovibrations in servomechanism with step-by-step servomotor 15 p2683 N67-28113
Structural noise measured on frictional hydraulic four-way servo valve
[MEL-55/67] 15 p2717 N67-28247
Soviet handbook on design and components of gyromotors, suspension systems, spin axle support, power transmission devices, housings, and gyroscopic instrumentation
[FTD-HT-65-359] 16 p2892 N67-29044
Development and testing of digital servovalve for converting digital word value input commands to analog hydraulic power output
[NOTS-TP-4396] 18 p3265 N67-29565
Elements and drives of power follow up systems - hydraulic equipment, servomechanisms, and control system theory
[FTD-MT-64-92] 19 p3370 N67-33541
Parallel and series connection of two electron tubes operating on same load with constant resistance and variable anode feed 19 p3417 N67-33550
Potential utility and feasibility of servomechanism propelled walking vehicles
[P-314] 20 p3645 N67-34111
Nimrod operation and equipment
[RHEL/R-142] 21 p3890 N67-36486
Design equations for large angle three-axis attitude servomechanism for controlling spacecraft
[NASA-TM-X-60562] 24 p4424 N67-40009
SERVOMOTOR
Torque motor servorotator for vestibular application
[NASA-CR-89763] 04 p0497 N67-12917
Pneumatic rotary servomotor for gimbal actuators
[NASA-CR-84463] 14 p2449 N67-27502
Harmonic linearization analysis of autovibrations in servomechanism with step-by-step servomotor 15 p2683 N67-28113
Electrohydraulic servomotor system for automatic stick force compensation in free flight 18 p3197 N67-31959
Pulse-width-modulated control system for servomotor plant
[UCRL-17611] 20 p3613 N67-34400
SESQUIOXIDE
Separation and determination of trace metal impurities in rare earth sesquioxides
[IS-T-80] 01 p0022 N67-10612
SET
Stratification of complex analytic sets 20 p3668 N67-34104
SET PROGRAM
S SOLAR ENERGY THERMIONIC /SET/ PROGRAM
SET THEORY
Boolean algebra used for theorem proofs concerning convex d-polytopes - Gale diagram technique
[AD-635019] 01 p0003 N67-10303
Acceptance of programming language by pushdown automata with bounded backtrack - set theory
[TM-738/022/00] 01 p0056 N67-10314
Nominalistic interpretation of mathematics
[JPRS-38190] 01 p0094 N67-10698
Set theory and probability theory for defining total and partial system reliability 02 p0247 N67-12133
Search for cyclic Hadamard matrices from difference set - combinatorial communications 02 p0237 N67-12141
Diagram method for counting topologies on finite sets
[NASA-CR-80103] 02 p0283 N67-12254
Computer program, using instance-algorithms as element sets, to stimulate imagination of researcher
[RM-5079-PR] 03 p0369 N67-12340
Spatially distributed control systems studies for resolution capacity of fields of objects with distributed parameters 03 p0377 N67-12521
Maximal consistent families of triples
[RM-5138-PR] 05 p0723 N67-14753
Representation of continuous functions of two variables with aid of continuous functions of one variable - set theory
[TG-230-T491] 05 p0730 N67-15049
Switching theory application to control systems 06 p0858 N67-16057
Particle movement through compact subset of d-dimensional Euclidean space in system of infinitely many particles in statistical equilibrium
[RM-4984-PR] 06 p0903 N67-16113
Determination of maximum number of sets in minimal separating collection - game theory kernel
[RM-21] 06 p0905 N67-16478
Metrization and separation theory for normal, separable Moore spaces
[NASA-CR-70112] 07 p1113 N67-17853
Multivariate analysis of random variables association, with reliability application
[D1-82-0567] 08 p1393 N67-19228
Addition theorem proofs for Abelian groups
[MRC-TSR-681] 09 p1468 N67-19741
Heuristic presentation of Lagrange multiplier
[AD-643740] 09 p1471 N67-20185
Multivariate notion of association for unrestricted random variables and application in set operations
[D1-82-0578] 10 p1685 N67-20622
Detection of implicit computational parallelism in computer programs
[ECOM-02463-1] 11 p1829 N67-22614
Relations between balanced sets, characterization of cores, and linear programming
[TR-67-101] 12 p2127 N67-23611
Theory of sets with uncertain or ambiguous boundaries
[AD-645235] 12 p2128 N67-23629
Construction of latin squares, lattice squares, and other incomplete block design using finite field geometry
[SP-3664] 12 p2128 N67-23629
Sum of sets in elementary Abelian group of type /p,p/
[MRC-TSR-691] 13 p2345 N67-25184
Jacobi sums and difference sets
[MRC-TSR-688] 13 p2346 N67-25819
Set theory for association of binary random variables
[D1-82-0444] 14 p2563 N67-26883
Realizability of quasi-linear sequential machines
[R-342] 14 p2501 N67-26939
Optimal assignments in ordered set - application of matroid theory
[ORC-67-9] 14 p2564 N67-26973
Set theory and interrelation with neurophysiology and cybernetics
[JPRS-40523] 14 p2462 N67-27207
Canonical equations used to determine regularity of automaton - set theory
[JPRS-40230] 14 p2500 N67-27269
Theorem generalizations on hereditary properties of graphs
[REPT.-6490.6-M] 15 p2734 N67-28501
Interpolation theorems for point set and line set partitions of graphs
[REPT.-6490.5-T] 15 p2734 N67-28502
Set theory used for determining behavior of convex functions on convex polytopes - Euclidean space
[D1-82-0607] 15 p2735 N67-28551
Exponential generating function derived for number of idempotent elements in symmetric semigroups
[MRC-699] 15 p2736 N67-28669
Mathematical control theory problems involving solutions of certain partial differential equations, nonadditive set functions, or other functionals - approximation and existence theorems 16 p2919 N67-29871
Unambiguous sets and properties in error correcting code study
[AFCRL-67-0124] 17 p3080 N67-30627
Upper and lower bounds obtained for number of all topologies on n points
[NASA-CR-85589] 17 p3094 N67-31144
Lexicographical order, range of integrals, and extension of bang-bang principle
[NASA-CR-85898] 17 p3095 N67-31415
Fraenkel-Mostowski type models used to prove notion of cardinal numbers in set theory
[TR-26] 19 p3478 N67-32739
New approach to theory of monads
[TR-1] 19 p3479 N67-32852
Finite versions of axiom of choice
[ALG-1] 21 p3877 N67-35662
Set theory and algebraic operations on finite automata using graph theory 21 p3822 N67-35818
Integration in locally compact spaces by means of uniformly distributed sequences 21 p3879 N67-35945
Reference connecting technique for automatic information classification and retrieval
[OEG-77] 21 p3903 N67-36504
Simplified framework for Robinsons nonstandard analysis using set theory
[TR-27] 22 p4002 N67-37013
Integral representations on compact convex sets
[AFOSR-67-1560] 22 p4083 N67-37298
Method of finding largest combinable classes for algorithm construction
[R-363] 23 p4064 N67-37440
Linear programming formulation of problem of pattern separation in study of pattern recognition
[BRL-MR-1856] 23 p4273 N67-39194
Integral representation theorems and weak compactness for bounded linear transformations of Banach and other spaces
[NASA-CR-69074] 23 p4275 N67-39581
General properties of collectively compact sets of linear operators
[MRC-TSR-749] 24 p4429 N67-39705
Convolution algebras on locally compact surfaces
[AROD-5254-11-M] 24 p4483 N67-40345
SEWAGE
Biochemical stabilization of aqueous solutions of urine by unsaturated flow through columns of sand ripened with settled municipal sewage
[NASA-CR-81671] 07 p1017 N67-16121
Combined propagation of Chlorella pyrenoidosa and unicellular algae and bacteria strains in sewage water under controlled temperature conditions
[JPRS-41494] 19 p3378 N67-32827
SEXTANT
Analysis of sextant navigation measurements during lunar module rendezvous
[NASA-TM-D-3873] 07 p1121 N67-18155
Handheld space sextant and preflight battery charger and test equipment - operating manuals
[NASA-CR-73972] 11 p1877 N67-23065

SFERICS
Sferics pulse sensor detection of atmospheric electricity and thunderstorm development
[REPT.-2967] 01 p0100 N67-16296
Very low frequency sferics of very large virtual source strength
[AFCRL-66-629] 12 p2094 N67-34710
SGR
S SODIUM GRAPHITE REACTOR /SGR/
SHADOW
SA LUNAR SHADOW
Validation of orbit determination calculations by using observed time that satellite enters shadow of earth 07 p1189 N67-16985
Luminescent intensity of shadow produced by thin wire 12 p2153 N67-23509
SHADOW PHOTOGRAPHY
Approximate measurement of vertical deformations in wood panel surfaces using photography of shadows cast
[FPL-0159] 15 p2713 N67-33615
SHADOWGRAPH
Shadowgraphs of small cold supersonic jet flow structure and acoustic radiation
[NASA-CR-66362] 03 p0364 N67-12988
Ruby laser light source in shadowgraph system for observing shock wave shape, detachment distance, and nose shape for luminous and ablating bodies at hypersonic speeds
[NOLTR-67-18] 15 p2639 N67-28492
SHAFT
SA ROTATING SHAFT
Bending stresses in shaft with transverse hole 01 p0162 N67-11135
Torsional frequencies of uniform shafts with elastic restraints and elastically attached masses
[TG-833] 01 p0162 N67-11191
Materials for potassium lubricated journal bearing and shaft applications in space system turbogenerators
[NASA-CR-72028] 02 p0263 N67-11349
Sinusoidal oscillation of track shaft with control elements of limited motion 07 p1690 N67-17282
Electric transmission line used for dynamic analysis of supercritical shafts on flexible supports
[USAAVLABS-TR-66-44] 10 p1637 N67-20585
Failure analysis of shaft from liquid oxygen interconnect valve
[NASA-CR-84485] 14 p2545 N67-27364
Coolant pump shaft seal development
[AECL-2549] 15 p2718 N67-29431
Parametric analysis and preliminary design of shaft driven lifting rotor system for heavy lift helicopter
[USAAVLABS-TR-66-56] 17 p2993 N67-36286
Theory and performance of viscoseal and buffered seal under laminar and turbulent conditions
[NASA-CR-85893] 17 p3074 N67-31390
Stability of flexible shaft with disk in middle and acted upon by friction and weight of disk
[TR-4] 19 p3543 N67-32763
Control system for digital positioning mechanical shaft
[RISO-143] 23 p4259 N67-38918
SHALLOW SHELL EQUATION
Direct method application in nonlinear theory of shallow shells
[FTD-TT-65-1744] 01 p0162 N67-11079
Analysis of shallow shell structures by discrete element model
[PB-169656] 07 p1197 N67-16779
Linear equation solutions for small symmetrical deformation of shallow spherical sandwich shells under local loading
[NASA-TN-D-3855] 07 p1205 N67-18153
Buckling and vibration of eccentrically stiffened shallow shells of double curvature
[NASA-TN-D-3836] 06 p1277 N67-16767
Deflections and stability of reinforced concrete shallow flexible shells allowing for creep of concrete 09 p1537 N67-20063
Small parameter method used for calculating periodic vibrations of flexible shallow shells and plates 09 p1538 N67-20072
Characteristic buckling features of elongated cylindrical shell supported on inner surface by elastic foundation 09 p1539 N67-20084
Splitting state of stress in paraboloid or cylindrical shallow shell into membrane and bending stresses 09 p1533 N67-20106
Approximate solution using single-frequency vibrations to determine nonstationary flutter of shallow cylindrical panels in supersonic gas stream 09 p1533 N67-20109
Finite displacements of very shallow orthotropic shells and plates at small deformations 09 p1534 N67-20115
Fourier transform and theory of generalized functions to obtain differential equilibrium equations to determine concentrated bending and tangential forces on shallow shells 12 p2229 N67-24544
Parametric analysis of stress concentration near concentrated load on shallow shell of elliptic paraboloid
[JPRS-39648] 13 p2442 N67-26381
Forced vibrational motion of shallow spherical shells
[REPT.-31] 16 p2978 N67-29096
Extension of calculated frequency data for nonsymmetric mode vibrations of clamped-edge shallow spherical shell
[TR-1001/2240-30/-11] 21 p3940 N67-35624
SHAPE
S EARTH SHAPE
S LINE SHAPE
S MODE SHAPE
S PLANFORM
SHAPED CHARGE
Meteoritic simulators using conical-shaped or hyperbolic-shaped charges that explosively propel metal jets
[NASA-CR-66215] 07 p1660 N67-17617
Calibration of flight guns for advanced shaped charge meteoritic simulators
[NASA-CR-66216] 07 p1660 N67-17618
SHARP LEADING EDGE
Theoretical research on hypersonic viscous flow near sharp leading edge
[ARL-66-0102] 02 p0253 N67-12184
Vortex lift calculation for sharp-edge delta wings based on leading edge suction analogy
[NASA-TN-D-3767] 03 p0332 N67-13171
Subsonic zone investigated and approximation method developed for hypersonic flow with detached compression shock in front of thick profile with sharp leading edge
[REPT.-34] 04 p0479 N67-13641
Low speed wind tunnel tests of sharp edged delta wings to determine thickness effects on longitudinal characteristics
[ARC-27913] 05 p0630 N67-15006
Low speed wind tunnel tests on flow separation around sharp edged delta wings of various leading edge sweepback angles
[ARC-R+M-3424] 06 p1215 N67-12366
Flow about simple, blunt and sharp leading-edged, two-dimensional airfoils at transonic and low supersonic speeds
[NPL-AERO-1189] 09 p1291 N67-19751
Experimental model for sharp leading edge problem in rarefied hypersonic flow
[ARL-66-0101] 09 p1436 N67-20187
Low speed wind tunnel tests of cones and delta wings with sharp leading edges
[ARC-R+M-3489] 18 p3187 N67-31971
Low speed wind tunnel tests of delta wings with sharp leading edges and 80 deg sweepback angle 18 p3187 N67-31973
Low speed wind tunnel tests of delta wings with sharp leading edges and 20 deg sweepback angle 18 p3187 N67-31974
Equations developed for boundary layer, shock wave structure, and inviscid core in hypersonic viscous flow over slender bodies with sharp leading edges
[PIBAL-1018] 21 p3753 N67-35417
SHEAR CREEP
Shear creep viscometer for measuring viscoelastic and viscous properties of elastomers 05 p0707 N67-14493
SHEAR DISTURBANCE
Formulation of magnetic shear effects on plasma instability
[IC/66/98] 10 p1741 N67-21768
SHEAR FLOW
Digital computer program for investigating aerodynamic properties of airfoils near stall in two-dimensional nonuniformly sheared flow
[CAL-AF-2625-S-1] 01 p0002 N67-10348
Generation of water waves by air shear flows
[ASRL-TR-116-3] 02 p0253 N67-12191
Turbulence measurements in pipe flow of drag reducing nonnewtonian fluid
[REPT.-0-71000/6R-23] 07 p1068 N67-17957
Stability of shear flows over rigid or flexible surface
[ASRL-TR-116-5] 13 p2686 N67-34057
Initial value problem solution of combined shear flow and buoyancy effects on weak homogeneous turbulence
[NASA-TN-D-3999] 14 p2515 N67-26553
Macroscale turbulence of subsonic jets
[NASA-CR-84423] 14 p2519 N67-27702
Eddy viscosity model for predicting velocity distribution in wall boundary layer for variable shear flow
[NYU-AA-66-65] 16 p2879 N67-29628
Uniqueness proof of parallel three-dimensional shear flow in channel with arbitrary cross section
[IMM-355] 22 p4024 N67-37057
Analysis of viscous sublayer structure in turbulent shear flow past flat boundary
[AD-656089] 22 p4025 N67-37205
Lifting line theory for cascade of blades in subsonic shear flow
[ISAS-415, VOL. 32, NO. 8] 24 p4372 N67-40091
Capillary plastometer especially designed for use with slurries
[JAERI-1117] 24 p4474 N67-40485
SHEAR LAYER
Transformation of boundary layer equations for numerical integration of laminar and turbulent free shear layers 06 p1272 N67-19289
Wind data smoothing effect on wind shear, and wind shear calculations for small shear layers
[ECOM-5057] 09 p1472 N67-19968
Mathematical model for production of intense shear layers by vortex stretching and convection
[AGARD-514] 15 p2694 N67-28880
Shear layer over supersonic flow cavity, and velocity and shear-stress coefficient profiles 24 p4429 N67-39477
SHEAR STRAIN
Buckling of rectangular plate under combination of biaxial compression, bending, and shear
[ARL/SM-301] 02 p0315 N67-11911
Flow birefringence measurements on polystyrenes in viscous solvent with varied concentrations and shear rates 05 p0720 N67-14502
Relation of elasticity number and recoverable shear strain by simple analytical considerations - Rheology 05 p0770 N67-14523
Viscosity of thixotropic suspensions at medium and large shear rates 05 p0724 N67-14552
Structural composite damping with viscoelastic shear-damping mechanisms
[NASA-CR-742] 06 p1380 N67-19318
Separation of membrane and bending shears in shells with two birefringent coatings
[ARPA-E45] 24 p4544 N67-39941
SHEAR STRENGTH
Shear strength, polymorphism, and mechanical behavior of olivine, enstatite, diopside, labradorite, and pyrope garnet
[AFCRL-66-543] 10 p1618 N67-20460
Strength of bonded single-lap metal joints at low and high temperatures and after temperature cycling
[RAE-LIB-TRANS-1139] 10 p1648 N67-21744
Brass, bronze, stainless steel, and copper wires for rocket retainer part tested for shear strength
[M-66-1068] 13 p2329 N67-26125
Limit analysis of plasticity applied to strength evaluation of fiber reinforced composites
[NASA-CR-84450] 14 p2637 N67-27421
Tensile and shear tests of lap shear specimen bonded with iridite adhesive
[NASA-CR-85233] 18 p2916 N67-30009
Statistical point count method for determining microvoids in glass filament wound structures - microvoid minimization and correlation with interlaminar shear strength
[NRL-6498] 17 p3085 N67-30497
Engineering methods for measuring horizontal shear strength in soil-vehicle mechanics 18 p3263 N67-31823
Methods for testing tensile and shear strength of bulk solder and soldered joint cast specimens, and spread area test for determining wettability of solder on copper surfaces
[BM-RI-6983] 18 p3281 N67-32475
Test method for determining shear modulus and shear strength of unidirectional fiber-reinforced composites
[AFML-TR-66-372] 19 p3545 N67-32197
Ultimate shear strength of brass joints

soldered with tin-lead solder as function of age and temperature
[LA-3658] 19 p3471 N67-33222
Test methods for determining shear modulus of fiber reinforced laminated composites
[AFML-TR-67-22] 20 p3739 N67-34675
Shear mode fatigue fracture in aluminum alloys - optical and transmission electron microscopy
[RAE-TR-65158] 20 p3660 N67-34906
Tensile and interlaminar shear strengths of glass, boron, and graphite filament wound resin composites and liners for cryogenic pressure vessels
[NASA-TM-X-52350] 22 p4076 N67-37078
Microstrain techniques for measuring shear modulus in thin film joints bonded with epoxy adhesives
[PA-TR-3591] 23 p4257 N67-38169
Stress relaxation in steel, nickel alloys, and iron alloys - thermomagnetic effects on metal friction, heat treatment and work hardening, and loading curves for steel joints
[FTD-MT-65-262] 24 p4468 N67-40111
Thermomagnetic effects on internal friction and shear modulus of Permalloys 24 p4468 N67-40112
SHEARING STRESS
Shear stress distributions for flow in smooth or partially rough annuli
[AE-343] 05 p0382 N67-12637
Measurements of normal stresses exhibited by viscoelastic fluids in simple laminar shearing flow field 05 p0693 N67-14514
Measurement of two normal stress differences and of shearing stress of viscoelastic fluids under steady laminar flow conditions and at high rates of deformation 05 p0722 N67-14515
Rapid shearing characteristics of polymers dissolved in mineral oil - Rheology 05 p0723 N67-14543
Spatial distribution of stresses in shearing motion in polymer fluids 05 p0894 N67-14545
Casson equation and rheology of blood near zero shear 05 p0643 N67-14573
Annealing of vacancy agglomerates responsible for critical shear stress enhancement of neutron irradiated nickel 07 p1174 N67-16766
Correlation between critical shear stress of neutron irradiated copper single crystals and density of defect clusters 07 p1098 N67-16771
Determination of pressure gradient required to maintain constant wall shear in incompressible boundary layer flow
[NASA-CR-83448] 08 p1289 N67-19131
Characteristics method applied to equations governing shear wave propagation in elastic media
[REPT.-125-10] 09 p1519 N67-19735
Approximation methods for determining stability of structurally orthotropic cylindrical panels subjected to shearing stresses and internal pressures 09 p1524 N67-20045
Rigorous solution to problem of stressed state of circular thick disk in field of centrifugal forces 09 p1527 N67-20064
Design and testing of integrally stiffened rectangular shear panel
[AR-66-6] 10 p1763 N67-20562
Internal displacements in solid propellant grains - analysis of thick hollow cylinder with reinforcing layers
[AD-646917] 11 p1969 N67-22521
Effect of carbon additions on shear modulus of tungsten and tungsten-rhenium alloy
[ARO-D-228] 11 p1899 N67-23106
Influence diagrams for vertical stresses, shear stresses, and surface deflections in three-layer pavement systems for airfields
[TR-3] 13 p2231 N67-24997
Calculation of shear stress caused by sedimentary flow at wall in closed tube using Reynolds equations for turbulent flow
[REPT.-57] 13 p2314 N67-26112
Boundary layers in compressible flows with arbitrary initial profiles and assigned wall shear
[NYU-AA-66-61] 14 p2516 N67-26967
Theory of critical shear stress and work hardening behavior of dispersion hardened crystals
[TR-515] 14 p2556 N67-27173
Couple-stresses effect on corner singularity due to asymmetric shear loading
[TR-11] 18 p3353 N67-32987
Shear stress and heat transfer estimation for non-similar laminar boundary layer flow
[RM-3] 20 p3623 N67-34363
Flight measurements of pressure fluctuations in turbulent subsonic boundary layer and relation with wall shear stress
[RAE-TR-66330] 20 p3560 N67-34369
Van Driest eddy viscosity hypothesis used for wall shear stress and heat flux for turbulent boundary layer with pressure gradient
[TWF/TN/14] 21 p3832 N67-36111
Low temperature irradiation facility for hardening of metals - shear stress of aluminum and copper single crystals
[BMWF-FBK-67-23] 21 p3691 N67-36538
Dynamics of two-layered Timoshenko-type cylindrical shell, including effects of shear deformation of interlayer bond
[TR-1001/2240-30/-7] 22 p4154 N67-37294
Effects of composition and shear rate on mechanical stability of greases
[RIA-67-1075] 23 p4078 N67-37548
Dynamic shear and diagonal tension resistance of reinforced concrete I-beams constructed with welded wire fabric as web reinforcement
[R-524] 22 p4157 N67-37772
Generalized Chern and Nemat-Nasser method and application to bounds on bending moments and resultant thrusts and shear forces induced in sandwich arch section by anelastic strains
[TR-12] 23 p4355 N67-38120
Shear stress distribution in adhesive layer of Saturn stage bonded joints using photoelastic stress analysis techniques
[NASA-CR-65369] 23 p4357 N67-38633
Shear stability of polymer-thickened hydraulic fluids under several gas atmospheres and at pressures greater than atmospheric
[RIA-67-1954] 24 p4471 N67-39497
Mean velocity and mean shear stress distributions of two-dimensional quasi-parallel turbulent shear flows
[AROD-5413-2-E] 24 p4429 N67-39500
Bending tests with plate strip in pure bending and square plate in pure shearing stress, and determination of moduli of elasticity and plate rigidity
[NASA-TT-F-11347] 24 p4545 N67-40139
Distribution of inter-laminar shear stress in sandwich beams
[TR-23] 24 p4546 N67-40243
SHEATH
SA ION SHEATH
SA PLASMA SHEATH
Metallographic observations of hot junction systems of commercial thermocouples exposed to reactor irradiation 09 p1445 N67-19624
Insulation and sheath material failure of thermocouples used in high temperature environments 09 p1447 N67-19635
Shunt effects and sheath integrity of thermocouples for reactors of Project Rover 09 p1479 N67-19643
Improved sheathed electric heater
[AECL-2592] 11 p1857 N67-23234
Inhomogeneous sheath effect on surface current excitation of immersed plasma cylinder by electromagnetic and electrokinetic waves
[NASA-CR-83855] 13 p2285 N67-25835
High frequency resistance welding method for production of cable sheaths
[AD-646544] 14 p2504 N67-26790
SHEET
SA CURRENT SHEET
SA ELASTIC SHEET
SA FOIL
SA PANEL
SA PLATE
SA VORTEX SHEET
Stress intensity factors for short single edge cracks in square sheets with linearly varying end displacements
[AMRA-TR-66-21] 01 p0156 N67-16337
Mechanical property and production of nonferrous metal sheet manufacturing 06 p0885 N67-15513
Formation and properties of liquid propellant sheets from fuel injectors on curved deflector surfaces 06 p0864 N67-15722
Stress concentrations for rounded rectangular holes in sheets subjected to biaxial stress or shear
[ARC-R+M-3407] 07 p1294 N67-17864
Feasibility of using copper-boron carbide sheets in Kiwi reactors
[LA-3570-MS] 10 p1674 N67-20762
Formation and properties of liquid sheets suitable for use in rocket engine injectors
[NASA-CR-65106] 16 p3579 N67-29780
SHEET METAL
Mechanical and thermal properties of tungsten and molybdenum alloy sheets for aerospace applications
[REPT.-7562-1478-XII] 01 p0023 N67-10260
Fabrication of beryllium test sheet for structural applications
[NASA-TM-X-52529] 02 p0285 N67-11824
Increased plasticity in sheets and welded joints of titanium alloys with zirconium and rhenium additives 03 p0499 N67-12638
Mechanical properties and efficiency parameters of lightweight alloys, high strength steels, and heat resistant structural sheet metals
[ARA-264-6, PT.-2] 07 p1301 N67-17040
Texture strength and fracture toughness of titanium alloy sheet biaxial stress fields at room and cryogenic temperatures
[NASA-TM-X-52272] 07 p1104 N67-17822
Radioactive methods of process control and for automatic measurements in sheet stamping 10 p1640 N67-21224
Beta radiation source to automate and control technological processes during sheet rolling 10 p1644 N67-21229
Residual strains and displacements within plastic zone ahead of crack in steel sheets
[SSC-179] 10 p1766 N67-21230
Production of Mo sheet from high-purity Mo powder compacts and purification and processing Mo-Re-W alloy sheets 11 p1895 N67-23094
Chromium alloy sheet and plate produced by rare gas induction melting, hot extrusion, and warm rolling
[NASA-CR-72184] 11 p1895 N67-23175
Load and fatigue tests on titanium aluminum vanadium alloy sheet metal
[NASA-CR-82076] 11 p1901 N67-23475
Property characterization of ductile tungsten base sheet alloy
[AD-645143] 12 p2115 N67-23902
Fatigue crack propagation in aluminum alloy sheet
[ARC-CP-896] 13 p2340 N67-26044
Specimen width effect on fracture criterion of aluminum alloy sheet material during residual strength test
[NLR-TR-M.2152] 13 p2348 N67-26207
Titanium sheet alloy selected for precipitation hardening
[WAL-TR-405/2-15] 14 p2581 N67-26869
Fatigue loading properties of resistance spot weld lap joint in steel sheet
[COA-MAT-1] 14 p2543 N67-27127
Zirconium and titanium additions for improved mechanical properties and corrosion resistance of aluminum alloy sheet
[NASA-TT-F-11015] 15 p2724 N67-28245
Effects of sheet width and notch length on calculated fracture toughness of low interstitial titanium alloy sheet
[NASA-TN-D-4016] 15 p2798 N67-28299
Room and high temperature tensile properties of Vascojet 90 steel sheet and recrystallization temperature and tensile properties of titanium zirconium molybdenum alloy sheet
[MGRT-304] 20 p3650 N67-34713
High speed, semihot sheet metal pressing 20 p3652 N67-35147
Mechanics and plastic flow of sheet metal forming 22 p4062 N67-36986
Heat resistance tests on solid and welded titanium alloy sheets 22 p4067 N67-37154
Forming and diffusion bonding of Be 2A1 sheet metal
[GD/C-ERR-AN-1067] 23 p4259 N67-38628
Metallographic preparation techniques for vacuum cast rolled ingot beryllium sheet
[RFP-942] 24 p4457 N67-39681
SHELL
SA ANISOTROPIC SHELL
SA CIRCULAR SHELL
SA CONICAL SHELL
SA CORRUGATED SHELL
SA CYLINDRICAL SHELL
SA ELASTIC SHELL
SA HEMISPHERICAL SHELL
SA K-SHELL
SA LIQUID-FILLED SHELL
SA METAL SHELL
SA ORTHOTROPIC SHELL
SA REINFORCED SHELL

SA SPHERICAL SHELL
SA THIN WALLED SHELL
SA TOROIDAL SHELL
Effective residual interaction for shell model calculations - matrix analysis and angular momentum 03 p0435 N67-12568
Technique for measuring spin and yaw of shell along entire trajectory 06 p0677 N67-15379
Proton and neutron single-particle level in diffuse potential well with spin-orbit calculated for Z greater than 82 and N greater than 126 [JINR-P-2783] 07 p1151 N67-17500
Structural analysis and matrix interpretive system computer program for analyzing frame and shell structures 06 p1375 N67-18321
Differential equations describing fabric shell behavior under static loading 09 p1526 N67-20060
Matrix displacement method applied to shells of revolution under loading 11 p1968 N67-22807
Flat triangular shell element stiffness matrix 11 p1969 N67-22816
Procedure for designing localized shell and finite difference computer program applications to Saturn V vibration testing project [NASA-CR-83537] 11 p1994 N67-23353
Thermal stress in shells of revolution in nonaxisymmetric temperature field [FTD-TT-65-2044] 12 p2229 N67-24711
Aeroelastic analysis method applied to flutter of flexible, towed tension shell [NASA-CR-777] 12 p2612 N67-25048
Functions and capabilities of large capacity structural analysis and matrix interpretive system digital computer program to analyze frame and shell structures [NASA-CR-83742] 12 p2662 N67-25072
Plates and shells under external loading and elevated temperatures - nonlinear analysis of shells, stress and displacement in reinforced circular cylindrical shells, and creep [PIBAL-933] 15 p2800 N67-28614
Welding methods for cladding of steel plates and shells with stainless steel tape [EURAEC-1692] 16 p2910 N67-29825
Nonsymmetric vibration of shells of revolution [AMRA-TR-67-09] 18 p3353 N67-32640
Localized structure for laboratory vibration testing of shell structure-mounted components for Saturn V launch vehicle [NASA-CR-87160] 19 p3543 N67-33851
Calculation of positions of particle-hole states in sd-shell [AD-653978] 20 p3696 N67-34605
X-ray stress analysis of Bauschinger effect in metals [PA-TR-3564] 20 p3740 N67-34939
Nuclear physics research with emphasis on proton-proton reactions, proton scattering and polarization, and shell structure [ORNL-4122] 22 p4105 N67-37379
Doubly-curved shell elements for advanced spacecraft structural design technology [NASA-CR-89837] 24 p4544 N67-40130

SHELL STABILITY
SA BUCKLING
Mechanics, supersonic and hypersonic flows, shell stability, plasma acceleration, and airfoils [FTD-TT-65-1332] 01 p0112 N67-10041
Stability of circular cylindrical shell with internal liquid under supersonic flow of compressible gas 01 p0158 N67-10047
Dynamic stability criterion applied to conical and spherical shallow shells of revolution 01 p0158 N67-10074
Theory and experimental results on buckling of unstiffened orthotropic and stiffened conical shells [AFOSR-66-0227] 03 p0469 N67-12540
Donnell equation used in theoretical study of pressure stability of prolate spheroids [NASA-CR-80340] 02 p0470 N67-12968
Viscous corrections to Stewartson theory on stability of spinning top containing liquid 06 p0674 N67-15307
Panel flutter, electric deformation, and stability of shells [NASA-TT-F-394] 06 p0974 N67-15428
Nonlinear shell equilibrium equations 06 p0976 N67-15938
Linearized set of equations developed for infinitesimal vibration and buckling of axisymmetrically prestressed thin shells of revolution [NASA-TN-D-3831] 08 p1376 N67-18637
Aeronautical engineering studies dealing with gas flow, shell stability, temperature profiles, and equipment design [FTD-MT-64-363] 09 p1545 N67-19481
Stability of closed cylindrical shells of rotation subjected to torsion and external pressure 09 p1518 N67-19485
Vibratory motion of flexible shells subjected to random forces 09 p1526 N67-20059
Deflections and stability of reinforced concrete shallow flexible shells allowing for creep of concrete 09 p1527 N67-20063
Approximate solutions of stress concentration about holes in isotropic and orthotropic shells 09 p1527 N67-20065
Digital computer computation for problems involving smooth and ribbed plates and shells, either stressed or not stressed by holes 09 p1527 N67-20067
Load carrying capacity of smooth circular cylindrical shells under compression 09 p1528 N67-20073
Equation systems for determining forces and displacements in shell of zero Gaussian curvature for three different conditions of loading 09 p1529 N67-20076
Integral-differential equations of shell equilibrium with focusing kernels 09 p1529 N67-20077
Dynamic instability of circular cylindrical shells subjected to simultaneous action of longitudinal compressive force and temperature field 09 p1529 N67-20078
Equations of motion for flutter and stability of coaxial elastic circular cylindrical shells between which flows compressible fluid 09 p1530 N67-20083
Linear and nonlinear equations of simple nonshallow shells for deriving stability equations of sandwich shell 09 p1531 N67-20091
Free vibration of shells of revolution 09 p1531 N67-20095
Asymptotic integration method applied to problems of free vibrations in shells of positive curvature 09 p1532 N67-20097
Thin-walled cylindrical shell stability during immersion in restricted nonviscous fluid medium under dynamic loading 09 p1532 N67-20100
Vibrations and stability of anisotropic and sandwich cylindrical shells of arbitrary cross section 09 p1536 N67-20128
Natural vibrations and stability of rectangular plates of variable thickness calculated for various boundary conditions 09 p1537 N67-20132
Initial deviations effect on load carrying capacity of thin circular cylindrical shells under uniform axial compression [SUDAAR-283] 10 p1764 N67-20583
Methods of analyzing stability of longitudinally corrugated cylindrical shells [FTD-TT-65-1947] 10 p1765 N67-20659
Approximate method for analyzing vibrations of stiffened plates and shells [U-238-165] 11 p1985 N67-22618
Photoelastic measurement of stress concentration in hyperboloid shell of revolution weakened by small circular hole 12 p2224 N67-24510
Stability of infinite plate weakened by hole with sharp notches 12 p2225 N67-24514
Shells of revolution with small holes at apex, and determining stresses and moments under both symmetrical and asymmetrical loading 12 p2226 N67-24521
Coupling effects on dynamic stability of thin shells [P-3529] 12 p2230 N67-24865
Dent formation in buckling mode of circular cylindrical shells under axial compression 13 p2419 N67-26187
Stability of toroidal shell 13 p2421 N67-26436
Buckling strength of truncated conical shell at uniform external pressure on small edge [NASA-CR-795] 14 p2619 N67-27270
Cylindrical shell stability under moving loads by direct Liapunov method [TR-5] 14 p2629 N67-27716
Vibrations and stability of circular cylindrical shell with internal supersonic gas flow 14 p2629 N67-27721
Stability of cylindrical shells under longitudinal impact 16 p2982 N67-30603
Overall buckling of submerged vessels composed of spherical and cylindrical shells using theorem of stationary potential energy [TR-43] 19 p3544 N67-33994
Configuration modifications of tension shell shapes to improve aerodynamic characteristics at Mach 3 by delaying onset of flow separation [NASA-TN-D-4080] 19 p3264 N67-33995
Shear lag effect on stress distribution in stiffened shells, and stress analysis of cone frustums and segments [NASA-CR-87445] 20 p3737 N67-34217
Finite element analysis for shells of revolution and cylindrical shells in plane strain - solid rocket motor cases [REPT.-67-4] 20 p3717 N67-34458
Stability loss of shells of positive Gaussian curvature and shells of rotation under various loading modes [NASA-TT-F-444] 20 p3738 N67-34547
Stability of duraluminum thin-walled cylindrical shells under creep conditions for compression and pure bending 20 p3739 N67-34751
Shell stability under creep conditions - closed cylindrical shell under axial compression 20 p3740 N67-34870
Extension of calculated frequency data for nonsymmetric mode vibrations of clamped-edge shallow spherical shell [TR-1001(2)-40-90/-11] 21 p3940 N67-35624
Geometrically linear equations for solving problem of stability of elliptic cross-section cylindrical shell subjected to axial compressive loading 21 p3943 N67-36390
Vibration and buckling characteristics of cylindrical shells under axial load and external pressure [AFFDL-TR-67-28] 22 p4153 N67-37634
Effective elastic coefficients for spherical shells perforated by radial holes [REPT.-112-A] 23 p4356 N67-38417
General stability of three layer cylindrical shell under external hydrostatic pressure 23 p4360 N67-39175
Separation of membrane and bending shears in shells with two birefringent coatings [ARPA-E45] 24 p4544 N67-39941

SHELL THEORY
Unsymmetric nonlinear first order analysis of layered orthotropic shells of revolution [ADR-02-11-66.2] 01 p0159 N67-10444
Matrix analysis of axisymmetric shells under general loading [GAM/MC/66B-7] 01 p0161 N67-11029
Fundamental equations for shells with nearly regular middle surfaces [FTD-TT-65-1057] 01 p0161 N67-11065
Direct method application in nonlinear theory of shallow shells [FTD-TT-65-1744] 01 p0162 N67-11079
Small natural oscillations of hollow elastic triple-layer shells of revolution [FTD-TT-65-1874] 01 p0162 N67-11088
Matrix solutions of shells of arbitrary shape subjected to arbitrary dynamic loading [NASA-CR-80114] 02 p0319 N67-12363
Model Hamiltonian for neutron scattering resonance in shell model of molecular oxygen [NASA-CR-81154] 06 p0919 N67-15386
Mechanism of octupole vibrational states found in inelastic scattering and vibrational states of type two-plus found in nuclei with partially filled shells 06 p0924 N67-15651
Electric and magnetic transition probabilities of spherical nuclei of europium in shell region N equals 82 06 p0934 N67-15654
Influence of nuclear shells on binding energy surfaces, proton number, and neutron number, and distances between energy surfaces of different parities 06 p0935 N67-15655
Formula for reduced width for emission of cluster of nucleons from nucleus with atomic number A - shell theory 06 p0935 N67-15657
Duality of problems of stretching and of bending plates [NASA-CR-765] 06 p0975 N67-15671
Negative parity level shifts of O16 due to low momentum energy shell transitions calculated for neutrons and protons [NASA-CR-81236] 06 p0941 N67-15819
Nuclear structure - shell model studies, giant dipole resonance, nuclear excitation properties, nuclear reactions in astrophysics, and resonance reactions and isospin -

Conference
[ARL-66-0221] 07 p1142 N67-17127
Shell model studies in nuclear structure 07 p1142 N67-17128
Shell model calculations of sd-shell nuclei, and giant resonance of carbon-12 07 p1142 N67-17129
Shell structure of aluminum 27 studied by electron scattering 07 p1142 N67-17131
Group theory methods and nuclear structure in 2s-1d shell 07 p1143 N67-17132
Shell theories and computer programs for evaluating internal and external pressures at nozzles in pressure vessels
[TID-23343] 07 p1202 N67-17431
Comparisons between on-shell and off-shell methods for two-body T-matrix
[UCSD-10P10-9] 06 p1334 N67-18604
Single particle realistic shell model Hamiltonian for super heavy nucleus prediction
[UCRL-16843] 08 p1335 N67-18646
Shell and plate theory conference with emphasis on stability and nonlinear problems, plasticity, thermoelasticity, creep, and structural dynamics and mechanics
[NASA-TT-F-341] 09 p1520 N67-20021
Complex transformation method to eliminate negligible terms from theory of shells 09 p1521 N67-20023
Equations for nonsymmetrical sandwich shells with light filler under normal load 09 p1522 N67-20029
Shell theory and variation method for calculating large panel buildings as three-dimensional systems 09 p1525 N67-20052
Compression and flexure of hyperbolic shells of revolution determined by Fourier series terms 09 p1536 N67-20129
Energy method used to analyze elastic-plastic deformation of thin shells
[FTD-TT-65-1838] 10 p1765 N67-20718
Rate equations and shell model developed for dynamic proton polarization and relaxation
[UCB-34P20-T-1] 10 p1699 N67-20756
Shell correction to nucleus mass as function of nuclear deformation
[UCRL-17070] 10 p1702 N67-20801
General shell theory for loading beyond elastic range using principle of virtual displacements compatible with Kirchoff-Love assumptions 11 p1993 N67-22999
Shell model calculations of nuclei
[PUC-937-233] 12 p2161 N67-23599
Equations for spherical shell used to determine stress state of shallow ellipsoidal shell of revolution weakened by hole 13 p2324 N67-24506
Static boundary value problem for multiply connected shallow shell considered arbitrary orthogonal coordinate system 12 p2225 N67-24517
Stress and stability of thin-walled conical shells for axisymmetric loads
[NASA-TM-X-59676] 13 p2430 N67-26327
Parametric analysis of stress concentration near concentrated load on shallow shell of elliptic paraboloid
[JPRS-39648] 13 p2442 N67-26381
Shell model and random-phase approximation to predict excited states of helium 4
[KAPL-P-2308] 14 p2590 N67-27451
Army research and development activities in electronics, theoretical and applied physics, ballistics, pyrotechnic chemistry, and weapon system technology
[AD-634616] 15 p2966 N67-27971
Asymptotic solutions for axisymmetric vibrations of shells
[AD-634635] 15 p2798 N67-27984
Elastic response of steel cylinder buried in sand to blast loading
[AD-634648] 15 p2796 N67-27992
Analysis of elastic-plastic shells of revolution under axisymmetric loading by finite element method
[NASA-CR-85735] 17 p3173 N67-31104
Definition and criteria for open and closed electron shell states in quantum mechanics 17 p3136 N67-31425
Compliance method for analysis of stiffened orthotropic elastic shells
[NASA-CR-85618] 17 p3175 N67-31472
Energy-weighted M1 transition sum rule for medium and heavy spherical nuclei using shell model jj-couple wave functions
[FOA-4-A-4475-411] 18 p3307 N67-31646
Stability of shells of revolution taking into account initial deflections 18 p3348 N67-31651
Tensor equations of equilibrium for nonlinear membrane shell theory and small perturbations of pressurized membrane shells
[NASA-CR-86656] 18 p3350 N67-31737
Stress in conical shell weakened by conical hole
[NAL-TT-1] 20 p3736 N67-34048
Stopping power formulas and L-shell correction tabulations
[USC-136-120] 20 p3702 N67-35027
Equations for inelastic dynamic shells under large strains and rotations
[SC-CR-67-2641] 23 p4356 N67-38383
Differential equations of axisymmetric vibration of paraboloidal shells of revolution
[NASA-CR-932] 24 p4483 N67-40663
SHELTER
SA LUNAR SHELTER
SA SURVIVAL
Stay time extension module shelter structure to support 2 men for 8 days on lunar surface 04 p0614 N67-14250
Economical instrument shelter evaluated for microclimatological studies - Alaska
[CRREL-SR-94] 05 p0733 N67-15823
Relationships existing between human behavior and psychological environment during fallout shelter confinement
[REPT.-75111-2F] 05 p0681 N67-15997
Temperature control in fallout shelters located above and below ground - mathematical techniques to predict cooling capabilities
[R-493] 08 p1282 N67-18569
Experimental analysis of large fallout shelter management, environmental threat, and small shelter habitability under conditions of stress
[AIR-D93A/1AND2/-9/66-FR] 11 p1798 N67-22815
Sensible and latent heat exchange rates for clothed and nude individuals occupying survival shelters at three metabolic rates
[AD-648467] 14 p2464 N67-27541
Lightweight portable polystyrene foamcore shelter design and cold weather testing for adequacy and potential use in arctic environment
[AAL-TR-66-14] 19 p3429 N67-33915
Critical evaluation of Markov matrix method for treating neutron diffusion through slabs of materials such as shield or inside wall of fallout shelters
[R-529] 20 p3691 N67-34115
SHIELDING
SA ATTENUATOR
SA ELECTROMAGNETIC SHIELDING
SA ELECTROSTATIC SHIELDING
SA HEAT SHIELD
SA MAGNETIC SHIELDING
SA NUCLEAR SHIELDING
SA RADIATION SHIELDING
SA RADIO FREQUENCY SHIELDING
SA SPACECRAFT SHIELDING
SA WINDSHIELD
Spatial distribution of absorbed doses of high energy protons behind shield 02 p0290 N67-11507
Induced sodium 24 activity in concrete shielding of high-energy accelerators
[CERN-66-28] 02 p0290 N67-11742
Uranium resonance shielding of epicadmium reactions in uranium, plutonium, and manganese detectors
[AEEW-R-483] 03 p0285 N67-11744
Radiation hazards of interplanetary space and related shielding problems
[NASA-CR-76511] 02 p0300 N67-11986
Out of vacuum electron beam welding with X-ray shielding and auxiliary inert gas shielding 03 p0461 N67-12702
High energy electron shielding, and fast neutron and muon measurement
[DESY-66/18] 04 p0577 N67-14029
Leakage radiation measurement method for comparing shielding effectiveness of coaxial cables, ducts and conduits
[RADC-SP-66-5] 05 p0683 N67-14795
Shield Test and Irradiation Reactor startup and operation
[NAA-SR-11175] 06 p1230 N67-18913
Shielding design mathematics for fuel-handling facilities, computer calculations for gamma ray transport and dose rates, and programs for neutron transport and Legendre coefficients 06 p1234 N67-19035
Magna computer program written in Fortran 3600 for CDC 3600 computer for calculating gamma dose rates at points in or around set of gamma sources and shields
[KR-111] 10 p1704 N67-20026
Optimum lithium hydride shield vessel design for protection against meteoroid punctures
[NAA-SR-MEMO-11790] 10 p1689 N67-21796
Radiation dosimetry and shielding effects 11 p1790 N67-22423
Fire test of thermal protection afforded by lead shielding to cask
[DP-1070] 12 p2236 N67-24570
Point-kernal radiation shielding computer program to evaluate propellant heating and dose to crew during engine operation
[NASA-TM-X-1397] 14 p2579 N67-27615
Monte Carlo method used in penetration of point monodirectional gamma rays through slab shields 17 p3105 N67-30288
Hydrodynamic research on energy transfer, turbulent model, and safety shielding from blast waves 19 p3432 N67-33209
Calculation methods for temperature distribution in shielding block of nuclear reactor
[UJV-1663] 19 p3498 N67-33929
Proton penetration codes for dose calculation through aluminum and iron shielding
[NASA-CR-88880] 22 p4107 N67-37621
Sunshield solution to thermal bending problem of spacecraft extendible booms
[TG-915] 23 p4258 N67-38683
Dosimetry and radiation protection - shielding, neutron spectrometry, diffusion, materials and instrumentation
[AEC-TR-6719] 23 p4310 N67-38761
SHIFT
S FREQUENCY SHIFT
S FREQUENCY-SHIFT KEYING
S ISOTOPE SHIFT
S PHASE SHIFT
S RED SHIFT
S THRESHOLD SHIFT
SHIFT REGISTER
Synchronous pulse shift registers with minimal number of hysteresis elements and various speeds 03 p0376 N67-12515
General shift-register sequence generators
[P-3473] 05 p0681 N67-15117
Preliminary study of alternate shift registers for eight-pole commutator
[NASA-CR-83219] 11 p1841 N67-22179
Design, fabrication, and testing of subsystem containing eight-pole commutator, associated shift register, and control logic
[NASA-CR-83732] 12 p2072 N67-24622
Determining secondary state assignments for sequential machines so that binary memory elements are connected in shift register form
[TR-67-104] 12 p2061 N67-24678
Tunnel diode shift register with emitter followers for eliminating reversed information flow 15 p2677 N67-28121
Magnetic core shift register for increased memory capacity
[FTD-HT-67-12] 15 p2676 N67-28194
Near maximal length cycles with linear feedback shift register 16 p2967 N67-29157
Mathematical analysis of algorithm used in binary sequence generators
[GE/EE/67A-9] 17 p3029 N67-30305
Design concept of combined counter/shift register module and applications as spacecraft telemetry encoders and logarithmic data compressor 18 p3245 N67-31584
Video film converter for data processing, linear feedback shift registers, and wpven plated wire memory storage units for science missions 20 p3988 N67-34774
Domain tip propagation logic push down list memory shift register ferromagnetic thin film design
[AFCRL-67-0305] 21 p3818 N67-36020
Research projects on threshold logic, sequential switching network designs, shift registers, and relevant computer programs
[DSR-76531] 23 p4239 N67-38139
Synthesis of sequential machines with modules with single input
[LMSC-L-74-67-1] 24 p4413 N67-39740
Design and fabrication of low power monolithic integrated circuit able to perform 10-bit counter/shift register function
[NASA-CR-89630] 24 p4419 N67-40068
SHIP
SA ADVANCED RANGE INSTRUMENTATION SHIP /ARIS/
SA HYDROFOIL
SA HYDROFOIL BOAT

Polymeric coating application to metal surfaces of ships and railroad cars
[FTD-TT-65-1678] 01 p0079 N67-11690
Amplitude-comparison directional antenna system for small ships
[NEL-1382] 01 p0042 N67-11177
Nuclear research ship and its reactor power plant
[EUR-3066.D] 02 p0284 N67-11906
Automation of processing of oscillograms obtained in testing ships 03 p0395 N67-12775
Structural weight factors in aerospace vehicle and ship performance and design materials
[ARA-304-6, PT.-1] 07 p1200 N67-17037
Numerical solution for one-dimensional boundary value problems of structural mechanics of shipbuilding 07 p1201 N67-17137
Literature survey on effects of shipboard vibrations on humans
[TDCK-46426] 07 p1023 N67-17941
Guide for interpreting statistical data on deck landing speeds of Whirlwind helicopters
[ARC-CP-854] 08 p1219 N67-18389
Plastics in ammunition, plastics development in ships, applications of plastics for aerospace use, and development of low density composites for aerospace application
[PLASTEC-13] 08 p1295 N67-18436
Potential use of reinforced plastics and plastic foams as structural materials for Naval ships 08 p1295 N67-18438
Gamma flaw detection procedures in shipyards and related industrial complexes 10 p1640 N67-21227
Balloon-borne and helicopter-borne sounding instruments launched from shipboard to collect data on atmospheric boundary layer 11 p1863 N67-23022
Actinometric observations of water surface made from cutter and boat, and distorting influences on incident radiation 11 p1864 N67-23023
Shipboard radar instrumentation and transistor buoy radio transmitter for locating anchored buoy stations 11 p1880 N67-22373
Transistorized receiving-transmitting apparatus for radio direction finding of hydrological buoys and data transmission from buoy to vessel 11 p1818 N67-22373
Magnetic tape recorder for shipboard telemetric system of recording hydrophysical parameters 11 p1881 N67-22376
Sound intensity measured at manned ship stations to determine excess over tolerable level
[IZF-1966-10] 11 p2007 N67-23074
Noise reduction and vibration control measures aboard Soviet ships
[JPRS-39076] 12 p2186 N67-23941
Literature review and methods for reducing noise and vibration aboard ships 12 p2187 N67-23942
Noise reduction and vibration control aboard Soviet diesel-powered river barge 12 p2187 N67-23943
Performance oriented electronics technician training program - fleet performance evaluation of graduates
[STB-67-15] 13 p2361 N67-25120
Low aspect ratio wing theory applied to ship rudder
[FTD-TT-65-1853] 13 p2306 N67-25419
Model experiments on sound transmission from engine room to accommodation in diesel engine powered ships
[REPT.-575] 13 p2415 N67-25570
Improvements and tests to determine effectiveness of noise reduction on seawater cooling pump of ship
[REPT.-606.112, II] 13 p2329 N67-26060
Free piston gas generator and model with real fuel apparatus for marine gas turbine
[FTD-TT-65-1069] 17 p2995 N67-30187
Modeling of marine gas turbine engine with real fuel apparatus 17 p2995 N67-30188
Free piston gas generator used with combined marine gas turbine installations 17 p2995 N67-30189
Doppler method for determining locations of ships at sea by using satellite measurements
[JPRS-41233] 17 p3102 N67-31101
Digital computer program for study of acoustic noise transmission in machinery systems aboard ships
[MEL-548/66] 18 p3236 N67-33483
Gamma radiation properties of cylinder placed behind and axially perpendicular to slab - evaluation of effectiveness of radiation shielding on ships
[USNRDL-TR-67-43] 19 p3487 N67-33857
Low frequency spectrum analyser for shipboard use 19 p3452 N67-33128
Combined environment testing of shipboard electronic equipment and use of regression analysis 19 p3415 N67-33130
Finite difference equations for bending response computer program to calculate ship vibrations 19 p3546 N67-33133
Ship-motion data indicating that autocorrelation of roll and pitch can be represented by exponential cosine 19 p3411 N67-33280
Tank in conjuction with wind tunnel used to test effect of water waves and wind on model ships 20 p3618 N67-34014
Aerodynamic forces and yawing moments on water-line ship model
[NPL-AERO-1193] 20 p3562 N67-35028
Vibration analysis of shipboard rotating machinery using mathematical model
[AD-654196] 21 p3943 N67-36183
Acoustical vibration measurements applied to shipbuilding
[JPRS-43402] 21 p3944 N67-36501
Inertial systems designed for naval navigation
[FTD-MT-65-189] 22 p4088 N67-37228
Hydrodynamics and dynamics of high speed planing crafts
[TR-602-1] 24 p4429 N67-39459
Equation of motion coefficients measured for pitching and heaving destroyer model
[TDCK-48940] 24 p4546 N67-40268

SHIP HULL
Acoustic reliability testing of continuously welded and spot welded steel section models for ship hull construction
[TDCK-46298] 01 p0115 N67-10465
Guide for interpretation of nondestructive tests of welds in ship hull structures
[SSC-177] 01 p0079 N67-10937
Paints and other protective antifouling compositions for preventing ship hull corrosion
[TDCK-46170] 02 p0277 N67-11998
Numerical analysis of viscous fluid effects on wave resistance of ship hull
[AD-640633] 09 p1434 N67-19580
Impulse noise source for determining transmission loss through ship hull
[MEL-332/66] 09 p1485 N67-19663
Propeller-excited vibration forces on model ship hull
[DTMB-2366] 13 p2411 N67-25140
Fatigue and crack propagation of large scale uniformly loaded tee-fillet loaded welded rectangular rib-stiffened plates
[TM-7] 14 p2626 N67-27180
Future ship lines designed using computers, and drafting equipment in combination with analog and computers - mathematical models
[REPT.-59] 16 p2983 N67-30106
Preparation and application of paint coatings on ship hull steel plate and testing in sea water for effects of cathodic action
[TDCK-48358] 17 p3079 N67-30794
Partial response method to solve structural mechanics problems of shipbuilding 18 p3348 N67-31652
Bonding agents evaluated as substitutes for welded joints for acoustic scale models of ships
[REPT.-708.132] 20 p3646 N67-34323
Degaussing coil interference system for generating magnetic fields opposing distortion of earth magnetic field by steel hulled ships - ferromagnetism
[MEL-297/66] 20 p3686 N67-34646
Hydrostatic and cyclic testing of glass-reinforced pressure hull models with titanium hemispherical end closures
[DTMB-2403] 21 p3940 N67-35658
General resistance test of stepped planing hull with application to hydrofoil configuration
[NSRDC-2320] 21 p3941 N67-35771

SHIP PROPULSION
Nuclear ship propulsion - Bibliography
[AED-C-23-66] 03 p0428 N67-13323
Analog simulation of pressurized water nuclear power plant with space time core equations for ship propulsion
[EUR-3113.I] 07 p1136 N67-17902
Logic probabilistic method for calculating reliability of ship power installations 13 p2349 N67-25784
Propeller blade thickness and appendage asymmetry effects on propeller-appendage interaction
[REPT.-66-24] 16 p2980 N67-29663
Thrust and blade spindle torque measurements of 5 variable pitch propellers for minesweeper
[DTMB-2225] 22 p4132 N67-36857

SHOCK
SA BOW SHOCK
SA HYDRAULIC SHOCK
SA HYPERSONIC SHOCK
SA IMPACT
SA THERMAL SHOCK
Mechanical shock resistance of threaded fasteners
[MEL-412/66] 05 p0710 N67-14678
Pyrotechnic shock isolation mount for equipment protection 07 p1199 N67-16918
Shock compression of porous magnetite studied to evaluate Hugoniot synthesis methods
[SC-RR-66-547] 07 p1177 N67-17475
Nonequilibrium shock expansion method as simple wave perturbation
[MIT-DSR-5316] 13 p2305 N67-25091
Conference on shock and vibration
[AD-647644] 13 p2411 N67-25161
Shock and vibration problems in ballistic and space vehicle technology 13 p2411 N67-25162
Perspective of shock and vibration technology 13 p2412 N67-25163
Pyrotechnic shock testing of full scale lifting reentry vehicle 13 p2412 N67-25169
Shock testing with solid propellant powered guns 13 p2413 N67-25170
Polyurethane foam application to shock isolation of large silo based missiles 13 p2413 N67-25171
Shock and vibration testing conference papers
[AD-646963] 14 p2622 N67-26642
Shock and vibration testing of spacecraft and Saturn launch vehicle using four shaker system 14 p2623 N67-26651
Theoretical predictions of weak shocks and Prandtl-Meyer expansions in unsteady flow and three-dimensional steady supersonic flow
[NASA-TM-X-66079] 17 p2992 N67-30006
Vibration, shock, and structural reliability and design - conference
[AD-651404] 18 p3348 N67-31688
Structural reliability analysis, and vibration and shock testing 18 p3349 N67-31691
Torsional vibration and shock transients of Atlas Agena-D applied to advanced OSO 18 p3349 N67-31692
Nonlinear vacuum spring in suspension system for shock and vibration protection 18 p3349 N67-31697
Dynamic shock response of electronic equipment cabinets by normal mode method 18 p3349 N67-31699
Distribution of total specific impulses and specific shock impulse on walls of cylindrical shell submerged in fluid in which energy is instantaneously liberated 18 p3350 N67-31836
Discrete ordinate technique for Boltzmann equation of hard sphere molecules and application to pseudo-shock relaxation 19 p3512 N67-32884
Shock and vibration conference proceedings on data analysis and instrumentation
[AD-651403] 19 p3545 N67-33122
Digital computation of shock and Fourier spectra analysis of gunfire shock conditions in armored vehicles 19 p3545 N67-33132
Mathematical methods for computing shock and Fourier spectra and filtering 19 p3409 N67-33134
Automated analog computer method of determining frequency response of second-order systems to shock inputs 19 p3409 N67-33135
Velocity shock recorder for measuring shock inputs experienced by shipping containers 19 p3452 N67-33138
Method of approximating cushion requirements for protecting sensitive equipment from damaging shock environments
[SC-DR-67-219] 19 p3547 N67-33339
Overpressure shock resistance of fire resistant filter unit for reactor system 23 p4233 N67-38865
Stratoscope II telescope shock sensitivity, payload, and launching site problems 23 p4256 N67-39278

SHOCK ABSORBER
Crushable honeycomb shock absorbing system for instrument station containing shock sensitive electronic equipment
[SC-TM-67-48] 16 p2981 N67-29791
Polaris missile handling and loading analysis of standard equipment with and without shock absorbers and of Yo-Yo device 18 p3330 N67-31701
Cushioning systems design for airdrops
[TR-67-59-AD] 22 p4153 N67-37661
Fabrication and testing of dovetail plastic honeycomb structures for landing shock absorbers
[NASA-CR-89646] 24 p4459 N67-40261
SHOCK DISCONTINUITY
Steepening of plane-polarized finite amplitude Alfven waves to shock discontinuities
[TR-19] 10 p1735 N67-26866
SHOCK FRONT
Subsonic zone investigated and approximation method developed for hypersonic flow with detached compression shock in front of thick profile with sharp leading edge
[REPT.-34] 04 p0479 N67-13641
Microwave interferometer measurements of electron density distribution behind shock fronts and discharge plasmas 05 p0747 N67-15236
Numerical calculation on blast shock resulting from nuclear explosion 07 p1064 N67-17030
Thermodynamic properties of high-temperature air in equilibrium and in equilibrium regime behind shock
[DLR-FB-67-06] 15 p2905 N67-28672
Nondimensional governing equations for nonequilibrium structure of hydromagnetic gas ionizing shock front propagating into unionized argon - Defender project
[PIBAL-1008] 16 p2952 N67-29125
Mathematical model for supersonic flow of detonation products behind converging detonation front with application to spherical and spheroidal coordinate systems 18 p3313 N67-31681
SHOCK HEATING
Theoretical calculations on shock initiation of detonation in homogeneous explosives 07 p1063 N67-17028
Effect of boundary layers of electrodes in discharge chamber on Joule heating of shock ionized air
[AFOSR-66-2756] 12 p2177 N67-23617
Improvement of method of radiowave sounding gas, heated by shock wave
[FTD-TT-66-8] 12 p2179 N67-23877
Optimal supersonic flow with oblique shock waves and heat addition
[FTD-HT-67-28] 15 p2890 N67-28196
Infrared emission from shock heated hydrogen chloride and vibrational relaxation times 23 p4205 N67-38687
SHOCK LAYER
Total equilibrium shock layer radiative heat transfer for entry body configurations in simulated Mars atmosphere 02 p0318 N67-12109
Shock layer radiation predictions from molecular band systems in Martian and Venusian atmospheres
[NASA-TN-D-3850] 07 p1066 N67-17629
Comparative study of total equilibrium shock layer radiation for three potential Mars entry body shapes
[NASA-CR-81675] 07 p1210 N67-17948
Pressure and temperature distributions in shock layer along rays in three-ray scheme for solving singularities of hypersonic nonequilibrium gas flow around blunt body 08 p1270 N67-19174
Shock layer and frontal ionization effects on radiation field of ELDO launch vehicle third stage telemetry antennas
[ELDO-TR-3] 15 p2965 N67-27926
Non-neutral ionized chemical equilibrium subroutine for use with general viscous shock layer program
[NASA-CR-73091] 15 p2982 N67-28752
Shock layer and viscous and nonviscous effects on sharp and blunt cones 18 p3189 N67-32150
Electron density integral across inviscid shock layer calculated for slender cones at hypersonic speeds
[MEMO-113] 20 p3705 N67-34629
Nongray radiative transfer effects on radiating stagnation region shock layer and stagnation point heat transfer
[NOLTR-67-104] 24 p4549 N67-39437
Quantitative analysis of hypersonic shock flow interaction with magnetic field of wire oriented perpendicular to flow direction
[NASA-CR-89648] 24 p4459 N67-40093
SHOCK LOAD
Muscular working ability in man underrepeated shock loads 02 p0189 N67-11483
Blood transaminase feasibility as index to human tolerance of landing shock loads 02 p0193 N67-11522
Systemic effects of shock loads during emergency spacecraft landings 02 p0201 N67-11595
Physiological evaluation of human tolerance to shock loads 02 p0208 N67-11662
Impact shock effects on electric and physical properties of piezoelectric ceramics
[REPT.-11069-9] 15 p2722 N67-28658
Thermoluminescence of halite samples exposed to unusual shock load or stress histories 19 p3442 N67-33173
Hall effect measurements in shock loaded semiconductors - doped single crystals
[SC-DC-66-2449] 23 p4221 N67-38591
SHOCK MEASURING APPARATUS
Three-dimensional viscous disturbances, shock structure of helium-argon mixtures, and magnetohydrodynamic experiments with large interaction parameter 12 p2085 N67-23856
Direct measurement of setback shock of instrumented projectives fired from shortened naval gun 13 p3412 N67-25167
Experimental arrangement for continuous velocity measurement of shock waves based on Doppler effect of microwaves
[ISL-T-26/65] 21 p3529 N67-35464
Impact-force and velocity-change methods for calibrating shock accelerometers
[SC-DC-67-1765] 23 p4252 N67-38809
SHOCK SENSITIVITY
Shock sensitivity, friction, and other physical data concerning monergolic propellant solutions of hydrazine nitrate in hydrazine
[DVL-568] 08 p1353 N67-19162
Shock and vibration environment of Ranger Block III during surface transportation
[NASA-CR-71771] 09 p1520 N67-19856
Shock tests of cantilever beams on floating platform
[DTMB-2191] 23 p4356 N67-38365
Shock and vibration design criteria manual for transportation and handling
[NASA-CR-84486] 23 p4361 N67-39312
SHOCK SIMULATOR
Testing of equipment for simulation of impact shock conditions
[SC-DC-67-1630] 19 p3429 N67-33930
Double driver shock tube for shock-on-shock simulation in supersonic flow
[FFA-169] 20 p3630 N67-34863
Vibration and shock tests on reentry nose configurations
[NASA-CR-66467] 21 p3944 N67-36559
Blast and shock simulation technique using spherical detonation of combustible gas mixture initially contained in balloon 23 p4367 N67-39270
SHOCK SPECTRUM
SA VIBRATIONAL SPECTRUM
Yielding effects on shock spectra 13 p3412 N67-25164
Shock spectra of practical shaker shock pulses using piezoelectric accelerometers, magnetic tape system, galvanometers, and tape speed translations 13 p3412 N67-25165
Mathematical model and computer program for transient shock analysis of elastic structures
[DTMB-2363] 17 p3170 N67-30813
Mathematical model and Fortran IV program for transient shock spectra analysis 19 p3546 N67-33134
SHOCK TUNNEL
SA ELECTROMAGNETIC SHOCK TUBE
SA MAGNETIC ANNULAR SHOCK TUBE /MAST/
Combustion oscillations in propulsion systems and design and construction of shock tunnel for velocity measurement studies
[HIC-74] 01 p0163 N67-10905
Design and construction of shock tunnel test section for velocity measurement studies 01 p0207 N67-10906
Magnetohydrodynamic flow in shock tube boundary layer with transverse magnetic field
[UTIAS-115] 01 p0126 N67-11010
Spectroscopic experiments with gas-driven shock tube - technical developments, redundant measurements of plasma state, and atomic line strengths for neutral carbon
[NASA-CR-79762] 02 p0236 N67-12070
Shock tunnel investigations of hypersonic flow interaction with transverse reaction jets
[RE-263] 02 p0252 N67-12081
Shock tube studies on rarefied gas dynamics, hypersonic flow, and turbulent flow
[AFOSR-66-0090] 02 p0254 N67-12329
Plasmas of mercury in pressure driven shock tube
[AFOSR-66-1939] 05 p0749 N67-15275
Shock tunnel measurements of surface heat transfer and pressure data of viscous hypersonic flows over pointed cones at low Reynolds numbers
[ARL-66-0111] 06 p0863 N67-15416
Pitot pressure and heat transfer measurements in shock tunnel, and free piston shock tube evaluation 06 p0880 N67-15717
Measuring system for aerodynamic, electrical, and electromagnetic parameters in performance of MHD augmented shock tunnel
[R466D59] 06 p0863 N67-16595
Microwave resonant cavity measurement of shock-produced electron precursors 07 p1058 N67-16548
Plasma effects around bodies in nozzle of hypersonic shock tunnel 07 p1161 N67-16855
Effective running time of miniature Mach 6 and 12 hypersonic nozzles in shock tunnel 07 p1056 N67-16856
Device for breaking diaphragm of gas dynamic shock tube
[FTD-HT-66-65] 09 p1431 N67-20002
Supersonic shock phenomena in two-phase tunnel
[NASA-CR-82960] 09 p1436 N67-20249
Use of energy resources of chemical explosives in shock tubes
[TR-001-66] 09 p1432 N67-20252
Estimating hypersonic flow conditions in shock tunnel including bulk compressibility effects
[ARC-CP-882] 09 p1437 N67-20301
Shock tube applications to chemical reaction analyses
[FTD-MT-65-237] 10 p1506 N67-20689
Interaction of transmitted shock with boundary layer in shock tube using argon as test gas
[ARC-CP-870] 10 p1613 N67-21182
Shock tube tests of Langmuir probe for determining electron density and temperature surrounding reentry vehicle
[NASA-CR-66275] 10 p1739 N67-21425
Radiation transport energy mechanism in shock tube arc heated drivers
[D1-82-0583] 11 p1965 N67-23478
Shock tunnel simulation of combustor entrance conditions
[AFAPL-TR-66-82] 12 p2084 N67-24901
Force measurements on blunt bodies in shock tunnel
[DGRR/WGLR PAPER-66-117] 13 p2362 N67-25490
Interaction of reflected shock with boundary layer in shock tube and influence on duration of hot flow in reflected shock tunnel
[ARC-CP-881] 13 p2368 N67-26154
Shock tube spectroscopic instrumentation and methods for identifying atomic and molecular features, and determining autoionization strengths and processes influencing line widths
[AD-642298] 14 p2512 N67-26813
Interaction of glow front in electrodynamic shock tube with transverse magnetic field
[NASA-TT-F-10026] 15 p2773 N67-28232
Spectroscopy of light atoms and ions and transition probability determinations using gas-driven shock tube
[NASA-CR-84769] 15 p2770 N67-28764
Electric and magnetohydrodynamic characteristics of accelerator augmented shock tube
[AVCO-EVERETT RES. REPT.-289] 15 p2869 N67-28867
Conduction of electric current between cold electrodes in shock ionized air plasmas
[ARL-66-0182] 16 p2963 N67-29449

Shock tube determination of ignition delay of hydrogen air mixtures near second explosion limit
[AFAPL-TR-66-74] 16 p2985 N67-39632
Design and operating features of 6-inch shock tunnel and driver gases at room temperature
[ARC-R+M-3449] 16 p2874 N67-29830
Steady flow duration in hypersonic reflected shock tunnel - unsteady wave starting process in nozzle
[ARC-CP-883] 16 p2880 N67-29915
Shock tunnel test facility for sonic boom simulation
[RAE-TR-66344] 16 p2875 N67-29963
Shock tube measurements of diffusion coefficients for gases with wide temperature and pressure range
[AD-651817] 17 p3015 N67-30425
Physiological response of cattle to long duration reflected pressure in shock tube
[DASA-1855] 18 p3210 N67-33033
Production of carbide singlets during carbon compound decomposition in shock tube 18 p3225 N67-32295
Unsteady channel flow in shock tunnel magnetohydrodynamic generator
[AVCO-EVERETT RES. REPT.-371] 19 p3514 N67-32976
Free flight measurements of axial force, normal force, and pitching moment of HB-2 model in shock tunnel using multiple spark photographic recording
[NPL-AERO-1212] 20 p3560 N67-34626
Electron concentration and number of electron collisions with air molecules after shock wave and interferometric methods of measuring density field of gas flows in shock tunnel
[FTD-MT-65-552] 20 p3709 N67-34653
Interferometric methods of measuring density field of gas flows in shock tunnel 20 p3709 N67-34655
Aerodynamic strain measurements on blunt nosed bodies in shock wave tunnel
[DLR-FB-67-53] 20 p3622 N67-35084
Free piston compression shock tube
[COA-AERO-194] 21 p3838 N67-36038
Multiple spark recording of free-flying models behavior in shock tunnel
[ARC-CP-934] 21 p3755 N67-36431
Temperature and pressure measurements in shock heated gas upstream of hypersonic tunnel nozzle
[ARC-R+M-3479] 22 p4025 N67-37204
One-dimensional inviscid nozzle flows with coupled vibrational and dissociational nonequilibrium
[NASA-CR-66474] 22 p4025 N67-37259
SNAP-8 configuration reentry hypersonic heating rates derived from shock tunnel test
[NAA-SR-12383] 23 p4069 N67-37519
Molecular argon beam production using shock tunnel source and gas expansion to supersonic flow 23 p4306 N67-38696
Shock-tunnel-driven molecular beam experiment design 23 p4308 N67-38698
Gas flow in shock tunnel studied by Topler method and high speed photography 23 p4238 N67-38797
Advanced gas dynamics test facilities and improved wind and shock tunnel performance
[CAL-AD-1716-A-9] 24 p4425 N67-39456
Test section conditions of hypersonic shock tunnel interface
[HIC-83-1966] 24 p4425 N67-39533
Bibliography on shock tubes - 1958 to 1966
[RR/OH/287] 24 p4425 N67-39675
Chemical kinetics of combustion processes examined for application in supersonic combustion ramjet engine design studies
[AEDC-TR-67-177] 24 p4523 N67-39995
Efficiency of water vapor in removing electrons from ionized gases measured in shock tubes
[NOLTR-67-79] 24 p4423 N67-40071
Abstracts of 95 papers presented at 1967 shock tube symposium in Freiburg, Germany
[REPT.-163] 24 p4425 N67-40036

SHOCK WAVE
SA CHEMICAL RELAXATION
SA NORMAL SHOCK WAVE
SA NOVA OUTBURST
SA OBLIQUE SHOCK WAVE
Thin supersonic airfoil in presence of weak moving shock wave 01 p0001 N67-10044
Plane shock wave method of plotting supersonic flow around solid cones with star-shaped cross sections 01 p0001 N67-10049
Repeatable method of opening metal diaphragm by explosive cemented in diaphragm grooves - applicable where timing is important factor
[NOLTR-66-77] 01 p0077 N67-10281
Primary, secondary, and tertiary effects of blast and shock waves on biological response of animals
[DASA-1777] 01 p0014 N67-10297
Langmuir type probe and microwave resonant cavity technique used to measure electron densities behind incident shock wave in pressure driven shock tube
[PIBAL-992] 01 p0122 N67-10300
Capacitor bank for facility used for studying Hall-current acceleration of plasmas - Spectroscopy techniques used to determine state and motion of plasma behind shock wave
[AFOSR-66-1858] 01 p0132 N67-10312
Radiative heat transfer effects on shock wave structure
[TG-230-T489] 01 p0060 N67-10354
Collisionless shock wave excitation in plasma
[CTO-360] 01 p0135 N67-10909
Spectroscopic measurements of near infrared spectrum of shock heated air and nitrogen
[CAL-QM-1756-A-1] 01 p0118 N67-10962
Charts of normal shock wave properties in imperfect nitrogen
[AEDC-TR-66-116] 01 p0061 N67-10995
State of gas behind front of strong shock wave
[ONI-TRANS-2172] 02 p0251 N67-11930
Sonic region singularities, shock stand-off distance, and shock wave shape in solution for inviscid flow past blunt body
[TN-AE-31-66] 03 p0383 N67-12894
Exchange of vibrational energy between components of air behind normal shock wave front 04 p0529 N67-13706
Character of jet flow formation behind shock front during discharge from divergent and supersonic nozzles
[ATD-66-77] 04 p0529 N67-13711
Solution of blast waves by constant time scheme in method of characteristics
[REPT.-125-9] 04 p0529 N67-13723
Relaxation phenomena behind strong shock in hydrogen - attainment of vibrational equilibrium state
[RISO-25] 04 p0598 N67-14306
Shock wave structure in rarefied gas dynamics 05 p0692 N67-14403
Test times and boundary layer induced property variations in circular shock tube
[NASA-TN-D-3759] 05 p0692 N67-14460
Formation rate of atomic hydrogen behind shock waves in hydrogen-argon mixtures
[NASA-CR-80966] 05 p0666 N67-14490
Base pressure and surface pressure measurements in conjunction with schlieren and shadowgraph observations of half angle wedges with various seperation edge shapes - lip shock
[NASA-CR-81031] 05 p0695 N67-14965
Pressure distribution behind reflected diffracted shock wave
[ARC-27036] 05 p0695 N67-14952
Analysis of convergent spherical shock wave in heat conducting gas
[ONI-TRANS-2084] 05 p0696 N67-14967
Nonequilibrium flow and three-dimensionality effects on shock reflection coefficient behavior
[BRL-MR-1775] 05 p0696 N67-15001
Splitting of shock waves when magnetic field is slightly oblique relative to direction of shock wave propagation
[TG-230-T489] 05 p0745 N67-15054
Effects of cross sectional area changes in convergent-divergent nozzles on shock wave velocity
[AFOSR-66-2002] 05 p0696 N67-15090
Tolerance levels of human ear to overpressure from blast shock waves
[DTMB-2252] 06 p0797 N67-15409
Foreshock and aftershock sequences of large earthquakes in region of Greece
[AFOSR-66-2416] 06 p0873 N67-15970
Flow through three shock system in corner
[ARC-CP-727] 07 p1061 N67-16778
Photoionization of oxygen as possible mechanism for precursor phenomenon ahead of argon shocks 07 p1161 N67-16849
Langmuir probe and microwave diagnostics of ionized shock tube flow 07 p1161 N67-16850
Fabrication, calibration, and operation of thin film heat transfer gauges for determining surface temperatures and heat transfer rates of shock tube walls 07 p1077 N67-16906
One-dimensional unsteady flow in hydrodynamic shock tube, and in light gas gun 07 p1063 N67-17024
Numerical solution to problem of flat layer gas dispersion during nonuniform energy release 07 p1065 N67-17236
Coupled vibration and dissociation relaxation behind streng shock wave in carbon dioxide
[NASA-TR-R-253] 07 p1154 N67-17616
Shock wave compression of quartz
[FTD-HT-66-211] 07 p1072 N67-17643
Photographic measurements of shock wave velocity from gas released at high altitude by Skylark rocket determine atmospheric temperature 07 p1074 N67-17820
Magnetic field influence on magnetogasdynamic flows with aligned field including shock waves
[DVL-507] 08 p1349 N67-19164
Influence of shock or stress events induced by underground nuclear explosions on low temperature thermoluminescence of halite 09 p1439 N67-19339
Mechanics of rarefied gases - free molecular transfer, electron beam studies, and shock wave structure 09 p1453 N67-19454
Detonations of gas mixtures heated by shock wave
[TG-230-T494] 09 p1541 N67-19557
Soil response to dynamic loadings - formation of wave fronts in sand
[RG6-23] 09 p1440 N67-19679
Dissociation rate of carbon dioxide in excess of argon or nitrogen in heated shock tube
[ARL-66-0116] 09 p1409 N67-19757
Computer programs for calculating equilibrium states in reflected shock plasmas
[NASA-CR-82931] 09 p1493 N67-19934
Experimental investigation of formation of gas jet behind front of shock wave in outflow of divergent and supersonic nozzles
[FTD-HT-66-137] 09 p1436 N67-20066
Method for producing shock wave in liquid during electric discharge
[FTD-HT-66-384] 10 p1892 N67-20623
Dwell time and reignition of exploding wires, spark gap for exploding wire experiments, shock tube wave velocity enhancement, and photographic method to determine absorption coefficients
[BMWF-FBK-66-27] 10 p1739 N67-21586
Theory for weak explosion in homogeneous atmosphere and in isothermal atmosphere in gravitational field
[ORNL-TM-1703] 10 p1695 N67-21668
Structure of collisionless shock wave in plasma immersed in magnetic field 11 p1955 N67-21883
Shock waves in water and stress waves in tank walls of water-filled fuel tanks impacted by hypervelocity particles
[NASA-CR-72169] 11 p1964 N67-22060
Internal structure of shock wave in multicomponent mixtures
[AFOSR-66-2596] 11 p1858 N67-22447
Structure of shock waves in collisionless plasma
[AFCRL-66-826] 11 p1959 N67-22551
Blunt cone effect on heat flux and form of shock wave 11 p1960 N67-22972
Distorted front of shock wave traversed by vortex
[UTIAS-TN-96] 11 p1961 N67-23064
Molecular fluorine dissociation studied by spectrophotometric observation behind shock waves in shock tube
[AROD-3063-11] 11 p1814 N67-23125
Theoretical and experimental research on free molecular transport properties, gas dynamics, nitrogen free jet properties, shock wave behavior, and shock structure in binary mixtures
[NP-16419] 11 p1943 N67-23295
Interaction between shock wave and turbulent wake shed from bluff-ended cylinder at free stream Mach numbers 1.2 and 1.9
[AGARD-539] 11 p1779 N67-23299
Propagation of finite shock waves in solids
[AD-645707] 12 p2153 N67-23665
Improvement of method of radiowave sounding gas, heated by shock wave
[FTD-TT-66-8] 12 p2179 N67-23675
Numerical analysis of regular and Mach

reflection of shock waves in aluminum
[LA-3578] 12 p2118 N67-24153
Plasma heating mechanism by collisionless shock wave 13 p2182 N67-24176
Thermodynamic data in condensed media obtained by shock wave techniques - Tables and graphs
[UCRL-50108, VOL. 1] 12 p2156 N67-24567
Velocity of small perturbations and existence of weak shock waves in radiating gas taking into account radiation pressure
[FTD-MT-65-234] 12 p2088 N67-24719
Shock tube studies of vibrational relaxation and chemical induction zone phenomena in gaseous detonations and low temperature hydrogen oxidation
[REPT.-66-GC-0336] 12 p2238 N67-24783
Shock wave shape and surface pressure distribution in hypersonic flow of blunt delta wings at low angles of attack
[ARA-51] 12 p2011 N67-24965
Models for analyzing CN violet radiation effects behind shock waves in air contaminated with carbon-bearing compounds
[NASA-TN-D-3935] 12 p2175 N67-25057
Simulation of heat shield pyrotechnic shock impedance 13 p2412 N67-25158
Functional invariant and analytic function solutions for crack propagation, shock wave diffraction, and wave field from crack in boundary of two elastic media 13 p2415 N67-25213
Electromagnetic, shock, and surface wave propagation, reflection, and diffraction 13 p2365 N67-25217
Discontinuity relations and shock polars for conservation equations applied to magnetogasdynamics
[TAE-57] 13 p2383 N67-25407
Plane and perpendicular magnetogasdynamic shocks in ionized gas
[RISO-76] 13 p2384 N67-25695
Revised computer program for solving inviscid nonequilibrium flow behind normal shock waves
[NASA-CR-83975] 13 p2309 N67-26167
Propagation of shock waves in ground 13 p2317 N67-26420
Structure of shock waves in gas with thermoconductivity and viscosity
[NASA-TT-F-10623] 14 p2516 N67-26565
Ionizing shock waves in hydrogen plasma and magnetic fields, and inverse pinch experiments
[REPT.-290-743] 14 p2508 N67-27402
Gas temperature measurement behind reflected shock wave in 20 to 30 Mach number range of incident shock 14 p2520 N67-27737
Reflection coefficient of weak shock waves
[T-20/65] 15 p2689 N67-27813
Ionization in frontal shock wave of ELDO launch vehicle and effects on telemetry signal transmission
[ELDO-TR-2] 15 p2665 N67-27925
Cratering theory of shock interactions for single and multiple nuclear explosions
[AD-634674] 15 p2697 N67-27954
Hydrodynamic elastoplastic theory for shock wave effects on metal strength
[AD-634630] 15 p2790 N67-27960
Pressure distribution and shock wave measurements of power law body shapes at Mach number of 6.85
[AEC-CP-871] 15 p2638 N67-28171
Viscosity and nonlinear flow effects on transition of shock waves, hydraulic jump, and vortex breakdown
[REPT.-85-39] 15 p2692 N67-28295
Occurrence and formation of shock waves, description, and structure of gasdynamic shock, and fundamental aspects of compressible flow
[RISO-M-504] 15 p2692 N67-28581
Ruby laser light source in shadowgraph system for observing shock wave shape, detachment distance, and nose shape for luminous and ablating bodies at hypersonic speeds
[BOLTR-67-18] 15 p2639 N67-28672
Polar vector analysis of wave interactions in steady flow
[AS-66-16] 16 p2876 N67-29072
Excitation of translational, rotational, chemical, vibrational, and electronic degrees of freedom in hypersonic shock wave during atmospheric entry
[P-311] 16 p2878 N67-29554
Detached shock calculation for cylindrical body by second order finite differences
[NYO-1480-89] 16 p2901 N67-29616
Shock induced combustion in bow waves of high speed spherical and cylindrical missiles
[ISL-2/66] 16 p2966 N67-29850
Shock contraction of silicon oxide powders in converging cylindrical wave, and effects of compression
[NASA-CR-85239] 16 p2916 N67-30014
Dissociation rate of hydrogen fluoride behind incident shock waves
[AFRPL-TR-67-66] 17 p3011 N67-30198
Attenuation of shock in tubes by orifice plates
[ORNL-TM-1750] 17 p3121 N67-31044
Unsteady flow of compressible media with shock waves, hydrocarbon microorganisms, diffusion theory of adhesion applied to elastomer bonding, and rare earth chalcogenides 18 p3350 N67-31666
Unsteady motion of compressible media with blast waves 18 p3256 N67-31667
Afterbody pressure and heat transfer distribution, shock wave shapes, and photographs of local flow conditions for Mercury type capsule at Mach number 15 in helium
[NASA-TM-X-783] 18 p3341 N67-31920
Pathological response of eight species of mammals to air blast waves
[DASA-1854] 18 p3218 N67-32512
DASA-AEC-Lovelace Foundation blast simulation facility for biomedical investigation of blast and shock effects
[DASA-1853] 18 p3256 N67-32580
Continuous wire data obtained from shock to detonation transitions in cast DINA
[NOLTR-67-10] 19 p3527 N67-32709
Blast and shock biology, and physical and biomedical problem areas involved in establishment of criteria for assessing blast related hazards
[DASA-1856] 19 p3372 N67-32854
Up-down counter for synchronization of instrumentation used with pressure driven shock tube
[HDL-TM-67-5] 19 p3450 N67-32855
Equilibrium composition and shock wave characteristics of freon C-318
[SCL-RR-66-97] 19 p3431 N67-32907
Numerical analysis of strong shock waves using Monte Carlo method - structure of shock wave in gas of hard spheres for Mach 9.5
[E-347-PT-8] 19 p3431 N67-32923
Lagrangian-history direct interaction approximation for Burgers equation yielding solution to describe stationary decaying sawtooth shock waves
[RR-13] 19 p3431 N67-32925
Spectrophotometric measurements of vibrational relaxation of CO in shock wave and nozzle expansion-flow environments
[NASA-CR-87276] 19 p3550 N67-33015
Pulse X-ray techniques for studying shock wave induced effects in soils 19 p3453 N67-33142
Error analysis associated with solution of Boltzmann difference equations for strong shock waves
[R-348] 19 p3432 N67-33152
Planar shock wave test assembly for simulating meteoritic impact on planetary rock surface 19 p3442 N67-33172
Hydrodynamic research on energy transfer, turbulent model, and safety shielding from blast waves 19 p3432 N67-33269
Jump conditions across transverse ionizing magnetohydrodynamic shock wave with magnetic field in plane of shock
[SRL-67-0003] 19 p3516 N67-33290
Relaxation and radiation behind normal compression shock in supersonic airflow 19 p3432 N67-33581
Recovery of reentry rocket by sound ranging detection of shock wave
[REPT.-67-K3] 20 p3734 N67-34216
Parameters of incompressible flow equipment, high speed wind tunnels, hypersonic tunnels, and shock tube facilities
[NPL-AERO-1266] 20 p3560 N67-34466
Axial mode shock wave combustion instability in liquid propellant rocket engines
[NASA-CR-72250] 20 p3717 N67-34860
Electron concentration and number of electron collisions with air molecules after shock wave 20 p3709 N67-34854
Hematologic and biochemical studies after shock wave injuries of miniature swine
[DLR-FB-67-43] 20 p3576 N67-34721
Projectile impact method for measuring rates of energy release in solid propellants subjected to strong shock waves
[NASA-CR-66395] 20 p3716 N67-35223
Dynamic calibration of pressure transducers by air pulse, shock wave, and pulse from dropped weight
[BRL-MR-1943] 21 p3645 N67-35826
Implosion wave dynamics applied to hypervelocity projectiles and launcher
[UTIAS-125] 21 p3634 N67-35468
Brief surveys on problems of quantum chemistry, positronium and muonium properties, luminescence applications, and shock wave effects in detonation systems and other processes
[JPRS-41117] 21 p3775 N67-35621
Survey on applications of shock waves including use in polymer chemistry 21 p3776 N67-35486
Interaction of long duration Friedlander shaped blast wave with infinitely long right circular cylinder
[AWRE-O-26/67] 21 p3630 N67-35622
Physical characteristics arising during damping of shock waves in nonuniform media
[NASA-TT-F-11247] 21 p3632 N67-36108
Oxidation and pyrolysis of ethylene in shock waves
[AD-656040] 22 p3964 N67-37094
Burnett equations and shock structure
[PIBAL-968] 22 p4027 N67-37436
Manual for inverse computation of supersonic inviscid flow fields with imbedded shocks
[TM-154] 22 p4021 N67-37675
Shape and intensity decrease of shock waves far from originating body source moving at supersonic speed
[NASA-TT-F-11246] 22 p4022 N67-37736
Steady and unsteady state problems and shock wave structure using Krook model of Boltzmann equation 22 p4120 N67-37739
Transonic flows in neighborhood of point where shock wave meets sonic line
[TG-230-T520] 22 p4022 N67-37763
Collisionless magnetohydrodynamic shock waves 22 p4121 N67-37825
Experiments on hydromagnetic shock waves in collisionless plasmas 22 p4121 N67-37826
Normal reflection of plane gaseous detonation wave in tube
[NRC-9967] 23 p4215 N67-38126
Detonation spin in driven shock waves in dilute exothermic mixture
[LA-DC-8814] 23 p4236 N67-38639
Comparison of sodium D-line reversal temperatures and nitrogen vibrational temperatures in region of vibrational relaxation behind incident shock waves 23 p4364 N67-38686
Primary shock wave reflection in shock tunnel and, surface temperatures and thermoconductivity rates 23 p4364 N67-38689
Gas dynamics and thermodynamics of shock waves in high temperature gas environment
[FTD-HT-66-383] 23 p4237 N67-38781
Spectrometric measurements of plasma flow in magnetohydrodynamic shock wave 23 p4239 N67-38782
Shock wave velocity variation along laminar boundary layer due to shock discontinuity between wave and contact front 23 p4237 N67-38786
Energy loss of shock wave reflected from shock tunnel end plate 23 p4237 N67-38784
Reflected shock wave interaction with boundary layer of flow behind incident flow 23 p4236 N67-38785
Density measurement behind reflected shock wave discontinuity in nitrogen 23 p4236 N67-38788
Shock wave velocity measurement in rarefied gas, using counter to measure time between markers 23 p4238 N67-38789
Nonequilibrium radiation and ionization in shock waves
[NASA-CR-83969] 23 p4234 N67-38969
Shock wave stress gauge utilizing capacitance change of solid dielectric disk
[SC-DC-67-1910] 23 p4235 N67-38218
Numerical analysis of axisymmetric hypersonic flow with strong viscous interaction
[TR-1001/2240-10/-11] 24 p4431 N67-39097
Temperature measurements behind strong

shock waves in argon
[UTIAS-119] 24 p4509 N67-39031
Electron density and temperature distributions in recombining cesium-seeded low density argon plasma - shock wave structure
[NASA-CR-89743] 24 p4510 N67-40186
Drag on circular cylinder in shock wave
[AWRE-O-34/67] 24 p4434 N67-40467
SHOCK WAVE ATTENUATION
Attenuation of strong plane shock produced in target by impact of thin striker studied by numerical method of characteristics
[REPT.-125-S] 03 p0468 N67-13483
Air-blast wave measurements at long ranges from multiple row nitromethane charges
[PNE-607F] 07 p1072 N67-17430
Heat capacity, attenuating effect on shock waves, moisture capacity, protection capacity for toxic vapors, and protection capacity for aerosol and fallout particles tests of sand filter
[TDCK-47068] 13 p2285 N67-26158
Attenuation of peaked air shock waves in smooth tunnels
[BRL-MR-1909] 16 p2813 N67-29543
SHOCK WAVE GENERATOR
Single-impulse system for generating solitary, undulating surge, and gravity shock waves in laboratory
[TR-5] 07 p1060 N67-17358
Prototype explosive assembly for large scale plane wave shock experiments on rock specimen in laboratory 00 p1439 N67-19198
Pulsed constant current generator for studies of electrical resistance of Manganin and other metal wire shock pressure transducers
[SC-TM-67-50] 10 p2397 N67-29838
SHOCK WAVE INTERACTION
Energy transfer from accelerated metal to deuterium plasma, and shock wave interactions
[LGI-66-9] 03 p0449 N67-13645
Shock wave impingement effects on heat transfer on cylindrical leading edge
[NASA-TN-D-3650] 07 p1067 N67-17798
Separated flows induced by shock wave-laminar boundary layer interaction 00 p1271 N67-19387
Conference proceedings on separated flows, base flows, bubble separation, boundary layers, and shock wave interactions
[AGARD-CP-4, PT. II] 00 p1273 N67-19397
Shock wave-laminar boundary layer interaction 00 p1318 N67-19923
Interaction of shock waves with stationary magnetic fields
[IPP-3/45] 11 p1962 N67-32988
Interaction of reflected shock with boundary layer in shock tube and influence on duration of hot flow in reflected shock tunnel
[ARC-CP-881] 13 p2286 N67-26154
Two-dimensional interactions of shocks with cylindrical aluminum rods, V notches, and cylindrical voids in water
[LA-3614] 14 p2579 N67-27680
Reflected shock interaction with boundary layer in shock tube, and effect on hot gas flow duration in shock tunnel
[ARC-CP-880] 16 p2800 N67-29916
Review of literature on reflected shock pressure time profiles for air, oxygen, nitrogen, argon, carbon dioxide, and acetylene
[ARC-R+M-3446] 16 p2939 N67-30026
Bibliography on shock wave interaction, shock tubes, and associated instrumentation
[REPT.-38] 17 p3048 N67-32048
Mathematical analysis of reflection coefficient for plane shock wave reflected from rigid wall in water with pressure amplitude up to 6500 atmospheres 18 p3269 N67-33177
Axisymmetric viscous interaction with small velocity slip and transverse curvature effects studied on slender cone
[E-67-2] 19 p3432 N67-33227
Equations and calculations to determine shock wave interaction and bow wave form during hypersonic flow
[FTD-MT-65-325] 19 p3432 N67-33456
Viscous hypersonic flow determined behind parabolic axisymmetric shock wave 19 p3432 N67-33507
Acoustic energy flux from shock-turbulence interaction
[UTIAS-TN-108] 22 p4023 N67-36914
Dynamic response of plastic deformation wave interaction with elastic material junction
[AFOSR-67-1440] 24 p4546 N67-40262
SHOCK WAVE PROPAGATION
Experiments for crater modeling in controlled soil media to determine effect of moisture content on ground shock velocities, residual displacements, and rarefaction wave
[REPT.-1868] 02 p0257 N67-12193
Plane propagation of magnetically driven shock wave through infinite plasma, in direction transverse to uniform magnetic field
[UCRL-7170] 04 p0593 N67-13628
Motion and continuity equations for shock wave propagation in plastic medium 04 p0561 N67-13708
Mathematical model for gas shock wave interaction with plane metallic liner
[EUR-3157.E] 04 p0533 N67-14120
Mathematical model for determining precursor memory effect and shock wave propagation in crystalline solids
[NOLTR-66-175] 06 p0977 N67-16136
Mathematical analysis of propagation of spherical shock waves in radiating dynamical gas systems
[D1-82-0555] 07 p1062 N67-16822
Theoretical inviscid fluid mechanics conference - flow theory and hydrodynamic calculations for shock wave propagation problems
[NOLTR-66-191] 07 p1063 N67-17021
Unsteady one-dimensional flow approximation for shock wave control analysis 07 p1063 N67-17025
One-dimensional inviscid flow equations for calculating transient hydrodynamic shock wave propagation caused by explosion 07 p1063 N67-17027
Numerical methods for calculating two-dimensional unsteady flows caused by meteoritic impact on solid material 07 p1200 N67-17031
Forces, moments, and pressures acting upon body during initial impact with water surface 07 p1200 N67-17032
One-dimensional shock wave propagation on impact in compressible plastic medium 08 p1374 N67-18205
Shock processes for liquid and metal liners adiabatically compressed
[LGI-65-14] 08 p1346 N67-18371
Underwater shock wave propagation in vicinities of sloping bottom, icecap, and sedimentary bottom
[U-346-174] 09 p1441 N67-19635
Perpendicular dispersion model for collisionless shock waves in high beta plasmas
[IC/66/88] 09 p1498 N67-20286
Turbulent shock model for electromagnetic wave instability in solar wind
[IC/66/89] 09 p1498 N67-20287
Theory of propagation of shock waves caused by explosions in homogeneous atmosphere and in inhomogeneous atmosphere with and without gravity
[ORNL-TM-1702] 10 p1695 N67-21687
Supersonic boom effects in relation to flights of supersonic aircraft 12 p2014 N67-23983
Shock wave data for electronic configuration calculations on metals
[UCRL-50152] 13 p2391 N67-25512
Detonation characteristics of granular ammonium perchlorate and potassium chloride, and shock initiation in granular ammonium perchlorate
[AFOSR-67-0413] 13 p2434 N67-25623
Shock wave static pressures measured aboard frigate during firing of 4.5-inch cannon
[TL-1967-2] 13 p2322 N67-26021
Graphic representation of supersonic combustion with and without shock
[DLR-FB-66-69] 13 p2436 N67-26201
Ionization effect on structure of plane magnetohydrodynamic shock wave
[NASA-TT-F-10629] 14 p2590 N67-27532
Army research and development activities in electronics, theoretical and applied physics, ballistics, pyrotechnic chemistry, and weapon system technology
[AD-634616] 15 p2906 N67-27971
Quantitative characteristics of air-to-water shock with computation of underwater pressure
[AD-634631] 15 p2752 N67-27981
Strong shock propagation from piston for case of perfect gas
[C-4280-21] 17 p3047 N67-30377
Shock wave and noise problem of sonic boom 20 p3547 N67-34810
Mathematical model for shock wave propagation after projectile ejection from gun muzzle
[DLR-FB-67-50] 20 p3625 N67-35062
Mach number function tables for shock wave propagation in static atmosphere
[IGL-T-16/66] 20 p3626 N67-35183
Plane blast wave propagation and viscous attenuation of explosive shocks in tubes
[ORNL-TM-1823] 21 p3906 N67-35986
Shock wave effects in various detonation systems 21 p3945 N67-35425
Scaling procedure for case of shock in spherically symmetric, exponential, ideal gas atmosphere
[NOLTR-67-20] 21 p3841 N67-36013
SHOE
Candidate materials evaluated for use in lightweight insulated footwear
[TR-67-23-CM] 00 p0614 N67-14147
Jet shoes for space locomotion during extravehicular activity
[NASA-TN-D-3809] 11 p1797 N67-21061
SHOOTING STAR AIRCRAFT
S T-33 AIRCRAFT
SHORT CIRCUIT
Failure analyses on monolithic integrated circuits
[NASA-TM-X-53548] 05 p0683 N67-14988
Explosively actuated high voltage switch to short diodes as safety device for fast pulse accelerator
[UCRL-70030] 08 p1256 N67-18467
SHORT WAVE RADIATION
Frequency dependence of cosmic radio noise attenuation during solar flares studied by radio astronomy method
[T-28] 03 p0456 N67-13454
Short wave ultraviolet image and spectrum of sun obtained during course of X-ray flare
[NASA-CR-84067] 13 p2400 N67-26419
Short wave solar spectrum and intensity, and diurnal variation in ionization rate in upper atmosphere caused by short waves 19 p3329 N67-32813
Atlas of total outgoing long-wave radiation and of short-wave reflectances from Nimbus II
[NASA-TM-X-55974] 24 p4485 N67-39694
SHORT WAVE RADIO TRANSMISSION
Maximum usable frequency computation for short wave radio transmission, and communication at higher frequencies in presence of E-layer scattering
[JPRS-39413] 00 p0832 N67-15387
Accuracy of maximum usable frequency computations for short wave radio communication links 00 p0832 N67-15388
Short wave radio communication at frequencies exceeding maximum usable frequency caused by E-layer scattering 00 p0832 N67-15389
Construction of shortwave directional antenna for ranges of 5.5 to 18.5 km
[FTD-HT-66-536] 07 p1040 N67-17089
Standardization of electromagnetic field in short and ultrashort wave range
[ATD-66-126] 09 p1399 N67-19676
Soviet textbook on theory of long line radio wave propagation and electromagnetic waves, antenna engineering, and feeder devices
[FTD-HT-66-360] 16 p2860 N67-29469
Spatial logarithmic antenna for short wave radio transmission
[JPRS-41088] 17 p3024 N67-30389
SHOT NOISE
Effects of thermal and shot noise on performance of oscillator
[ECOM-2772] 07 p1050 N67-17538
Thermal, shot, random, and impulse noise reduction in amplifiers
[ECOM-2778] 10 p1584 N67-28631
Shot noise in one-dimensional plane Lagrangian computer simulation of electron diode 22 p4116 N67-37749
SHOWER
SA COSMIC RAY SHOWER
SA METEOR SHOWER
Energy flux of nuclear-active and electron-photon components of extensive air shower
[NASA-CR-80560] 05 p0443 N67-13384
Determination of gravity center of particle shower using scintillator double wedge
[BMWF-FB-W-66-03] 14 p2588 N67-27191

Electron induced cascade showers in copper, tin, and lead
[HEPL-495] 19 p3509 N67-32777
Height of effective muon production level in effective atmospheric shower evaluated by means of attenuation measurements
[INR-803/VI/PH] 23 p4304 N67-38578
Air shower experiments - data processing and preliminary results of scintillation counter data
[BMWF-FBK-67-43] 23 p4248 N67-39140
Air shower experiments - sonic spark chamber studies
[BMWF-FBK-67-44] 23 p4254 N67-39141
Air shower experiments - testing of apparatus, and studies of angular distribution of air shower particles recorded on stereoscopic cloud chamber photographs
[BMWF-FBK-67-45] 23 p4255 N67-39142
SHRINKAGE
Radiation induced shrinkage and cracking in pyrolytic carbon samples
[ORNL-TR-1347] 10 p1661 N67-30605
Determining shrinkage of adhesives during cure
[MLM-1361] 14 p2580 N67-26823
Temperature and shrinkage stresses in thickwalled reinforced cylinder bonded to rigid case
[TR-37] 19 p3545 N67-33089
Shrinkage measurements of thoria compact-DT containing added impurities
[TID-23843] 23 p4270 N67-38715
Dynel fiber blending effects on yarn shrinkage and woven fabric properties
[TR-67-64-CM] 24 p4471 N67-39422
SHROUD
Performance of centerbody propelling nozzle with parallel shroud in external flow
[ARC-CP-841] 02 p0298 N67-11748
One-group perturbation theory applied to substitution measurements with void in shrouds
[AE-348] 03 p0424 N67-12688
Compression spring mechanisms for spacecraft and shroud separation 07 p1199 N67-16913
Performance characteristics of centerbody propelling nozzle with shroud in external flow
[ARC-CP-934] 10 p1550 N67-21186
Wind-induced responses of Saturn V configuration with fins and engine shroud, third and fourth bending moments, and with different control systems
[NASA-CR-84069] 13 p2410 N67-28325
Models of Agena/Mariner C and Agena/Lunar Orbiter shroud tested in wind tunnels over Mach number range 0.56 to 3.46 for comparison of aerodynamic characteristics
[NASA-TM-X-52296] 14 p2619 N67-27284
SHROUDED BODY
Statistical energy analysis for predicting sound and vibration transmission in shroud-enclosed spacecraft
[NASA-CR-81698] 07 p1205 N67-18035
SHROUDED NOZZLE
Experiments with convergent primary nozzle housed in afterbody surrounded by shroud
[ARC-R+M-3382] 07 p0989 N67-17762
Boundary layer separation in centerbody nozzle with parallel shroud
[ARC-CP-853] 08 p1215 N67-18256
Effect of base bleed on base pressure of shrouded and unshrouded propelling nozzles
[RAE-TR-66182] 20 p3561 N67-34735
Static test rig for measuring thrust efficiency and discharge coefficient of propelling nozzle systems
[ARA-WTN-62] 20 p3642 N67-34839
SHROUDED PROPELLER
Inverse problem of annular airfoil and ducted propeller for pressure distribution factors
[DTMB-2251] 06 p0787 N67-16198
Hubless pump inducer tested with shrouded centrifugal impeller, using water and liquid nitrogen
[NASA-TN-D-3607] 09 p1285 N67-18693
Stagnation line between leading and trailing edges on outer surface of shroud of shrouded propeller in static condition in rearward and in forward motions
[RR-65] 16 p2811 N67-28982
SHUNT
Shunt effects and sheath integrity of thermocouples for reactors of Project Rover 09 p1479 N67-19643
Solid state shunt stabilizer circuits used in Mercury digital computer power supply as replacement for thermionic valve circuits
[RAE-TR-66390] 17 p3149 N67-31079
Radial line stubs as shunt elements in strip line circuits
[LMSC-806961] 22 p4013 N67-37238
SHUTTER
SA CAMERA SHUTTER
Reversibly frostible transparent window for nuclear flash eye protection shutter
[AD-643732] 06 p0815 N67-16851
Semiconductor optical shutter
[S-67-1031] 15 p2780 N67-29063
Analytical determination of shutter type temperature control system effective radiative properties
[REPT.-65SD329] 22 p4186 N67-36886
SICKNESS
S ALTITUDE SICKNESS
S DECOMPRESSION SICKNESS
S DISEASE
S MOTION SICKNESS
S RADIATION SICKNESS
SID
S SUDDEN IONOSPHERIC DISTURBANCE /SID/
SIDE INLET
Side-vented passive half-adder configurations 10 p1611 N67-21119
SIDE-LOOKING RADAR
Coherent optical systems for processing data from synthetic-antenna radar systems 03 p0368 N67-13062
Terrain information from high altitude side-looking radar imagery of Arctic area 04 p0537 N67-13597
Terrain features interpreted from side-looking radar imagery 04 p0550 N67-13520
High altitude side-looking radar images of sea ice patterns in Arctic Ocean 04 p0539 N67-13528
Development of sideways looking airborne radar 04 p0613 N67-13922
Sectional aeronautical charts and series 200 charts as briefing aids for side-looking radar reconnaissance task
[AMRL-TR-66-152] 14 p2573 N67-27467
Three port junction circulator device and ferrite materials evaluation for side-looking radar microwave duplexer
[R11-529] 19 p3496 N67-33331
Microwave duplexers for side-looking radar application
[R11-534] 20 p3600 N67-34082
SIDEBAND
S DOUBLE-SIDEBAND RADIO COMMUNICATION
S SINGLE-SIDEBAND MODULATION
S SINGLE-SIDEBAND RECEIVER
SIDELOBE REDUCTION
Radiometric beresighting using sequential lobing
[NASA-TR-R-272] 24 p4406 N67-39791
SIDEWASH
Wind tunnel testing of sensor for measuring aerodynamic angles of incidence and sidewash during ELDO-A launch vehicle firings
[G-43] 07 p1085 N67-17802
SIEVE
SA MOLECULAR SIEVE
Oil reclamation using molecular sieves
[Y-1552] 07 p1092 N67-17734
Fog dispersal over airport runways by rotary sieve and mobile plant methods
[DLR-FB-67-23] 15 p2686 N67-29676
Enrichment of carbon 12 and carbon 13 by gas chromatography of carbon monoxide on molecular sieve
[ORNL-TR-1455] 16 p2844 N67-29233
SIGHT
S BLINDNESS
S VISION
SIGHT LINE
Nomograph for calculating signal-to-noise ratio for given set of parameters on single path line-of-site radio link
[RAE-TR-66091] 02 p0235 N67-11878
In-flight monitoring to collect observations of clear lines-of-sight at several angles in vertical plane
[AFCRL-67-0435] 24 p4485 N67-39235
SIGMA 7
S MERCURY /MA-8/ FLIGHT
SIGNAL
S AUDITORY SIGNAL
S BEACON
S CHIRP SIGNAL
S ERROR SIGNAL
S FLARE
S MAGNETIC SIGNAL
S OPTICAL SIGNAL
S RADIO SIGNAL
S RADIO STAR SIGNAL
S RANDOM SIGNAL
S TIME SIGNAL
S VISUAL SIGNAL
S WARNING SIGNAL
SIGNAL ANALYSIS
Technique for measuring s parameters and s parameter applications to high frequency transistor circuit design and small signal analysis 01 p0054 N67-10686
Application of transformation spectrum for analysis of continuous signal frequencies 03 p0370 N67-13464
Two-way antenna pattern simulation by analog and analytical methods
[NOLC-682] 03 p0381 N67-13551
Prediction of noise distorted multivariate nonstationary signal from sequence composed of signal and stationary noise
[TR-19] 06 p0843 N67-16336
Threshold improvement capabilities of feedback and band dividing demodulation methods for phase and frequency modulation signals
[NASA-CR-682] 06 p0846 N67-16862
Computer program for simultaneous analysis of two independent signals in two channel analyzer
[BNWL-299] 07 p1044 N67-17975
Radar signature analysis of extended targets
[RM-5134-PR] 07 p1096 N67-17281
Graphic signature recorder - direct writing oscillograph
[ECOM-00625-F] 10 p1629 N67-20441
Generalized bandwidth compression and attribute extraction using experimental dynamic processor and display system
[AFCRL-66-751] 10 p1560 N67-21737
Mathematical model for deriving ambiguity function used to study signals from radar and sonar targets
[NRL-6471] 11 p1819 N67-23525
Signal design theory and information processing 12 p2069 N67-23930
Signal variance and its application to continuous measurements of electroencephalogram activity
[FPRC/1224] 13 p2355 N67-25591
Transient underwater signal analysis by means of approximation using orthonormal functions
[USL-788] 15 p2668 N67-29514
Reception, analysis, and detection of radio signals from space 17 p3082 N67-30940
Signal analysis programs for manual control studies 18 p3217 N67-31917
Effects of spontaneous fluctuations in application of semiconductor diodes as detectors of nuclear radiation
[DISC-2045] 18 p3313 N67-32489
Nonstationary random processes in nonreal-time applications - theories for nonreal-time correlation and spectrum analysis
[NASA-CR-87289] 19 p3493 N67-33263
Mathematical method for determining signal levels as function of time for communicating or tracking equipment before mission
[NASA-TM-X-55861] 19 p3494 N67-33264
Signal and noise responsiveness at large aperture seismic array
[ESD-TR-67-94] 21 p3837 N67-35725
Relationship of first harmonic amplitude of magnetometer signal to various parametric values in derived expression
[JPRS-43737] 23 p4254 N67-39139
SIGNAL ANALYZER
Pedestal technique of transistorized analyzers for improving precision and zero intercepts in calibration plots applied to large signal vacuum tube logic 03 p0894 N67-13618
Pulse height ratio analyzer with logarithmic characteristic 08 p0600 N67-16227
Intensity microphotometer design in which input signal is converted by piecewise-linear diode approximators 07 p1076 N67-16819
Device for amplitude and frequency analysis of electric or electromagnetic signals in high frequency range
[EUR-2701.F] 07 p1087 N67-17349
Pattern generator and signal analyzer for digital communication test set
[VL-2278-S-3] 07 p1088 N67-17677
Selector-analyzer unit for automatic evaluation of reflected weather radar signal 11 p1817 N67-23907

Frequency spectrum method for analyzing ground motion data produced by single and multiple vibratory sources
[AD-645479] 11 p1856 N67-23160
Signal analyzer for observing basic speech tone changes 15 p2664 N67-27824
Register unit for extraction of display data from computer
[AERE-R-5358] 15 p2672 N67-28060
Technique for measuring power spectra of complex nonstationary signals
[D1-82-0585] 16 p3249 N67-32129
Antenna unit and signal spectrum analyzer breadboard system for detecting and determining dominant spectral frequencies of transient electromagnetic signals
[USNRDL-TRC-67-17] 19 p3399 N67-32901
Design, development, and testing of low cost capture effect glide slope amplitude and phase control unit
[FAA-RD-66-58] 19 p3436 N67-33356
Fast sweep spectrum analyzer for noise pulse analysis 23 p4252 N67-38771
Spectral analyzer for radio signal frequencies
[EUR-3446.F] 23 p4228 N67-39231
SIGNAL DETECTION
Limited-state threshold and infinite state signal detectability theories for sensory perception
[PRP-25N] 01 p0023 N67-10413
Detection of underground high energy neutrino interactions
[COO-818-86] 01 p0128 N67-10803
Effect of signal duration on detection in presence of continuous masking noise
[NASA-CR-78973] 02 p0223 N67-12233
Optimal algorithm for multi-step search procedure with mathematical model for radar search problem 03 p0375 N67-12505
Optimal detection of Markov signals against background of Markov noise with discrete time 03 p0365 N67-12518
Empirical Bayes technique applied in communication problems of random process signal detection
[NASA-CR-80717] 04 p0510 N67-13675
Statistical methods for radio detection 04 p0512 N67-13926
Capabilities and limitations of radar for target resolution 04 p0512 N67-13927
Detection of coded phase modulated signals
[REPT.-66-1] 04 p0515 N67-14191
Decision theory and binary detection of signal transmission in noisy channel, and determination of noise caused by tape in magnetic recording system 05 p0674 N67-14632
Unsupervised adaptive signal detection and pattern recognition for multivariate normal distribution
[RADC-TR-66-488] 07 p1036 N67-17174
Unsupervised adaptive signal detection and pattern recognition 07 p1036 N67-17175
Optimum sequential detection of signals in noise compared with conventional detection
[PH.L-1966-16] 07 p1042 N67-18075
Binary sequences for rapid signal acquisition with serial binary decisions required 08 p1245 N67-18346
Very low frequency pulse sounding system for receiving lower ionospheric radio signals
[AD-649755] 10 p1585 N67-21652
Nonparametric signal detection 11 p1832 N67-23748
Installation and operation of Penas acoustic array for registering infrasonic pressure disturbances of atmosphere
[AD-645151] 11 p1871 N67-23156
Electronic fringe signal detection circuitry for laser-actuated length measuring interferometers
[Y-1566] 13 p2319 N67-25431
Conduct studies of auditory information processing emphasizing application of signal detectability theory to auditory sensory responses
[NASA-CR-83813] 13 p2363 N67-25678
Detection of tones masked by noise - comparison of human observers with digital computer simulated energy detectors of varying bandwidths
[TR-29] 13 p2382 N67-26188
Signal patterning effects on human alertness and physiological responses during performance of monotonous tasks
[NAVTRADEVCEN-IH-62] 14 p2455 N67-26737
Manipulation of observer criteria in auditory detection, intensity effects on critical bands for tonal stimuli determined by band limiting, and azimuth cetertainty in binaural interactions
[TRACOR-67-373-U] 15 p2650 N67-28546
Statistical determination of optimum devices for detecting radar signals in presence of Gaussian interference
[FTD-HT-66-256] 15 p2668 N67-28553
Optimum detection of signal source including costs of decisions, equipment, and location, operation, and maintenance
[RM-5211-PR] 16 p2891 N67-29997
Estimation and detection of optical signals distorted by diffraction, background noise, and detection noise
[SR-9] 16 p2938 N67-29617
Polysensoric detection and applicability of decision theory to detection of multiple signals in additive normal noise
[RADC-TR-67-140] 17 p3021 N67-30285
Interplanetary communication signal transmission, reception, and detection 17 p3021 N67-30338
Detection of modulated Gaussian signals and noise with application to fast digital simulation of continuous wave radar receivers under multiple target conditions
[WRE-TN-SAD-173] 17 p3025 N67-30679
Two procedures for signal detection involving an unknown parameter
[TR-12] 18 p3234 N67-32491
Mathematical analysis of recurrent transient signal detectability at low signal to noise ratio in sonar and radar for underwater acoustics applications
[REPT.-3074-11-T] 19 p3400 N67-32983
Automatic machine recognition of speech signals, and machine control by speech 19 p3405 N67-33478
Influence of correlated visual cues on auditory signal detection
[NASA-CR-87406] 20 p3580 N67-34004
Choice behavior in cued-recognition task
[NASA-CR-87396] 20 p3581 N67-34103
Feasibility studies of new mode of low frequency electromagnetic propagation for submarine detection and underwater communication
[RE-298] 20 p3689 N67-34840
Pulse signal detection by digital storage devices
[FTD-MT-65-196] 21 p3796 N67-35638
Data rejection and decision systems - error detecting codes
[NASA-TM-X-55900] 21 p3799 N67-35916
Representations for likelihood functions of separable stochastic processes to aid in signal detection, classification, waveform recognition, and parameter extraction
[TR-9] 21 p3823 N67-35943
Sunblazer phase modulation communication system performance for noisy dispersive channel with regard to signal detection
[NASA-CR-88614] 22 p3907 N67-37023
Human detection of sinusoidal signals in background of white Gaussian noise determined under interaural conditions of listening
[AFOSR-67-1561] 22 p4001 N67-37706
Communications - adaptive technique for multiple signal detection and identification, pattern recognition
[RADC-TR-67-360] 24 p4403 N67-39545
Synchronous self-tuning filter with simplified multiplier designed to separate weak, quasi-harmonic signals from background interference
[FTD-HT-66-734] 24 p4404 N67-39609
SIGNAL DETECTOR
Implementation and performance of maximum likelihood detector in channel with intersymbol interference
[NASA-CR-79937] 02 p0234 N67-11857
System for measuring phase and frequency fluctuations of high precision oscillators
[NASA-CR-80264] 03 p0396 N67-12992
Conference on aerodynamic measuring techniques in Germany - multiplex telemetry of free flight test data, analog-to-digital data conversion, and automatic data processing systems and methods
[DLR-MITT.-66-04] 05 p0676 N67-14661
Pulse code modulated bid detector for noise signal correction in aerospace telemetry 05 p0674 N67-14664
Current multiplication effect on diode bandwidth in InAs photodiodes for use in design of solid state optical heterodyne detectors
[NASA-CR-82542] 08 p1261 N67-19340
Lock-in amplifier for atomic cross section measurements
[UCRL-70016] 10 p1593 N67-20961
Logarithmic receiver applicability to signal detection in nonstationary backgrounds
[NEL-1098] 11 p1819 N67-22829
Optical and radio equipment for detecting pulses from cosmic ray showers
[UCD-CR12] 13 p2397 N67-25441
Mathematical expressions derived for signals from tandem and parallel detector coils of magnetic gradiometers in magnetic dipole field
[NOLTR-66-234] 15 p2715 N67-28890
SIGNAL DISCRIMINATOR
Sensitive stable amplitude signal discriminator for spectrometer
[FTD-TT-65-1819] 01 p0055 N67-11681
Surveyor radar and Doppler velocity sensor frequency discriminator analysis for Gaussian signal and noise condition 06 p0833 N67-15749
Design concept of circuit to satisfy requirements of low level pulse height discriminator 06 p0831 N67-16269
Tunnel diode pulse shape discriminator for separating scintillation signals from different ionized particles
[BNL-10036] 10 p1593 N67-21011
Limiting amount of information in recognizable signal 13 p2379 N67-25788
Acoustic stimulation of human auditory analyzer studied in connection with speech signal recognition 20 p3583 N67-34513
Window discriminator with fast switching tunnel diodes for pulse selection from wide amplitude spectrum
[EUR-3551.E] 24 p4420 N67-40281
SIGNAL DISTORTION
Signal attenuation, signal distortion, and radio noise generation due to ion engine exhaust beam
[NASA-CR-81651] 07 p1041 N67-17992
Measured and predicted harmonic distortions produced by nonlinearity of metal oxide semiconductor
[AFOSR-66-1340] 08 p1256 N67-18290
Computation of intermodulation distortion levels produced by telemetry system predetection filter
[NASA-CR-83444] 08 p1250 N67-19135
Effects of klystron saturation and phase and amplitude distortion on performance of wideband high power chirp radar system
[TN-1966-54] 11 p1819 N67-22819
Distortions of controlled electric transients by shock monitoring instrumentation circuits
[SC-DC-67-1833] 23 p4253 N67-38634
SIGNAL ENCODING
Synchronous pulse shift registers with minimal number of hysteresis elements and various speeds 03 p0376 N67-12515
Fabrication, testing, and implementation of metal oxide field effect transistors in Anchored Interplanetary Monitoring Platform D and E telemetry encoder
[NASA-TM-X-55852] 06 p0845 N67-16826
Polynomial codes for polyphase signals
[REPT.-1-65] 07 p1039 N67-17907
Signal selection, pattern recognition, and encoding problems of information processing and transmission theory 12 p2052 N67-24214
Dual-channel horizon scanner and encoder for Tiros attitude data acquisition
[NASA-CR-85861] 17 p3023 N67-31306
SIGNAL FADEOUT
Deduction of reentry near wake plasma properties for Mercury and Gemini manned orbital spacecraft from radio signal attenuation data
[NASA-TN-D-4118] 19 p3517 N67-33483
Causes of signal loss in magnetic computer tapes, and wet and dry cleaning procedures for rehabilitating used tapes
[NASA-TM-X-55779] 19 p3412 N67-33939
SIGNAL FADING
SA DIFFRACTION PATTERN
Ionospheric electron content calculation method applied to Faraday fading signals
[NASA-CR-84078] 13 p2316 N67-26367
SIGNAL FLOW GRAPH
Digital computer aided circuit analysis and design
[NASA-CR-66252] 04 p0523 N67-14200
Topological formulas used to eliminate subgraphs in signal flow graph
[R-339] 13 p2399 N67-25979
Computer aided circuit design - synthesis of distributed systems and signal flow graph approach to computer aided design
[NASA-CR-84402] 16 p2864 N67-29179

Signal flow graph methods for analyzing modulo-m linear sequential circuits and mixed systems containing both modulo-m adders and adders of real numbers [TR-519] 16 p2869 N67-29806
SIGNAL GENERATOR
Pattern generator and signal analyzer for digital communication test set [VL-2378-S-0] 07 p1036 N67-17677
Filter crystal parameter measurements with FM signals [ECOM-2845] 24 p4418 N67-39687
SIGNAL MEASUREMENT
SA ELECTRONIC SIGNAL MEASUREMENT
Ionosphere electron density determined by signal measurements from Elektron I and III satellites [NASA-CR-83934] 13 p2313 N67-25884
Satellite scintillation studies 19 p3401 N67-32986
Correlation error matrix of parameter evaluation in signal measurements 21 p3799 N67-35631
SIGNAL MIXING
Mixer device, based on image converter and photomultiplier techniques, for processing optical signals [AERE-M-1813] 15 p2751 N67-27783
SIGNAL NOISE
Signal and noise equivalent circuits for ultrahigh frequency transistors [TIL/T-5665] 01 p0053 N67-10549
Pulse time measurements in presence of noise - optimal linear filters [AE-249] 03 p0895 N67-12689
Mathematical model for separating signal noise of pulse flows with limited aftereffect 05 p0737 N67-14348
Signal noise sources in fluid amplifiers 06 p0794 N67-16071
Fast oxide reactor measurements by noise analysis techniques [IDO-17116] 07 p1131 N67-17477
Digitizing noise effects on spectral signal to noise ratio in Fourier spectroscopy [NASA-TM-X-55679] 08 p1248 N67-18748
Short-period noise in data recorded at four-seismograph array in Greenland [TR67-9] 13 p2094 N67-24371
Annotated bibliography on random noise and effect on signals [NASA-TM-X-59657] 13 p2283 N67-26080
Network circuit devices for correcting errors in noise rejection coding of digital teletype communications in complex automatic hydrometeorological telemetering systems [JPRS-40557] 14 p2491 N67-27395
Decision technique for use in noisy communication channels with small samplings based on game theory solution for non-regular random event problems [SDC-SP-2756] 17 p3027 N67-30672
Error probability and other aspects of communications systems using intermittent feedback links [SEL-67-014] 18 p3239 N67-32097
Statistical analysis applied to theory of signal-to-noise enhancement [UCRL-50171] 19 p3406 N67-33505
Methods for separating groups of unresolved signals from noise on basis of random point theory 20 p3605 N67-35287
Evaluation of nonlinear function when observing signal noise 20 p3617 N67-35296
Calculations for optimal systems with nonlinear combination of useful signal and noise 20 p3605 N67-35298
Observer response to signal plus noise in simulated physiological recordings [AD-654441] 21 p3765 N67-35654
Statistical properties of random transient noise signals [NOLTR-67-25] 22 p3996 N67-36239
SIGNAL PROCESSING
Multiple access techniques for communications satellites - digital modulation, time division multiplexing, and related signal processing [NASA-CR-79748] 01 p0039 N67-10681
Planetary probe conical scanning system, signal processing, S-band power amplifier survey, modulation and bit synchronization, antenna temperature, and trajectory perturbations [NASA-CR-79504] 02 p0238 N67-12047
Differentiation circuits for amplitude-modulated signal envelopes [NASA-TM-X-57999] 02 p0245 N67-12230
Coherent optical signal processors 02 p0430 N67-13073
Non-mechanical light beam scanning using optical signal processing techniques 02 p0431 N67-13075
Image intensifier for analyzing coherent radar Doppler spectrum 02 p0266 N67-13076
Electro-optical processor for phased array antennas 02 p0266 N67-13080
Ultrasonic light modulator for correlating radar signals 02 p0268 N67-13081
Coherent optical systems for processing data from synthetic-antenna radar systems 02 p0269 N67-13082
Seismologic detection and signal processing, simulation, and communication [ESD-TR-66-445] 03 p0891 N67-13222
Mixture resolving signal processing optimization with optimum linear detection operators and mixture resolving estimators [NASA-CR-80884] 04 p0568 N67-13576
Computer signal processing approach for Shapiro fourth test of general theory of relativity [ESD-TR-66-431] 05 p0681 N67-15056
Signal processing, simulation, and communications system parameters in seismology study [ESD-TR-66-514] 06 p0674 N67-16329
Signal conditioning device for antisubmarine warfare magnetometer systems users manual [MEL-TM-164/66] 06 p0682 N67-16412
Efficient signal processing techniques for celestial scanning optical systems - models of energy received by sensors from star and stellar background radiation - photodetectors [NASA-CR-672] 06 p0698 N67-16667
Proposed mathematical approaches to processing blurred signals 07 p1034 N67-16935
Review, literature survey, and critique of signal processing arrays, including synthetic arrays, self-phasing and retrodirective arrays, decision theoretic arrays, and correlation arrays [PUB-171] 07 p1035 N67-17113
Techniques for demodulation of angle-modulated telemetry signals [WDL-TM-101] 07 p1037 N67-17273
Parallel processing applicability to adaptive sonar systems 08 p1246 N67-18455
Analog modulation, frequency-division multiplexing and signal processing for multiple-access satellite communication [NASA-CR-83014] 08 p1247 N67-18520
Coding and identification, signal-response compatibility, conservation, reduction and creation, and expectancy and motivation [IZF-1966-8] 08 p1230 N67-19266
Speech decoding method [TR-9] 10 p1562 N67-20472
Isotopic gamma ray signaling system to permit close-order formation keeping in helicopters [COO-1471-7] 10 p1554 N67-20686
Derivation of sampling expansions using integral representation based on property of resolvent operator on Hilbert space [TR-17] 11 p1907 N67-22534
Signal processing characteristics of peripheral auditory system [ESD-TR-66-449] 11 p1795 N67-23371
Cross modulation in single channel monopulse signal processor [NRL-6443] 12 p2051 N67-24016
Signal adaptive controllers developed and tested by simulation for three antenna pedestal systems [EDL-M956] 12 p2054 N67-24749
Addition of signal conditioning and data processing capability to unattended meteor trail wind and density set [AFCRL-66-493] 12 p2140 N67-24780
Sensors signal conditioning, and power supply instrumentation for Van Allen belt dosimetry system [NASA-CR-85629] 14 p2530 N67-26590
Evaluation of signal data processor employing synthetic phase isolator technique [NASA-CR-728] 14 p2490 N67-27207
Analytical sonar and radar signal processing techniques in reverberation and fluctuation noise [RE-262] 14 p2495 N67-27724
Signal processing in large aperture antenna arrays used for detecting seismic waves [ESD-TR-67-230] 16 p2807 N67-29640
Uniform theory for optimum array processing [REPT.-4166866] 16 p2863 N67-29679
Sensing, signal processing, and actuation functions of spacecraft flight control [NASA-CR-890] 17 p3186 N67-30769
Human perception of stimulus display and signal response compatibility in reaction process [IZF-1967-8] 17 p3066 N67-31667
Design, fabrication, and testing of inverter module for closed loop advanced control signal processor - thin film circuit, and conformal coating and encapsulation [NASA-CR-85972] 18 p3246 N67-31822
Digital recording and playback equipment - operation and maintenance [TG-697] 18 p3272 N67-32468
Method of finding envelopes of correlation functions 20 p3639 N67-34390
Optical correlator using electro-optical Doppler replicas for processing radar signals [RADC-TR-67-194] 21 p3796 N67-35598
Low-noise wide-band current preamplifier for use in fast signal processing systems for semiconductor detectors [ORNL-P-3064] 21 p3813 N67-35438
Development model for two-dimensional incoherent optical correlator for signal processing [USL-S26] 22 p4090 N67-37257
Large aperture seismic array signal processing, simulation, and communications study [ESD-TR-66-635] 22 p4090 N67-37682
Radar techniques developed for generating, radiating, receiving and processing of large bandwidth signals [NEL-1459] 24 p4498 N67-40019
SIGNAL RECEPTION
SA TELEVISION RECEPTION
Electrochemical transducers for acoustic signal reception and small displacement measurements [FTD-TT-65-1875] 04 p0553 N67-14223
Satellite technology - orbiting satellite, spacecraft stability, space vehicle control, radio wave propagation, signal reception, cosmic ray studies, and related topics [FTD-HT-66-244] 05 p0702 N67-14861
Distribution of electron concentration in ionosphere by method of ground reception of radio signals from Elektron-I artificial earth satellite 05 p0706 N67-14869
Antenna configurations tested at low elevation angles to minimize signal lobing effects on distance measuring equipment of landing system [NASA-CR-73062] 06 p0845 N67-16627
Reception of frequency modulated signals passed through deterministic and random time-varying channels [NASA-CR-81379] 06 p0846 N67-16628
Summary data on optimality condition for M-ary signal sets 07 p1054 N67-16934
Ionospheric research - receiving and processing moon reflected signals [QPR-12] 13 p2312 N67-25624
Atmospheric radio emission temperature, radio wave refraction, and antenna gain refraction attenuation measurements at low angles over horizon using radio astronomy methods 13 p2314 N67-26182
Airborne sensor system for flight inspection of signal reception from glide slope transmitting facilities [RD-66-99] 14 p2527 N67-27215
Interplanetary communication signal reception 17 p3021 N67-30235
Signal degradation and reception of dispersed Barker codes due to coronal plasma analyzed for Sunbiaser radio propagation experiment [NASA-CR-85561] 17 p3027 N67-31109
Seismic array response to wideband signals [TN-1967-30] 22 p4091 N67-37809
SIGNAL REFLECTION
Measurements of S-band signal reflections from ground 04 p0512 N67-13283
Ionospheric data from signals reflected by lunar surface [ECOM-66705-11] 06 p0674 N67-16269
Method of selecting moving radar targets with recording of reflected signals [FTD-HT-66-79] 09 p1418 N67-19239
Reflection of very high frequency signals from plasma boundary heated by ion cyclotron waves 11 p1947 N67-21982
Gating devices for rejection of false air traffic control radar beacon system replies [FAA-RD-67-1] 12 p2148 N67-24880
Personnel training in sound reverberation patterns to determine effects on Doppler discrimination

[STB-67-13] 13 p2280 N67-25974
Radar signal reflection from satellite for ionospheric scintillation analysis 16 p2556 N67-29502
Propagation and terrain reflection of highly stable narrow band microwave signals - radio communication 16 p2540 N67-29423
[IED-G5] 16 p2540 N67-29423
Faraday rotation of signals reflected from moon and ionospheric electron density [QPR-13] 19 p3436 N67-32704
Degrading effects of sea reflection multipath fading on synchronous satellite 21 p3795 N67-35362
Ionospheric research by reflection of signals from moon [REPT.-14] 22 p4037 N67-37100
Radar reflectivity measurements role in identifying hail storms and tornadoes [TM-17] 23 p4278 N67-38388

SIGNAL STABILIZATION
Digital computer calculations of parameter and switching effects on signal stability from ferrite cores with rectangular hysteresis loops 15 p2671 N67-27839
Design of large signal sets with good aperiodic correlation properties [TR-EE66-13] 17 p3038 N67-31320

SIGNAL TO NOISE RATIO
Effect of multiple paths on acoustical signals as related to speech recognition and improvement of signal-to-noise ratios - delay lines [AD-637078] 01 p0037 N67-10317
Calculation of signal to noise ratio for HF propagation prediction [NEL-1323] 01 p0040 N67-10031
Reliability and continuity of observation, and signal to noise ratio of large aperture seismic array [TR-421] 02 p0254 N67-11237
Nomograph for calculating signal-to-noise ratio for given set of parameters on single path line-of-site radio link [RAE-TR-66091] 02 p0235 N67-11078
Rapid extraction of periodic signals by phosphor recording 03 p0454 N67-13076
Measurement and theory, including signal to noise and transfer function calculations, of atmospheric water vapor using ruby laser optical radar 04 p0537 N67-13488
Error acquisition probability in Mark 1 ranging subsystem as function of signal-to-noise ratio and integration time used in correlation 06 p0639 N67-15916
Pulse duration and pulse code modulations compared for input power and output signal to noise ratio at high and low signal strength [NASA-CR-81296] 06 p0645 N67-16560
Improvement of signal-to-noise ratio measurements made with robatron in Cerenkov radiation studies 07 p1160 N67-16840
Characteristics of ambient noise fields, and instrument response of subarrays for determining optimum design criteria for predetection multichannel filters - seismic array [ESD-TR-66-553] 10 p1629 N67-20600
Storage circuit for improved signal to noise ratio of weather radar set 11 p1817 N67-23005
Minimum mean squared error nonlinear filtering of signals in additive noise [TR-16] 11 p1849 N67-23178
Transformation of logical systems of algorithms and optimum methods of photographing faint objects [FTD-TT-65-1042] 12 p2100 N67-23906
Optimum methods of photographing faint objects 12 p2100 N67-23906
Noise consideration for detection of weak laser signals [REPT.-7-901-49] 13 p2112 N67-24831
Signal to noise ratios for high frequency radio transmission [NEL-1439] 13 p2282 N67-26228
Resolution, dispersion, and signal to noise ratio in single and double pass spectrographs 14 p2531 N67-26704
Signal extraction in presence of high intensity noise and gravimetric data processing [FTD-TT-65-1075] 15 p2754 N67-28381
Testing filter and signal to noise ratio effects on transmitted speech perception [AFCRL-67-0197] 17 p3023 N67-30469
Hemispherical wind screens tested for effective wind noise reduction and improvement in signal to noise ratio [ECOM-5119] 19 p3451 N67-33873
Mathematical analysis of recurrent transient signal detectability at low signal to noise ratio in sonar and radar for underwater acoustics applications [REPT.-3074-11-T] 19 p3400 N67-32903
Influence of bandwidth restriction on signal-to-noise performance of PCM/NRZ signals [ESRO-TM-16] 20 p3604 N67-34945
Optimization of signal to noise ratio in presence of noise and pile-up fluctuations [CISE-107] 21 p3802 N67-36590
Oscilloscope for measuring signal to noise ratio [NASA-CR-88405] 22 p4043 N67-36720
Comparison of infrared detectors performance in passive aerial reconnaissance [P-3580] 22 p4046 N67-37355
Maximization of signal to noise ratio for antenna arrays subject to random errors [SR-3] 23 p4212 N67-38328
Exponential bound on error rate for peak limited binary coherent channels at low signal to noise ratios [P-341] 23 p4213 N67-38523
Signal to noise ratio, light collection area, and spectral passband characteristics of lenses used in all-sky photometer - fluorescence in upper atmosphere [LA-3727] 24 p4449 N67-39561
System noise figure and signal-to-noise ratio improvement factor proposed as criteria for comparing one array antenna system to any reference system [DSD-R-177] 24 p4408 N67-40017
Noise/signal ratio calculation of nuclear pulse amplifier using gated active integration [AERE-R-5021] 24 p4421 N67-40409

SIGNAL TRANSMISSION
Asymptotic behavior of transient signal propagation in lossless, isotropic plasmas [AFCRL-66-234/II/] 01 p0042 N67-11107
Effects of ionosphere on 400 Mc radar signals sent vertically downward from satellite - time delay and virtual height, attenuation factor, and Faraday rotation [NASA-CR-80194] 02 p0239 N67-12377
Gallium-arsenide optical diode and xenon-hydrogen discharge tube noncoherent optical sources for voice communication systems 03 p0369 N67-13084
Cognitive information processing studies of digital and PCM picture and signal transmission systems, and methods for tactile display reading and magnetic tape to Braille conversion 05 p0678 N67-14634
Mathematical treatment of optimum binary signal sets for certain scatter multipath channel models [NASA-CR-69946] 07 p1114 N67-17874
Frequency domain compensation of coaxial cables for best time domain response [OCID-15023] 10 p1592 N67-20776
Application of synthetic telephony to long distance communications with reduction in transmission frequency spectrum [JPRS-39705] 11 p1826 N67-23405
Long distance communication using tropospheric scatter or diffraction mechanism of propagation [IER-2-ITSA-2] 11 p1838 N67-23454
Amplitude and frequency modulation of signal transmissions in television communication systems [RAE-TM-WE-1201/E/] 11 p1827 N67-23472
Reliability of information transmission in complex systems using computers 12 p2052 N67-24215
Space communications studies of optimal signal reception, threshold extension, signal detection against noise, channel simulation, and synchronization techniques [NASA-CR-84452] 14 p2494 N67-27635
Ionization in frontal shock wave of ELDO launch vehicle and effects on telemetry signal transmission [ELDO-TR-2] 15 p2665 N67-27925
Pneumatic memory cell with pressure to shift conversion for discrete signal transmission [FTD-HT-67-13] 15 p2673 N67-28195
Methods of crossing high voltage interfaces with large bandwidth signals [LA-DC-8370] 15 p2670 N67-28534
Interplanetary radio communication, and signal transmission 17 p3021 N67-30339
Very low frequency signal propagation, electron and solid state physics, automatic control processes, communications and networks, ferromagnetism, and electromagnetic waves [NASA-CR-85607] 18 p3359 N67-32215
Diurnal average and standard deviation of phases in modulated very low frequency signals 18 p3292 N67-32218
Chemiluminescent performance of STELLER and derivatives mixed with ceric ammonium sulfate oxidizer in night signaling and marking applications [TRW-05206-6004-R000] 19 p3386 N67-32789
Electric stimulation and signal transmission in sciatic nerve of frog 19 p3384 N67-33595
Communication systems, signal design, and Rayleigh fading 19 p3406 N67-33609
Contrast formation mechanisms in high voltage electron microscopes, specimen positioning, and signal generation in thick specimen by electron beam 19 p3457 N67-33793
Signal margin calculation procedures for CSM unified S-BAND downlink channel Apollo AS-202 to aircraft NASA 422 [NASA-TM-X-55854] 19 p3407 N67-33855
Number of operations, transmission speed, and carrying capacity of communications decoding channel 20 p3602 N67-34558
Heterodyne phase shifter with inductive delay line pickup providing stepless phase shift [NASA-TN-D-4111] 22 p3905 N67-36763
Installation and operation of Alaskan field site to study auroral zone ionospheric forward scatter effects [NASA-CR-89077] 23 p4243 N67-38387

SIGNATURE
SA RADAR SIGNATURE
Infrared spectral signatures from rocks and soils used as geological tool 04 p0536 N67-13483
Polarimetry signature of terrestrial and planetary materials 04 p0549 N67-13513
Backscatter signatures indicative of horizontal and slant visual range [RD-66-76] 11 p1836 N67-23436
Pulse radar system at 70 Gc for target signature studies [BRL-TN-1637] 16 p2562 N67-29453
Mechanical signature obtained during vibration test for detecting loose parts and free objects in sealed electronic equipment 19 p3546 N67-33129

SILANE
SA CHLOROSILANE
Molecular structure effect on thermal stability and other physical characteristics of polyaryloxyalkanes and related monomeric compounds [NASA-TM-X-53536] 06 p0619 N67-16049
Synthesis and properties of vinylsilyl benzenes [FTD-TT-65-1665] 09 p1406 N67-18648
Separation and identification of anhydride-type epoxy curing agents as their trimethylsilyl derivatives by use of gas chromatography [CCL-233] 12 p2045 N67-24726
Parameters of radiochemical apparatus, gamma radiation interactions, and radiochemical synthesis of gamma-chloropropylsilane [BNL-TR-96] 15 p2660 N67-28422

SILICA GLASS
Interaction of diethyl phosphite with glass surfaces studied by radioisotope techniques to determine factors affecting use of organophosphorus compounds in reinforced plastic [AD-636753] 03 p0414 N67-12455
Nitrogen content of metallic spherules in tektite and impactite glasses 09 p1440 N67-19082
Chemical composition and ages of high silica Georgia and Marthas Vineyard tektites 09 p1440 N67-19083
Fracture energy of glass [AD-646948] 09 p1464 N67-19577
Ceramic material thinning and preparation of thin glass samples for direct transmission electron microscopy [TR-9] 09 p1465 N67-19736
Radiation damage to silica structures [COO-1255-4] 16 p2915 N67-29719
Electron spin resonance and optical absorption in compacted vitreous silica [ORO-3303-3] 16 p2851 N67-29821

SILICATE
SA ALUMINUM SILICATE
SA CHRYSOTILE
SA FORSTERITE

SA POTASSIUM SILICATE
SA PYROXENE
SA SODIUM SILICATE
SA VERMICULITE
Measurements of adhesion between silicate minerals with surfaces formed in ultrahigh vacuum by cleavage
[NASA-CR-90585] 03 p0415 N67-13239
Chemical fractionation in silicate phase of meteorites
[NASA-TT-F-10416] 04 p0542 N67-13797
Ultrahigh vacuum adhesion between silicate minerals as related to lunar surface
[NASA-CR-81348] 06 p0969 N67-16611
Fiber orientation effects on tensile strength of hot pressed aluminum-Inconel and aluminum tungsten components
[AECL-2605] 08 p1293 N67-19112
Spectrographic determination of silver and zinc in silicates chemically similar to tektite glass 09 p1495 N67-19586
Synthetic polymers, silicate materials, metallic powders and cermets, alloys, and semiconductors for engineering applications
[FTD-HT-66-269] 10 p1600 N67-20061
Lunar and planetary studies dealing with Coude facility with 24-inch telescope, Dicke-type radiometer to measure emission from Venus, and emission spectra of silicates 12 p2308 N67-23660
Adhesion of silicates and other materials in ultrahigh vacuum chamber to simulate adhesion conditions on lunar surface
[NASA-CR-83647] 12 p2124 N67-23966
Adhesion between differing silicate minerals in which contact faces are formed simultaneously - ultrahigh vacuum adhesion 13 p2184 N67-23967
Adhesional behavior of contaminated by air and vacuum formed clean silicate surfaces to simulate behavior of lunar silicates 12 p2184 N67-23969
Ultrahigh vacuum friction-adhesion behavior of silicates as related to lunar surface
[NASA-CR-83926] 13 p2402 N67-25892
Tektite compositional trends and experimental vapor fractionation of silicates
[NASA-TM-X-55781] 14 p2526 N67-27307
Gas equations of state for water, sodium chloride, and silicate rocks
[UCRL-14729] 17 p3055 N67-30931
Composition of terrestrial planets determined by densities of selected minerals, rocks, and silicates
[NASA-CR-85855] 17 p3163 N67-31374
Interaction of water and ice with silicate surfaces through analysis of montmorillonite
[CRREL-RR-219] 19 p3443 N67-33396
Thermodynamic properties determined for alpha and beta spodumene and beta eucryptite
[BM-RI-7001] 20 p3743 N67-34040
Thermodynamics of ion exchange on colloidal materials with applications to silicate materials
[TID-23908] 23 p4388 N67-39132
Thermionic emission from silicate and aluminosilicate ion exchangers
[NASA-TT-F-11367] 24 p4390 N67-40197
SILICIDE
Mechanisms of electrochemical catalysis studied in transition metal silicides
[ECOM-02305-1] 06 p0627 N67-16353
High temperature oxidation of silicides of rare earth metals
[NASA-TT-F-10063] 06 p1238 N67-18927
Hydrolysis products of rare earth silicides
[IS-T-135] 13 p2388 N67-25553
Silicide electrocatalysts for fuel cells
[ECOM-02305-3] 15 p2663 N67-29915
Oxidation protection of tantalum and niobium by silicide coatings
[NASA-CR-84874] 15 p2664 N67-29937
Aqueous corrosion and irradiation behavior of uranium silicide nuclear fuel used in CANDU type reactors - energy cost
[AECL-2874] 17 p2998 N67-30043
Vapor deposition of protective molybdenum silicide coatings on graphite 18 p3290 N67-32298
Selected transition metal silicides for electrochemical oxidation of fuels, and effects of trace amounts of platinum on catalytic activity of gold surfaces
[PWA-3108] 22 p3981 N67-36731
Oxidation protection of niobium and tantalum by their silicides
[NASA-CR-99635] 24 p4487 N67-40040
SILICON
Accumulation and decay of mobile surface charges on insulating layers and relation to reliability of silicon devices 01 p0049 N67-10116
Role of microdefects in silicon starting materials as quality reducing factors in semiconductor devices 01 p0049 N67-10121
Crystal structure defects and impurities in silicon associated with device surface failure modes 01 p0051 N67-10120
Thermal stability of silicon having structural modifications due to radiation
[NASA-TT-F-10378] 01 p0127 N67-10230
Effect of colbalt 60 gamma radiation and of thermal neutrons of high-resistivity P and N silicon - possibility of obtaining nuclear compensation for P-type silicon
[CEA-R-2918] 01 p0133 N67-10652
Spectrographic determination of silicon in uranium carbon silicon alloys using spark excitation under controlled argon atmosphere
[CEA-R-2996] 01 p0033 N67-10777
Electron momentum distribution in silicon and germanium by positron annihilation
[COO-1297-7] 01 p0141 N67-10918
Electrical conductivity and electron spin resonance experiments in study of radiation effects on silicon
[NASA-CR-80138] 02 p0295 N67-12164
Spectral normal emissivity of highly doped opaque silicon determined by free carrier absorption theory
[NASA-TM-X-52254] 03 p0453 N67-12718
Research on large volume lithium drifted silicon and germanium radiation detectors
[NASA-CR-80371] 03 p0454 N67-12999
Gallium arsenide p-n junction noncoherent photon emitting diodes combined with silicon photodetector in single miniature package 03 p0373 N67-13063
Measurements of X-rays produced when thick silicon targets are bombarded with 1.05 and 1.25 MeV electrons and comparison to Bethe-Heitler theory
[NASA-TN-D-3773] 04 p0563 N67-13353
Silicon effects on precipitation processes of aluminum-copper-magnesium alloy
[RAE-TR-66063] 04 p0563 N67-14163
Silicon effect on microstructure and creep properties of titanium aluminum tin zirconium silicon alloys
[S+T-MEMO-8/66] 04 p0563 N67-14369
Solar array incorporating silicon solar cells mounted on flexible substrate
[NASA-CR-80917] 05 p0637 N67-14819
Techniques for assignment of spins to nuclear states applied to 2.51 and 3.79 MeV levels of silicon 06 p0921 N67-15562
Distorted wave formalism to analyze proton-gamma correlation data in silicon nuclear reaction 06 p0921 N67-15569
Identification technique for properties of spin levels in nuclei of elements in periodic table between oxygen and calcium - application to spin of 4.97 MeV level in silicon 28 06 p0921 N67-15570
Energy dependence of differential cross sections of deuterons during formation of compound nucleus in silicon reaction 06 p0922 N67-15574
Direct interaction mechanisms in carbon 12 and in formation of silicon 29 in ground and first excited states 06 p0922 N67-15580
Angular distribution and linear polarization to determine E2/M1 amplitude mixing ratios in aluminum 27 and silicon 29 06 p0926 N67-15602
Resonance scattering of photons studied on carbon, magnesium, and silicon using bremsstrahlung 06 p0922 N67-15640
Silicon oxidation mechanisms 06 p0819 N67-16034
Linear accelerator operation and radiation effects on silicon and insulators
[AFCRL-66-681] 06 p0961 N67-16138
Production engineering measure for silicon linear integrated circuits
[QPR-8] 06 p0858 N67-16192
Fabrication of diffused silicon wafer diodes
[UCRL-14851] 06 p0855 N67-16238
Transient radiation damage in silicon
[ECOM-01788-3] 06 p0850 N67-16642
Effects of electron irradiation on surface recombination velocity of n and p type silicon photovoltaic cells of various resistivities
[NASA-CR-81694] 07 p1002 N67-17985
Theoretical physics research on neutron fluxes, linac shunt impedance, slow neutron scattering, silicon 29 structure, phonon frequencies in transition metals, and computation 08 p1229 N67-18230
Phase studies of uranium-iron-silicon ternary system with electron microprobe
[MCW-1562] 06 p1292 N67-19010
Production engineering measure for silicon mixer diode
[QPR-5] 09 p1425 N67-19029
Product engineering measure to improve reliability and capability of high voltage miniature silicon rectifier
[AD-643030] 10 p1599 N67-20562
Radiation effects in silicon and germanium
[ARD-66-56R] 10 p1746 N67-20642
Performance of N/P silicon and cadmium sulfide solar cells bombarded by simulated micrometeoroids
[NASA-TM-X-52273] 10 p1588 N67-21281
Microgram quantities of silicon measured spectrophotometrically as silicomolybdic acid complex following distillation separation from plutonium and other elements
[LA-3550] 11 p1980 N67-22284
Emission of electrons from hot silicon surfaces 11 p1987 N67-22980
Solid state scattering theory for localized defects
[U-3936] 11 p1824 N67-22143
Transient radiation damage in semiconductor materials
[ECOM-01788-F] 11 p1988 N67-22152
Lithium-drifted silicon detector used as pulse radiation dosimeter
[UCRL-16994] 11 p1807 N67-22317
Synthesis of small ring compounds containing silicon
[AD-645879] 12 p2039 N67-23677
Angular and energy distribution measurements of fast electrons transmitted through thick silicon targets compared with multiple Coulomb electron scattering
[NASA-TN-D-3927] 12 p2178 N67-23959
Thermal conductivity of single and polycrystals of silicon, lanthanides, and some irradiated specimens 12 p2289 N67-23949
Electron radiation effect on silicon integrated microcircuits
[NASA-CR-83901] 13 p2292 N67-25481
Transient and quiescent electric conductivity in silicon after electron irradiation at room temperature
[NASA-CR-83818] 13 p2291 N67-25672
Impurities and interface states in silicon dioxide-silicon system
[NASA-CR-83903] 13 p2394 N67-25945
Proton bombardment of high purity single crystal silicon
[NASA-TN-D-3989] 14 p2584 N67-26549
Structure of amorphous vapor-deposited films of germanium and silicon
[AERE-TRANS-1659] 15 p2777 N67-27907
Directional effects in transmission of protons through silicon monocrystals
[LYCEN-6454] 15 p2781 N67-28206
Silicon surface barrier detector electron telescopic measurements of integral and differential electron energy spectra over range of 130 keV to 4.5 MeV
[TN-1966-64] 15 p2786 N67-28717
Oscillator strengths for resonance lines of sulfur and silicon ions
[NASA-TM-X-55802] 15 p2663 N67-28790
Radiation damage in silicon solar cells and annealing or compensation of damage by impurities
[NASA-CR-83869] 15 p2646 N67-28827
Thermal conductivity of heavily phosphorus doped silicon at high temperatures
[TR-21] 16 p2890 N67-28877
Aluminum, silicon, and titanium additive effects on mechanical properties of neutron irradiated iron
[SORIN-63] 16 p2913 N67-28897
Influence of proton and electron irradiation at 1 MeV on impurity diffusion in silicon
[NT-156] 16 p2917 N67-29114
Q-switched neodymium laser simulation of transient radiation effects in integrated silicon circuits
[TRW-09414-6001-R000] 17 p3065 N67-29444
Computer program derived from linear equations used for predicting silicon solar cell current voltage curve characteristics as function of incident solar intensity and cell temperature
[NASA-CR-85704] 17 p2997 N67-29998
Influence of oxygen on structure of silicon single crystals during short and prolonged heat treatment

[NASA-TT-F-11063] 17 p3149 N67-30869
Mechanism and kinetics of silicon oxidation in air-instrumentation for ellipsometry and use in determining refractive index and thickness of thin oxide films on silicon
[NASA-CR-85801] 17 p3686 N67-31050
Energy for electron-hole pair generation in silicon by protons using lithium drifted semiconductor detectors
[NASA-CR-85784] 17 p3150 N67-31222
Two new intermetallic compounds found when studying uranium iron silicon ternary system
[LFEN.72/ALPHA/] 17 p3062 N67-31315
Reduction in vacuum furnace of calcium oxide with ferrosilicon yielding molten slag 18 p3279 N67-31899
Silicon loss from volatilization in production of magnesium and calcium 18 p3223 N67-31900
Photovoltaic effect - low energy electron irradiation on silicon cells
[NASA-CR-86918] 18 p3199 N67-32178
Glass coating of silicon integrated circuit chips and batch attaching processes
[ECOM-01424-F] 18 p3250 N67-32363
Magnetic resonance method for measuring magnetic properties of heavily doped silicon at low temperature
[CEA-R-3893] 19 p3524 N67-33283
Radiation effects on semiconductors, and recombination lifetimes in gamma-irradiated, boron-doped silicon
[NASA-CR-87410] 20 p3711 N67-34023
Large area metal, vanadium pentoxide, silicon semiconductor diodes with highly variable capacitances
[ECOM-3815] 20 p3610 N67-34129
Surface properties of germanium and silicon single crystals 20 p3713 N67-34491
Encapsulation, packaging, and package interconnections of intergrated silicon circuit devices
[ASD-TDR-63-316, VOL. XIV] 21 p3813 N67-35404
Adsorption of gold on germanium, silicon, and quartz from aqueous solutions 21 p3779 N67-35516
Reliability of silicon integrated circuit devices
[ASD-TDR-63-316, VOL. XV] 21 p3815 N67-35610
Determining carbon, nitrogen, and oxygen impurities in silicon by activation analysis
[AFCRL-67-0227] 21 p3781 N67-35694
Functional design of silicon integrated circuit devices
[ASD-TDR-63-316, VOL. XVI] 21 p3817 N67-35786
Ohmic contacts, couplings and decouplings, and isolation methods for integrated circuit silicon devices
[ASD-TDR-63-316, VOL. XIII] 21 p3817 N67-35884
Computer code for calculating displacement damage produced in silicon by neutron irradiation
[SC-RR-67-122] 22 p4130 N67-37844
Surface related failures of oxide-silicon interface 23 p4329 N67-38471
Positive and negative ion motion in thermal oxide on silicon by radiochemical and MOS analysis 23 p4303 N67-38472
Sodium contamination of metal oxide semiconductor systems associated with silicon surface preparation and oxidation 23 p4329 N67-38474
Surface effects of radiation on metal oxide silicon field effect transistors 23 p4324 N67-38476
Effect of thermal oxide dislocation enhancement on silicon and a proposed mode of propagation 23 p4329 N67-38482
Silicon transistor circuit for reactor period simulator test on neutron flux measuring device
[DP-1119] 24 p4451 N67-39656
Literature review on kinetics of defect production and migration, and defects in diamond-type lattice, particularly silicon
[NASA-TN-D-4154] 24 p4474 N67-40189

SILICON ALLOY
Partial phase diagram of titanium chromium iron silicon boron system 02 p0270 N67-11767
Partial phase diagram of titanium aluminum chromium iron silicon boron system 02 p0270 N67-11768
Phase composition of alloys of titanium aluminum chromium iron silicon system 02 p0271 N67-11773
Chemical composition, mechanical and physical properties, and corrosion resistance of high silicon cast iron 05 p0718 N67-14816
Ferromagnetic domain patterns observed by anomalous transmission of x-rays in iron-silicon crystals shown to depend on choice of reflecting plane
[NSF-GK751/1] 06 p0948 N67-16191
Interface states of germanium-silicon alloyed heterojunction
[TR-EE66-34] 13 p2388 N67-35116
Deformation and welding characteristics of alumin alloys 14 p2555 N67-27034
Electrothermal process for production of aluminum-silicon alloys
[JPRS-41530] 17 p3073 N67-31112
Sputtering procedure for yielding Alfesil thin magnetic coating materials - mechanical, electric, and magnetic properties of Alfesil
[NASA-CR-86994] 18 p3281 N67-32590
Thermal properties of gold-silicon binary alloy near eutectic composition
[TR-522] 19 p3524 N67-33351
Specific heat of glass transition in amorphous gold silicon germanium alloy
[TR-528] 20 p3659 N67-34700
Irradiation of uranium-silicon alloy specimens clad in Zircaloy 2
[AECL-2684] 23 p4363 N67-38370
Cold working and age hardening effects on aluminum magnesium silicon alloys
[DISS-2927] 24 p4470 N67-40459

SILICON CARBIDE
Growth of single-crystal silicon carbide dendrites
[AFCRL-66-579] 01 p0141 N67-11000
Silicon carbide crystal growth from gas phase and crystallization of calcium, strontium, and barium molybdates in hydrothermal conditions
[FTD-MT-65-476] 02 p0225 N67-11318
Silicon carbide crystal growth from gas phase 02 p0225 N67-11319
Fabrication of high temperature silicon carbide integrated circuit using junction-gate type field effect transistor as active component
[NASA-CR-80170] 02 p0246 N67-12240
Irradiation behavior of uranium carbide-silicon carbide dispersed fuel rods
[TRG-1213/S/] 04 p0580 N67-14166
Optical properties of single crystals of beta phase silicon carbide
[OR-3294] 06 p0946 N67-15994
Chemical analysis of plutonium silicides and plutonium silicon carbides
[AERE-R-5380] 07 p1031 N67-17939
Oxidation, thermal cycling, and irradiation effects on silicon carbide coated graphite
[BNWL-243] 10 p1660 N67-20723
Factors affecting growth of beta silicon carbide single crystals
[AFCRL-66-641] 12 p2043 N67-34406
Penetration depth of 2-11 keV lithium ions into silicon carbide single crystals
[NASA-TT-F-10777] 12 p2195 N67-35023
Absorption measurements for conduction bands 6H and 15R of silicon carbide
[RAE-TR-66381] 15 p2777 N67-27909
Conduction bands in 6H and 15R silicon carbide - Hall effect and infrared Faraday rotation measurements
[RAE-TR-66380] 15 p2776 N67-27910
Beta silicon carbide single crystal growth from solution in carbon saturated silicon melts
[AFCRL-67-0218] 15 p2782 N67-28560
Reflection and polarization properties of silicon carbide and aluminum oxide powders
[R67SD29] 19 p3436 N67-32705
Crystal growth and structure of silicon carbide investigated by traveling solvent method
[AFCRL-67-0271] 21 p3782 N67-35773
Silicon carbide filament reinforced epoxy resin composites
[AFML-TR-66-383] 24 p4472 N67-39830

SILICON COMPOUND
SA ORGANIC SILICON COMPOUND
SA SILANE
SA SILICATE
SA SILICIDE
Isolation of components on silicon wafer by groove etching and silicon dioxide deposition
[NASA-CR-580] 01 p0069 N67-10238
Reaction of tetraethyl orthosilicate with fumed silica at various temperatures
[NOLTR-66-97] 01 p0027 N67-10411
Separation of hydrogen fluoride from hydrogen fluoride-silicon tetrafluoride-water gaseous mixtures
[BM-RI-6877] 02 p0227 N67-11840
Organosilicon monomers prepared by reaction of organolithium and Grignard reagents with tetrahalosilanes and organohalosilanes
[ARL-66-0139] 06 p0828 N67-16480
Chemical synthesis of silicon compounds
[ARPA-26] 07 p1029 N67-17716
Serratia marcescens cells used to study survival and viability in plastic materials and diatomaceous earth
[NASA-CR-84214] 13 p2253 N67-35229
Compatibility tests of lead telluride formulations and fibrous insulation candidates for higher temperature silicon-germanium systems for radioisotope power systems
[ALO-3633-3] 15 p2723 N67-28219
Reflection infrared spectroscopy - non-destructive technique to determine phosphosilicate-aluminum reaction which contributes to electronic equipment failure by inversion 23 p4329 N67-38466

SILICON CONTROL RECTIFIER /SCR/
Transient component in breakdown voltage of silicon p-n junction rectifiers 01 p0045 N67-10111
Reliability and capability improvements of high voltage miniature silicon rectifiers
[QPR-4] 03 p0372 N67-12530
Testing of high voltage power supply and linear exciter for Mariner transmitter noise amplitude modulation 05 p0673 N67-14451
Pulsed direct current power supply for septum magnets
[CERN-66-31] 08 p1234 N67-19210
Characteristics of p-n-p-n diodes and silicon control rectifiers for electronic switches
[FTD-HT-66-369] 15 p2678 N67-28386

SILICON FILM
Failure of large area epitaxial diffused silicon devices 01 p0048 N67-10113
Electron probe analysis of semiconductors, impurities in doped gallium arsenide crystals, charge transport in silicon thin film, and growth of gallium-indium arsenide films 12 p2189 N67-33942
Tunneling between metal and silicon separated by thin polymer film insulator
[NASA-CR-86716] 22 p4127 N67-37339

SILICON FLUORIDE
Chemical reactions of xenon hexafluoride, germanium tetrafluoride, and silicon tetrafluoride systems
[TR-60] 14 p2477 N67-27072

SILICON JUNCTION
Mechanisms of channel current formation in reverse biased silicon p-n junctions 01 p0049 N67-10117
Ambient effect on breakdown of silicon p-n junctions 01 p0049 N67-10118
Piezojunction effect and silicon needle considered as sensory devices in accelerometers and transducers
[NASA-CR-80346] 03 p0398 N67-12962
Electronic equipment for measuring nuclear radiation effects in silicon p-n junctions
[COO-1624-6] 17 p3035 N67-30320
Irradiation of p-i-n silicon junction for developing radiation damage dosimeter
[CEA-R-3061] 19 p3523 N67-33213
Silicon junctions prepared by epitaxial deposition onto GaS and GaP substrates
[RADC-AR3-66] 20 p3611 N67-34271

SILICON NITRIDE
Growing of silicon nitride films, and radiation induced etch rate enhancement in silicon nitride films
[NASA-CR-82020] 08 p1350 N67-19414
Charge transport mechanism in thin silicon nitride films
[NASA-CR-86856] 22 p4130 N67-37944

SILICON OXIDE
Reliability limitations of aluminum metallization on silicon dioxide surface of integrated circuits 01 p0046 N67-10182
Surface and bulk leakage resistances of silicon oxide in humid ambients determined from charging and discharging curves of metal oxide semiconductor capacitors 01 p0049 N67-10119
Contamination of silicas during high temperature degassing in vycor tubes
[TR-3] 01 p0027 N67-10332
Thermodynamic theory for effect of pressure on crystallization kinetics of phase transformation in fused silica

[TR-6] 01 p0000 N67-10502
Production engineering procedure for silicon monoxide capacitors
[AD-629568] 01 p0055 N67-11002
Thin film silicon monoxide capacitor vacuum deposition and intact removal from substrate to study breakdown characteristics
[NASA-CR-79935] 02 p0243 N67-11855
Impurities and interface states in silicon dioxide/silicon system
[NASA-CR-89350] 03 p0454 N67-12905
Radiolysis of heterogeneous n-hexane/silicon oxide gel system 04 p0500 N67-13507
Effect of bias and high temperature on silicon dioxide devices
[RAE-TR-66236] 04 p0601 N67-14267
Calculation of upper bounds to small angle X-ray scattering from crystalline models of amorphous materials
[TR-7] 05 p0749 N67-15063
Comparison of capacity for ion formation of silicagel, aluminum silicagel, and zirconium silicagel used in mass spectrometry
[JPRS-39525] 05 p0749 N67-15175
Ellipsometric studies on mechanism and kinetics of thin oxide films on silicon in air
[NASA-CR-81334] 06 p0831 N67-16631
Solid state reactions of manganese with silica investigated in high temperature tests
[BM-RI-6965] 06 p1242 N67-19248
Boron filament preparation on fused silicon oxide substrate by diborane thermal decomposition
[R66SD45] 10 p1575 N67-21147
Instabilities in pyrolytically deposited silicon dioxide films at room temperature
[ECOM-2779] 12 p2186 N67-23610
High viscosity tungsten-silica thermal protection materials
[NOLTR-66-213] 12 p2126 N67-24069
Electron, X-ray, and ultraviolet radiation effects on oxidized silicon surfaces and planar devices
[SR-2] 14 p2504 N67-26756
Reflective surface deposition of aluminum and silicon oxide on epoxy coated substrate of solar energy concentrator
[NASA-TM-X-1379] 14 p2448 N67-27282
High purity silica reinforced ablative composite materials evaluated as nozzle sections of throat storable propellant rocket engine - erosion rates and charring
[NASA-TM-X-1391] 14 p2632 N67-27286
Feasibility of machine sewing wire reinforced asbestos and silica cloth plies of flexible heat shield curtain assembly
[NASA-CR-84474] 14 p2546 N67-27500
Hysteresis loop method used to study flow properties of suspensions of acetylene black in hydrazine and pyrogenic silica in liquids of varying polarity
[NRL-6569] 15 p2661 N67-28610
Rapid thermal cycling of integral coverslipped solar cells, and tests on high vacuum sputtered silicon dioxide cells
[NASA-CR-84839] 15 p2648 N67-28877
Characterization of 300-unit tetrahedral network model, and comparison with vitreous silica and liquid water
[REPT.-6353.00100] 16 p2843 N67-29238
Shock contraction of silicon oxide powders in converging cylindrical wave, and effects of compression
[NASA-CR-85239] 16 p2916 N67-29614
Fabrication processes for thick integral coverslips for silicon solar cells
[NASA-CR-85599] 17 p2996 N67-30935
Tritium used as tracer in obtaining quantitative data on hydrogen entrapment in grown silicon dioxide layers - characterization of integrated circuits and electron paramagnetic resonance
[NASA-CR-86626] 18 p2347 N67-31819
Thin sheet and porous homogeneous cores of alumina sandwiches and monolithic fused silica constructions in connection with radome limitation program 19 p2548 N67-33373
Impurities and interface states in silicon oxide/ silicon system
[NASA-CR-87290] 19 p2536 N67-33549
Nuclear radiation effects on oxidized silicon surfaces
[SC-CR-67-1571] 19 p2536 N67-33953
Surface properties of oxidized silicon 20 p2713 N67-34496
Silicon oxide dust control during stoneworking with pneumatic tools, using pneumatic devices and masks 20 p2831 N67-35110
Material property effects on ablative performance of silica phenolic, graphite phenolic, and graphite epoxy materials
[NASA-CR-72142] 22 p4076 N67-37114
Iron and iron-chromium alloy silica reactions
[AMRA-CR-67-07/1] 22 p3990 N67-37726
Migration of gold and nickel ions in thin films of silicon dioxide 23 p4239 N67-38475
Description of new mode of metal failures due to passage of direct current at high current density - electrical opens in aluminum strips on silicon oxide 23 p4330 N67-38486
Silicon oxide-silicon interface states at 77 degrees K
[NASA-CR-89741] 24 p4516 N67-39861
SILICON RADIATION DETECTOR
Measurements on proton energy loss in passing through gold layer on silicon surface barrier detector
[CLM-P107] 03 p0453 N67-13886
Opto-electronic aircraft altimeter concept based on properties of electron injection lasers and silicon photodiodes 03 p0399 N67-13979
Defects in p-n junction of silicon p-i-n detectors investigated by electrophotography and electrochemical deposition of copper
[NASA-TT-F-10442] 06 p0852 N67-15843
Silicon detectors of thermal neutrons 06 p0868 N67-16284
Production of improved silicon semiconductor nuclear particle detectors 06 p0938 N67-16316
Measurement of plutonium 239 plus plutonium 240 activity by isotopic dilution with plutonium 238 and alpha spectrometry with silicon radiation detectors 07 p1127 N67-17159
Fabrication and testing of silicon surface barrier detectors and correlated properties
[BMWF-FBK-66-24] 10 p1748 N67-20814
Silicon surface barrier detector used as extrapolation parallel plate ionization chamber to measure beta radiation dose rate
[CLOR-57/D] 11 p1998 N67-22915
Charge-sensitive preamplifier and linear pulse amplifier for silicon radiation detector
[CLOR-60/D] 15 p2679 N67-28494
Silicon and germanium lithium drifting apparatus, computer program for gamma ray photopeak fitting, and response of large volume silicon detectors
[NASA-CR-84812] 15 p2681 N67-28761
Photon actuated solid state switch, with silicon detector and GaAs diode 16 p2855 N67-29183
Detection system for monitoring plutonium penetration through tantalum capsules by counting alpha particles with silicon surface barrier detectors
[LA-3654] 17 p3134 N67-31038
Theory, fabrication, and electric properties of lithium drifted silicon radiation detector with large sensitive volume
[NASA-CR-85791] 17 p2869 N67-31217
Beta particle backscatter from lithium ion drift silicon detectors
[BMWF-FBK-67-18] 21 p3903 N67-36094
Health physics applications of thin silicon detector
[AECL-2766] 23 p4198 N67-38633
Gamma radiation spectrometers with silicon and germanium semiconductor detectors 23 p4254 N67-38971
Research on lithium drifted silicon detectors, Compton effect using superconducting magnet beta ray spectrometer, and high Z semiconductors for radiation detectors
[NASA-CR-89234] 23 p4227 N67-39072
SILICON TETRACHLORIDE
Equilibrium composition of gas phase and weight of silicon deposited calculated for silicon tetrachloride-hydrogen mixture and trichloro silane-hydrogen mixture
[ERDE-6/M/66] 07 p1128 N67-17231
SILICON TRANSISTOR
Analysis of seven semiconductor metallurgy systems used on silicon planar transistors 01 p0045 N67-10104
Eliminating forward biased second breakdown by resistive ballasting of silicon power transistors 01 p0048 N67-10112
Thermophysics of silicon epitaxial power transistors 01 p0048 N67-10115
Crystal structure defects and junction characteristics in n-p-n junction silicon epitaxial planar transistors 01 p0059 N67-10122
Hot spot mesoplasma formation in silicon planar transistors 01 p0051 N67-10139
Production engineering measure for silicon overlay transistors
[QPR-5] 02 p0244 N67-11894
Design theory and fabrication procedure for n-p-n 100 ampere silicon switching transistor
[NASA-CR-80141] 02 p0245 N67-12161
Production engineering measure to establish capability of manufacturing p-n-p silicon switching transistor
[TI-03-66-92] 02 p0245 N67-12190
Photon-coupled isolation switch to provide transistor output electrically isolated from driving sources and all other switch terminals
[NASA-CR-80830] 04 p0521 N67-14357
Thermal and electrical capabilities of ultrahigh frequency silicon power transistors for airborne communication systems applications
[RAE-TR-66175] 04 p0521 N67-14391
Production engineering measure for improvement of production techniques to increase reliability of silicon transistor type 2N3055
[REPT.-2] 05 p0665 N67-15286
Design effects on radiation resistance of silicon planar power transistor
[FR-66-17-287] 06 p0832 N67-15896
Production engineering measures and failure mode evaluation for 50 A silicon power transistor
[QPR-1] 06 p0856 N67-16582
Production engineering measure for silicon n-p-n switching transistors
[T-21] 07 p1051 N67-17645
Silicon n-p-n very high frequency power transistors
[QR-4] 07 p1051 N67-17648
Energy dependence of neutron and gamma radiation damage in silicon transistors
[NAA-SR-MEMO-11897] 07 p1082 N67-17725
Gamma radiation tests on n-p-n silicon epitaxial transistors
[NASA-CR-83010] 08 p1257 N67-18345
Production engineering measure for silicon npn switching transistors
[I-22] 09 p1434 N67-19544
Silicon monolithic ultrahigh frequency amplifier for use in integrated circuits
[ECOM-01818-1] 10 p1591 N67-20096
Measurement techniques for determining physical, electrical, and thermal characteristics of silicon and integrated semiconductor devices
[ASD-TDR-63-316, VOL. XII] 10 p1591 N67-20616
Linear-log counting-rate meter using silicon planar transistor for measuring radiation intensity
[ANL-6968] 13 p2216 N67-25290
Direct current integrator with silicon transistor switches
[ORNL-TM-1765] 15 p2679 N67-28486
Space radiation equivalences for permanent damage to silicon transistors by measuring changes in transistor parameters after exposure to proton, electron, and gamma ray irradiation
[NASA-CR-914] 16 p2849 N67-29096
Silicon ultrahigh frequency power transistor capable of delivering 20 watts output power at 450 mc
[NASA-CR-87819] 19 p2415 N67-32246
Semiconductor devices such as silicon transistors and germanium triodes
[FTD-TT-65-1066] 19 p2416 N67-32466
Electronic engineering developments on heterojunction interface, noise measurements, switching, and related areas 19 p2417 N67-32615
Silicon-sapphire space charge limited triode development
[NASA-CR-87498] 20 p3612 N67-34894
Fabrication of thin film hafnium-dioxide capacitors and P channel Metal Oxide Semiconductor /MOS/ transistors with hafnium dioxide gate insulators
[ECOM-01230-8] 21 p3814 N67-35491
Ionizing radiation effects in silicon dioxide passivated bipolar transistors
[NASA-CR-88483] 23 p4060 N67-38736
Ionizing radiation effects on oxidized silicon semiconductor surfaces
[AFCRL-67-0391] 22 p4124 N67-38754
Two forms of progressive failure mechanisms of commercial silicon signal transistor - failure from reverse bias at high

temperature and from prolonged stressing with high forward current 23 p4223 N67-35463
Silicon switching transistor with saturation voltage of 0.1 V at 75 A collector current [NASA-CR-89750] 24 p4430 N67-40239

SILICONE
Solar absorptance and emittance of candidate zinc oxides/silicone and zinc oxide/potassium silicate coatings measured at room temperature for application to space radiators [NASA-CR-72060] 05 p0726 N67-14914
Space simulation tests on temperature control, inorganic and silicone coatings, zinc titanate pigment synthesis and evaluation, and silicone photolysis [NASA-CR-83901] 08 p1296 N67-18517
Radiation effects on gyroscope silicone damping fluid [RAE-TR-66300] 09 p1466 N67-20327
Feasibility of silicone submersion for weightlessness simulation [NADC-MR-6620] 12 p2021 N67-24056
Vacuum chambers for particle irradiation of thermal control coatings, and testing of paint samples of alkali silicates and methyl silicones 15 p3284 N67-32601
High temperature oxidation of chlorophenylmethyl silicone fluids for aircraft hydraulic systems [RAE-TR-66011] 21 p3793 N67-36807

SILICONE RUBBER
Silicone rubber suitable for production of high performance coaxial cable [AD-646548] 14 p2589 N67-26789
Insulation resistance of RTV silicone rubber at ambient and high humidity conditions [R66CHSD-116] 21 p3676 N67-36233
Silicone rubber with siloxane and carboxylic ester linkages [RAE-TR-66345] 21 p3676 N67-36809
Silicone rubber for electrical insulation [AD-656328] 22 p4076 N67-37178

SILOXANE
Synthesis of carborane-siloxane elastomers [RMD-5065-Q6] 01 p0035 N67-11186
Synthesis of carborane siloxane elastomers [RMD-5065-Q7] 06 p0831 N67-16641
Surface viscosity of polydimethylsiloxane monolayers [NRL-6430] 10 p1660 N67-20097
Stress relaxation properties of polyethyl acrylate and polydimethyl siloxane under minimum oxidative degradation conditions [RLT-96] 16 p2915 N67-29627
Synthesizing thermally stable elastomeric carborane-siloxane polymers [RMD-5065-F] 19 p3475 N67-32727
Silicone rubber with siloxane and carboxylic ester linkages [RAE-TR-66345] 21 p3676 N67-36809
Physical and mechanical properties of poly-m-carboranylene siloxane copolymers [ONR-TR-RLT-86] 22 p3985 N67-37117

SILVER
Neutron radioactivation determination of antimony, silver, copper, gallium, molybdenum, and zinc [CEA-R-2965] 01 p0066 N67-10807
Use of ionic silver to preserve taste and sanitary hygienic qualities of drinking water for space flights 02 p0195 N67-11547
Soldering titanium alloy with protective coatings of rhenium, rhodium, or silver 02 p0365 N67-11883
Beta particle decay matrix elements in decay of silver 111 03 p0437 N67-12579
Sum coincidence, and particle decay of silver 110 03 p0438 N67-12580
Reaction geometry in oxidation and reduction of alkaline silver electrode [NASA-CR-66528] 03 p0360 N67-13213
Angular distribution measurements for elastic scattering of deutrons on silver and gold 06 p0823 N67-15596
Spectral distribution of transition radiation and low energy bremsstrahlung from silver and aluminum foils bombarded by grazing incidence electrons [ORNL-TM-1571] 07 p1147 N67-17408
Photoelectric and optical properties of platinum, gold, and palladium foils and evaporated aluminum and silver films in extreme ultraviolet under good vacuum conditions [ORNL-TM-1303] 07 p1178 N67-17561
Creep tests in high vacuum and elevated temperatures on copper and silver [NASA-CR-81721] 07 p1105 N67-18010
Spectrographic determination of silver and zinc in silicates chemically similar to tektite glass 09 p1465 N67-19508
Determination of silver and indium in magnesium-base alloys, lead in indium, and zirconium in hafnium [NRL-6427] 09 p1410 N67-19794
Iridium 192 and phosphorus 32 for radioactive inspection of homogeneity of cermet reference specimens used in spectroscopic analysis of precious metals 10 p1578 N67-21264
Interstitial diffusion of gold and silver in tin single crystals [ARPA-22] 11 p1816 N67-23471
Silver diffusion in cuprous oxide and cupric oxide by radioactive silver 110 isotope [NASA-TT-F-10642] 13 p2270 N67-25602
Plasma radiation by surface roughness of silver foils [D1-82-0561] 13 p2387 N67-26313
Intrinsic photoconductivity and infrared quenching regularity in mercury sulfide crystals with copper and silver impurities within framework of semiconductor model [NASA-TT-F-10920] 15 p2781 N67-28233
Asymmetric coefficients of beta gamma circular polarization correlation of silver, argon, calcium, cesium, cobalt, manganese, sodium, scandium, and vanadium isotopes [KFK-434] 15 p2770 N67-28590
Interrelationship of thermal, optical, and electric properties of silver [AMRA-TR-67-02] 15 p2755 N67-28715
Creep curves for high purity polycrystalline copper and silver measured in high vacuum at temperatures between 500 and 850 deg C [NASA-CR-85702] 17 p3079 N67-30920
Orienting effect of silver crystals on growth of surface oxide and peroxide films [NASA-TT-F-11072] 17 p3156 N67-31008
Yield and fracture characteristics of silver brazed drill rod determined as function of base metal yield strength and joint thickness to diameter ratio [SU-DMS-67-5] 18 p3273 N67-31580
Fcc solid solutions of silver and niobium-base bcc solid solutions [TID-23747] 19 p3468 N67-32909
Pressure effect on melting points of silver and copper and eutectic point in binary phase diagram [CEA-R-3087] 19 p3471 N67-33257
X-ray diffraction for determining structural changes associated with aging of aluminum magnesium alloy with small silver additions [ARL/MET-62] 20 p3657 N67-34458
Metallic adhesion strength of silver and tungsten junction [NASA-CR-67474] 20 p3661 N67-35008
Literature survey and electrolyses testing for anodic oxidation of silver covered copper wire in contact with glycol/water solution [NASA-CR-65681] 20 p3596 N67-35222
Sorption of silver 110 on fluorinated surfaces of L-38 glass and quartz 21 p3778 N67-35512
Double-Luggin capillary method to measure potential variations in vicinity of working silver electrode [NASA-CR-88707] 22 p3964 N67-37220
Neutron resonances in platinum, silver, and thulium nuclei of spin 1/2 determined by capture and transmission experiments [CEA-R-3077] 23 p4299 N67-38368
Hyperfine structure and magnetic moment of silver 110m and nuclear spin of thulium 163 [UCRL-17460] 23 p4309 N67-38861
Radio photoluminescence spectra of silver activated dosimeter glasses [USNRDL-TR-67-66] 23 p4300 N67-38870
Polarization curve of silver anode in ammoniacal electrolyte - Effective electrolytic surface area of sintered silver electrodes - Ultrasonic vibration effects on oxidation of electrode [NASA-CR-89556] 24 p4396 N67-39833
Inelastic scattering of 42 MeV alpha particles used to describe excited core mode for silver, indium, and antimony [NASA-TN-D-4223] 24 p4501 N67-40068

SILVER ALLOY
Evaluation of corrosion resistant silver alloys for use in lead wires for slip-ring assemblies of Saturn guidance and control systems [NASA-CR-80081] 02 p0266 N67-12079
Neutron flux measurements at surface of uranium carbide specimens using monitors dilute alloys of cobalt and silver in aluminum 07 p1127 N67-17151
Thermoelectric powers of silver-gold and silver-germanium alloys [NASA-CR-81639] 07 p1179 N67-17828
Thermoelectric power and Fermi surface in silver-gold alloys 08 p1350 N67-18322
X-ray powder data of T phase alloys composed of aluminum and magnesium with silver, copper, or zinc [ARL/MET-36] 20 p3657 N67-34643
Study of alloy theory - structure and properties of metastable phases of copper, zinc, and silver alloys [F-C1869] 22 p4070 N67-37257

SILVER BROMIDE
Light scattering in highly reflecting pigmented coatings - silver bromide and particle suspensions and paint films [NASA-CR-844] 17 p3066 N67-30644

SILVER-CADMIUM BATTERY
Gamma radiation effects determined on silver and zinc battery electrodes and silver-cadmium cells [NASA-CR-79489] 02 p0175 N67-11722
Irradiation effects of high energy protons studied on silver-cadmium and nickel-cadmium cells containing battery electrodes and potassium hydroxide electrolytes [NASA-CR-79535] 02 p0175 N67-11732
Improved separators for silver oxide-zinc and silver oxide-cadmium cells for spacecraft application [NASA-CR-80108] 02 p0177 N67-12244
Pasted silver and pressed cadmium electrodes for use in vented, rechargeable silver-cadmium cells [ECOM-03358-I] 05 p0636 N67-14715
Tritium tracer and thermogravimetric analysis used to investigate reactions of zinc-silver and cadmium-silver batteries [NASA-CR-84215] 13 p2367 N67-25332
Reactions pertaining to zinc-silver and cadmium-silver batteries [NASA-CR-83840] 13 p2269 N67-25751
Evaluation of thin electrodeposited films of calcium and magnesium hydroxides for use as separators in silver-cadmium cells [NASA-CR-84002] 13 p2250 N67-26175
Accelerated and nondestructive testing techniques for various type batteries - lead acid, sealed nickel, nickel cadmium, silver cadmium, and silver zinc cells [NASA-TM-X-53974] 13 p2252 N67-26364
Life cycle and capacity test data on nickel-cadmium, silver-cadmium, and silver-zinc batteries [NASA-CR-84477] 14 p2449 N67-27511
Differences in design of Explorer and Ariel I satellites solar array regulators for accommodating requirements of nickel-cadmium and silver-cadmium batteries [NASA-TN-D-3983] 16 p2823 N67-29026
Separators for silver oxide-zinc and silver oxide-cadmium cells - modification of methyl cellulose and effects of radiation, dry heat, and standing in charged cell on membranes [NASA-CR-85897] 17 p2999 N67-31174
Silver-cadmium secondary battery energy storage system using vented cells for manned orbital spacecraft [NASA-CR-85786] 17 p3000 N67-31411
Electrochemical oxidation reactions of zinc silver and cadmium silver batteries [NASA-CR-88011] 21 p3774 N67-35873
Barrier properties of membrane separators for silver oxide-zinc and silver oxide-cadmium spacecraft batteries [NASA-CR-88131] 21 p3783 N67-36033
Heat sterilization high impact resistant silver-zinc or silver-cadmium cells [NASA-CR-88616] 22 p3986 N67-37559
Wrapping and preswelling techniques, and materials for improved separators for zinc-silver oxide and cadmium-silver oxide cells [NASA-CR-88615] 24 p4380 N67-40593

SILVER CHLORIDE
Silver 110 isotope for measuring solubility of metallic silver and silver chloride in aqueous zinc sulfate 06 p0823 N67-16220
Thermodynamic equilibrium of NaCl-AgCl-ethyl acetate-water system 21 p3777 N67-35502

SILVER COMPOUND
Thermal decomposition kinetics of silver oxalate under conditions of photographic darkness [NASA-TT-F-10415] 04 p0363 N67-13798

Magnetic susceptibility of silver monoxide
[TR-5] 09 p1409 N67-19696
Thermal decomposition kinetics and ignition process studied for molten silver azide
[AERDL-1893] 16 p2842 N67-29043
SILVER HALIDE
Preparation of platinum free silver halide electrodes with nonmetallic polymethyl methacrylate body
[NASA-TT-F-11085] 17 p2937 N67-30062
Defect-defect interactions in silver halide crystals
[IS-T-161] 21 p3782 N67-35850
SILVER IODIDE
Silver iodide for possible frequency control applications
[ECOM-2784] 12 p2192 N67-24497
Generator for producing silver iodide ice nuclei using isopropylamine as carrier
[PB-170-486] 13 p2046 N67-24763
Rechargeable battery of silver iodide pellets carrying thin silver and platinum film
[AD-634626] 15 p2643 N67-27977
Differential capacity of electrical double layer at silver iodide aqueous potassium nitrate solution interface
[IS-T-145] 19 p3389 N67-33099
SILVER OXIDE
Dry process divalent silver oxide electrodes and electrode mechanical strength, for guided missile zinc-silver oxide batteries
[ECOM-2749] 05 p0636 N67-14716
Discharge capacity of silver oxide electrodes changed by charging with periodically interrupted current
[NRL-6466] 11 p1785 N67-22297
Silver oxide electrode processes
[TR-6] 16 p2842 N67-29063
Electrochemical oxidation of zinc and thermal decomposition of silver oxides in zinc-silver and cadmium-silver batteries
[NASA-CR-86987] 18 p3198 N67-33092
SILVER OXIDE-ZINC BATTERY
S ZINC-SILVER OXIDE BATTERY
SILVER-ZINC BATTERY
Improvement of electrochemical cells such as nickel-cadmium and silver-zinc batteries 01 p0007 N67-10283
Improved separators for silver oxide-zinc and silver oxide-cadmium cells for spacecraft application
[NASA-CR-86106] 02 p0177 N67-12244
Gas pressure reduction in silver-zinc batteries by installing miniature hydrogen-oxygen fuel cell
[NASA-CR-86339] 03 p0335 N67-12969
Ligand-containing vinyl polymer systems for evaluation as separator materials in Ag-Zn batteries
[NASA-CR-86530] 03 p0336 N67-13211
Filler and matrix composite materials for use in silver-zinc battery separators
[NASA-CR-86529] 03 p0336 N67-13212
Potential separator materials for heat sterilizable silver-zinc battery
[NASA-CR-81161] 06 p0817 N67-15399
Development of membrane separators for sterilizable silver-zinc battery 06 p0791 N67-15705
Composite separator production for heat sterilizable silver-zinc batteries
[NASA-CR-81611] 07 p1001 N67-17973
Polymer separator materials for heat sterilizable battery
[NASA-CR-81610] 07 p1107 N67-17975
Development program for separator and modified polyethylene separator material for silver-zinc battery, and program for development of sealed heat sterilizable batteries 08 p1222 N67-18312
Life cycle tests, failure analysis,and capacity of nickel-cadium, silver-cadmium, and silver-zinc fuel cells
[NASA-CR-82500] 08 p1223 N67-19073
Characteristics of silver-zinc batteries examined through separator mechanisms
[NOLTR-64-136] 10 p1555 N67-20549
Gamma radiation effects on silver and zinc battery electrodes
[NASA-CR-83552] 11 p1787 N67-23280
Improved zinc electrodes for electrochemical cells
[NASA-CR-84025] 13 p2252 N67-25378
Life cycle and capacity test data on nickel-cadmium, silver-cadmium, and silver-zinc batteries
[NASA-CR-84477] 14 p2449 N67-27511
Zinc electrode improvement for silver-zinc battery
[NASA-CR-85251] 16 p2823 N67-30067
Feasibility of heat sterilization of silver-zinc cell by use of inorganic separator
[NASA-CR-85564] 17 p2997 N67-30982
Development and testing of vinyl polymer separator materials for sterilized silver-zinc secondary battery
[NASA-CR-84662] 17 p2996 N67-30918
One ampere hour heat sterilizable sealed silver zinc cell - component design and environmental testing
[NASA-CR-85785] 17 p2999 N67-31230
Improved zinc electrode for silver-zinc battery
[NASA-CR-72365] 17 p3000 N67-31488
Electrochemical oxidation of zinc and thermal decomposition of silver oxides in zinc-silver and cadmium-silver batteries
[NASA-CR-86987] 18 p3198 N67-33092
Inorganic separator for use in heat sterilized, silver-zinc primary cell with space mission applications
[NASA-CR-73116] 20 p3568 N67-34689
Electrochemical oxidation reactions of zinc silver and cadmium silver batteries
[NASA-CR-86911] 21 p3774 N67-35373
Inorganic fillers and pressure effects on films for separators for heat sterilizable silver zinc battery
[NASA-CR-86814] 21 p3780 N67-35534
Barrier properties of membrane separators for silver oxide-zinc and silver oxide-cadmium spacecraft batteries
[NASA-CR-86131] 21 p3783 N67-36023
Long life stable zinc electrodes for alkaline secondary batteries
[ECOM-0185-1] 22 p3963 N67-37064
Cyclic testing of vented silver-zinc batteries
[QR-1] 23 p3964 N67-37250
Heat sterilization high impact resistant silver-zinc or silver-cadmium cells
[NASA-CR-88616] 23 p3966 N67-37589
Zinc dendrite growth during charging of silver-zinc batteries studied to improve life cycle
[NASA-CR-89216] 23 p4183 N67-39654
Ethylene/acrylic acid copolymer as separator material for silver-zinc batteries
[NASA-CR-89639] 24 p4379 N67-40131
SIMILARITY HYPOTHESIS
Hypersonic similarity laws for imperfect gas flow around slender blunt bodies of complex shape 04 p0522 N67-13662
Laminar boundary layers with uniform fluid properties similar solutions to velocity equations involving mass transfer
[ARC-CP-857] 05 p0694 N67-14640
Scaling laws of similarity hypothesis applied to coaxial electrodes with high ratios of outer to inner radii 06 p1256 N67-18344
Turbulent reattachment of supersonic jet, boundary layer thicknesses, and similarity law in wall pressure evolution 06 p1272 N67-18294
Tabulation of nondimensional parameters and ratios for diabatic surface boundary layer models based on similarity theory and extrapolation schemes extending diabatic theory
[ECOM-5104] 12 p2090 N67-24986
Spatial and temporal distribution of gradient Richardson number in surface and planetary boundary layers
[ECOM-5123] 21 p3839 N67-35919
SIMILARITY NUMBER
Partial differential equation for heat transfer in plane incompressible laminar jet is reduced by similarity transformation to ordinary differential equation
[NASA-CR-87311] 19 p3583 N67-33396
SIMILITUDE LAW
Similarity method applied to radiation fields during calibration of neutron radiation meters
[NP-16302] 03 p0480 N67-13260
Local similitude method for approximate solution of three-dimensional boundary layer with pressure gradient 06 p0886 N67-15927
Unitarity representations of similitude group of space-time - explicit construction of Wigner spin matrixes and new formulation of Bargmann-Wigner analysis
[IC/67/7] 11 p1796 N67-22461
Unitarity representations of space-time similitude group 11 p1806 N67-22462
Geometries, construction, materials, and other criteria derived for thermal models 12 p2237 N67-24643
SIMULATED ALTITUDE
Simulated altitude flight testing of advanced fuel control and combustion system for turboprop engines
[GT-7762-B] 07 p1123 N67-17650
Adaptive cytochemical responses of hormone producing cells of rat anterior pituitary following exposure to simulated high altitude
[NASA-CR-82660] 08 p1239 N67-19183
SIMULATED EMISSION
Stimulation of optical emissions in atmospheric gases
[AFCRL-67-0058] 17 p3012 N67-30369
SIMULATION
SA ACOUSTIC SIMULATION
SA ALTITUDE SIMULATION
SA ANALOG SIMULATION
SA BIOSIMULATION
SA COMPUTER SIMULATION
SA DIGITAL SIMULATION
SA ENVIRONMENT SIMULATION
SA FLIGHT SIMULATION
SA LANDING SIMULATION
SA SOLAR SIMULATION
SA SPACE CABIN SIMULATION
SA SPACE SIMULATION
SA TARGET SIMULATION
SA THERMAL SIMULATION
SA WEIGHTLESSNESS SIMULATION
Cross-adaptive operator loading tasks 01 p0021 N67-10151
Simulation techniques applied to design of liquid hydrogen bubble chamber expansion system
[BNL-10326] 01 p0058 N67-10649
Monte Carlo calculation for simulation of scintillation detector response to underwater gamma rays
[NOLTR-66-140] 02 p0190 N67-11989
Simulation of liquid-hydrogen turbine-type flow meter calibrations using high-pressure nitrogen gas at liquid-hydrogen density
[NASA-TN-D-3773] 03 p0390 N67-13174
Air traffic control concepts for supersonic vehicles
[NASA-TM-X-59175] 03 p0421 N67-12246
Laboratory simulation of reentry plasma, and methods of alleviating reentry communicationa blackout phenomenon 04 p0586 N67-13687
Laboratory simulation of geophysical phenomena relating to perturbations induced by satellite motion in magnetized plasma, and solar wind interaction with magnetosphere 04 p0586 N67-13693
Dimensional analysis applied to simulation of liquid sloshing 05 p0666 N67-15660
Vibration response of OGO spacecraft full-scale structural model to simulated launch acoustic environment
[NASA-TM-X-53640] 05 p0678 N67-16543
Transmit beam offset and coarse acquisition subsystems for laser/optics technique broadboard and acquisition and track simulation
[NASA-CR-81701] 07 p1097 N67-18023
Controlled-fall technique for wind tunnel simulation of store release at high speeds
[ARC-CP-856] 08 p1261 N67-18441
Experimental simulation on on-off reaction jet damping and attitude control system for spinning body
[NASA-TN-D-3843] 09 p1395 N67-19804
Numerical simulation of formation and dissipation of convective roll-type cloud 10 p1671 N67-20432
Critical dimensions of reservoir model for simulating radioactivity methods for studying wells 10 p1775 N67-21290
Pressure suited astronaut performance characteristics studied during ingress and egress maneuvers through airlocks and passageways
[NASA-CR-66341] 11 p1801 N67-22329
Power system synthesizer for simulating power line faults, and generating, programming, and recording output voltage, frequency conversion, and transient power conditions
[F-15569] 12 p2018 N67-24987
Computer program for simulation of perceptrons and similar neural networks
[REPT.-8] 12 p2069 N67-24692
Lunar soil properties determination through simulation of rock grinding in ultrahigh vacuum
[NASA-CR-66276] 12 p2108 N67-24828
Propellant leakage flow rates detection, fluid simulation of oxidizer and fuel, and materials compatible with thermal

- conductivity
[NASA-CR-65613] 12 p2103 N67-24832
Shock tunnel simulation of combustor entrance conditions
[AFAPL-TR-66-82] 12 p2084 N67-24901
Monte Carlo simulation for Apollo ge, no-go verification
[NASA-TM-X-55776] 14 p2486 N67-26639
Instruction manual for Collected Algorithms for Learning Machines /CALM/ computer program simulating wide class of learning machines on digital computer
[RADC-TR-66-781] 14 p2496 N67-26660
Simulation of large high field superconducting magnet operation
[ORNL-TM-1731] 16 p2958 N67-29266
Full mission simulation scenario in support of supersonic transport crew factors research
[NASA-CR-73006] 16 p2841 N67-30022
Q-switched neodymium laser simulation of transient radiation effects in integrated silicon circuits
[TRW-06414-6001-R000] 17 p3035 N67-30444
DASA-AEC-Lovelace Foundation blast simulation facility for biomedical investigation of blast and shock effects
[DASA-1833] 18 p3258 N67-32580
Performance prediction and methodology of real time field calibrated simulation for complex man machine systems 19 p3382 N67-33319
Statistical model for simulating continuous action production process in oil refinery, and simulation algorithm 21 p3821 N67-35603
Soviet literature on biological and medical concepts of ionic conductance, biocontrol system, and computer theory of human activity
[JPRS-42066] 21 p3767 N67-36129
Simulation and theoretical model of human mental functions 21 p3767 N67-36130
Memory problem in neurophysiological and biocybernetic aspects 21 p3767 N67-36131
Apollo spacecraft landing simulation to determine impact water pressures, accelerations, and landing dynamics
[NASA-TN-D-3980] 21 p3944 N67-36564
Analogy simulation by network of electromagnetic radiation from antenna of revolution in vacuum and in plasma
[TP-510/1967/] 22 p3999 N67-37441
Use of hybrid computation in real-time rocket simulation
[DOC.-51-GTC/67] 22 p4007 N67-37797
Scaling of geophysical phenomena for laboratory simulation experiments 22 p4041 N67-37829

SIMULATOR
SA COCKPIT SIMULATOR
SA CONTROL SIMULATOR
SA FLIGHT SIMULATOR
SA MISSILE SIMULATOR
SA ORBITAL SIMULATOR
SA SHOCK SIMULATOR
SA SOLAR SIMULATOR
SA SPACE CABIN SIMULATOR
SA SPACE SIMULATOR
SA TEST FACILITY
Adaptive simulation - design applications, cross-adaptive operator loading tasks, and self-adjusting vehicle simulators
[AD-637658] 01 p0020 N67-10149
Operator performance and design applications of adaptive simulators 01 p0030 N67-10150
Self-adjusting vehicle simulators - tracking 01 p0021 N67-10152
Usefulness of adaptive simulators in manual control system design 06 p0813 N67-15878
Simulation of raindrop impact on projectiles
[NOLTR-65-181] 06 p0841 N67-16120
Meteoritic simulators using conical-shaped or hyperbolic-shaped charges that explosively propel metal jets
[NASA-CR-66215] 07 p1060 N67-17617
Calibration of flight guns for advanced shaped charge meteoritic simulators
[NASA-CR-66216] 07 p1060 N67-17618
Single axis simulator design for satellite control system testing and low torque measurement
[NASA-TM-X-55660] 08 p1262 N67-18635
Computer-programmed troposcatter simulator using tapped delay line approach
[ECOM-02545-1] 11 p1821 N67-23720
Space radiator simulator, using finned tube heat exchanger cooled by controllable airflow, for SNAP-8 ground test facility
[NASA-TM-X-1375] 14 p2511 N67-26587
Simulation studies by regional airport for air traffic control
[RD-67-5] 14 p2572 N67-27188
Simulator design for studying dynamic operation of by-pass turbojet engine fuel control system 16 p2873 N67-29194
Model simulation of rocket-borne ion sampling probe
[AFCRL-66-673] 16 p2958 N67-29413
Solar-cell array simulator providing programmed dc power supply
[NASA-CR-73075] 16 p2834 N67-30140
Explicit and lambda guidance simulator techniques for navigation and guidance of launch vehicles having cruise capability
[NASA-CR-73103] 16 p2938 N67-30161
Preliminary systems design for lunar gravity simulator to evaluate lunar surface vehicle
[NASA-CR-85584] 17 p3044 N67-30771
Preliminary systems design of two-dimensional lunar gravity simulator, and mathematical model of lunar gravity simulator/lunar surface vehicle
[NASA-CR-85583] 17 p3045 N67-30819
Lunar gravity system to evaluate lunar surface vehicle
[NASA-CR-84961] 18 p3255 N67-31857
Design and performance of SNAP-8 nuclear reactor simulator for nonnuclear testing of space power systems
[NASA-TN-D-4095] 18 p3295 N67-32371
Circuit design and hardware procurement for troposcatter simulator
[CSI-67-TR-2374] 18 p3235 N67-32869
Data acquisition system and automatic calibration for launch phase simulator environmental testing facility 19 p3453 N67-33140
Space molecular sink simulator facility with prototype vacuum chamber for studying surface effect phenomena 21 p3837 N67-36304
Airborne simulator in variable stability C-140 aircraft using model controlled and response feedback systems
[AGARD-520] 23 p4177 N67-38428
Facilities using gas bearing in attitude motion simulators for developing spacecraft attitude control systems
[NASA-TM-X-60442] 23 p4234 N67-39071

SIMULATOR TRAINING
SA PILOT TRAINING
Simulated dosimeter motivated by radio waves developed for use in large area radiac trainer device
[NAVTRADEVCEN-IH-61] 06 p0862 N67-16448
Reactor operator training simulators 09 p1476 N67-19445
Simulator training tests on adding peripheral vision to artificial horizon
[ARC-CP-731] 11 p1799 N67-22793
Human tracking experiments on high inertia tracking simulator
[REPT.-67-33] 23 p4197 N67-38107

SIMULTANEOUS LINEAR EQUATION
Methods for inverting positive definite matrices and solving simultaneous linear equations
[RM-4962-PR] 01 p0094 N67-10379
Simultaneous interpolation and parameter estimation theory
[P-3338] 05 p0729 N67-14973
Numerical solution of simultaneous linear algebraic equations 07 p1111 N67-17230
Improved Newton-Raphson method
[LMF-67/4] 13 p2350 N67-26304
Matrix multiplication and simultaneous linear equations for finding kernel of impulse response train
[NASA-CR-88306] 21 p3822 N67-35661

SINE WAVE
Sine-wave tracking studies indicate predictability of input and control device dynamics in manual control by human operator 06 p0808 N67-15852
Measurement of frequency spectrum of pulsed sine wave reverberation
[NADC-AE-6713] 17 p3023 N67-30851
Short time interval frequency measurements of continuously changing sine wave
[UCRL-50188] 19 p3419 N67-33341

SINGLE CRYSTAL
Unified approach to energetics research - growth of SiC single crystals, anodic and cathodic processes, and photobiological studies
[AFCRL-66-134, VOL. II] 01 p0127 N67-10256
Gas desorption from cadmium sulfide single crystals heated in high vacuum
[AROD-4461-14] 01 p0138 N67-10304
Development of standing neutron waves through interference in nearly perfect single crystals and influence on interaction of neutrons with nuclei
[ZFK-RN-32] 01 p0140 N67-10737
Photoemission study of electronic structure of cadmium telluride single crystals
[NASA-CR-79706] 01 p0140 N67-10830
Electrocaloric effect in single crystal of potassium di-hydrogen arsenate
[NASA-CR-79708] 01 p0140 N67-10831
Production engineering measure for single crystal yttrium-iron-garnet spheres and limiters
[SJ-322-0045-11] 01 p0054 N67-10857
Silicon carbide crystal growth from gas phase 02 p0225 N67-11319
Influence of oxygen on electrical properties of cadmium sulfide single crystals in ultrahigh vacuum
[AROD-4461-13] 02 p0294 N67-11678
Publications listed and progress reported in studies of single crystals, crystal growth, material analyses, and solid compounds
[AD-637846] 02 p0295 N67-12091
Very high frequency radio set operating from single crystal source
[PD-5536] 03 p0365 N67-12388
Growth parameters for refractory carbide single crystals
[NASA-CR-79406] 03 p0412 N67-13094
Optical and infrared spectroscopic studies of single crystal fluoride perovskites and potassium compounds to determine transmission spectra and ferroelectricity 05 p0750 N67-14625
Oscillator strength of lead ion in potassium chloride single crystals
[TR-9] 05 p0751 N67-14759
Fracture toughness of impure magnesium oxide single crystals for characteristics of multicomponent ceramics
[TR-2] 05 p0726 N67-15019
Optical properties of single crystals of beta phase silicon carbide
[OR-8354] 06 p0946 N67-15994
X-ray analysis of mosaic structure of aluminum single crystals under fast neutron bombardment 06 p0948 N67-16372
Growth and characterization of rare earth compound single crystals
[AD-640214] 06 p0949 N67-16382
Effect of lattice defects produced by fast neutrons on plasticity of copper single crystals 07 p1098 N67-16770
Current and light storage effects in lithium and sodium doped zinc oxide single crystals following optical or thermal stimulation 07 p1175 N67-16971
Preparation of single crystals of rare earth tungsten bronzes and uranium tungsten bronzes - X-ray diffraction, and electrical and magnetic properties of samples 07 p1175 N67-16972
Growth and properties of lithium fluoride and zinc single crystals
[TID-23269] 07 p1092 N67-17564
Growth of large grains of alpha single crystals of plutonium by isothermal transformation technique
[NUMEC-3428-23] 07 p1102 N67-17579
Ionic conductivity of single crystals of calcium and strontium fluorides
[NASA-TN-D-3816] 07 p1032 N67-18146
Electro-optic effect in single crystal barium titanate 08 p1250 N67-18318
Hall coefficients and transverse magnetoresistance of n-type and p-type single crystals of mercury telluride grown by zone crystallization 08 p1251 N67-18498
Cathodic reduction of aqueous ferricyanide ion on single crystal zinc oxide electrode 08 p1237 N67-18550
Cold rolled and recrystallization textures of molybdenum single crystals
[NASA-TT-F-10714] 08 p1202 N67-18997
Growth parameters for hafnium carbide/tantalum carbide single crystals
[NASA-CR-83468] 08 p1292 N67-18998
Damage produced on surface of metal single crystals during ion bombardment
[NASA-CR-83470] 08 p1251 N67-18999
Electrical conductivity of uranium dioxide - single crystals
[BNWL-236, PT. 1] 08 p1252 N67-19000
Multilayer metal deposition technique to provide electrical contacts for cadmium sulfide single crystals

[NASA-CR-83441] 09 p1552 N67-19140
Low energy back-reflection electron diffraction used to study monocrystalline surface processes
[NASA-CR-83948] 09 p1502 N67-19951
Single and polycrystal low magnetic saturation garnet development
[SJ-230-0056-6] 09 p1503 N67-20200
Microwave absorption in dysprosium single crystals
[NASA-CR-83251] 09 p1503 N67-20256
Lattice infrared spectra of cubic boron nitride and monophosphide single crystals 10 p1743 N67-20444
Condensation and nucleation processes of single crystal thin films
[AFML-TR-66-326] 10 p1744 N67-20494
Nucleation and moving mask experiments in single crystal thin film research program 10 p1744 N67-20495
X-ray and microstructure studies of single crystal recrystallization of pure metals after annealing and weak and strong deformations
[FTD-HT-66-179] 10 p1651 N67-20601
Microwave properties of manganese substituted zinc-yttrium single crystals as function of temperature
[ECOM-2763] 10 p1747 N67-20730
Mechanical properties of pyrolytic and single crystal graphite examined to determine effects of neutron damage
[TID-23388] 10 p1661 N67-20751
Reflectivities of several metallic crystals used in neutron spectrometers
[AERE-259] 10 p1682 N67-20796
Ultrasonic measurement of nonlinearity parameters of copper single crystals
[ORNL-TM-1573] 10 p1748 N67-20852
Triplet sampled radiation damage in single crystal anthracene for wide range dosimeter
[CONF-660613-4] 10 p1713 N67-21010
Neutron irradiation effect on plastic deformation in niobium single crystals
[ORNL-TM-1583] 10 p1752 N67-21467
Frequency dependence of dislocation damping in single crystal copper
[COO-1196-401] 10 p1657 N67-21617
Dislocation velocity measurements on molybdenum single crystals by etch-pitting method in study of microstrain region in high purity refractory metals
[Q-B2195-3] 11 p1800 N67-23134
Magnesium oxide single crystal creep studied under plastic buckling conditions
[UCRL-17105] 11 p1804 N67-23186
Growth of plutonium single crystals
[NUMEC-3438-26] 11 p1815 N67-23220
Interstitial diffusion of gold and silver in tin single crystals
[ARPA-23] 11 p1816 N67-23471
Work functions of monocrystalline and polycrystalline rhenium
[UCRL-16663] 12 p2188 N67-23550
Factors affecting growth of beta silicon carbide single crystals
[AFCRL-66-641] 12 p2043 N67-24408
Dislocation network formulation in gallium single crystals
[AD-647739] 12 p2042 N67-24418
Epitaxial growth of single crystal ingots of cadmium arsenide, zinc arsenide, and alloy system by Bridgman technique - properties of infrared detectors
[NRL-MR-1743] 12 p2192 N67-24648
Angular correlation curves of positron annihilation in rare earth single crystals
[IS-T-112] 12 p2193 N67-24662
Single crystal aluminum oxide grown in radio frequency plasma torches
[AFCRL-66-524] 12 p2194 N67-24856
Microstructure of drawn polymer single crystals studied by electron microscopy
[AFML-TR-67-6] 12 p2128 N67-24859
Hydrothermal growth of single calcium aluminum silicate garnet containing divalent activator ions
[AD-646211] 12 p2194 N67-24866
Penetration depth of 2-11 keV lithium ions into silicon carbide single crystals
[NASA-TT-F-10777] 13 p2198 N67-25023
Electric, magnetic, and thermal properties of single crystal semiconductors, and crystal structure
[AD-647738] 13 p2208 N67-25124
Growth of uranium oxide, various lanthanides, and other single crystals 13 p2209 N67-25242
Thermal conductivity of single and polycrystals of silicon, lanthanides, and some irradiated specimens 13 p2209 N67-25249
Quartz ampoule for growing single crystals of gallium arsenide
[FTD-HT-66-675] 13 p2230 N67-25447
Observed properties of layer-like field inhomogeneities in cadmium sulfide single crystals using Franz-Keldysh effect
[TR-16] 13 p2230 N67-25456
Use of single crystal high resistivity cadmium telluride as gamma ray spectrometer
[SAN-549-2] 13 p2230 N67-25606
Demountable vacuum scanner and vacuum sealed crystal specimens
[ARL-65-186] 13 p2233 N67-26252
Electrical conductivity change of cadmium sulfide single crystals during heat treatments in sulfur vapor
[NASA-CR-84037] 13 p2294 N67-26299
Proton bombardment of high purity single crystal silicon
[NASA-TN-D-3929] 14 p2564 N67-26549
Czochralski technique for growing high quality single crystals of undoped and chromium doped stoichiometric spinel magnesium aluminate - crystal spectroscopic and lasing tests
[SRCR-67-3] 14 p2549 N67-26779
Cleaning of ideal beryllium single crystal surface
[RFP-879] 14 p2543 N67-26836
Infrared reflection spectra of single crystal lithium hydride, lithium deuteride, lithium 6 hydride, and lithium 7 hydride
[TR-9] 14 p2602 N67-26885
Theory of critical shear stress and work hardening behavior of dispersion hardened crystals
[TR-515] 14 p2556 N67-27173
Vapor phase growth of ruby single crystals
[AD-648386] 15 p2657 N67-28088
Small oxide particles dragged by migrating grain boundaries in copper single crystals
[TR-518] 15 p2723 N67-28100
Surface structure and electronic properties of single crystal molybdenum and tungsten ribbons
[COO-1417-3] 15 p2723 N67-28216
Volt ampere characteristics of thin cadmium sulfide single crystals with nonohmic contacts
[NASA-TT-F-10469] 15 p2701 N67-28236
Directional effects in transmission of protons through silicon monocrystals
[LYCEN-6854] 15 p2781 N67-28306
Beta silicon carbide single crystal growth from solution in carbon saturated silicon melts
[AFCRL-67-0218] 15 p2782 N67-28360
Ferromagnetic domain studies in near perfect single crystal platelets and whiskers of nickel and nickel alloy
[AFCRL-67-0107] 16 p2969 N67-29585
Band structure of group V semimetals and group IV, V, and VI semiconductors
[AD-649969] 16 p2959 N67-29674
Thermal conductivity of heavily phosphorus doped silicon at high temperatures
[TR-21] 16 p2960 N67-29677
Estimation of relative concentration of trivalent ytterbium ions in multiple site symmetries of calcium tungstate using paramagnetic resonance method
[HDL-TR-1345] 17 p3146 N67-30257
Electrical resistance of niobium single crystal at 4.2 deg K from superconducting trandition to 80 kDe
[CEA-R-3140] 17 p3147 N67-30234
Cadmium sulfide and zinc selenide purification and crystal growth
[QPR-7] 17 p3014 N67-30255
Single crystal cadmium sulfide and cadmium selenide insulated gate field effect triode
[GE/EE/67A-1] 17 p3035 N67-30481
Surface electric properties of oxidized clean, single crystal and polycrystalline chromium films
[TM-502] 17 p3036 N67-30025
Influence of oxygen on structure of silicon single crystals during short and prolonged heat treatment
[NASA-TT-F-11003] 17 p3149 N67-30649
Single crystal fast neutron spectrometer for measuring continuous spectra 17 p3069 N67-31279
Single crystal gamma spectrometer for reactor measurements 17 p3117 N67-31282
Low energy electron diffraction analysis of surface properties of zinc oxide single crystals cleaned by argon ion bombardment and annealing treatment
[ECOM-02511-1] 17 p3150 N67-31286
Simultaneous diffusion of lead 210 and bismuth 210 in single crystals of lead sulfide at 700 deg C
[AD-649947] 18 p3221 N67-31702
Single crystal perovskites characterized as electrooptically active materials
[QPR-3] 18 p3216 N67-31780
Photoconductivity of X-ray irradiated cadmium sulfide single crystal and annealing of intrinsic defects
[NASA-CR-80639] 18 p3217 N67-31812
Production and annealing of intrinsic defects in X-ray irradiated CdS single crystals
[NASA-CR-80611] 18 p3217 N67-31844
Crystal structure of dipotassium tetranitroethide determined by single crystal X-ray diffraction techniques
[NASA-CR-80360] 18 p3234 N67-32278
X-ray and electron damage and photochemical reactions in CdS single crystals and layers with defect annealing
[NASA-CR-80637] 18 p3218 N67-32696
Change of electric conductance of cadmium sulfide single crystals during heat treatments in sulfur vapor between 500 and 700 deg C
[NASA-CR-80915] 18 p3218 N67-32818
Photogeneration of charge carriers in anthracene with polarized light to ascertain dependence on absorption coefficient
[AD-652488] 19 p3521 N67-32736
Delayed hole discharge at tetracene crystal/aqueous electrode interface
[AD-652483] 19 p3521 N67-32748
Molten salt solvent systems used for hydrothermal growth of large single crystals of lanthanum aluminate
[B11-590] 19 p3522 N67-32794
Growth of single crystals of plutonium under variety of experimental conditions
[NUMEC-3438-29] 19 p3469 N67-32914
Production and annealing of intrinsic defects in X-ray irradiated cadmium sulfide single crystals
[NASA-CR-87230] 19 p3522 N67-32965
Hall effect of gadolinium, lutetium, and yttrium single crystals in magnetic fields
[IS-T-139] 19 p3522 N67-32967
Hertzian fracture in single crystals with diamond structure
[AD-652857] 19 p3524 N67-33282
Single crystal dislocations in high purity refractory molybdenum
[F-B2196] 19 p3472 N67-33423
Model for explaining chalcogen self-diffusion data in II-VI compounds 19 p3525 N67-33431
Radiation effects on high purity molybdenum single crystals
[BNWL-SA-777] 20 p3694 N67-34074
Surface properties of germanium and silicon single crystals 20 p3713 N67-34491
Lithium mobility in boron and gallium doped silicon single crystals grown either by zone floating or Czochralski methods
[IMR-900/II/PS] 20 p3641 N67-34697
Degree of monochromaticity of coherent bremsstrahlung from crystal
[LNF-67/32] 20 p3697 N67-34726
Diffusion and surface reactions of singlet excitons in anthracene and other aromatic hydrocarbons 20 p3595 N67-34836
Low angle boundaries in large single crystals of zinc
[IMR-862/II/PS] 20 p3715 N67-34967
Mossbauer effect study of magnetic structure of single crystal erbium
[IS-T-117] 21 p3913 N67-35416
Electric field distribution measured in cadmium sulfide photoconductive single crystals using linear electro-optic effect
[AFCRL-67-0659] 21 p3914 N67-35465
X-ray diffractometer for single crystal damage studies, and theoretical evaluation of cesium gas scattering problem
[NASA-CR-80113] 21 p3916 N67-35944
Spectrophotometric and interference microscopic measurements on single crystal absorption spectra in organic compounds 21 p3765 N67-35952
Electron spectra of single crystal sodium chloride and potassium chloride
[NASA-CR-80260] 21 p3916 N67-35976
Feasibility studies for growing refractory metal carbides single crystals from melts and liquid solutions
[NASA-CR-80254] 21 p3869 N67-36081
Surface interaction between aluminum single crystals in ultrahigh vacuum 21 p3962 N67-36219

Susceptibility and high field magnetization of rare earth compounds with singlet crystal field ground state 21 p3918 N67-36311
Microwave absorption in dysprosium single crystals 21 p3918 N67-36312
Electron paramagnetic resonance angular spectra of gadolinium in rare earth double nitrate single crystals 21 p3919 N67-36314
Magnetic properties of single crystals of dysprosium 21 p3919 N67-36322
Energy distribution of neutrons scattered from single crystal of paramagnetic terbium 21 p3920 N67-36336
Positron annihilation in rare earth single crystals 21 p3921 N67-36364
Magnetostriction in dilute rare earth iron garnets 21 p3921 N67-36367
Elastic moduli of gadolinium single crystals 21 p3922 N67-36368
Electrical resistivity and Seebeck effect of thulium single crystals 21 p3923 N67-36370
Recrystallization effect on sliding friction of metals in single-crystal polycrystalline form
[NASA-TN-D-4143] 21 p3862 N67-36391
Reactor materials development including metal preparation and purification, phase diagrams, mechanical behavior and forming, and methods for single crystal preparation
[IS-RD-9] 21 p3972 N67-36442
Lithium-drifted germanium detectors fabricated from indium-doped single crystals
[JAERI-1131] 21 p3859 N67-36585
Low temperature irradiation facility for hardening of metals - shear stress of aluminum and copper single crystals
[BMWF-FBK-67-23] 21 p3891 N67-36598
Solution variables and system parameters studied for controlling flux growth of high quality laser single crystals
[ASE-1573] 23 p4125 N67-36824
Measurement of ferromagnetic resonance line widths of single crystal ferrites using shorted transmission line
[ECOM-2849] 22 p4125 N67-36872
Bonding, structure, and mechanical behavior of vanadium carbide single crystals
[NASA-CR-89904] 23 p4070 N67-37218
Reactor neutron irradiation of semiconductor single crystals at low temperatures and influence on Hall effect and resistivity
[BMWF-FBK-67-27] 22 p4130 N67-37959
Apparatus and techniques for growing beta brass single crystals
[RISO-140] 23 p4263 N67-39441
Hall effect measurements in shock loaded semiconductors - doped single crystals
[SC-DC-66-2449] 23 p4331 N67-39591
Technique for growth of lithium hydride single crystals
[UCID-15143] 23 p4204 N67-39625
Rolling contact deformation using steel balls rolling on magnesium oxide single crystals
[NASA-CR-72295] 23 p4256 N67-39700
Kinetics and mechanisms of diffusion of iron and nickel in single crystals of magnesium oxide
[UCRL-17611] 23 p4332 N67-39860
Plutonium single crystal growth
[NUMEC-3436-32] 23 p4286 N67-39871
Purification and single crystal growth of Group II to VI compounds
[ARL-67-0070] 23 p4333 N67-39925
Optimal size of scintillator for single crystal fast neutron spectrometer 23 p4254 N67-39982
Seebeck effect and electrical conductivity of stannic oxide as function of temperature and ambient pressure
[NASA-CR-89945] 23 p4333 N67-39967
Growth of large single titanium oxide crystals from melts - crystal stoichiometry, impurity segregation and electric properties
[ESD-TR-67-343] 24 p4393 N67-39984
Hall coefficient and transverse magnetoresistance in HgTe single crystals
[ESD-TR-67-424] 24 p4513 N67-39496
Growth of epitaxial single crystal Ge films from supercooled drops
[FTD-HT-66-435] 24 p4515 N67-39506
Radiation damage and substitutional chemical impurity effects in single crystal germanium subjected to 40 keV ion bombardment
[ORNL-4143] 24 p4515 N67-39623
Dilute alloys effect on wetting and bonding of nickel and nickel alloys to single crystal sapphire
[AMRA-CR-66-01/4] 24 p4464 N67-39624
Interface-alloy method to produce single crystal heterojunctions between GaAs and InSb
[ESD-TR-67-462] 24 p4516 N67-39717
Absorption spectra of single crystal and polycrystalline thorium dioxide
[BNWL-457] 24 p4516 N67-39998
Potassium tantalate niobate crystal perovskites as electro-optically active material
[SRCR-67-12] 24 p4517 N67-39946
Indentation direction parameter for hardness anisotropy representation of single crystal on stereographic triangle
[NASA-TN-D-4226] 24 p4467 N67-40004
Chemical sensitization used to stimulate photosensitivity of single crystal cadmium sulfide
[NASA-TT-F-11308] 24 p4518 N67-40309
SINGLE-PHASE FLOW
Fluid mechanics and dynamic reactions in liquid flow, single-phase flow, and two-phase flow
[NASA-CR-81161] 06 p0864 N67-15523
Hydrodynamic and thermodynamic investigations of single-phase and two-phase flows to obtain information on operating behavior of boiling water reactors
[SGAE-RE-7/1966] 11 p1924 N67-22977
Single phase induction electromagnetic pump
[NASA-TN-D-3950] 12 p2185 N67-24477
SINGLE-SIDEBAND MODULATION
Noise spectrum of single-sideband phase modulation 02 p0237 N67-12134
SINGLE-SIDEBAND RECEIVER
High frequency, single-sideband radio receivers
[AD-641020] 06 p0840 N67-16040
SINGLE-STAGE ROCKET
Static stability of single-stage meteorological sounding rocket at Mach numbers from 6.9 to 12.9
[NASA-TN-D-4013] 16 p2973 N67-29279
Design and flight experiments for single-stage solid propellant research rocket NAL-16
[NAL-TR-115] 16 p2964 N67-29921
Aeroballistic development of single-stage Nike-Tomahawk solid-propellant sounding rocket
[SC-RR-3666] 21 p3937 N67-36138
SINGULAR INTEGRAL EQUATION
Weight coefficients of Luke applied to numerical evaluation of integral equation in linearized problem of impulsively-moving flat plate in rarefied gas flow
[ARL-67-0124] 24 p4432 N67-39736
SINGULARITY /MATH/
Scattering amplitude of unstable particles at zero energy, and three-particle singularity 07 p1145 N67-17211
Pressure and temperature distributions in shock layer along rays in three-ray scheme for solving singularities of hypersonic nonequilibrium gas flow around blunt body 08 p1270 N67-19174
Analyticity properties of unitary integrals
[DOUGLAS PAPER-4347] 12 p2130 N67-24019
Geometric structure and mathematical relations of singular Riemann-Hilbert problem, and reduction to canonical form 12 p2131 N67-24233
Coupled stress effect on singularities due to discontinuous loadings
[TR-9] 19 p3548 N67-33145
Neutrino motion in fluid sphere described by solution with singularity 20 p3702 N67-35634
Qualitative singularities of viscoplastic flow in cylindrical pipe under effect of pressure gradient 21 p3834 N67-35881
SINK
SA HEAT SINK
Structural changes in niobium base alloys induced by exposure to titanium interstitial sink at elevated temperature
[NASA-CR-81140] 05 p0719 N67-15250
Free molecule surface sources and sinks
[TN-36] 09 p1437 N67-20340
Characteristics of vortex devices 11 p1787 N67-23079
Analysis of two-dimensional flow toward sinks on beta-earth
[TR-23] 21 p3836 N67-35567
Space molecular sink simulator facility with prototype vacuum chamber for studying surface effect phenomena 21 p3827 N67-35894
SINTERED ALUMINUM POWDER
Boron traces in uranium monocarbide, sintered aluminum powders, and terphenyls used in Orgel reactors
[EUR-3073.f] 02 p0228 N67-11906
Manufacture of pistons for high speed engines using Sintered Aluminum Powder /SAP/
[JPRS-39514] 05 p0713 N67-15171
Chemical analysis of powders and sintered products of sintered aluminum powder
[EUR-3064.F] 06 p1236 N67-16472
High strain hardening of SAP/aluminum oxide alloy, and plastic deformation mechanism
[AEC-TR-6808] 06 p1289 N67-16477
Sintered aluminum product and zirconium alloy for organic cooled reactors
[AECL-2640] 06 p1322 N67-17846
Spectrochemical analysis of aluminum, aluminum alloys, and sintered aluminum powder
[JEN-165-DQ/I-66] 10 p1580 N67-21647
High temperature stability of sintered aluminum products examined by density measurements
[RISO-56] 10 p1656 N67-21776
Sintered aluminum products development and control of material and processing parameters 13 p2235 N67-25243
Viscous creep tests on pure aluminum, aluminum iron, and sintered aluminum powder
[SU-226-P-17-1] 19 p3473 N67-33681
Phase transformations during heating of sintered aluminum powder
[NASA-TT-F-10449] 22 p4055 N67-37471
Hot press diffusion bonding of sintered aluminum powder to stainless steel to form pressure tube transition joint for heavy water organic cooled reactor
[AI-CE-46] 24 p4492 N67-39699
Effect of some fabrication variables on mechanical properties of sintered aluminum powder shapes for heavy water organic cooled reactor
[AI-CE-36] 24 p4466 N67-39900
SINTERING
Sintering kinetics of refractory compound phases at high pressure and temperature
[AD-637247] 01 p0027 N67-10275
Semicontinuous pressure sintering of fine-grained ceramic bodies
[AD-638453] 01 p0078 N67-10414
Sphere-sphere technique for sintering partially vitreous arsenic-sulfur-selenium systems, and viscous flow mechanism relationships
[IS-T-80] 01 p0029 N67-10602
Impurity effects on sinterability in nuclear-grade beryllium oxide powders
[AAEC-TM-311] 01 p0090 N67-10689
High temperature vacuum dilatometric investigation of linear expansion coefficient of metallic titanium and sintering kinetics of compressed titanium powder 02 p0271 N67-11774
Effects of sintering atmospheres and temperatures on composition of pellets of plutonium dioxide powder prepared from oxalate and peroxide methods
[LA-3493] 04 p0590 N67-13836
Cold compaction and sintering of powdered aluminum and aluminum base alloys 05 p0718 N67-14814
Temperature dependence and mechanism of sintering
[CRREL-RR-189] 05 p0706 N67-15313
Sintering behavior and phase structure characteristics of europium oxide-uranium oxide binary system
[GEAP-5068] 07 p1177 N67-17405
Recrystallization and sintering of oxides
[COO-1123-3] 07 p1028 N67-17492
Hydrostatic pressure effect on ultimate compressive strength of sintered materials
[SC-DC-66-1806] 07 p1104 N67-17881
Rates and activation energies for sintering alumina containing metal oxide
[TIL/T-5839] 08 p1298 N67-19070
Sintering-extrusion prepared uranium rods subjected to thermal cycling
[CEA-R-2972] 10 p1675 N67-20782
Cesium 137 gamma source to check sintering of agglomerates 10 p1645 N67-21287
Mechanical and electric properties of molybdenum and molybdenum alloys - pressing and sintering properties of molybdenum powder - diffusion of molybdenum powder onto steel alloy surfaces
[FTD-TT-65-835] 12 p2117 N67-23972
Favorable pressing and sintering properties of molybdenum acquired during

processing treatment of molybdenum powder raw material 12 p2117 N67-33974
Physical properties of cermet products obtained by sintering powdered iron under impact loads
[NASA-TT-F-10660] 12 p2122 N67-33829
Compressive-creep deformation modes of thorium oxide, densification kinetics of sintering powder compacts for metal oxides, and mathematical model describing sintering 13 p2343 N67-35348
Evaluation and cost estimates of lime-soda sintering process for extracting alumina from clay
[BM-RI-6927] 13 p2374 N67-36317
Sintering kinetics of refractory compound phases at high pressure and high temperature
[AD-648970] 14 p2543 N67-36975
Correlation of alumina extraction with sinter and leach products from lime soda sinter process for anorthosite
[BM-RI-6923] 14 p2485 N67-37736
Hydrostatic pressing and induction sintering for production of billets from metal powders
[NASA-TT-F-10945] 15 p2734 N67-38282
Sintering uranium and thorium oxides
[WAPD-TRANS-41] 15 p2731 N67-38461
Sintered thorium oxide-uranium oxide ceramic fuel
[WAPD-TRANS-42] 15 p2749 N67-38462
Sintering in nepheline charges, desiliconizing of aluminate solutions, and fluorine balance in electrolysis of aluminum
[JPRS-46870] 16 p2846 N67-39521
Sintering of nepheline charges, and reaction with calcium oxide 16 p2846 N67-39522
Topological study of sintering process
[ORO-2561-1] 16 p2852 N67-39980
Fabrication and mechanical properties of sintered zirconium yttrium oxide dispersions - morphology and powder metallurgy
[AECL-3633] 16 p2912 N67-39118
Process developed for recycling sintered uranium dioxide and zirconium dioxide fuel wafers 17 p3105 N67-39986
Dilatometric determination of sintering mechanism of uranium powders in alpha, beta, and gamma phases
[CEA-R-3993] 17 p3112 N67-31075
Sintering, and physical properties of hot rolled oxide glass compositions
[BM-RI-6967] 17 p3007 N67-31290
Sintering process in snow
[CRREL-RR-236] 17 p3037 N67-31294
Microfractographical technique for determining sintering of ex carbonyl iron in alpha and gamma phases
[CEA-R-3998] 19 p3471 N67-33260
Sintering wires by surface diffusion
[WAPD-T-1985] 19 p3465 N67-33846
Cold pressing and sintering of samarium and neodymium sesquioxides
[BNWL-266] 20 p3666 N67-34799
Atmospheric effect on sintering high surface area uranium dioxide powders
[NLS-R-501] 21 p3974 N67-35746
Powder metallurgy methods for sintering carbides
[NASA-TT-F-10425] 21 p3963 N67-36561
Thermodynamic aspects of sintering kinetics 22 p4161 N67-36960
Physical properties affecting strength of sintered porous ferrous parts
[IITRI-D6068-13] 22 p4069 N67-37168
Low temperature adsorption of oxygen on sintered plutonium dioxide surface
[RFP-915] 23 p3999 N67-37639
Sintering and grain growth of thoria gels with calcium oxide impurities
[TID-23883] 23 p4370 N67-38570
SINUS
SA CAROTID SINUS REFLEX
Allergy and sinus disease in aviators
[SAM-TR-67-47] 23 p4185 N67-36143
SINUSOID
Method for determining response of composite structures subjected to sinusoidal forcing function
[NASA-CR-83977] 09 p1538 N67-29171
Multishaker control during sinusoidal and random vibration testing 14 p2511 N67-36636
Digital analysis of fatigue damage to multimodal system subjected to logarithmically swept sinusoidal vibration spectra 14 p2525 N67-37063
Infralow frequency phase shifter for obtaining sinusoidal signal 16 p2868 N67-39474
Methods for evaluation of resonance curves generated by sinusoidal force vectors to determine critical frequencies and structural damping characteristics
[CRREL-SR-97] 18 p3308 N67-32489
Sinusoidal steady state characteristics of multi-electroded three-dimensional piezoelectric ceramic devices
[SC-DC-67-1731] 20 p3612 N67-34990
Electronic generation of quadrature information for sinusoidal transducers
[SC-RR-67-575] 24 p4490 N67-38698
Linear bandpass filter response to sinusoidal signal of variable frequency
[GRI/NT/61] 24 p4411 N67-40554
SITE
S LANDING SITE
S LAUNCH SITE
SITE DATA PROCESSOR /SDP/
Digital command computer and telemetry computing system used at Apollo remote tracking sites 09 p1355 N67-28994
Apollo remote site computer programming for telemetry/display and command processes 09 p1355 N67-28999
SIZE
S DROP SIZE
S PARTICLE SIZE
S PUPIL SIZE
SIZE PERCEPTION
Problems in depth perception - perceived size and distance of familiar objects
[AM-66-23] 10 p1566 N67-30480
SKELETON
S BONE
SKID LANDING
Radial skid and six segment heat shield concepts evaluated for Mechanical Impact System Design for Advanced Spacecraft /MISDAS/
[NASA-CR-65523] 05 p0786 N67-14901
SKIN
SA STRESSED-SKIN CONSTRUCTION
SA STRUCTURAL MATERIAL
Automated nose fairing design ring, skin and stringer construction - Fortran computer program
[NASA-CR-93566] 11 p1985 N67-32258
SKIN /BIOL/
SA TACTILE DISCRIMINATION
Human tolerance of heat absorption by skin surface 02 p0196 N67-11490
Changes in facial skin due to natural contamination 02 p0196 N67-11572
Cells with autofluorescent granules in dermal connective tissue of human skin
[AD-636695] 02 p0212 N67-11925
Literature survey and experimental observations of human skin microflora, including study of men confined in simulated spacecraft environment
[NASA-CR-663] 03 p0349 N67-12259
Hemorheological studies of spider-shaped arterial branching in human skin 05 p0646 N67-14592
Techniques for assessing bacterial population on and in human skin in relation to spacecraft sterilization procedures 05 p0689 N67-14705
Pathological process of X-ray injuries to skin
[NASA-TT-F-10630] 06 p0795 N67-15550
Personal hygiene procedures during and skin reactions from 30-day period in pressurized suits 07 p1015 N67-17315
Cosmic ray heavy nuclei and microbeam effects on mammalian skin tissue
[NYO-3919-3] 12 p2019 N67-33566
Blood flow distribution in human skin
[AD-647859] 13 p2025 N67-34491
Water transfer function of human skin
[AD-646948] 13 p2025 N67-34851
Digital computer program for calculating time-temperature histories and predicting injury to skin exposed to thermal radiation
[NADC-MR-6623] 22 p3997 N67-36023
Acoustic and mechanical stimuli effects on Pacinian skin sensory receptor corpuscle
[AFOSR-67-1522] 22 p3972 N67-37588
Ionizing radiation effects on deoxyribonuclease and phosphatase distribution in subcellular fractions of guinea pig epidermis
[NYO-3445-13] 23 p3974 N67-37990
SKIN FRICTION
Measurement by wake momentum surveys at Mach 1.61 and 2.01 of turbulent boundary layer skin friction on five swept wings
[NASA-TN-D-3764] 03 p0323 N67-13170
X-15 flight test of skin friction gauge
[NASA-TN-D-3636] 07 p0908 N67-17173
Turbulent boundary layer skin friction and heat transfer on hollow cylinder in hypersonic flow at high Reynolds numbers
[NASA-TN-D-3858] 09 p1494 N67-28630
Skin friction laws for incompressible turbulent boundary layer
[ARC-CP-862] 10 p1613 N67-31182
Skin friction, separation, and transition with thin film heated element
[ARC-R+M-3645] 10 p1618 N67-31184
Skin friction and surface pressure measurements on upper surface of slender sharp-edge delta wing at incidence
[RAE-TN-AERO-2918] 11 p1777 N67-32713
Local and average skin friction and heat transfer on flat plates in air - charts
[NASA-TN-D-3969] 13 p2434 N67-33795
Laminar boundary layer theory for approximating displacement thickness, skin friction, and temperature profiles on undersurface of caret wings
[ARC-CP-894] 16 p2814 N67-38896
Skin friction and heat transfer characteristics of compressible laminar boundary layer with gas injection
[NOLTR-66-216] 17 p3048 N67-30188
Prediction of heat transfer and skin friction for mass transfer cooled zero pressure gradient surfaces exposed to high velocity laminar flow of nitrogen and carbon dioxide gas streams
[NASA-CR-85690] 17 p3179 N67-31333
Turbulent boundary layer and skin friction data for supersonic transports 18 p3185 N67-31615
Skin friction and turbulent boundary layer studies at Mach 3 18 p3186 N67-31616
Measurement of pressure fluctuations and skin friction on slender wing upper surface
[RAE-TR-66339] 20 p3664 N67-33833
Skin friction law at subsonic and transonic speeds for calculating turbulent boundary layer growth on two-dimensional airfoil
[ARC-CP-948] 21 p3755 N67-36180
Design and construction of floating element skin friction balances
[NASA-CR-66423] 22 p4043 N67-36703
Skin friction transducer development and design specifications
[NASA-CR-73123] 22 p4044 N67-36804
Applicability of Cole theory of compressible turbulent flows in calculating skin friction coefficients
[RM-3868-PR] 22 p4068 N67-37027
Aerodynamic heating in vicinity of corners at hypersonic speeds
[NASA-TN-D-4139] 24 p4435 N67-40568
SKIN FRICTION DRAG
Method for predicting turbulent skin-friction coefficients applied to prediction of drag and aerodynamic heating
[DAC-59961] 11 p1962 N67-33445
Calculation of skin friction and heat transfer generated by lunar excursion module reaction control jet impingement on Apollo telescope mount
[RM-575] 23 p4161 N67-37182
Pressure gradient effect on skin friction balance measurements in channel flow
[DRL-436] 22 p4031 N67-37038
SKIN RESISTANCE
Plasticity and stress relationships in structural resistance tests 06 p1376 N67-18879
SKIN TEMPERATURE
Afterbody heating by Mercury spacecraft during reentry determined from skin temperatures
[NASA-CR-649] 16 p2975 N67-39049
Coolant heat capacity requirements of wing skin and leading edge elements of hypersonic gliders
[NASA-MEMO-1-28-59L] 16 p3102 N67-31234
Attitude control system to regulate skin temperature of manned lifting spacecraft during reentry into earth atmosphere
[UTIAS-126] 21 p3993 N67-36206
SKIN TEMPERATURE /BIOL/
SA TEMPERATURE CONTROL
Moisture losses and skin temperatures of humans subjected to prolonged stays at high altitudes 02 p0126 N67-11485
Acceleration stress in monkeys, and breathing rate, electrocardiographic, and skin temperature measurements during centrifugation
[NASA-CR-63013] 13 p2230 N67-35677
SKY
SA NIGHT SKY
Determining horizontal standard visibility by contrast measurements of forest and sky
[DLR-FB-67-11] 15 p2705 N67-38575

SKY BRIGHTNESS
SA AIRGLOW
Polarization method for analyzing twilight phenomena
[NASA-CR-66156] 03 p0389 N67-12911
Infrared emission spectrum of atmosphere and Earth
[AFCRL-66-664] 19 p1628 N67-21828
Absolute radiance distribution of night sky in spectral region from 1.5 to 2.3 microns
[DOUGLAS PAPER-4137] 11 p1873 N67-22255
Influence of higher order light scattering at zenith of twilight sky on brightness of primary twilight segment
[NASA-CR-66681] 18 p3304 N67-33028
Recording spectrophotometer for ground and balloon measurements of daytime sky brightness
[T-R-608] 18 p3269 N67-33698
Design and construction of rocket-borne photometer for measuring day airglow emission
[AFCRL-67-0257] 21 p3846 N67-35477
New spectrophotometer for measuring ultraviolet sky brightness and direct solar radiation
[AFCRL-67-0410] 22 p4046 N67-37182
SKY RADIATION
Sky temperature measurements made at 96-Gc with radio telescope system consisting of 60-inch millimeter searchlight antenna and superheterodyne radiometer 02 p0237 N67-12137
Laser system for determining sky backscattering radiation - subsystem circuit diagrams
[NASA-CR-66441] 03 p0406 N67-13120
Polychromatic polarimetry of light in twilight and day sky at zenith 07 p1069 N67-16818
Data reduction procedures for ultraviolet spectrophotopolarimeter for measuring skylight radiation
[B-216] 16 p2894 N67-29407
Interplanetary dust and Argo point 18 p3333 N67-32862
Ground measurements of angular distribution and spectral composition of diffuse sky radiation
[T-R-609] 18 p3269 N67-33693
Measurement and interpretation of spectral sky radiation and other atmospheric optical radiation transmission data
[AFCRL-67-0207] 19 p3444 N67-33500
SKY WAVE
Role of sky and lateral waves on electromagnetic propagation in forest environments
[AD-651639] 17 p3054 N67-30720
SKYCRANE HELICOPTER
S CH-54 HELICOPTER
SKYDROL
S ESTER
S PHOSPHATE
S PLASTICIZER
SKYHOOK BALLOON
Skyhook balloon flights for study of radiation associated with solar magnetic storms
[AD-647271] 12 p2097 N67-24953
SKYLARK ROCKET
Drift of autopilot gyroscope due to prolonged acceleration in Skylark rocket
[RAE-TR-66132] 01 p0071 N67-10035
Solar X-ray ultraviolet spectroscopic observations from stabilized Skylark rockets
[ESRO-SM-67] 07 p1185 N67-17818
Drift of autopilot gyroscope due to prolonged acceleration in Skylark rocket
[RAE-TR-66133] 09 p1450 N67-19075
Preliminary results of Skylark sounding rocket payload to measure density and temperature profile of electrons during sporadic E layer
[ESRO-SN-58] 13 p2498 N67-25698
Meteoritic dust penetration and charge detection techniques used on Skylark rocket and Ariel II satellite 16 p3323 N67-33065
Laboratory experiment designs and astrophysical considerations of Skylark rocket program on artificial comets 23 p4143 N67-37717
SKYRAIDER AIRCRAFT
S A-1 AIRCRAFT
SLAB
Mathematical solutions for heat transferred from air directly to or through solid slab to semi-infinite solid 08 p1282 N67-18570
Analysis of heat transfer in three-layer slab - constant flux on one surface and zero flux on other surface
[REPT.-1003] 09 p1541 N67-19695
Spherical harmonics method for problem of two adjoint half-spaces, and problem of infinite slab
[BMWF-FBK-66-19] 10 p1703 N67-20815
Solution to problem of multiple scattering in slab illuminated by parallel rays of radiation expressed in terms of problem with isotropic radiation sources
[RM-5295-PR] 14 p2561 N67-26911
Asymptotic method for determining dipole radiation in presence of lossy slab lying on conducting half-space - radio propagation through and over heavily vegetated terrain
[SR-36] 17 p3026 N67-30738
Solutions and parametric computer study for class of boundary value problems of time dependent temperature distribution in two layer, composite slab
[NASA-CR-84068] 17 p3178 N67-30861
Invariant imbedding equations for dissipation functions of inhomogeneous finite slab with anisotropic scattering
[RM-5146-PR] 19 p3552 N67-33323
One-speed transport theory with anisotropic scattering applied to slab albedo problem
[NP-16508] 19 p3556 N67-33683
Calculated admittance of coaxial cable onto flat dielectric covered ground slab
[NASA-TN-D-4158] 21 p3798 N67-35734
Transient radiation and conduction in slotted slab and hollow cylinder
[NASA-CR-905] 23 p4235 N67-38388
Heating calculation for two layered infinite slab 23 p4366 N67-39182
Radiative heat flux and frequency averaged absorption coefficients calculated for plane parallel radiating gas slab
[RIAS-TR-67-9C] 24 p4549 N67-39538
Nomograph for calculating thicknesses of flat concrete slabs 24 p4544 N67-39678
SLAG
Heat content of natural and synthetic blast furnace slags
[BM-RI-6886] 06 p1233 N67-18211
Radioisotope methods to determine amount and effect of slag on quality of smelted steel 10 p1645 N67-21263
Electrode slag casting of ingots to increase industrial productivity
[FTD-HT-66-672] 12 p2110 N67-24758
Reduction in vacuum furnace of calcium oxide with ferrosilicon yielding molten slag 18 p3279 N67-31899
SLED
S ROCKET SLED
SLEEP
SA ELECTRONARCOSIS
Human tolerance to work-sleep routines in isolation chamber 02 p0218 N67-11496
Physiology of sleep and clinical aspects of sleep therapy
[SAM-TT-G-569-6666] 02 p0216 N67-12381
Oxygen consumption and body temperature of Eskimos during sleep
[AAL-TR-66-10] 05 p0650 N67-15271
Spacecrew sleep characteristics under conditions of simulated manned space flight
[NASA-TT-F-11138] 18 p3212 N67-32231
Electronarcosis and electric sleep in man and animals induced by electric current and related techniques
[JPRS-42233] 20 p3572 N67-34367
Sleep characteristics in simulated manned space flight 22 p4191 N67-37016
SLEEP DEPRIVATION
SA DROWSINESS
SA WAKEFULNESS
Nervous system - conditioned response, respiratory reflex, sleep deprivation reactions, and respiratory changes
[FTD-MT-65-308] 01 p0011 N67-10141
Conditioned reflex changes of breathing against background of sleep inhibition 01 p0012 N67-10143
SLEEVE
Shrink-fitted sleeves and boots with encapsulating compounds used to fabricate firing cables
[SCL-DR-67-34] 21 p3864 N67-36397
SLENDER BODY
Hypersonic similarity laws for imperfect gas flow around slender blunt bodies of complex shape 04 p0652 N67-13861
Maximum lift-drag ratio of slender, flat top, hypersonic body assuming modified Newtonian pressure distribution and constant surface averaged skin friction coefficient
[NASA-CR-81157] 06 p0784 N67-18864
Differential equations of motion for determining dynamic characteristics of variable mass slender elastic body moving under high accelerations
[NASA-CR-713] 06 p0979 N67-16672
Vertical accelerations due to structural vibrations of slender aircraft flying in continuous turbulence - aeroelastic response
[ARC-CP-842] 08 p1375 N67-18379
Turbulent mixing in supersonic flow past slender bodies with large blowing from surface 09 p1272 N67-19192
Calculation of incompressible laminar boundary layer under any variable pressure gradient and application in field of aeronautical slender bodies
[AFOSR-66-2742] 09 p1436 N67-20014
Approximate method for estimating effect of aeroelasticity on longitudinal trim and quasisteady maneuverability of slender aircraft
[ARC-R+M-3426] 10 p1549 N67-20722
Nonlinear aerodynamic normal force and moment on slender blunt-based bodies of revolution with laminar boundary layer
[NASA-CR-73079] 11 p1778 N67-22882
Finite difference method for analyzing aeroelastic divergence characteristics of unguided, slender body, multistage launch vehicles
[NASA-TN-D-3693] 11 p1994 N67-22389
Stability and drag characteristics of slender, flare-stabilized cone cylinder for Mars atmospheric probe at Mach numbers 19 and 26
[NASA-TN-D-3917] 11 p1943 N67-22296
Motion equation for forced transverse vibration of slender beam with viscous damping programmed for computer solution
[PA-TR-3490] 12 p2230 N67-24787
Snowplow model of hypersonic unsteady flows acting on slender body
[P-3521] 12 p2011 N67-24922
Wind tunnel measurements of turbulent wake cooling behind slender body with base injection
[AFOSR-66-1929] 14 p2443 N67-26917
Froude number effect of two-dimensional flow of inviscid density-stratified liquid past slender body
[D1-82-0614] 17 p3050 N67-31458
Inviscid flow field over slender bodies with high rates of mass transfer or hard blowing at surface
[RM-5196-ARPA] 19 p3430 N67-32300
Laminar near-wake of slender axisymmetric bodies in hypersonic flow using magnetic suspension scale models
[ONERA-TP-454/1967] 19 p3432 N67-33326
Hypersonic flow of ideal gas over slender bodies
[FTD-HT-66-411] 19 p3435 N67-33674
Equations developed for boundary layer, shock wave structure, and inviscid core in hypersonic viscous flow over slender bodies with sharp leading edges
[PIBAL-1018] 21 p3753 N67-35417
Physical and chemical property effects of low temperature ablators on hypersonic wake characteristics of slender bodies 22 p4164 N67-37531
Near wake of slender body studied by upstream aerodynamically-shaped holder passing through nozzle throat 23 p4029 N67-37695
Turbulent boundary layer characteristics of pointed slender bodies of revolution at supersonic speeds
[NASA-TN-D-4192] 23 p4173 N67-38084
Hypersonic turbulent heat transfer measurements on highly cooled cone
[NOLTR-67-24] 24 p4549 N67-39421
Numerical analysis of axisymmetric hypersonic flow with strong viscous interaction
[TR-1001/2240-10/-11] 24 p4431 N67-39607
Low density transitional hypersonic flow over slender conical vehicles with diffusely reflecting surfaces calculated by means of Euler-Lagrange equation
[TR-1001/2240-20/-19] 24 p4431 N67-39713
Forebody length effect on longitudinal stability of two delta-wing-body combinations determined in wind tunnel tests
[RAE-TR-66327] 24 p4372 N67-40254
SLENDER CONE
Transient aerodynamic characteristics of slender cones at low subsonic velocities 01 p0091 N67-10048
Effect of highly cooled wall of slender

cone on hypersonic turbulent heat transfer rates
[NOLTR-65-153] 01 p0163 N67-10294
Nose bluntness effects on static and dynamic pitching moment derivatives of slender cones 07 p0998 N67-16979
Hypersonic flow of perfect gas at zero angle of attack past slender cone
[NASA-TT-F-485] 12 p3011 N67-34613
Axisymmetric viscous interaction with small velocity slip and transverse curvature effects studied on slender cone
[E-67-2] 19 p3432 N67-33237
Electron density integral across inviscid shock layer calculated for slender cones at hypersonic speeds
[MEMO-113] 20 p3705 N67-34639
Hypersonic wind tunnel and electron beam excitation techniques for measuring turbulence characteristics in hypersonic wake of sharp slender cone 22 p4827 N67-37522
Near wake of slender cone in hypersonic free stream flow 22 p4830 N67-37606
Free oscillation experiments on dynamic stability of standard ten degree cone in hypersonic wind tunnel
[ARL-67-0099] 23 p4173 N67-38661
Severe nose bluntness effect on hypersonic stability derivatives of slender cones
[ARL-67-0101] 23 p4174 N67-38395
Circumferential nonuniform heating during transition on slender cone at Mach 9.6
[REPT.-67-C-272] 23 p4365 N67-38856
Hydrodynamic coefficients for compressible water entry of slender cone
[ERR-PO-317-1] 23 p4259 N67-39166
SLENDER WING
Lateral oscillation of slender wing supersonic transport aircraft
[ARC-CP-845] 05 p0639 N67-14610
Two-dimensional lifting wings of minimum drag in hypersonic flow
[NASA-CR-80964] 05 p0639 N67-14892
Two-dimensional wings of maximum lift-drag ratio in hypersonic flow
[NASA-CR-80959] 05 p0639 N67-14894
Analysis of vortex sheets shed from leading edges of slender wings
[NASA-CR-73048] 05 p0639 N67-14926
Theoretical investigation of aerodynamics of slender wing-body combinations exhibiting leading edge separation
[NASA-CR-719] 08 p1217 N67-18766
Vortex sheet model of primary vortices formed by separation of flow from leading edge of slender delta wing with small aspect ratio
[RAE-TR-66070] 09 p1392 N67-19976
Low speed flight tests of slender wing research aircraft, Handley Page H. P. 115
[ARC-CP-838] 10 p1554 N67-21192
Skin friction and surface pressure measurements on upper surface of slender sharp-edge delta wing at incidence
[RAE-TN-AERO-2916] 11 p1777 N67-22713
Estimating wind tunnel wall interference effects on slowly oscillating slender wings in subsonic flow
[ARC-CP-707] 11 p1859 N67-22797
Pressure distribution at zero lift on slender delta wings at supersonic speeds
[ARC-CP-774] 11 p1778 N67-22799
Ground effect in wind tunnels on slender delta wing aircraft models
[ONERA-TN-87] 11 p1779 N67-22903
Camber effects on nonlinear lift of slender wings with sharp leading edges
[ARC-CP-924] 16 p2814 N67-29893
Steady state theory for analyzing separated flows on slender wings in unsteady motion, and computations for heaving and pitching oscillations of slender delta wing
[ARC-R+M-3443] 16 p2814 N67-29896
Aerodynamic characteristics of aft mounted all-moving rectangular control surfaces on slender cruciform missile at Mach numbers from 0.6 to 2.8
[RAE-TR-66326] 16 p2815 N67-29900
Problems of flight quality posed by transport aircraft with slender wing and no tail unit
[AGARD-532] 16 p2819 N67-30025
Effects of leading edge shape and wing thickness on aerodynamic characteristics of yawing slender wings
[DLR-FB-66-86] 17 p2992 N67-30702
Normal force characteristics of slender delta wings with rhombic cross sections in subsonic conical flow
[ARC-CP-922] 20 p3560 N67-34566
Ground proximity effect on subsonic longitudinal characteristics of thin delta wing of aspect ratio 1.616
[RAE-TR-66179] 20 p3563 N67-35128
Measurement of pressure fluctuations and skin friction on slender wing upper surface
[RAE-TR-66339] 20 p3564 N67-35233
Wind tunnel tests for prediction of ground effect on slender wing aircraft of low aspect ratio
[NASA-TT-F-11659] 21 p3756 N67-36142
Assessment of zero rate of climb speed as low speed limitation for stall-free aircraft
[ARC-CP-931] 22 p3959 N67-36931
SLIDING CONTACT
Wear and corrosion resistance of water lubricated sliding contact journal bearings
[AECL-2566] 10 p1439 N67-21014
Elastohydrodynamic film thickness calculations for high speed rolling and sliding contacts
[MTI-67TR34] 19 p3461 N67-32736
Lubrication of bearing steels with electroplated gold under heavy loads
[AFML-TR-67-61] 19 p3464 N67-32972
High reliability electrical contacts lubricated with solid organic compounds
[ECOM-03727-F] 19 p3416 N67-33687
Failure modes in highly loaded rolling and sliding contacts /antifriction bearings/
[MTI-67TR23] 23 p4256 N67-38115
SLIDING FRICTION
Surface energy effects in sliding phenomena
[AROD-4366-4] 05 p0714 N67-15810
Analysis of force equilibrium in deformation zone using direction of sliding friction in industrial piercing process of forced feed of billet 06 p0883 N67-18592
Lubrication, and friction and wear concepts for high vacuum applications
[NASA-TM-X-52371] 07 p1094 N67-17631
Friction and wear effects of carbon fiber reinforced polyester resin
[RAE-TR-66347] 09 p1466 N67-20831
Friction characteristics and interfacial recrystallization of single-crystal and polycrystalline copper sliding on aluminum oxide
[NASA-TN-D-3794] 10 p1655 N67-21455
Friction and wear of plastic-bonded and polycrystalline explosive materials
[UCRL-50134] 11 p1908 N67-22318
Vacuum environment effects on evaporation, friction, adhesion, and wear properties of lubrication system materials
[NASA-TM-X-52364] 11 p1672 N67-22312
Vacuum friction characteristics of single and polycrystalline rhenium
[NASA-TN-D-3955] 12 p2106 N67-24439
Sliding friction of ruthenium, rhodium, osmium, and iridium crystals
[NASA-TN-D-4152] 20 p3636 N67-34394
Recrystallization effect on sliding friction of metals in single-crystal polycrystalline form
[NASA-TN-D-4143] 21 p3902 N67-36391
Full scale crawler belt shoe tests on surfaces and lubricants for structural and sliding friction effects
[NASA-CR-88984] 23 p4222 N67-38347
Sliding wear performance of metallic material couples in high purity water environment at 300 deg F and at 500 deg F
[WAPD-314] 23 p4366 N67-38987
SLIP
Performance of miniature slip rings in high-vacuum conditions
[NASA-CR-80488] 03 p0405 N67-13128
Random walk model for determining cycle slipping in phase locked loops 06 p1246 N67-18349
Adiabatic air-water and steam-water flow measurements of slip ratios and friction factors in vertical bubble flow regime
[KE-110] 15 p2693 N67-28965
Analytical windage expression for ball bearing gyroscopic wheels - continuum and slip regimes
[E-2050, VOL. I] 21 p3852 N67-36476
SLIP BAND
Slip bands in elastic, isotropic, thin plates with rectilinear slits developed under simple tension 13 p2234 N67-24509
SLIP FLOW
Continuum to free molecule flow near leading edge of flat plate investigated in shock tunnel at Mach 19.4 and 24.1
[REPT.-67-C-247] 23 p4236 N67-38857
SLIPSTREAM
Separated flow theory to study hypersonic slipstream 06 p1207 N67-18695
Fortran computer program approximation solution of rectangular wing in slipstream
[UTIAS-TN-101] 19 p1585 N67-21742
SLOPE
SA GLIDE SLOPE
SA INCLINATION
Gravitational development of slopes
[ACIC-TC-1129] 07 p1072 N67-17706
Theoretical analysis of slope energy curve entering continuum 16 p2802 N67-29849
Device for computing correlation functions, sound field analyser, method for finding envelopes of correlation functions, and pendulum device for measuring surface slope of underwater structures
[JPRS-40084] 20 p3636 N67-34827
Instrument for measuring surface slope of underwater hydraulic structures using hermetically enclosed gravitational pendulums 20 p3639 N67-34831
SLOSHING
SA LIQUID SLOSHING
Design of baffles to damp liquid propellants in rocket vehicles
[NASA-TN-D-3716] 01 p0061 N67-10783
Interaction between liquid propellants and elastic structure 06 p0976 N67-18694
Liquid rotation and vortexing during draining 06 p0866 N67-18698
Effect of Reynolds number on slosh damping by flat ring baffles
[NASA-TM-X-53559] 06 p0869 N67-18542
Parametric resonance of tank with fluid 13 p2421 N67-26427
Flight test of WASP rocket to study slosh dynamics in near zero gravity
[NASA-TN-D-3985] 14 p2617 N67-26847
SLOT
Method of compensating for effects of slot in rectangular waveguide
[NASA-CR-80130] 02 p0289 N67-12171
Slot effects on performance of highly loaded compressor rotor and stator blade rows
[NASA-CR-54547] 08 p1216 N67-18402
Effect of slots on performance of highly loaded compressor rotor blades
[NASA-CR-54546] 08 p1217 N67-18690
Free molecule flow and surface diffusion through tubes and two-dimensional slots
[NASA-TR-R-255] 11 p1857 N67-22649
Diode-iris controlled waveguide slot radiators
[NASA-CR-783] 12 p2067 N67-23718
Electromagnetic scattering behavior of sphere with circumferential slot
[SR-6] 14 p2487 N67-26830
Statistical correlation techniques and parallel plate filter arrangement for determination of particle deposition in turbulent slot flow
[AD-634671] 15 p2630 N67-27052
Cascade tunnel tests on slotted stator, and candidate variable geometry inlet guide vane designs
[NASA-CR-54555] 18 p3186 N67-31727
Slotted line method for swept-frequency standing wave ratio measurements in coaxial systems 18 p3249 N67-32091
Evaluation of 65-series airfoil section slotted stator in single-stage axial flow compressor rig
[NASA-CR-54549] 18 p3188 N67-32092
Single stage axial flow compressor consisting of slotted rotor and slotted stator examined for slot effect on blade performance
[NASA-CR-54548] 21 p3758 N67-35327
Photoelasticity used to determine stress concentration factor associated with transverse slot end in finite plate subjected to uniformly distributed load - rocket propellant grain
[REPT.-13] 21 p3829 N67-35431
Slot effect on performance of compressor rotor and stator blade rows
[NASA-CR-54550] 22 p4132 N67-37071
Heat shield efficiency over plane surface during injection through two tangential slots studied in wind tunnel
[NASA-TT-F-11178] 23 p4165 N67-37660
Two-dimensional wall jet - slot geometry effects on film cooling effectiveness and measurements of impervious wall effectiveness
[ARC-CP-943] 23 p4023 N67-38023
SLOT ANTENNA
Fluorescence and infrared absorption

spectra of samarium ions in lanthanum fluoride crystals - continuous slot antenna waveguide perturbation
[NOLC-672] 03 p0452 N67-12843
Two-way antenna pattern simulation by analog and analytical methods
[NOLC-683] 06 p0831 N67-15851
Effect of plasma environment on slot antenna 07 p1034 N67-16896
Directivity of arrays of axial and circumferential slots on infinite conducting cylinder
[TN-1966-52] 07 p1036 N67-17222
Complementary slot-dipole antenna with hemispherical coverage for use in passive interferometer beacon acquisition system
[NASA-TM-X-55681] 08 p1248 N67-19749
Variable waveguide coupler with 360 degrees of phase control for slot antenna having rapid scanning capability
[P67-01] 15 p2667 N67-28268
Electric impedance of waveguide shunt slots in plasma medium
[HDL-TR-1342] 15 p2777 N67-28953
Current distribution calculations for slot arrays on circumference of cylinder
[HDL-TM-67-1] 19 p3399 N67-33856
Plasma effect on radiation characteristics of slot and gap apertures located on cylinders and cones using plasma simulation technique
[AFCRL-67-0123] 19 p3400 N67-32918
Dielectric cover effects on radiation properties of cross slots in rectangular antenna
[NASA-TN-D-4194] 23 p4211 N67-38060
SLOTTED ANTENNA
Particle trajectories in overlapping electric and magnetic fields, and dielectric effects in slotted waveguide antennas
[FTD-TT-65-762] 06 p0917 N67-16005
Effect of dielectric inside round waveguide on resonance lengths of slotted antennas 06 p0917 N67-16097
SLOTTED WIND TUNNEL
Tangential slot injection in supersonic flow 07 p1064 N67-17300
Electrical analog for studying slotted-wall wind tunnel interference in steady and oscillating flow
[ARC-R+M-3452] 09 p1392 N67-20902
Theoretical wall-interference corrections to damping derivatives in rectangular tunnel with open boundaries
[NPL-AERO-1039] 13 p2244 N67-26230
SLOW NEUTRON
Inelastic slow neutron scattering for investigation of biological systems including polypeptides, glutamic acid, and glycines
[PA-TR-3367] 02 p0212 N67-11887
Slow neutron scattering by liquid deuterium oxide
[IN-1020] 04 p0592 N67-14139
Slow neutron scattering kernels for water at 423 deg and 350 deg K
[IN-1019] 04 p0592 N67-14140
Features reviewed of gamma ray spectra accompanying capture of slow thermal neutrons - new spectrometers 06 p0932 N67-15641
Total slow neutron scattering cross section per proton bound in benezene molecule 06 p0938 N67-16294
Elastic and inelastic neutron scattering, charged particle emissions, slow neutron reactions, and neutron cross sections - conference papers
[INDSWG-101] 07 p1153 N67-17333
Theoretical physics research on neutron fluxes, linac shunt impedance, slow neutron scattering, silicon 28 structure, phonon frequencies in transition metals, and computation 08 p1329 N67-18250
Normal modes of magnesium investigated by inelastic scattering of slow neutrons 10 p1750 N67-21032
Lattice dynamics of nickel, and Krebs model 10 p1750 N67-21033
High efficiency apparatus with slow neutron scintillation counter and low activity polonium-beryllium source for analyzing elementary composition of mineral raw materials 10 p1577 N67-21305
Crystal spectrometers for measuring gamma radiation from neutron capture
[BNL-10901] 15 p2709 N67-27914
Low frequency molecular motions in lead styphnate HMX, RDX, and picric acid explosives studied by slow neutron inelastic scattering
[AD-634061] 15 p2757 N67-27944
Method for studying inelastic scattering of slow neutrons in multiparticle systems
[NP-TR-1404] 15 p2764 N67-28450
Incoherent scattering of slow neutrons in polarized crystal target
[JINR-P4-3138] 16 p2945 N67-29690
Preparation of slow neutron scattering kernels for Brookhaven Evaluated Nuclear Data File using calculations based on models for structure of liquid water and deuterium
[IN-1065] 16 p2932 N67-29772
Quasi-elastic scattering of slow neutrons in water
[IA-1063] 19 p3500 N67-32847
Compilation of slow neutron inelastic scattering cross sections for hydrogen oxide and deuterium oxide at 299 deg K, and hydrogen oxide at 268 deg K
[BNWL-436] 22 p4105 N67-37423
Slow neutron scattering measurements of quasi-elastic widths in liquid lead to observe Kohn anomaly
[IN-1094] 24 p4499 N67-39531
SLUDGE
Centrifuge method of reducing volume of sludges emanating from decontamination of radioactive waste water by coprecipitation
[EUR-3175.E] 11 p1814 N67-23092
SLURRY
SA COLLOID
SA EMULSION
Rheology of plaster slurry - stress and flow under trowel 05 p0778 N67-14531
Nondestructive testing - infrared and ultrasonic inspection, and high density slurries for propellant tank testing
[NASA-TM-X-53603] 14 p2547 N67-27751
High density slurries for hydrostatic proof testing of propellant tanks 14 p2629 N67-27753
Capillary plastometer especially designed for use with slurries
[JAERI-1117] 24 p4474 N67-40485
SLUSH
Production of slush hydrogen for nuclear rocket propulsion testing
[NASA-CR-61185] 06 p0951 N67-15455
Hydrogen slush and hydrogen gel systems optimization and vehicle application
[NASA-CR-85823] 17 p3151 N67-31390
Handbook of physical and thermal property data for hydrogen in region between triple point and critical point for study of hydrogen slush and/or hydrogen gel utilization
[NASA-CR-87655] 20 p3716 N67-34912
Slush hydrogen flow characteristics, solid hydrogen particle study, and liquid-solid hydrogen density measurements
[NASA-CR-89656] 24 p4520 N67-39482
SM-A
S SAN MARCO SATELLITE
SMALL PERTURBATION FLOW
Thermodynamic theory and small perturbations in flows beyond equilibrium
[REPT.-67-4] 23 p4367 N67-39238
SMELL
Odor thresholds for assessing solvent odors in air 20 p3597 N67-35086
SMELTING
Electric furnace smelting of complex lead zinc sinter
[BM-RI-6999] 20 p3651 N67-35136
SMOKE
Smoke generator using vaporized oil for flow visualization in wind tunnel
[ARL/A-333] 01 p0071 N67-10060
Smoke generator for flow visualization in low speed wind tunnels
[KTH-AERO-TN-55] 01 p0073 N67-10573
Colored burning smoke charges for low-spin folding-fin aircraft rocket
[PA-TR-3273] 02 p0230 N67-12197
High expansion foam to suppress both fire and smoke 08 p1388 N67-18562
Smoke-wire technique for measuring velocities in air
[USAAVLABS-TR-67-29] 19 p3431 N67-32953
Polyimide plastic film smoke hood for protection of jet transport passengers against smoke and toxic gases during evacuation
[AM-67-4] 22 p3975 N67-36727
Atmospheric diffusion, desulfurization, and pollutant removal from smoke before emission into air are discussed as air pollution control techniques
[MTB-010052] 24 p4554 N67-40391
SMOKE TRAIL
Dyeing titanium tetrachloride smoke trails for wind velocity measurements
[NASA-CR-66360] 16 p2945 N67-29435
SMOOTHING
SA DATA SMOOTHING
SA POLISHING
Orthogonal projection and discrete optimal linear smoothing
[TR-66-102] 01 p0056 N67-10491
Algorithm for optimal fixed-lag smoothing of continuous linear systems, and matrix differential equation for covariance matrix of fixed-lag smoothing error
[TR-67-105] 14 p2508 N67-26748
Latitude variations during International Geophysical Year, and smoothing of initial data to determine their accuracy 15 p2701 N67-28075
Smoothing by means of functions analogous to Spline functions
[ONERA-TP-463/1967] 19 p3483 N67-33854
Approximation methods of smoothing
[DOC.-735, GTC/55] 22 p4064 N67-37705
Theoretical interpolation for smoothing, based on maximumum knowledge of errors
[DOC.-732-GTC/55] 22 p4065 N67-37986
Optimal smoother derived for linear time-varying systems using measurements containing colored noise by means of calculus of variations
[NASA-CR-89757] 24 p4410 N67-40366
SNAP-2
Boiler conditioning test in SNAP 2 mercury Rankine program
[NAA-SR-6322] 01 p0106 N67-10537
Digital computer rotor dynamic analysis of SNAP-2 combined rotating unit shaft bearing system
[NAA-SR-11944] 02 p0285 N67-11719
Analog computer model of combined rotating unit shaft-bearing system
[NAA-SR-11943] 03 p0426 N67-12877
Mercury Rankine program integrated system test - system operation
[NAA-SR-11945, VOL. I] 08 p1319 N67-18886
Reliability of redundant electrical generating system configurations for use in SNAP-2 and SNAP-8
[NASA-CR-72268] 11 p1786 N67-22854
Radiator condenser design manual for SNAP II mercury Rankine program
[NAA-SR-MEMO-12139] 19 p3487 N67-32766
SNAP-7
SNAP-7A isotopic power supply for buoys
[FTDC-437, ADDEND. 1] 21 p3887 N67-35767
SNAP-8
Development status of SNAP-8 space power system using mercury Rankine cycle 01 p0104 N67-10367
Steady state operating and dynamic response characteristics of simulated three-loop Rankine cycle space power conversion system of SNAP-8 type
[NASA-CR-625] 03 p0234 N67-12757
Irradiation test results for SNAP-8 electrical connectors, cables, and insulation specimens
[NAA-SR-11924] 08 p1311 N67-18534
Materials evaluation for components of SNAP-8 system - design, development, fabrication, and testing
[NASA-CR-72146] 08 p1320 N67-18869
Materials research on design, fabrication, and development of SNAP-8 components and system loops
[NASA-CR-72156] 08 p1320 N67-18885
Materials compatibility and corrosion in SNAP-8 test loops 09 p1476 N67-19594
SNAP-8 corrosion and mass transfer patterns 09 p1477 N67-19595
Eutectic sodium potassium and OS-124 considered as coolant fluids for SNAP-8 third loop - optimum loop operating parameters
[NASA-CR-72213] 11 p1922 N67-22845
Radiator design evaluation of L/C coolant loop for SNAP-8 - digital computer evaluation
[NASA-CR-72218] 11 p1922 N67-22847
Size and weight evaluation of insulated cylindrical radiators used in SNAP-8 heat rejection system
[NASA-CR-72210] 11 p1922 N67-22849
Weight-area tradeoff evaluation of radiator used in SNAP-8
[NASA-CR-72209] 11 p1922 N67-22850
SEDAN series of IBM 7094 computer programs for analyzing steady state data from SNAP-8 test loops
[NASA-CR-72212] 11 p1922 N67-22853
Accelerated wet mercury vapor erosion testing of candidate SNAP-8 turbine rotor and nozzle materials in close pump loop

[NASA-CR-72190] 11 p1922 N67-23855
Mechanical testing and metallographic examination of aluminum to copper coldwelded joints after thermal exposure - SNAP-8 electrical terminal
[NASA-CR-72194] 11 p1897 N67-23856
Size and temperature approximation analysis of cylindrical radiator with internal heat rejection use for SNAP-8
[NASA-CR-72211] 11 p1900 N67-23857
Mercury condenser inventory control system for regulating condensing pressure in SNAP-8 system
[NASA-CR-72216] 11 p1922 N67-23858
Stability tests of liquid-liquid and liquid-vapor interfaces in test rig simulation of dynamic seal for SNAP-8 turbine alternator assembly
[NASA-CR-72223] 11 p1890 N67-23879
Operational characteristics, problems, and failures of ac electromagnetic pumps used in SNAP-8
[NASA-CR-72214] 11 p1890 N67-23888
Alternate lubricant/cooling fluids for SNAP-8
[NASA-CR-72219] 11 p1904 N67-23890
Hydraulic design calculations for SNAP-8 jet centrifugal pump
[NASA-CR-72230] 11 p1890 N67-23892
Metallic coating materials evaluated for use in transition joints for SNAP-8 transformer reactor assembly
[NASA-CR-72195] 11 p1890 N67-23894
Thermal performance of SNAP-8 model condenser
[NASA-CR-72215] 11 p2000 N67-23895
Irradiation of high temperature actuator assemblies in vacuum for SNAP-8 reactor system
[BMI-X-10168] 12 p2147 N67-23894
SNAP-8 power conversion system development, and test facilities
[NASA-CR-72190] 12 p2151 N67-24629
Space radiator simulator, using finned tube heat exchanger cooled by controllable airflow, for SNAP-8 ground test facility
[NASA-TM-X-1375] 14 p2511 N67-26557
SNAP-8 electrical generating system performance
[NASA-CR-72234] 16 p2928 N67-29172
Material testing of components and closed loop systems of SNAP-8 turboelectric space power mercury Rankine cycle conversion system
[NASA-CR-72257] 17 p3108 N67-30825
Fabrication and performance of SNAP-8 fuel elements
[NAA-SR-MEMO-10163] 17 p3109 N67-30849
Design and performance of SNAP-8 nuclear reactor simulator for nonnuclear testing of space power systems
[NASA-TN-D-4095] 18 p3296 N67-32371
Conditioning and steady state performance of SNAP-8 tube-in-shell mercury boiler
[NASA-TM-X-1441] 21 p3761 N67-35615
Thermal behavior of SNAP-8 reactor during atmospheric reentry
[NAA-SR-12355] 22 p4093 N67-37518
SNAP-8 configuration reentry hypersonic heating rates derived from shock tunnel test
[NAA-SR-12383] 22 p4093 N67-37519
SNAP reactor reentry ablation and distintegration tests in hyperthermal wind tunnel
[NAA-SR-12382] 23 p4385 N67-38341
Thermochemical behavior of SNAP fuel material in hyperthermal wind tunnel
[NAA-SR-13082] 23 p4385 N67-38343
SNAP-9A
Radioactive debris analyses from SNAP-9A satellite failure
[TLW-3547-4] 22 p4042 N67-38059
SNAP PROGRAM
Experimental results and calculations of reactivity effects in uranium-zirconium hydride fueled power excursions for SNAP reactor safety 07 p1125 N67-17965
Fast neutron weighting factors for smarated SNAP reactor applications
[NAA-SR-MEMO-11901] 07 p1136 N67-17966
Thermal neutron flux calculations by Monte Carlo and other codes, experiences with SNAP power plants, and applications of discrete-ordinate transport theory to radiation shielding problems 06 p1333 N67-19324
Updated sixteen group Hansen Roach structure library for Zr, Be, Pu 239 cross sections and SNAP reactor application
[NAA-SR-MEMO-11907] 10 p1705 N67-20653
Transfer function set, and differential and algebraic equations for transient thermal model of SNAP reactor
[NAA-SR-MEMO-11823] 10 p1678 N67-20915
Weight scaling factor graphs for basic SNAP reactor shield configurations
[NAA-SR-MEMO-11971] 10 p1681 N67-21015
Physical and chemical gas-surface interactions for SNAP fuel particle atmospheric reentry
[NAA-SR-MEMO-11845] 10 p1681 N67-21017
Heat transfer from radioisotopic heat sources buried in ocean floor - SNAP program
[USNRDL-TRC-86] 11 p1928 N67-23377
Seawater corrosion measurement of SNAP container alloys using radioactive tracer techniques
[USNRDL-TR-1092] 11 p1927 N67-23380
Mercury-Rankine program for SNAP systems improvement
[NAA-SR-12256, VOL. I] 12 p2152 N67-24911
Corrosion of materials used by SNAP-8 and SNAP-50 13 p2256 N67-25277
Calculation on feedback energy reactivity coefficient for coupled-drum impulse transient test in SNAPTRAN program
[IDO-17167] 13 p2358 N67-25504
Voltage distortion effects of SNAP-8 alternator speed controller and alternator performance results
[NASA-TN-D-4037] 16 p2830 N67-29038
Instrumentation and data reduction techniques for irradiation experiments to evaluate fuel element performance - SNAP program 18 p3302 N67-32449
Reactor analysis, dc conduction pump development, basic shielding technology development, SNAP 10A FS-3 post test exam, and supersaturation studies for SNAP program
[NAA-SR-12316] 20 p3684 N67-35116
SNAP reactor data used for comparison of beryllium photoneutron decay sets
[NAA-SR-MEMO-12347] 21 p3905 N67-36388
Particle transport and dispersion model for estimating air concentration and deposit density of SNAP fuel particles in atmosphere
[SC-CR-67-2534] 22 p4039 N67-37503
Effects of radiation, high temperature, and vacuum on Rene 41 and tantalum alloy spring for SNAP
[NAA-SR-11519] 23 p4292 N67-39296
Active and passive reactor disposal modes evaluation for SNAP reactor
[NAA-SR-12433] 24 p4492 N67-39926
SNAP-10A
Development, qualification, and system utilization of SNAP-10A secondary containment flight-type expansion compensator
[NAA-SR-11952] 03 p0436 N67-12978
STEP project research on SNAPTRAN-1 reactor, LOFT core design and radiological studies and instrumentation testing
[IDO-17145] 06 p0914 N67-16521
FSM-4 non-nuclear test system designed to provide preflight qualifications for SNAP-10A
[NAA-SR-11814] 06 p0915 N67-16536
DOLTL computer code model for calculating temperature drift for statically controlled SNAP-10A type reactors
[NAA-SR-MEMO-11977] 07 p1135 N67-17698
Prepoison isotope cross section uncertainties and SNAP-10A flight test reactor control 06 p1315 N67-18796
SNAP-10A system optimization and reactor technology developments
[NAA-SR-11935] 10 p1676 N67-20651
Thermal analysis on SNAP-10A reactor core during atmospheric reentry with core melting and fuel element release
[NAA-SR-MEMO-11847] 10 p1677 N67-20675
SNAP-10A FSM-4 performance analysis - sodium potassium loading and thermal reference test
[NAA-SR-MEMO-10446] 10 p1680 N67-20994
SNAP-10A flight test data on overall system and component performance, and effects of launch and space environments on system operation
[NAA-SR-11934] 10 p1687 N67-21510
Nuclear behavior, physical, and radiological effects of SNAP-10A reactor destructive test
[IDO-17186] 13 p2357 N67-25502
Development, manufacturing, and flight testing of SNAP-10A thermoelectric pump for NaK circulation
[NAA-SR-11879] 17 p3108 N67-30831
Structural design criteria and vibration induced lateral bending moments for SNAP-10A launching 18 p3296 N67-31694
Destructive testing of SNAP-10A reactor
[IDO-17187] 19 p3486 N67-33100
SNAP reactor reentry ablation and disintegration tests in hyperthermal wind tunnel
[NAA-SR-12383] 23 p4385 N67-38341
Thermochemical behavior of SNAP fuel material in hyperthermal wind tunnel
[NAA-SR-13082] 23 p4385 N67-38343
SNAP-19
Thermal performance of Nimbus B/SNAP-19 materials and mechanical joints
[MND-3607-112] 12 p2144 N67-23698
Low Reynolds number hypersonic force tests of SNAP-19 capsule and Nimbus B satellite solar panel
[MND-3607-89] 12 p2145 N67-23735
Hypersonic wind tunnel tests of SNAP-19 capsule force and stability
[MND-3607-90] 12 p2145 N67-23736
Thermal scale model test to determine temperature distribution in Nimbus B sensory ring with antennas removed - SNAP 19 expanded safety program
[MND-3607-94] 17 p3178 N67-31128
Heat distribution on 10 percent scale model Nimbus B sensory ring and SNAP-19 generator at Mach 10
[MND-3607-95] 17 p3180 N67-31388
Reentry thermal analysis of Agena destruct and generator eject systems on Nimbus B/SNAP-19 mission
[SC-RR-66-3072] 19 p3491 N67-33542
Heat distribution for three SNAP-19 generator models for use in burnup analysis during reentry
[MND-3607-92, VOL. I] 19 p3493 N67-33779
Heat and pressure distribution on SNAP-19 fuel capsule in hypersonic flow
[MND-3607-93, VOL. I] 20 p3683 N67-34827
SNAP-21
SNAP-21 program - deep sea radioisotope-fueled thermoelectric generator power supply system
[MMM-3691-12] 14 p2576 N67-27060
Deep sea strontium 90 thermoelectric power supply system - SNAP-21 program
[MMM-3691-8] 22 p4091 N67-37222
SNAP-21 program deep sea radioisotope-fueled thermoelectric conversion system
[MMM-3691-17] 22 p4091 N67-37276
SNAP-23
Design, fabrication, and test of thermoelectric converter for SNAP-23A terrestrial radioisotope power supply system
[MMM-3624-0006] 22 p4091 N67-37418
SNAPSHOT SATELLITE
Prepoison isotope cross section uncertainties and SNAP-10A flight test reactor control 06 p1315 N67-18796
SNAPTRAN REACTOR
Steady state power, coupled drum impulse transition, and cascade step transition tests of SNAPTRAN reactor
[IDO-17165] 04 p0578 N67-14067
Calculation on feedback energy reactivity coefficient for coupled-drum impulse transient test in SNAPTRAN program
[IDO-17167] 13 p2358 N67-25504
SNAPTRAN experimental measurements and instrumentation for SNAP-10A-3 reactor
[IDO-17205] 17 p3106 N67-30843
Nuclear, mechanical, and radiological behavior of SNAPTRAN-2 reactor subjected to destructive testing
[IDO-17194] 21 p3668 N67-35883
Calculation of SNAPTRAN-3 temperature coefficient of reactivity
[NAA-SR-9780 /ADDEND. 1/]
23 p4090 N67-37042
Analysis of SNAPTRAN-1 and SNAPTRAN-2 reactor kinetics experiments
[NAA-SR-11856] 23 p4386 N67-38343
Radiological monitoring of SNAPTRAN-2 reactor destructive test
[IDO-17203] 23 p4386 N67-38808
SNOW
Attenuation of Ka-band energy by snow and ice measured with interferometer
[NOLC-670] 01 p0027 N67-10239
Footing elevation and settlement, lateral and vertical movement, and temperature, density, and accumulation of snow at DEWline ice cap stations
[CRREL-SR-73] 01 p0057 N67-10311
Snow survey method
[JPRS-39489] 01 p0180 N67-10891
Applied meteorology methods for preventing harmful effects of blizzards on

railroad transportation
[JPRS-32407] 01 p0161 N67-10400
Albedo of snow and ice on sea
[FTD-HT-66-182] 01 p0070 N67-11166
Snow cover and snow flood calculations in forest and steppes - tables
[JPRS-36499] 02 p0283 N67-11825
Thin sectioning technique for cumulus cloud snow pellets 03 p0418 N67-12497
Passive microwave determination of snow wetness factors 04 p0535 N67-13478
Remote sensing of ice and snow thickness 04 p0535 N67-13480
Radioactive tracers used to measure exchange rate of water vapor at snow surface
[AECL-2576] 04 p0563 N67-14034
Method for snow reserve map making and snow blanket water content forecasting 05 p0732 N67-14395
Pressure wave propagation in snow with nonuniform permeability
[CRREL-RR-216] 05 p0706 N67-15287
Temperature dependence and mechanism of sintering
[CRREL-RR-189] 06 p0706 N67-15313
Wind duct studies of blowing and drifting snow in polar regions
[R-486] 09 p1472 N67-19560
Fundamental equations for nonaxisymmetrical case of circular hanging roof subjected to uniformly distributed load along with snow load 09 p1535 N67-20119
Drag effects on aircraft pneumatic tire during takeoff under hazardous runway conditions
[S+T-MEMO-9/66] 09 p1455 N67-20333
Heat flow meters for heat flow measurements in soil, and snow and ice covers 11 p1863 N67-21990
Optimizing methods for making snow cover surveys by U.S.S.R. meteorological station network 11 p1864 N67-22023
Snow survey of catchment basin in Buzinovka valley of U.S.S.R. 11 p1864 N67-22034
Parallel light beam method to record particles in snow stream carried by wind 11 p1864 N67-22035
Large-scale measurements of rate of snow melting made by meteorological stations 11 p1864 N67-22036
Forced convection and nonisothermal irradiation effects on sublimation and mass transfer from snow surface
[CRREL-SR-98] 11 p1870 N67-22530
Ice and snow crystals in precipitation cold status of Kirin China area - April - June 1963 11 p1914 N67-22602
Spread footing foundation tests on snow
[CRREL-TR-175] 11 p1871 N67-23055
Data analyses of snow, soil, geological, and geophysical measurements obtained by microwave radiometry
[SGC-829R-4, VOL. II] 12 p2095 N67-24785
Instrumentation and measurement of brightness temperatures of snow, soil, and geological formations by microwave radiometry
[SGC-829R-4, VOL. I] 12 p2095 N67-24793
Measuring techniques, theory, and measurements of natural materials microwave emission properties
[SGC-829R-5] 14 p2522 N67-26907
Properties, accumulation, and redistribution of snow cover on glaciers in Polar Urals 14 p2523 N67-27147
Ablation rates of snow and ice measured on glaciers in Polar Urals 14 p2523 N67-27148
Seasonal conditions and factors affecting melting process of glacier ice and snow in Polar Urals 14 p2524 N67-27152
Air, ice, and snow temperatures measured to determine thermal regime of glaciers in Polar Urals 14 p2524 N67-27157
Ice and snow formation and texture studied on glaciers of Polar Urals 14 p2525 N67-27158
Load creep tests on sintered snow and bubbly polycrystalline ice
[CRREL-RR-239] 15 p2702 N67-28699
Sintering process in snow
[CRREL-RR-226] 17 p3057 N67-31394
Spectral brightness contrasts between clouds and snow 18 p3263 N67-31911
Equation for describing heat conduction in moist porous media
[CRREL-RR-213] 19 p3549 N67-32788
Sounding and temperature data used to determine snow thickness patterns for use in forecasting of rain or snow
[AD-653187] 19 p3484 N67-32878
Compacted-snow runways constructed in polar region from contaminated snow
[R-533] 20 p3618 N67-34295
Mechanical properties of Montana alpine snow
[CRREL-RR-227] 22 p4036 N67-37649
Survey of frozen precipitation in urban areas as related to climatic conditions
[CRREL-TR-162] 23 p4278 N67-38550
North American meteorological station network surface observations of snow and ice for correlation with aircraft and satellite reconnaissance data 24 p4439 N67-39628

SNOWPLOW
Chalice system performance - diagnostics, improvements in bank system, suppression of RF noise, magnetic fields, snowplow model for fast pinch, and collective coordinates for plasmas
[SIT-2582-19] 07 p1166 N67-17539
Snowplow model of hypersonic unsteady flows acting on slender body
[P-3521] 12 p2011 N67-24922

SOAP
S DETERGENT
S WETTING

SOCIAL FACTOR
Behavioral strategies of inducing cooperation from uncooperative person
[TR-5] 13 p2036 N67-24933
International space laws and evolution of social sciences in keeping with progress in natural and physical sciences 13 p2434 N67-25276
Human behavior toward and social ethics of using nuclear energy and radiations
[EUR-2772.E] 13 p2441 N67-26104
Influence of leadership experience on social judgment behavior
[TR-3] 14 p2473 N67-27558
Individual behavior in small groups and organizations in sociocultural environment
[TR-20] 17 p3010 N67-30767
Management survey on economic, sociological, and psychological determinants of organizational success
[NASA-CR-86985] 18 p3259 N67-32361
Future size of scientific establishment, rising social consciousness among scientists, development of Delphi technique, and second computer revolution
[P-3607] 18 p3260 N67-32522
Effects of science and newly emerging technologies on contemporary urban management
[NASA-CR-86664] 18 p3260 N67-32557

SOCIAL ISOLATION
Memory process reaction to limited mobility, partial isolation, and noise 02 p0221 N67-11641
Psychological effects on pairs of men in confined environments
[AD-641288] 10 p1560 N67-20541
Social isolation and group composition effect on group and individual task performance
[AD-642599] 10 p1596 N67-20578
Effects of isolation in constant environment on periodicity of physiological functions and performance levels
[NASA-CR-83700] 17 p3004 N67-30916
Effects of isolation of three individuals on 18 and 24 hour work-rest cycles in sealed chamber
[NASA-TT-F-11137] 18 p3213 N67-32362
Test program for determining psychological effects from various conditions of boredom and monotony - 7 day stay in totally dark soundproof cubicle
[REPT.-23] 18 p3218 N67-32629
Naval Medical Research Institute deep isolation laboratory
[REPT.-27] 19 p3372 N67-32771
Work and rest cycles of humans exposed to relative isolation 23 p4191 N67-39017

SOCIAL PSYCHIATRY
Role reversal in intergroup competition, prisoners dilema, strategies of inducing cooperation, card game study, and compliance to threats against
[AD-642423] 06 p0605 N67-16430
Dynamics of role theory for workers judgement
[TR-18] 21 p3773 N67-36016
Social psychiatry and factor analysis - conceptual structure of subjects related to interpersonal attraction
[TR-4] 24 p4388 N67-39549

SOCIOLOGY
Model study of conflict and cooperation behavior causing escalation and de-escalation 02 p0238 N67-12017
Model study of conflict and cooperation behavior causing escalation and de-escalation 02 p0238 N67-12018
Model study of conflict and cooperation behavior causing escalation and de-escalation - appendices 02 p0238 N67-12019
Remote sensing applied to archaeology and socio-cultural anthropology of man 04 p0625 N67-13519
Organizational efficiency and productivity determined by variables associated with economics, psychology, and sociology
[NASA-CR-70451] 07 p1213 N67-17879
Information retrieval applications to social science research 08 p1396 N67-19455
Sociological implications of explosive increase in human population 08 p1398 N67-19622
Science and technology needed to solve economic and sociological problems of cities
[HUD-MP-39] 08 p1399 N67-19982
Characteristics and problems of conceptual orientation using resolution mode and cognitive consistency-inconsistency concepts
[RR-9] 10 p1566 N67-20674
Hypothetical model for verbal behavior, attitudes, and interpersonal intentions
[TR-39] 10 p1563 N67-21435
Requirements for determining future effect of computing machines
[P-3501] 12 p2030 N67-24047
Sociological and economical aspects of commercial utilization of reusable spacecraft
[P-3565] 15 p2793 N67-28919
Applications of cybernetic modeling in surgery, general medicine, and sociology 16 p2833 N67-29567
Mathematical models of man and world system, and control of systems by training and education 23 p4369 N67-38598

SODIUM
SA ALKALI METAL
SA LIQUID SODIUM
Effect of phosphorus diffusion in thermal oxides on high temperature stability of metal oxide semiconductor structures 01 p0137 N67-10123
Lateral ion migration of sodium in insulating glass substrate for thin film microcircuits using autoradiographic techniques 01 p0050 N67-10124
Aerosol characteristics produced from burning sodium and plutonium
[LA-3491] 01 p0105 N67-10531
Rocket photometer measurement of altitude profile of daytime sodium in upper atmosphere
[NASA-CR-79298] 01 p0068 N67-10741
Montmorillonite ion exchange equilibria with strontium-sodium-cesium 04 p0502 N67-13759
Particle self-diffusion coefficients of sodium in vermiculite using thin bed technique 04 p0502 N67-13751
Mechanical strength of austenitic and ferritic steels exposed to high temperature sodium environment
[MSAR-66-149] 05 p0716 N67-14484
Diffusion and solubility of sodium in cadmium sulfide 06 p0947 N67-18031
Reactor design research in development of optimum sodium-steam plant system
[NAA-SR-11988] 06 p0915 N67-16526
Current and light storage effects in lithium and sodium doped zinc oxide single crystals following optical or thermal stimulation 07 p1175 N67-16971
Temperature and pressure effects on elastic wave propagation velocity in monocrystalline metallic sodium
[NYO-2564-15] 08 p1389 N67-18464
Spin-dependent scattering radii for sodium neutron cross section calculation below 40 keV 08 p1357 N67-18816
Neutron radiative capture cross section measurements on irradiated sodium, manganese, indium, and helmium samples 08 p1340 N67-18840
Free convection of sodium-potassium eutectic in enclosed space between two vertical plates with uniform heat flux
[NAA-SR-12964] 08 p1383 N67-18896
Laboratory methods to determine quantitative nitrogen, hydrogen, oxygen, and carbon impurities in sodium 09 p1497 N67-19582
Performance characteristics of electrochemical cell for oxygen content measurement and removal in sodium test

systems 09 p1607 N67-19583
Mass transfer studies in sodium, and corrosion rate data 09 p1541 N67-19592
Sodium environment effects on mechanical properties of austenitic and ferritic steels 09 p1458 N67-19593
Charge transfer of nitrogen and oxygen molecular ions with sodium atoms [NASA-CR-82858] 09 p1490 N67-20230
Sodium mass transfer, and effect of carbon and carbonate additions in sodium test loop [GEAP-4426] 10 p1652 N67-20850
SNAP-10A FSM-4 performance analysis - sodium potassium loading and thermal reference test [NAA-SR-MEMO-10446] 10 p1680 N67-20994
Thermodynamic and transport properties of cesium, rubidium, lithium, and sodium [AGN-8202] 10 p1773 N67-21516
Techniques for measurement of impurities in sodium [MSAR-66-221] 10 p1655 N67-21522
Behavior of refractory metals and alloys in boiling sodium and other alkali metals [BNL-10723] 10 p1656 N67-21575
Effect of high temperature sodium on austenitic and ferritic steels [MSAR-66-220] 10 p1658 N67-21786
Sodium and trimethylaluminum payloads for test rocket flight - camera equipment for night and twilight photography [GCA-TR-66-9-A] 11 p1961 N67-22395
Corrosion resistance of structural metals in sodium loop for operation at 900 deg C [SGAE-RE-6/1966] 11 p1924 N67-22979
High temperature strain gages for use in sodium environments [BAW-1280-41] 11 p1887 N67-23181
Sodium-water reactions from small leaks studied to determine mechanisms of reactor tube wastage [APDA-195] 11 p1815 N67-23225
Shielding material evaluation for resistance to sodium potassium fires in air and nitrogen [NASA-TM-X-1365] 11 p1900 N67-23334
Thin-walled tube used for continuous measurement of carbon activity in sodium [UNC-5160] 12 p2099 N67-23757
Thermodynamic properties of liquid metal solutions in sodium-mercury system at high temperature [NASA-TN-D-3951] 12 p2043 N67-24476
Behavior of fission products in sodium [LA-DC-8994] 13 p2423 N67-25532
Viscosity and shear strain behavior of sodium clay suspension in water [NASA-CR-83853] 13 p2356 N67-25638
Anodic electrolysis of oxide coated gettering alloys in sodium for increasing oxygen removal rate [UNC-5143] 14 p2477 N67-27020
Sodium components development program - shell-side heat transfer, once-through steam generator, mechanical properties, carbon analysis, Na mass transfer, and impurity analysis for Na [ORNL-3955, VOL. II] 16 p2969 N67-29746
Interactions and fission product distributions of irradiated plutonium fuels with sodium [LA-3607] 16 p2933 N67-29794
Fast power reactor simulation of sodium void experiments and fission production [KFK-472] 16 p2933 N67-29900
Hummerite, new hydrated vanadium of sodium and magnesium from Huemul mine, Mendoza, Argentina [CNEA-189] 16 p2868 N67-29945
Nucleate pool boiling heat transfer to sodium, and model for boiling stability of liquid metals [DSR-76385-45] 17 p3109 N67-30838
Nonmetallic impurities in sodium by amalgamation coupled with mass spectrometry [TRG-1227/R/] 17 p3017 N67-30944
Interrelationship between renal hemodynamics and sodium and water balance [NASA-CR-84495] 18 p3210 N67-31878
Quenching of resonance radiation of sodium by molecular nitrogen [P-364] 19 p3366 N67-32775
Atomic absorption cross section measurements of lithium and sodium between 600 and 1000 Angstrom using photoelectric techniques [TR-1001/9360-01/-5] 19 p3507 N67-33632
Energy level in sodium 23 studied by means of nuclear reaction Mg 25/deuteron, alpha/Na 23 [AD-654125] 20 p3712 N67-34325
Optical properties of sodium in vacuum ultraviolet [ORNL-TM-1776] 20 p3715 N67-34366
Void fraction measurements in two-phase flow of sodium potassium and argon [EUR-3486.F] 20 p3749 N67-35279
Proton spin relaxation times of sodium-ammonia solutions measured by nuclear spin resonance 21 p3784 N67-36149
High temperature sodium effects on mechanical properties of liquid metal cooled reactor structural materials [MSAR-67-79] 21 p3870 N67-36296
Surface tension measurement apparatus for determining impurities in sodium [MSAR-67-80] 21 p3785 N67-36298
Sodium heated steam generator [BAW-1280-44] 22 p3966 N67-37955
Sodium heated steam generator [BAW-1280-43] 22 p3967 N67-37957
Vacuum distillation method for determination of oxygen in sodium, and determination of hydrogen in sodium by means of diffusion indicator [ORNL-TR-1612] 22 p3904 N67-38025
Enthalpy and specific heat of liquid sodium and lithium between 250 deg F and 2150 deg F temperatures [AGN-8191, VOL. 6] 23 p4345 N67-38991
High temperature sodium effects on mechanical properties of austenitic and ferritic steels [MASR-67-103] 23 p4366 N67-39028
Hot gettering and distillating apparatus for sodium purification [NAA-SR-12444] 24 p4396 N67-39699

SODIUM ALLOY

Irradiation capsule for examining fission product distribution between plutonium fuel and sodium in reactor environment [LA-DC-7772] 18 p3296 N67-32423
NaK encapsulation techniques - irradiation growth and cavitation swelling in uranium and uranium alloys [DP-MS-66-1] 18 p3298 N67-32424
NaK-filled natural convection circulating capsule for fast ceramic reactor 18 p3301 N67-32440
Performance of stainless steel 304, 316, and 348 in sodium-potassium alloy at high temperatures [IN-1089] 20 p3659 N67-34788
Liquid Metal Fast Breeder Reactor /LMFBR/ coolant system development [NAA-SR-12416] 22 p4056 N67-37880
Viscosity of liquid sodium-potassium alloys, and dilatometer density measurements of liquid metallic sodium and potassium, and sodium-potassium alloy [JPRS-42035] 23 p4368 N67-39234
Viscosity of liquid sodium-potassium alloys 23 p4368 N67-39235
Dilatometer density measurements of liquid metallic sodium and potassium, and sodium and potassium alloy 23 p4368 N67-39236

SODIUM BROMIDE

Metal-oxide-silicon capacitor and radiochemical analyses of anion in sodium contamination failure mode [NASA-CR-79727] 02 p0296 N67-12228
International critical tables for solution densities of sodium bromide as function of temperature and anhydrous salt content [UCRL-50287] 20 p3595 N67-34728
High temperature heat properties and entropies of sodium bromide and sodium iodide [BM-RI-7040] 24 p4397 N67-39649

SODIUM CARBONATE

Stripping of uranium for tri-n-octylamine extracts by sodium carbonate solutions 06 p0834 N67-16274

SODIUM CHLORIDE

Sodium chloride aerosol penetration, and noise level measurements in airhoods and airblouses of personnel working with radioactive materials [AERE-R-5164] 04 p0497 N67-12817
Effect of size and amount of NaCl filler on mechanical properties of polyurethane rubber 05 p0723 N67-14535
Relation between particle size and conductivity of slow moving chlorine ion in sodium chloride surface layer diffusion of ceramic materials 07 p1174 N67-16943
Electric charge on dislocation arrays in sodium chloride [AD-647737] 12 p2043 N67-24417
Fabrication of inhomogeneous medium for antenna studies using diffusion profile of sodium chloride into agar agar, and behavior of dipole in medium [TR-513] 13 p2279 N67-25234
Plastic straining effects on growth kinetics of irradiated sodium chloride crystals [JEN-178-DF/I-54] 13 p2392 N67-25813
Creep analysis of polycrystalline sodium chloride in high temperature environment, and stress creep of sodium chloride-potassium chloride samples [NASA-CR-84166] 13 p2345 N67-26458
Sodium chloride crystal as thermal standard for X-ray diffraction analysis of substances at varying temperatures [NASA-TT-F-11062] 14 p2529 N67-27567
Stored energy measurements on irradiated sodium chloride samples [COO-525-24] 16 p2947 N67-29780
Gas equations of state for water, sodium chloride, and silicate rocks [UCRL-14729] 17 p3058 N67-30821
Chlorine evolution at graphite electrodes studied during electrolysis and without polarizing current in aqueous NaCl solution 18 p3234 N67-32130
Warm fog properties and fog modification by preseeding atmosphere with sodium chloride [NASA-CR-86566] 18 p3291 N67-32519
Empirical and thermodynamic equilibria of sodium chloride-cesium chloride-water-ethyl acetate system 21 p3777 N67-35961
Thermodynamic equilibrium of NaCl-AgCl-ethyl acetate-water system 21 p3777 N67-35962
Electron spectra of single crystal sodium chloride and potassium chloride [NASA-CR-86288] 21 p3916 N67-36976
Phosphorus nuclear magnetic resonance measurements in NaCl-type rare earth group VA intermetallic compounds 21 p3919 N67-36313
Grain boundaries and ductility studied in cubic ionic solids of sodium chloride [AD-655525] 22 p4125 N67-36966
Spectrographic method for determining trace impurities in sodium chloride [BARC-284] 23 p4391 N67-39249
Spectrographic determination of rare earth impurities in sodium chloride [BARC-283] 23 p4392 N67-39414
Titanium-iron alloys and titanium trichloride reaction rates in molten sodium chloride [BM-RI-7039] 24 p4397 N67-39650
Sodium chloride solution densities as function of anhydrous salt content and temperature [UCRL-50236] 24 p4383 N67-39654

SODIUM COMPOUND

Method for differential determination of hydrogen in sodium metal [APDA-183] 01 p0090 N67-10685
Surface tension and reaction measurements to determine impurities in sodium [MSAR-66-150] 02 p0261 N67-12232
Spectrochemical analysis of sodium uranate [JEN-164-DQ/I-57] 10 p1589 N67-21632
Thermal decomposition at imperfection regions of sodium bromate crystal [TR-3] 13 p2048 N67-24894
Solubility of ternary mixtures of water/3-methoxybutanol-1/sodium tetraborate-diol condensates applied to hydraulic brake fluids [CCL-222] 14 p2475 N67-26668
Correlation of alumina extraction with sinter and leach products from lime soda sinter process for anorthosite [BM-RI-6953] 14 p2428 N67-27736
Crystallography of sodium hypoiodite [AFOSR-67-1629] 17 p3017 N67-29717
Organic binders containing soluble inorganic perchlorate oxidizers for increasing illumination of castable visual flares [RDTR-91] 22 p4000 N67-36668
Heats of formation of lithium, sodium, and potassium fluoborates [R-163/SR.3] 24 p4389 N67-39424
Sodium thiosulfate pentahydrate crystal structure from neutron diffraction [CNAEM-44] 24 p4400 N67-40216

SODIUM COOLING

SA ADVANCED SODIUM COOLED REACTOR /ASCR/

Oxidation characteristics of refractory metals for use as hot getters in sodium coolant purifying systems 09 p1458 N67-19587
Metallurgical analysis of bellows failure in heat transfer loop of sodium components [NAA-SR-MEMO-11970] 10 p1679 N67-20966
Bellows-free design of secondary sodium piping system in sodium component test facility [NAA-SR-MEMO-11941] 10 p1680 N67-20991
Sodium cooled reactors fast ceramic reactor development program [GEAP-5156] 10 p1685 N67-21632
Possibility of hydrogen embrittlement of tantalum in sodium cooled reactor [LA-3506-MS] 11 p1920 N67-22323
Progress reports on sodium cooled fast reactor technology [NAA-SR-12175] 11 p1921 N67-22329
Eutectic sodium potassium and OS-124 considered as coolant fluids for SNAP-8 third loop - optimum loop operating parameters [NASA-CR-72213] 11 p1922 N67-22345
Thirty-three group cross section library for sodium cooled fast reactor calculations [AEEW-R-491] 11 p1924 N67-22907
Sodium-cooled reactor program - instrumentation, reactor component development, heat transfer studies, plasma thermocouple work, and heat pipe tests [LA-3625] 12 p2144 N67-23545
Mathematical model to predict time-dependent behavior of boiling sodium coolant in nuclear reactor channel [ANL-7223] 13 p2362 N67-25927
Local heat transfer and static pressure data for mercury condensing single tube heat exchangers cooled by sodium potassium [NASA-TN-D-3998] 14 p2515 N67-26552
Mathematical approach to physiochemical process of oxide precipitation from sodium flow [SM-85/48] 15 p2657 N67-28170
Purification of molten sodium reactor coolant by high efficiency cold diffusion trapping of impurities [SM-85/47] 15 p2745 N67-28177
Thermal and fluid dynamic performance of potassium during condensation inside sodium-potassium cooled tube [NASA-TN-D-4090] 15 p2804 N67-28296
Improved components for sodium-cooled nuclear power plants [ORNL-3955, VOL. I] 16 p2933 N67-29814
Development, manufacturing, and flight testing of SNAP-10A thermoelectric pump for NaK circulation [NAA-SR-11879] 17 p3108 N67-30631
Uranium carbide-plutonium carbide for sodium cooled fast reactors [BMI-1790] 19 p3490 N67-33412
Design, performance, and economics evaluation of sodium-heated modular supercritical steam generator [NAA-SR-8966] 19 p3491 N67-33507
Release, distribution, and removal of fission products in sodium coolant systems and advanced plutonium fuels [LA-3686-MS] 20 p3683 N67-34806
Analytical containment leakage model and prototype design for sodium cooled fast breeder reactor [EURFNR-289] 21 p3893 N67-36619
Radiation shielding calculations for conceptual design of fast test reactor sodium cooling [BNWL-388] 22 p4094 N67-37867
Sources, effects, and radiation aspects of sodium coolant spill and aerosol transport in nuclear power plant 23 p4288 N67-38862
Performance evaluation of heat exchangers for sodium cooled reactors [UNC-5183] 23 p4291 N67-39134

SODIUM D-LINE
Comparison of sodium D-line reversal temperatures and nitrogen vibrational temperatures in region of vibrational relaxation behind incident shock waves 23 p4364 N67-38686

SODIUM FLUORIDE
Effects of core dimension, thorium fluoride content, and uranium enrichment on energy spectrum of sodium fluoride-beryllium fluoride molten-salt reactor [JUL-315-RG] 10 p1682 N67-21072
Breeding conditions and cooling process in epithermic fluoride molten-salt reactors [JUL-362-RG] 10 p1683 N67-21079
Molecular beam electric resonance spectra of lithium fluorides, sodium fluorides, and potassium chloride [UCRL-17019] 15 p2659 N67-28410
Spectral studies of triatomic fluorine ion centers radio induced in sodium fluoride by X-rays at room temperature [NYO-3464-6] 16 p2850 N67-29758

SODIUM GRAPHITE REACTOR /SGR/
Computer program for calculation of thermal neutron flux and currents, energy, and gamma dose on axis of graphite carbon dioxide reactor channel [ORNL-TR-1374] 08 p1312 N67-18614

SODIUM HYDRIDE
Laboratory preparation and purification of boron and sodium hydride [UCRL-12340] 10 p1572 N67-20769

SODIUM IODIDE
New method of using sodium iodide thallium crystals in detecting high energy gamma rays [IEA-168] 01 p0134 N67-10664
Compact electronic unit for use with NaI scintillation counters and in applications where great experimental flexibility is not required [AERE-R-5225] 02 p0344 N67-11901
Sodium iodide scintillation counter activated with large thallium crystals for recording gamma radiation from cobalt 60 10 p1646 N67-21273
Sodium iodide /thallium/ scintillation crystal measurements of photomultiplier tubes [USNRDL-TR-1099] 12 p2064 N67-24060
Stopping power of sodium iodide/thallium/ crystal for gamma photons at energies between 0.01 and 10 MeV [NP-16500] 15 p2760 N67-28201
Gamma ray counting with sodium iodide well-type scintillation detector [REPT.-1500-562-67] 16 p2849 N67-29647
Coincidence spectra in NaI crystals that are distorted by random events, pile-up, and summation [ANL-TRANS-414] 17 p3129 N67-30658
Phosphorescent characteristics of thallous dimer center in sodium iodide crystals [TID-23773] 19 p3501 N67-32900
Lithium drifted germanium and silicon semiconducting detectors compared with thallium activated sodium iodide crystal scintillation counter for gamma spectrometry [NASA-TT-F-11202] 22 p4049 N67-37732
High temperature heat properties and entropies of sodium bromide and sodium iodide [BM-RI-7046] 24 p4397 N67-39849

SODIUM NITRATE
Flares with various combinations of sodium nitrate and metal powders evaluated for luminous intensity and burning rate at high altitudes [PA-TR-2360] 08 p0620 N67-16137
Radiation studies and gamma radiolyses to determine properties of nitrous solutions and compounds 08 p1243 N67-19344
Cation exchange characteristics of high alkali borate, borosilicate, and borophosphate glasses in fused sodium nitrate [USNRDL-TR-1091] 09 p1409 N67-19748
Thermal diffusivities of solid boron nitrate, and liquid sodium nitrate and lithium fluoride 11 p1998 N67-22162
Delayed titanium corrosion in hydrochloric acid, and sulfuric acid by sodium nitride 22 p3986 N67-37143

SODIUM PEROXIDE
Thermal decomposition characteristics of sodium superoxide, sodium peroxide, and lithium peroxide and magnetic susceptibility of calcium superoxide [NASA-CR-84469] 14 p2482 N67-27504

SODIUM SALICYLATE
Sodium salicylate fluorescent properties utilized in coatings of integrating sphere reflectometers for vacuum ultraviolet spectral regions [NASA-TM-X-55645] 06 p0919 N67-16547

SODIUM SILICATE
Reduction of reactor effluent process water radionuclides by addition of sodium silicate [BNWL-382] 07 p1130 N67-17454

SODIUM VAPOR
Expansion and flow characteristics of initially saturated sodium, potassium, and cesium vapors [NASA-TN-D-3743] 02 p0349 N67-11329
Cost trends of major plant equipment for secondary sodium steam turbine portions for reactor [NAA-SR-12060] 04 p0574 N67-13856
Dynamics of upper atmosphere investigated through analysis of motion of sodium vapor trails ejected from sounding rockets [NASA-CR-83394] 11 p1869 N67-22426
Nike-Apache sodium vapor trails used in determining dynamics of upper atmosphere [NASA-CR-85903] 18 p3261 N67-31742
Sodium vapor trail experiments, and wind measurements by photographic method [NASA-CR-86882] 22 p4042 N67-38631

SODIUM 24
Induced sodium 24 activity in concrete shielding of high-energy accelerators [CERN-66-28] 02 p0290 N67-11742
Production of carrier-free sodium 24 by irradiation of magnesium matrices in fast neutron flux of pool reactor [EUR-3258.E] 10 p1713 N67-21620
Radioactive sodium 24 used as tracer to study sugar from beets [REPT.-756/XXII/J] 14 p2484 N67-27898

SOFT LANDING
SA LUNAR LANDING
Press conference of Lunik IX flight - telemetry, landing, lunar surface, and photography [FTD-HT-66-227] 01 p0155 N67-11169
Structure, material, and design considered in analysis of ideal energy dissipation mechanisms for spacecraft landings [NASA-CR-80334] 03 p0470 N67-12973
Dynamics of buoyant atmospheric entry for soft landings on planetary surfaces [GAM/AE/66A-2] 06 p0967 N67-16153
Analysis and configuration of control system for Mars propulsive lander [NASA-CR-82912] 09 p1438 N67-19917
Flight and soft landing of Lunik IX lunar probe on the surface of the moon [RAE-LIB-TRANS-96] 11 p1980 N67-23451
Spacecraft control studies on antenna pointing, capsule sterilization, propulsive lander, optical sensing for soft landing spacecraft, and gyro data reduction computer programs 12 p2017 N67-23647
Closed loop optimal guidance equations for soft landing 14 p2570 N67-26530
Model laws governing parachute performance in Martian environment landing 15 p2637 N67-27865
Lie series for solving optimization problem of soft landing on moon with fuel minimization [NASA-CR-85869] 17 p3162 N67-31077

SOIL
SA CLAY
SA LUNAR SOIL
SA MINERAL
Cartographic representation of various morphologic species of loess on large scale topographic maps [JPRS-38122] 01 p0067 N67-10395
Basic mechanics of freezing, frozen, and thawing soils [NRC-TT-1239] 01 p0067 N67-10422
Mathematical analysis of plane plastic deformation of ideal soil [CRREL-RR-87] 01 p0068 N67-10487
Wave velocities in partially saturated sand-clay mixtures in response to dynamic loadings [R66-13] 01 p0115 N67-10511
Quasi-static and dynamic response of granular soils [TR-3] 01 p0162 N67-11194
Photographic data on desert soils and geologic materials [NASA-CR-79873] 02 p0254 N67-11325
Literature survey and experiments on stress deformation characteristics of soils under static loading [NASA-CR-571] 02 p0256 N67-11047
Experiments for crater modeling in controlled soil media to determine effect of moisture content on ground shock velocities, residual displacements, and rarefaction wave [REPT.-1862] 02 p0257 N67-12193
Improved apparatus for measuring heat balance of soils 03 p0396 N67-12907
High temperature preincubation method for soil isolation of pectinolytic actinomycetes 03 p0345 N67-12847
Vegetative, soil, and photographic factors affecting tone in agricultural remote sensing 04 p0525 N67-13475
Temperature variation at depth of 30 cm in clay till and outwash sand and gravel 04 p0536 N67-13482
Field and greenhouse experiments to

determine effects of plant height, ground cover, and soil salinity on spectral reflectance of cotton 04 p0469 N67-13491
Gamma ray spectral region analyzed for remote determination of soil trafficability conditions 04 p0537 N67-13510
Soil layering effects on use of VHF radio waves for remote terrain analysis 04 p0538 N67-13514
Remote sensing in soil and water conservation research 04 p0538 N67-13525
Soil characteristics measured during steady flow or equilibrium conditions used to solve on dimensional transient boundary value problems for vertically downward flow during infiltration 04 p0541 N67-13744
Computer program for radionuclide migration in soil columns 04 p0562 N67-13756
Dispersion characteristics of strontium in soil columns from mathematical model 04 p0562 N67-13757
Cesium and strontium distribution beneath liquid waste disposal sites 04 p0563 N67-13758
Chlorosphaeraceae algae from Connecticut soil
[NASA-CR-86618] 04 p0495 N67-14176
Phase front distortion due to soil irregularities in attempt to put selection of sites for direction finding equipment on theoretical basis
[RAE-LIB-TRANS-1175] 04 p0582 N67-14337
Analysis of dynamics and changing processes of sand dunes under barren flat ground conditions and in presence of wind 05 p0636 N67-14369
Geology and topography of Tarim Basin agricultural basin threatened by sand dune encroachment 05 p0699 N67-14371
Ammonification and nitrification tests of desert soils
[NASA-CR-86671] 05 p0640 N67-14399
Mechanics of consolidation theory, and component behavior and coupling between water and soil 05 p0699 N67-14504
Impacting soil measuring device for predicting resistance to dynamic, repetitive loading 05 p0778 N67-14590
Permafrost application for engineering construction in cold regions
[CRREL-1-A3] 06 p0674 N67-16331
Soil response to dynamic loadings - formation of wave fronts in sand
[RG6-32] 09 p1440 N67-19579
Enzyme activity in terrestrial soil studied in relation to exploration of Mars surface
[NASA-CR-82944] 09 p1462 N67-19955
Finite element analysis of stress-strain relationship in soils
[NASA-CR-86218] 10 p1766 N67-21441
Soil moisture measurements with neutron flux detectors 11 p1911 N67-21997
Calculating temperature and heat flow measurements in soil in relation to heat flow meters 11 p1911 N67-21998
Heat flow meters for heat flow measurements in soil, and snow and ice covers 11 p1883 N67-21999
Iteration method of solving plane elastic-plastic problem of soil mechanics 11 p1984 N67-22059
Prototypes of automated soil sampling systems for use in Voyager-class capsules of 1970 decade for Mars exploration
[NASA-CR-83516] 11 p1789 N67-22222
Probes for measuring thermal conductivities of soils and insulating materials
[CRREL-TR-182] 11 p1870 N67-22531
Data analyses of snow, soil, geological, and geophysical measurements obtained by microwave radiometry
[SGC-329R-4, VOL. II] 12 p2005 N67-24785
Instrumentation and measurement of brightness temperatures of snow, soil, and geological formations by microwave radiometry
[SGC-329R-4, VOL. I] 12 p2005 N67-24795
Development of stress-plastic strain increment relation for behavior of granular media
[REPT.-36] 13 p2411 N67-25124
Sulfur oxidation in desert soils due to bacterial activity
[NASA-CR-83817] 13 p2256 N67-25473
Differential equations for vertical penetration of rigid right circular cylinder into half-space of homogeneous isotropic soil
[SC-RR-66-376] 14 p2295 N67-27241
Relief features, climate, surface waters, soil mantle, vegetation cover, and animal inhabitants of Sinkiang province of Central Asia
[JPRS-40299] 14 p2526 N67-27263
Ecological experiments on bacteria growth response and survival in different soils simulating extraterrestrial environments
[NASA-CR-84516] 14 p2465 N67-27674
Polarization features of light reflected by soil, sand, and water under different conditions of illumination
[SR-2] 15 p2702 N67-28248
Soil thermodynamics at freezing point depression, and heat capacity at or below freezing point
[CRREL-RR-223] 15 p2706 N67-28906
Remote measurement of bare soil temperature and evaporation rate using infrared radiometer
[REPT.-392] 16 p2832 N67-29052
Antarctic desert microflora and soil properties, and redesign of hydrogen ionization detector 16 p2825 N67-29159
Annotated bibliography of literature on soil dynamics and soil structure interaction during dynamic or similar loadings
[DR-170] 16 p2908 N67-29779
Earth penetration post test soil exploration technique for determining projectile effects on surface and subsurface soil
[SC-RR-66-2617] 16 p2961 N67-29857
Geology, soil, and climate at specific points used in predicting penetration depth of reentry impact of power supply capsule
[TEI-867] 17 p3054 N67-30750
Mathematical model and computer program for predicting response of earth media to hypervelocity impact
[NASA-CR-85618] 17 p3174 N67-31146
Sample pattern in four-dimensional space for determining oil infiltration in soil - mathematical models of axially symmetrical potential flows
[NR-155A] 17 p3049 N67-31452
Review and analyses of land locomotion theories, soil mechanics, and unusual vehicle concepts for off-road trafficability
[TR-8569] 18 p3255 N67-31921
Soil-vehicle system theory to predict sinkage and motion resistance using plate penetration test 18 p3263 N67-31922
Engineering methods for measuring horizontal shear strength in soil-vehicle mechanics 18 p3263 N67-31923
Review of current methods for analyzing vehicle wheel performance in soft soil 18 p3263 N67-31925
Dimensional analyses and model techniques for evaluating and predicting off-road vehicle performance and soil behavior 18 p3263 N67-31927
Soil analogs used for strength predictions in terms of surface vehicle locomotion in remote or inaccessible areas 18 p3263 N67-31928
Design, construction, and operation of portable, manually operated penetrometer and shear unit for testing soil strength 18 p3270 N67-31929
Construction and operation of experimental wheeled Bevameter for measuring soil strength 18 p3256 N67-31930
Stress measurements and wave propagation studies in soils subjected to dynamic loads
[CRREL-RR-120] 19 p3439 N67-32846
Pulse X-ray techniques for studying shock wave induced effects in soils 19 p3458 N67-32142
Soil response to dynamic loads measured by penetrometers
[NASA-CR-949] 20 p3627 N67-34028
Identification of Chile Atacama Desert soil isolants
[NASA-CR-87681] 20 p3578 N67-34917
Electric conductivity measurements of soil in U.S.S.R. for mapping radio wave propagation routes
[JPRS-41790] 20 p3636 N67-35094
Electrical parameters of antenna and soil for design of linear near ground and buried antennas
[JPRS-41131] 21 p3795 N67-35866
Microstructure, flow behavior, transport, and storage of granular media - Continuum theory
[AROD-4875-4-E] 21 p3834 N67-35879
Desert soil fertilization research to determine ammonifying, nitrifying, and sulfur oxidizing capacities
[NASA-CR-86681] 21 p3786 N67-35889
K-band radar remote sensor agricultural study of surface soils in western Kansas
[NASA-CR-82308] 21 p3849 N67-36060
Heat transfer from bare soil under varying stability conditions and fluxometer accuracy in estimating vapor flux from bare soils
[AD-654700] 21 p3848 N67-36401
Staining and morphological, cultural, and physiological characteristics of organisms isolated from Hilgard soils - charts
[NASA-CR-86116] 21 p3789 N67-36613
Solid and liquid state concepts for large particle or macromeritic systems - soil mechanics
[AFCRL-67-0414] 23 p4349 N67-38072
Elastic membrane effect on stability of time independent soil
[ARPA-E47] 23 p4355 N67-38243
Governing differential equations for projectile penetration in soil
[SC-DC-66-2423] 23 p4356 N67-38355
Time-acceleration traces for cylindrical ogival nose projectiles penetrating soil medium
[SC-DC-66-2434] 23 p4356 N67-38359
Seismological study of ground vibration characteristics at site of future linear accelerator facility
[LA-DC-8718] 23 p4347 N67-38360
Microorganisms trapping by colonization of sterile organic plant parts buried in Chile desert soil samples
[NASA-CR-89594] 24 p4385 N67-40091
Systematic description and key to microorganisms isolated from Hawaiian soils
[NASA-CR-89690] 24 p4386 N67-40237

SOLAR ABSORBER
Zinc oxide-potassium silicate thermal coating tested under various vacuum, temperature, solar electromagnetic, and proton environments to determine their effects on solar absorptance
[NASA-CR-73028] 06 p0774 N67-14823
Determination of atmospheric composition by solar absorption photometry using rocket-borne detectors 20 p3636 N67-35973

SOLAR ACTIVITY
SA PROMINENCE
SA SUNSPOT
Radio astronomy observations of solar activity
[AR-23] 01 p0147 N67-10629
Maps and data of solar activity for October 1966 01 p0147 N67-10632
Solar activity and geophysical data for July 1965 - June 1966 - tables
[CRPL-FB-263] 01 p0147 N67-10632
Solar activity data tables including sunspot group daily total areas, heliographic positions, classification, longitudinal sunspot magnetic fields, and sudden cosmic noise absorption 01 p0148 N67-10557
OSO-II data on solar activity and electromagnetic radiation
[NASA-TM-X-55899] 02 p0311 N67-11366
Solar activity influence and tick-borne encephalitis virus
[JPRS-38538] 02 p0211 N67-11837
Narrow band studies of solar bursts using high resolution radio spectrographs
[AFCRL-66-890] 02 p0304 N67-11923
Tabulated solar and geophysical data
[RRC-A122, PT. 2] 02 p0690 N67-12620
Single and double gas number-density equations for determining temperature-altitude profile, high and low solar activity atmospheric models, and error analysis
[NASA-CR-79525] 03 p0464 N67-13018
Tabulated solar and geophysical data
[RRC-A123, PT. 2] 03 p0690 N67-13969
Upper atmosphere model for minimum solar activity
[RPU-527] 04 p0807 N67-13616
Synoptic maps of solar chromosphere, and filament and activity center catalogs 04 p0808 N67-13619
Solar and geophysical data obtained July, 1966, by Indian stations
[RRC-A124, PT. 2] 04 p0642 N67-13913
Geophysics project to study solar and terrestrial phenomena - International Quiet Sun Year 04 p0644 N67-14222
Observational results of processes occurring on surface of sun 06 p0822 N67-15468
Dual frequency VLF data related to solar activity
[NASA-TM-X-55702] 08 p1248 N67-18770
Surveillance of solar activity from optical observations of satellites
[RAE-LIB-TRANS-1168] 09 p1507 N67-20230
Tabulated solar and geophysical data from

vertical incidence soundings in India [RRC-A135, PT. 2] 11 p1972 N67-23068
Upper atmosphere geophysical data - airglow, cosmic rays, aurora, geomagnetism, and solar activity 11 p1873 N67-23473
Total field intensity magnetometer, cosmic ray neutron intensity monitor, riometer, oblique high frequency propagation, solar observations and radio emission, and ionospheric soundings [AD-646664] 12 p2091 N67-32539
Periodicities of solar activity derived from sunspot data [FTD-HT-66-115] 13 p2301 N67-33827
East-west asymmetric distributions of sunspots over solar disk 12 p2368 N67-34334
Recent solar activity minimum determination 12 p2393 N67-34335
Frequency and east-west symmetry of solar flares in centers with great flare activity 12 p2393 N67-34340
Influences of interstellar gas pressure, solar activity, and galactic magnetic field on shape and extension of corona 12 p2394 N67-34350
Research on solar activity, flares, terrestrial relationships, spectroscopy, and hydromagnetic theory [AD-646373] 12 p2307 N67-34752
Tables of radioelectric solar activity, Belgium, 1963 [AR-14] 13 p2398 N67-36100
Solar filament and prominence diagrams, and solar activity observation tables for Manila, March 1967 13 p2398 N67-36140
Astronomical observations of solar phenomena 14 p2609 N67-37252
Probability forecasting for solar activity and geophysical responses [REPT.-4WWM-105-1] 14 p2526 N67-37462
Predicting geomagnetic storms from observations of solar activity [NASA-CR-84464] 14 p2609 N67-37518
Air density fluctuations in upper atmosphere caused by increased solar activity [RAE-TR-66350] 14 p2615 N67-37834
Geophysical data tables - airglow, ionosphere, aurora, cosmic rays, geomagnetism, and solar activity 14 p2529 N67-27749
Tabulated solar and geophysical data related to ionospheric soundings in India - October 1966 [RRC-A136, PT. 2] 15 p2706 N67-28851
Partial correlation coefficients between various ionospheric, solar, and geomagnetic parameters and spread-F occurrence probability 16 p2857 N67-29291
World Data Center geomagnetic data for February 1966-January 1967 and solar geophysical data for January 1957-December 1963 - tables 16 p2868 N67-29965
Solar activity data and ionospheric effects for India, January 1967 - tables [RRC-A140, PT. 2] 16 p2890 N67-30110
Ionospheric characteristics, irregularities, and circulation, and comparisons with geomagnetic field and solar activity 19 p3437 N67-33817
Ionospheric data of middle latitudinal U.S.S.R. stations compared with solar activity and tropospheric characteristics 19 p3439 N67-33833
Synoptic meteorology - atmospheric processes as related to solar activity, solar cosmic rays and high energy particles in troposphere, and color photography as visual aid [JPRS-41466] 19 p3484 N67-33523
Atmospheric circulation changes in Northern Hemisphere as related to solar activity 19 p3485 N67-33534
Solar phenomena, planetary and lunar compositions, plasmas, interplanetary particles, satellite probes, animal neurophysiology, engineering structures, and related space activities [NASA-CR-88383] 21 p3923 N67-36460
Observation and interpretation of solar phenomena and effects on geomagnetic field [AFCRL-67-0546] 23 p4135 N67-38845
Solar interplanetary studies of proton flares [NASA-CR-73125] 23 p4136 N67-37283
Solar activity and ionospheric effects for India, March 1967 - tables [RRC-A142, PT. 2] 23 p4243 N67-38303
Solar activity and ionospheric effects for India, April 1967 - tables [RRC-A143, PT. 2] 23 p4243 N67-38304
Solar activity and ionospheric effects for India, May 1967 - tables [RRC-A144, PT. 2] 23 p4243 N67-38305
Conference papers on meteorological satellite data interpretation, solar and upper atmospheric phenomena, tropical meteorology, and weather forecasting techniques [AWS-TR-196] 24 p4485 N67-39802

SOLAR ACTIVITY EFFECT
Anomalous ion formation in lower ionosphere and effective recombination coefficient as function of solar activity and zenith angle [NASA-CR-86663] 04 p0540 N67-13577
Tiros VII electrostatic probe measurements of ionospheric electron density on quiet and disturbed days [NASA-TM-X-55446] 06 p0876 N67-16548
Relation between solar activity and tree ring growth in western North America [NASA-CR-81738] 07 p1075 N67-18122
Angle of turbulence and solar activity effects on stellar image quality 11 p1975 N67-22507
Airglow observations, diurnal variations, variations during solar eclipse and activity, and instrument calibration [AFCRL-67-0028] 16 p2885 N67-29447
Variations of electron densities in undisturbed D region [NDRE-54] 17 p3052 N67-30422
Variations of standard atmospheres at upper atmospheres 17 p3053 N67-30576
Tabulated data from Indian stations on sunspots, solar flux, ionospheric effects of solar flares, magnetic storms, and sudden ionospheric disturbances for February 1967 [RRC-A141, PT. 2] 20 p3633 N67-34656
Relationship of solar radioemission flux from local sources and optically observed structure of active regions of sun [NASA-CR-88278] 21 p3929 N67-36517
Modular auroral probe payload for rocket studies of zone disturbances [NASA-CR-89283] 23 p4249 N67-39243

SOLAR ATMOSPHERE
SA CHROMOSPHERE
SA CORONA
SA PHOTOSPHERE
Compton effect on relativistic electrons in solar atmosphere [NASA-CR-86166] 02 p0302 N67-12241
Physics of solar system - solar line spectrum, photosphere, chromosphere, prominences, flares, corona, radio emission, moon, planet physics, comets, meteors, and zodiacal light [NASA-TT-F-342] 06 p0962 N67-15484
Normal solar spectrum, identification of Fraunhofer lines, equivalent Fraunhofer line widths, and composition of solar atmosphere in study of solar line spectrum 06 p0956 N67-15486
Solar survey - totality of continuous observatory measurements of phenomena in solar atmosphere 06 p0956 N67-15492
Propagation of compression waves in isothermal atmosphere with vertical magnetic field [MPI-PAE-EXTRATERR.-9/65] 07 p1167 N67-17816
Titanium abundance in solar atmosphere 12 p2301 N67-34334
Force-free fields in solar atmosphere and interplanetary space 12 p2396 N67-34350
Cosmic ray variations in interplanetary space, solar and earth atmospheres, and geomagnetic field, from IGY data [FTD-MT-64-96] 13 p2397 N67-35127
Observations of heterogeneous structure and kinematics of solar atmosphere, and engineering development of instrument for measuring local displacements on spectrogram [AFCRL-67-0094] 14 p2606 N67-36785
Instrumentation development and observations of heterogeneous structure and kinematics of solar atmosphere 14 p2606 N67-36786
Asymmetries in iron line spectrum of solar atmosphere [AFCRL-67-0354] 22 p4135 N67-36848

SOLAR CELL
Unified approach to energetics research - electron and/or photon and phonon interactions, and solar cells for high temperature use [AFCRL-66-134, VOL. I] 01 p0137 N67-10257
Conventional and thin-film solar cells for space power application 01 p0007 N67-10264
Interplanetary spacecraft power supply system configurations and solar cell array analysis [NASA-CR-80523] 03 p0336 N67-13268
Solar cells, fuel cells, and heat exchangers for spacecraft power supply system [AI-TRANS-209] 04 p0483 N67-14027
Techniques for fabrication of thin film polycrystalline cadmium sulfide solar cells on plastic and metal foil substrates [RAE-LIB-TRANS-1162] 04 p0484 N67-14240
Solar array incorporating silicon solar cells mounted on flexible substrate [NASA-CR-80917] 05 p0637 N67-14819
Cadmium sulfide photovoltaic thin film solar cells [NASA-CR-72144] 06 p0795 N67-16562
Design, fabrication, and evaluation of silicon solar cell for near sun mission [NASA-CR-73062] 06 p0795 N67-16625
Spacecraft gravity-stabilization boom combined with solar cell array 07 p0997 N67-16911
Extendible structure to angularly position planar surfaces of solar cells for spacecraft electric power system 07 p0997 N67-16927
Mechanism of cadmium sulfide film cell [NASA-TM-D-3849] 07 p1177 N67-17507
Feasibility of programmed heat shield for temperature and power control for spacecraft on-board power [NASA-CR-75707] 07 p1000 N67-17987
Supporting data for structural design of folding modular panel solar cell array [NASA-CR-59986] 07 p1001 N67-17963
Structural design studies and project plan for folding modular panel solar cell array [NASA-CR-81613] 07 p1001 N67-17968
Thin film large area cadmium sulfide solar cells [NASA-CR-72159] 08 p1222 N67-18632
Performance of N/P silicon and cadmium sulfide solar cells bombarded by simulated micrometeoroids [NASA-TM-X-52273] 10 p1558 N67-21291
Vortex arc studies, solar flux and spectral measurements, spacecraft coatings, solar simulation studies, and solar cell radiation effects testing [NASA-TM-X-55735] 11 p1853 N67-22141
Solar cell calibration and radiation effects experiments 11 p1794 N67-22149
Engineering design and development of large solar cell array [NASA-CR-83900] 13 p2250 N67-28908
Reactive sputtering and electron beam evaporation techniques for depositing glass coverslips on silicon solar cells [NASA-CR-84065] 13 p2344 N67-36177
Historical documentation and bibliography on past research in photovoltaic solar energy converter cells [NASA-CR-84008] 13 p2251 N67-36180
Solar cells using polycrystalline films of gallium arsenide [NASA-CR-84014] 13 p2394 N67-36265
Solar cell radiation damage experiment on Applications Technology Satellite-1 [NASA-TM-X-55772] 14 p2448 N67-36568
Electro-optic instrumentation for measuring spectral response of solar cells [NASA-TM-X-55773] 14 p2448 N67-36582
Progressive method using two reference vectors and solar cell technique for determining rocket attitude allowing for automatic calculation on digital computer [RAE-LIB-TRANS-1183] 15 p2795 N67-28700
Rapid thermal cycling of integral coverslipped solar cells, and tests on high vacuum sputtered silicon dioxide cells [NASA-CR-84839] 15 p2646 N67-28877
Radiation damage in silicon solar cells and annealing or compensation of damage by impurities [NASA-CR-83860] 15 p2646 N67-28927
Spectral response and thermal cycling tests on solar cells with integral coatings [AFAPL-CONF-67-8] 16 p2830 N67-29130
Differences in design of Explorer and Ariel I satellites solar array regulators for accommodating requirements of nickel-cadmium and silver-cadmium batteries [NASA-TN-D-3983] 16 p2823 N67-30028
Solar-cell array simulator providing programmed dc power supply [NASA-CR-72975] 16 p2834 N67-30140
Electrical power system for Pegasus satellite 17 p2998 N67-30600
Computer program derived from linear equations used for predicting silicon solar cell current voltage curve characteristics as

function of incident solar intensity and cell temperature
[NASA-CR-85704] 17 p2997 N67-30648
Fabrication processes for thick integral coverslips for silicon solar cells
[NASA-CR-85599] 17 p2998 N67-30935
Breadboard models of power conditioners used for converting output of solar cell array into voltage and current requirements of electron bombardment, cesium-ion thrustor
[NASA-CR-54672] 17 p2999 N67-31240
Solar cell-battery electrical power subsystem for horizon definition spacecraft
[NASA-CR-66378] 18 p3197 N67-32906
Structural and thermal characteristics of large rollup solar cell array structure
[NASA-CR-86986] 18 p3198 N67-32991
Bibliography on photovoltaic effect and solar cell development
[NASA-CR-86979] 18 p3199 N67-32190
Photovoltaic conversion - multikilowatt solar arrays with specific power densities approaching 40 lb/kW
[NASA-CR-87005] 18 p3200 N67-32529
Solar simulation studies, coatings qualification testing, and solar cell calibration techniques
[NASA-TM-X-55827] 18 p3306 N67-32594
Lithium-diffuse semiconducting silicon solar cells
[NASA-TM-X-55880] 19 p3369 N67-33012
Germanium solar cells for thermo-photovoltaic conversion with increased energy conversion efficiency
[ONERA-TP-478/1967/] 19 p3369 N67-33232
Spacecraft power supply evaluation of solar cells, and thermionic energy conversion systems 20 p3569 N67-34764
Structural, mechanical, and electrical design data on large area solar cell array, ground support equipment designs, and performance analyses
[NASA-CR-87989] 21 p3759 N67-35394
Integral short circuit current of photoelectric cells determined from power spectral distribution of light source radiation - silicon photocell coatings 21 p3760 N67-35471
Calculated potential increase in solar cell array conversion efficiency with dispersion by diffraction grating
[NASA-TN-D-4157] 21 p3761 N67-35759
Calculated potential increase in solar cell array conversion efficiency with dispersion by prism reflector
[NASA-TN-D-4156] 21 p3762 N67-35760
Passive thermal control of ELDO satellite by solar cell arrangement
[DTA-50-4644, APPEND. IV] 21 p3948 N67-35981
ATS-1 solar cell radiation damage during first 120 days
[NASA-TM-X-55908] 21 p3763 N67-35934
Satellite solar cell power supply systems
[TR-1001/2250-20/-7] 21 p3763 N67-36202
Solenoid stepper motor for positioning Surveyor antenna/solar cell panel 21 p3763 N67-36204
Development, fabrication, and testing of deployable solar cell array for spin-oriented spacecraft applications 21 p3764 N67-36210
Launch time effect on performance of solar cell array/battery electric power system
[NASA-CR-86404] 22 p3963 N67-36708
Optimization of solar cells and radioisotope thermoelectric generators for satellite power supply systems
[NASA-CR-936] 23 p3964 N67-37223
Radiation damage to orbiting solar cells and transistors - degradation of radiation
[TG-586] 23 p4180 N67-38181
Electroforming techniques for attaching silver interconnectors to solar cells
[NASA-CR-99133] 23 p4181 N67-38493
Diffusion process for lithium doping of solar cells, and electrical characteristics and radiation resistance of solar cells
[NASA-CR-99855] 24 p4377 N67-39711
Low orbital drag constraints of orbit and sun oriented solar cell array
[AFAPL-CONF-66-2] 24 p4378 N67-39903
Solar cells and thermoelectric generators for scientific exploration of solar system
[NASA-CR-99744] 24 p4378 N67-40869
Structural design and analysis of 30 watt/pound roll-up solar array
[NASA-CR-99753] 24 p4379 N67-40347
Configuration, rod tradeoff, and deployment parameter studies for design of solar panel array
[NASA-CR-99795] 24 p4380 N67-40430
SOLAR CHROMOSPHERE
S CHROMOSPHERE
SOLAR COLLECTOR
SA CONCENTRATOR
Application of focon light conductor to solar concentrators - review of Russian accomplishments in fiber optics 01 p0113 N67-18097
Maximum collection efficiency prediction method for paraboloid solar collector
[NASA-TM-X-1323] 02 p0176 N67-11945
Foam rigidizing for inflatable paraboloidal solar collector
[NASA-CR-66114] 02 p0406 N67-13191
Collector-radiator fabrication and brazing materials evaluation in solar thermionic generator development
[NASA-CR-83886] 13 p2349 N67-35676
Solar power concentration, reflection, flux energy distribution, and applications to distillation units and air conditioning systems
[JPRS-40623] 15 p2642 N67-28161
Incident radiation flux distribution over walls of cylindrical cavity solar receiver examined by means of energy equations 15 p2643 N67-28162
Mathematical and graphical analysis of parameters of Cassegrainian optical system used to concentrate solar energy 15 p2644 N67-28164
Specific impact and compression strength data on compositions of polystyrene foam for use as substrate for solar energy collector mirror surface 15 p2644 N67-28165
Thermal testing and structural response of expandable solar collector
[AFFDL-TR-66-123] 15 p2692 N67-28934
Magnesium and aluminum electroforming process for solar concentrators
[NASA-CR-66427] 20 p3649 N67-34490
Spectral characteristics of photoelectric cells, thermoelectricity, and parameters of solar concentrators, collectors, and reflectors
[JPRS-41144] 21 p3760 N67-35470
Calorimetric tests of reflector for solar water lifting unit for design of semiconductor thermogenerators 21 p3945 N67-35474
Feasibility of manufacturing large solar collectors by rotation of matrices 21 p3956 N67-35476
SOLAR CONSTANT
Theoretical analyses, laboratory and field tests to determine which equipment yields most precise measurements of solar irradiance
[AFCRL-67-0154] 17 p3061 N67-30977
SOLAR CONVERTER
Fabrication and test of solar thermionic converters
[NASA-CR-80135] 02 p0177 N67-12169
Nimbus-B solar conversion power supply subsystem
[NASA-CR-86660] 18 p3196 N67-31505
Solar array power system concepts for variety of manned missions - mechanical design of arrays, structures, and components
[NASA-CR-85657] 18 p3197 N67-31832
Metalloceramic thermoemissive converters for conversion of solar radiant energy 21 p3760 N67-35472
Design modifications for six converter solar thermionic generator
[NASA-CR-86497] 23 p3965 N67-37470
SOLAR CORONA
S CORONA
SOLAR COSMIC RAY
Calculating integral generation multiplicity factor for neutron detector and ionization chamber to determine solar cosmic ray spectrum in high energy region
[NASA-CR-80157] 03 p0457 N67-12912
Onset patterns of polar cap atmosphere due to enhanced ionization caused by penetrating solar cosmic ray particles
[NASA-TM-X-55437] 03 p0757 N67-15155
Mathematical model describing anisotropic diffusion of solar cosmic rays
[CR-88] 19 p1757 N67-29694
Cloud model of solar cosmic and subcosmic particles 12 p2306 N67-24358
Solar cosmic rays and high-energy particles of earth's inner radiation belt as intermediaries in transmission of disturbance from sun to troposphere 19 p3485 N67-33525
Solar cosmic ray diffusion and interplanetary magnetic field power spectrum
[NASA-CR-88308] 21 p3828 N67-35866
Integrated set of three detectors for galactic and solar ray studies of OGO-E and OGO-G
[NASA-TM-X-55969] 24 p4525 N67-40570
SOLAR CYCLE
SA SUNSPOT
Flux of heavy nuclein primary cosmic radiation and solar cycle modulation
[NASA-TM-X-55796] 08 p1356 N67-18894
Variation of penumbra-umbra ratio of sunspot groups with solar cycle 12 p2302 N67-24321
Fine structure of butterfly diagrams, and hydromagnetic model of sunspot periodicity 12 p2300 N67-24322
Sunspot distribution in heliographic latitude for eleven-year cycle 12 p2303 N67-24323
Satellite radio signal scintillations during descending half of solar cycle 16 p2950 N67-32296
Polar cap absorptions and associated solar cycle variations in high energy particle emission of sun throughout nineteenth solar cycle
[NASA-TM-X-55812] 16 p2899 N67-30920
Observation of solar corona and identification of coronal spectrum lines
[JILA-90] 17 p3163 N67-31291
Survey of prediction techniques for solar cycle activity
[NASA-TM-X-53593] 17 p3163 N67-31294
Solar cycle variation of attenuation coefficient of intensity recorded by IGY neutron monitors synoptically studied by regression analysis 22 p4137 N67-37461
Correlation of large ionization bursts in cosmic ray intensity observations with solar cycle 23 p4339 N67-38223
SOLAR ECLIPSE
Observations of near infrared radiation from solar atmosphere, near infrared radiation from solar atmosphere during total eclipse, and radiometric observations of solar corona during eclipse
[AFCRL-66-274] 01 p0146 N67-10888
Near infrared radiation from solar atmosphere during total solar eclipse of 20 July 1963 01 p0146 N67-10910
Summary reports of experiments and observations during solar eclipse of 1966 - solar flux measurements, riometer observations, ionospheric soundings, and electron density determination
[SR-11A890] 01 p0068 N67-10880
Airborne experiment to determine temperature variations throughout solar corona during eclipse of November 1966
[NASA-CR-80836] 04 p0643 N67-14205
Centaur sounding rocket experiments during solar eclipse - measurements of solar electromagnetic radiation intensity and electron temperature
[ESRO-SN-56] 04 p0668 N67-14388
General properties of chromosphere from data obtained during solar eclipses 06 p0956 N67-15488
Solar eclipse, comet, and cosmic ray research with C-135 aircraft
[LA-DC-7837] 07 p1072 N67-17452
Arcas rocket measurements of electron densities, positive ion densities, and Lyman alpha radiation intensity during solar eclipse of May 1966
[ESRO-SN-57 /ESLAB/] 07 p1139 N67-17819
Method for calculating geomagnetic field strength components in solar-ecliptic coordinate system 10 p1617 N67-20400
Stratospheric circulation response to solar eclipses
[ECOM-5083] 10 p1619 N67-20540
Computed electron, ion, and neutral density profiles in ionosphere during solar eclipse of 12 November 1966
[AFCRL-66-741] 12 p2207 N67-24708
Two-loop superdirective VLF receiving antenna for ionosphere D region measurements during total solar eclipse
[NOLC-694] 12 p2054 N67-24708
Personnel and equipment at radio astronomical observatory, and VLF measurements during 20 May solar eclipse 13 p2376 N67-25142
20 May 1966 annular solar eclipse effects on VLF radio propagation 13 p2377 N67-25146
Microwave polarimeter for radio emission measurements during 12 November 1966 solar eclipse 13 p2210 N67-25148
Coronal photographs, isophotes, and flash spectrum from solar eclipse of 20 May, 1965

[NASA-TN-D-4012] 14 p3598 N67-37285
Solar flare and eclipse research, and electronic equipment development
[AFCRL-67-0106] 15 p2788 N67-38970
D region electron density measurements during solar eclipse of May 20, 1966
[NASA-TM-X-55839] 18 p3362 N67-31852
Rocket instrumentation for measuring D region of ionosphere during solar eclipse
[UU-67-2] 25 p4038 N67-37385
Mesospheric ozone measurements during solar eclipse by chemiluminescence
[ECOM-5131] 24 p4436 N67-35619
SOLAR EFFECT
Effects of solar and lunar tides on motion of artificial earth satellite
[NASA-TM-X-55696] 08 p1365 N67-18755
Solar extreme ultraviolet and corpuscular radiation effects on upper atmospheric temperature
[NASA-TM-X-55749] 11 p1873 N67-23319
Effects of magnetic declination and solar control on topside ionospheric electron density distribution
[NASA-TM-X-55763] 12 p2091 N67-23914
Solar modulation of cosmic rays and effect on proton and helium fluxes, interstellar travel, and secondary production
[NASA-TM-X-55797] 16 p2970 N67-29690
Lunar and solar perturbations in motion of artificial satellite due to fourth degree Legendre polynomial
[NASA-TM-X-55864] 19 p3535 N67-32355
Atlas for Solar and Lunar Orbit Perturbation Effects computer program
[NASA-TM-X-55865] 19 p3549 N67-33750
SOLAR ENERGY
Arc image oven in investigation of solar energy collection for electric propulsion systems
[NASA-TT-F-10347] 01 p0144 N67-10222
Fabrication process for thin film gallium arsenide photovoltaic solar energy cells
[NASA-CR-81314] 07 p0994 N67-16723
Thermoelectric flat plates, thermionic systems, and uncooled silicon solar cells for solar direct-energy conversion
[NASA-TN-D-3788] 07 p0999 N67-17623
Bibliography on solar energy - cells, collectors, converters and concentrators, economics, measurement, space applications, and stills
[AECL-PAK/LIB-15] 11 p1796 N67-23471
Energy transfer and temperature gradient in suns interior 12 p2301 N67-24322
Sequential photoelectric observations on solar energy output variations
[AFCRL-66-793] 12 p2313 N67-24604
Relationship between increase of F-2 layer diurnal ionization and entry of solar energy in atmosphere 13 p2319 N67-25104
Symposium on sunspot observational techniques and evaluation methods 13 p2396 N67-26309
Electroforming aluminum composites for solar energy concentrators
[NASA-CR-66322] 14 p2542 N67-26636
Formula derivations for determining distribution of solar energy flux density in boundary zone between light and shade caused by rays of sun - penumbral region 15 p2844 N67-28170
Geometric efficiency of electroformed paraboloidal nickel solar energy concentrator calculated from optical ray trace data
[NASA-TN-D-4072] 18 p3199 N67-32383
Ionization parameters in F-2 layer an solar energy entering earth atmosphere 19 p3530 N67-32822
Soviet development of solar energy conversion systems including theoretical aspects, concentrator design, and direct energy conversion applications
[ATD-66-136] 19 p3370 N67-33491
SOLAR ENERGY THERMIONIC /SET/ PROGRAM
SET program developments, and four-converter thermionic generator thermal analysis and performance characteristics 02 p0176 N67-12102
Advanced solar energy cesium vapor thermionic converter and generator
[NASA-CR-83800] 13 p2349 N67-25484
Series VII solar energy thermionic converter design, fabrication, and testing
[NASA-CR-83794] 13 p2348 N67-25485
Solar energy thermionic converter development
[NASA-CR-83843] 13 p2349 N67-25755
SOLAR FLARE
SA SUNSPOT
Hard X-ray emission of solar flares at maximum moment of sudden ionospheric disturbance
[T-37] 01 p0147 N67-10341
Sudden ionospheric disturbances and associated solar flares observed during International Geophysical Year and International Geophysical Cooperation in 1959 01 p0070 N67-11117
Solar flare radiation hazard during lunar flight 02 p0187 N67-11466
Relative effectiveness in rats of repeated X-ray irradiation and proton irradiation simulating solar flares 02 p0205 N67-11630
Sudden ionospheric disturbances caused by X-ray emission from solar flares behind limb of disk
[T-38] 02 p0290 N67-11660
Frequency dependence of cosmic radio noise attenuation during solar flares studied by radio astronomy method
[T-36] 03 p0456 N67-12454
Statistical evaluation of proton radiation from solar flares
[NASA-CR-80531] 03 p0458 N67-12210
Daily solar flare index - Tables 04 p0808 N67-14142
Description of currents in solar atmosphere for solar flare theory - electromagnetic state
[REPT.-66-16] 04 p0899 N67-14298
Classification, formation of surges, spectra, emission cores, and relation to geoactivity of chromospheric flares 06 p0650 N67-15490
Breadboard model of solar proton-alpha telescope spectrometer
[NASA-CR-65871] 06 p0678 N67-15674
Observed characteristics and calculations of solar ejection and flare
[NASA-TT-F-9697] 06 p0658 N67-16822
Monte Carlo transport calculations estimating solar flare proton radiation dose received by travelers during supersonic flight
[NASA-CR-81737] 07 p1185 N67-19016
Stellar and solar flares
[NASA-TM-X-55697] 08 p1357 N67-18634
X-ray emission of solar flares related to their effects in cosmic rays
[NASA-TT-F-9643] 06 p1358 N67-18772
Time history analysis for polar cap absorption of solar flare in July, 1966
[NASA-TM-X-55720] 09 p1442 N67-19667
Transient flare-associated phenomena in solar atmosphere - model using magnetohydrodynamic pulse generated in flare region
[AD-640661] 10 p1757 N67-20440
Time history and energy spectra of solar proton flare on February 5, 1965
[NASA-TM-X-55736] 10 p1757 N67-21457
Nonthermal solar radiation and energy transport leading to production of solar flares
[NP-16433] 12 p2290 N67-23762
Solar flares, magnetic field, sunspots, corona, and atmosphere - Conference
[PUBL.-51] 12 p2301 N67-24321
D-3 line in solar flares 12 p2303 N67-24338
Electron density of solar plus 2 flare in flash state 12 p2303 N67-24339
Frequency and east-west symmetry of solar flares in centers with great flare activity 12 p2303 N67-24340
Filamentary structure of solar flares indicated by electron density calculation using half-width method 12 p2303 N67-24341
Interdependence of sunspot motion and chromosphere flares 12 p2304 N67-24342
Mathematical model of spectral line profiles of solar flares and prominences 12 p2304 N67-24343
Correlation between 810 Mc/s radio bursts and chromospheric flares and determination of spectral type of 810 Mc/s radio bursts 12 p2305 N67-24355
Properties of trails of corpuscular streams ejected by solar flares 12 p2305 N67-24357
Definition and classification of solar flare X-ray bursts 12 p2306 N67-24464
Research on solar activity, flares, terrestrial relationships, spectroscopy, and hydromagnetic theory
[AD-646372] 12 p2307 N67-24702
Prediction of parameters related to occurrence of flares from photographs of solar filament structure
[LR-30444] 13 p2397 N67-25628
Short wave ultraviolet image and spectrum of sun obtained during course of X-ray flare
[NASA-CR-84067] 13 p2409 N67-26419
Possible polarization of X-ray bremsstrahlung in solar flares and cosmic radiation
[NASA-CR-84123] 13 p2400 N67-26444
Magnetosphere of planet Mercury as scattering center for solar flare protons
[R67SD4] 14 p2812 N67-27049
Solar and geophysical data observed during December 1965 - ionospheric effects
[RRC-A129, PT. 2] 14 p2810 N67-27778
Solar and geophysical data for ionospheric studies
[RRC-A127, PT. 2] 15 p2894 N67-27820
Analysis and behavior classification of solar prominences in sunspot cycle
[SR-12] 15 p2767 N67-28965
Solar flare and eclipse research, and electronic equipment development
[AFCRL-67-0106] 15 p2788 N67-28970
Solar flare observations for 1955-1964 - tables
[AFCRL-67-0105] 17 p3155 N67-30456
Analysis of tropospheric responses to chromospheric flares using surface atmospheric pressure data from North American meteorological stations
[NASA-TM-X-60078] 17 p3155 N67-31118
Detection of medium intensity solar flares by Mariner V spacecraft
[NASA NEWS RELEASE-67-209] 18 p3322 N67-32504
History of International Solar Flare Patrol Operations
[AFCRL-67-0135] 18 p3322 N67-32863
Polar cap absorption anomalies associated with large solar flares 19 p3439 N67-32829
Ionized calcium luminescence in chromospheric flare 20 p3722 N67-35048
Theoretical solar flare model to satisfy thermal equilibrium conditions in plasma 20 p3725 N67-35052
Soviet solar flare observation and prediction system organization and operation
[ATD-67-34] 21 p3929 N67-36084
Solar flare particles events and related solar physics research
[NASA-CR-66717] 22 p4140 N67-37019
Proton penetration codes for dose calculation through aluminum and iron shielding
[NASA-CR-66880] 22 p4107 N67-37021
Primary and secondary particle radiation doses shielded from solar flare and Van Allen belt protons by aluminum and polyethylene slabs
[NASA-CR-66879] 22 p4137 N67-37029
Numerical solution to problems of theta pinches and solar flares in strong magnetic fields 22 p4130 N67-37751
Solar cosmic ray intensity drops and anisotropy during July 1961 23 p4338 N67-38215
Solar flare effects on diurnal variation of neutron intensity 23 p4336 N67-38217
Solar X-ray flare observed by Geiger counter onboard Explorer XXXIII satellite
[NASA-CR-80262] 23 p4340 N67-38678
Error sources in reporting solar flare information 24 p4438 N67-39809
Videometer for measuring solar flare area, peak intensity, and integrated intensity as functions of time 24 p4450 N67-39810
Activity level designator chart for forecasting solar flares, and prediction techniques for energetic particle events 24 p4434 N67-39820
Energy production and ionization losses of particles during chromospheric flare emission
[NASA-TT-F-11287] 24 p4335 N67-40195
SOLAR FLUX
Solar radio flux during International Quiet Sun Year /IQSY/
[SR-666] 04 p0808 N67-13870
Model atmospheres representing conditions for summer and winter at latitudes to 60 degrees as functions of solar flux and time-of-day above 120 kilometers
[AFCRL-66-584] 05 p0707 N67-15330
Experiment to measure solar radiant flux and solar spectral irradiance from aircraft 11 p1865 N67-23144
Chromospheric problems and investigation by satellite observations of extreme ultraviolet solar spectrum, filtergrams, spectrohellograms, and radio flux measurements 12 p2306 N67-24465
Upper limit on quiet time solar neutron flux at energies above 60 MeV determined by using balloon flights with Cerenkov scintillation counters

[NASA-CR-84665] 15 p1787 N67-39039
Predicted sunspot numbers for 12-month period, and 2000 Mc/s daily average solar flux
[RRC-A156, PT. 2] 16 p2888 N67-39935
Geometrical model for calculation of planet reflected solar thermal fluxes
[NASA-CR-84858] 17 p3155 N67-39621
Radiometric determination of solar flux densities and events - tables
[SR-007] 17 p3156 N67-31331

SOLAR FURNACE
Comparative characteristics of solar furnace power regulators 21 p3700 N67-35473

SOLAR GENERATOR
Solar energy thermionic generator
[NASA-CR-86300] 03 p0234 N67-12903
Solar-energy thermionic converter model fabrication and generator performance analysis
[NASA-CR-81646] 07 p1001 N67-17977
Optical and calorimetric tests of nickel mirrors for use as power source for thermionic generators
[NASA-CR-85756] 17 p3122 N67-31438
Fabrication and testing of solar thermionic converter and generator
[NASA-CR-86012] 21 p3760 N67-35553

SOLAR GRANULATION
S PHOTOSPHERE

SOLAR GRAVITATIONAL EFFECT
Accounting for lunar-solar tidal effects in gravimetric measurements
[FTD-TT-65-730] 05 p0705 N67-15065
Tabulated expressions of short period lunar and solar perturbations for artificial satellites
[NASA-TM-X-55683] 06 p1364 N67-18737
Possible long-period fluctuations, due to solar gravitational field, in radius of pericenter of orbiter of Mars 16 p2968 N67-29577

SOLAR HEAT
Solar heat reflecting paint effects on crew compartment temperatures of armored personnel carriers
[TN-4-66] 05 p0725 N67-14674
Base heating by radiation from wakes of ablating vehicles, and thermal analysis program to compute solar heating effects 12 p2234 N67-23650

SOLAR INSTRUMENT
Solar array design concepts for recording of Martian environmental data during probe
[NASA-CR-89562] 24 p4377 N67-39743

SOLAR MAGNETIC FIELD
Solar flares, magnetic field, sunspots, corona, and atmosphere - Conference
[PUBL.-51] 12 p2201 N67-24321
Solar magnetic field measurements in chromosphere and photosphere 12 p2202 N67-24325
Solar magnetic field distributions observed with fine-scan magnetograms and spectroheliographs 12 p2202 N67-24326
Solar magnetic field components and field structure model 12 p2202 N67-24327
Solar magnetic field and bipolar sunspot model 12 p2202 N67-24328
Models of magnetohydrodynamic dynamos for alternating solar magnetic fields 12 p2202 N67-24329
Mass trajectories and solar magnetic field in region of active prominences 12 p2204 N67-24345
Solar magnetic field in corona and prominences 12 p2204 N67-24347
Solar magnetic field, and velocity field of expanding corona based on isophotes 12 p2204 N67-24348
Resonances at harmonics of gyrofrequencies, and influences of magnetic fields in solar active regions on continuous radio emission 12 p2205 N67-24351
Sunspot size and position, K-line and H-alpha line cinematographic patrol, and longitudinal sunspot magnetic fields - tables for February, 1967 12 p2206 N67-26136
Photospheric magnetic fields and chromospheric phenomena
[LR-20445] 12 p2308 N67-26340
Analytical solutions for internal solar magnetic field using magnetogasdynamic equations
[R66SD-29] 19 p3532 N67-32765
Sunspot positions, areas, and magnetic fields tabulated and illustrated for May-June 1967 by Observatorio Astronomico di Roma 20 p3722 N67-34960
Magnetic axis and rotation axis obtained by observing sunspots and magnetic field of solar corona 21 p3922 N67-35996

SOLAR OBSERVATORY
SA AOSO
SA ELOISE PROJECT
SA OSO
Photospheric and chromospheric observations, and optical instrumentation - Belgium
[AR-26] 02 p0260 N67-11756
NASA space flight program for solar astronomy 06 p1364 N67-18722
Inexpensive balloon solar observatory system functioning in solar and computer modes
[NASA-TM-X-55711] 11 p1974 N67-22973
Conference on European Large Orbiting Instrumentation for Solar Experiments /ELOISE/ project
[ESRO-SP-7] 12 p2215 N67-24461
European Large Orbiting Instrumentation for Solar Experiments /ELOISE/ project 12 p2215 N67-24462
Optical observation of solar eruptions with aid of large satellite 12 p2211 N67-24463
Feasibility of photospheric observations with aid of ELOISE project 12 p2207 N67-24466
Optical equipment, mechanical structure, stabilization and guidance, focusing device, telemetry, and remote control system of balloon borne solar observatory 12 p2213 N67-24469
Telemetry problems of ELOISE project solar observations 12 p2212 N67-24470
Proposal for large European solar satellite 12 p2216 N67-24472
Soviet solar flare observation and prediction system organization and operation
[ATD-67-24] 21 p3929 N67-36004

SOLAR PHOTOSPHERE
S PHOTOSPHERE

SOLAR PHYSICS
Physics of solar system - solar line spectrum, photosphere, chromosphere, prominences, flares, corona, radio emission, moon, planet physics, comets, meteors, and zodiacal light
[NASA-TT-F-342] 06 p0962 N67-15484
Physical and structural aspects of solar corona 06 p0956 N67-15491
Solar survey - totality of continuous observatory measurements of phenomena in solar atmosphere 06 p0956 N67-15492
Orbiting Solar Observatories OSO-E and OSO-D for studying Sun influence on Earth atmosphere
[NASA NEWS RELEASE-67-33] 06 p1372 N67-16756
Solar physics involving electromagnetic radiation and solar spectrum at all wavelengths 06 p1380 N67-19028
Filamentary structure of solar flares indicated by electron density calculation using half-width method 12 p2202 N67-24341
Dynamics of solar prominences of September 12, 1966 12 p2204 N67-24344
Solar activity and scattering angle in outer corona 12 p2204 N67-24349
Physics of solar corona - temperature variation with sunspot cycle and short time variations in temperature
[AD-647075] 12 p2207 N67-24985
Tables of radioelectric solar activity, Belgium, 1963
[AR-14] 13 p2308 N67-26109
Solar flare particles events and related solar physics research
[NASA-CR-86717] 23 p4149 N67-37019
NASA space science programs on solar physics and properties of magnetosphere, ionosphere, atmosphere, and interplanetary space 23 p4170 N67-37618
NASA news release giving details on occasion of launching of Orbital Solar Observatory /OSO-D/ with Delta launch vehicle
[NASA NEWS RELEASE-67-282] 23 p4328 N67-39258

SOLAR PLASMA
Solar plasma measurements from ionospheric sounding rockets and geocentric and heliocentric satellites
[TN-1966-28] 01 p0147 N67-10053
Flow of solar plasma on Zond II interplanetary space station
[FTD-TT-65-1946] 04 p0699 N67-14239
Interaction of solar plasma with magnetic field of earth
[IPPJ-44/J/] 07 p1165 N67-17411
Mariner, IMP, Pioneer, and Vela spacecraft direct measurements of physical properties of interplanetary magnetic fields and plasmas
[NASA-TM-X-55830] 17 p3159 N67-30765
Diffusion of heavy ions in solar corona studied with one-fluid and two-fluid dynamic models
[NASA-CR-84852] 17 p3163 N67-31310

SOLAR POSITION
Interferometer measurements of positions for radio sources
[AD-645526] 12 p2207 N67-23615
Determination of solar position on basis of mean solar elements
[CERRO-SN-19] 19 p3526 N67-32735

SOLAR POWER SOURCE
Potential electric propulsion thrustors for interplanetary spacecraft
[TP-994] 04 p0696 N67-14188
Program summary for manned mission photovoltaic power system - integrated power system and power system module
[NASA-CR-85656] 18 p3199 N67-32922

SOLAR POWER SYSTEM
Solar and nuclear power plants for future space missions 01 p0066 N67-10271
Performance and reliability studies of solar conversion power supply subsystem for Nimbus-B satellite
[NASA-CR-86238] 03 p0235 N67-12970
Non-dissipative charge controller using rotary transformer to provide spacecraft power from solar array output
[NASA-CR-81365] 06 p0795 N67-16036
Mechanical and dynamic behavior of exploratory Brayton cycle turbocompressor operating on gas bearings
[NASA-TM-X-52361] 07 p1009 N67-17988
Feasibility of solar powered electric propulsion spacecraft for deep space missions
[NASA-CR-81703] 07 p1184 N67-18941
Electrification of rural homes in Pakistan with solar cells and storage batteries
[PAECL/SOL-8] 11 p1797 N67-22668
Variable ratio dc transformer regulator used to process main vehicle power from solar array battery power system in radio astronomy explorer spacecraft
[NASA-TM-X-55756] 13 p2619 N67-25970
Temperature and vapor pressure measurements at various system points of freon ejector solar refrigerator designed for cooling air in room 15 p2966 N67-28169
Payload capability of unmanned interplanetary probes using solar electric propulsion
[NASA-TM-X-52316] 16 p2975 N67-29145
Solar conversion and energy storage power systems for Explorer XXXIII, Nimbus I, and Applications Technology Satellite /ATS-I/
[NASA-TM-X-53639] 18 p3197 N67-32967

SOLAR PROBE
Advanced solar probe design - ICARUS
[NASA-CR-86940] 04 p0615 N67-14288
Test procedure development for high-intensity thermal testing of solar probe spacecraft
[NASA-CR-73966] 07 p1188 N67-17185
Evaluation of fluidic elements, sensors, and components for designing fluidic attitude control system for Solar Probe Spacecraft
[NASA-CR-86698] 08 p1522 N67-19628
Optimal specific impulse, fuel weight, and design factor values for solid propellant propulsion system used in placing solar probe into orbit - description of Burner II stage
[NASA-TT-F-11214] 16 p2844 N67-28328
Spin stabilization compared to three axis stabilization for solar probe - Icarus and Icos concepts
[NASA-TT-F-11198] 19 p3541 N67-32649

SOLAR PROMINENCE
S PROMINENCE

SOLAR PROPULSION
Systems and mission analysis of solar electric propulsion for solar system exploration
[NASA-CR-84868] 13 p2494 N67-26390
Characteristics and trajectory analysis of solar electric propulsion space missions - Mars orbiter and Jupiter flyby
[NASA-CR-84897] 13 p2494 N67-26270
Mission analysis and design study of Mars spacecraft solar-powered electric propulsion system
[NASA-CR-86658] 24 p4370 N67-39389

SOLAR PROTON
Interplanetary magnetic field, magnetosphere, solar energetic protons, and

galactic cosmic rays 08 p1359 N67-19625
Temporal and spatial behavior of low energy solar protons in magnetosphere [NASA-TM-X-55729] 10 p1757 N67-31459
Spectrometry of primary and solar protons by meteorological balloons over Iceland using scintillation and Cerenkov counters 11 p1971 N67-22918
Component of Mars ionosphere due to solar protons [NASA-CR-84411] 14 p2669 N67-27370
Electron microscope study of proton irradiated metal surfaces [NASA-CR-84423] 14 p2558 N67-27701
Simultaneous observations of solar protons inside and outside magnetosphere by Explorer XXXIII and Injun IV [NASA-CR-84853] 17 p3165 N67-31448
Ground level neutron counters for real time solar proton monitoring network 24 p4534 N67-39811

SOLAR RADIATION
Solar radiation pressure effect on semi-major axis of Telstar II orbit [NASA-TM-X-55579] 02 p0303 N67-11361
Aircraft mounted radiometer used to measure anisotropy of reflected solar radiation from various surfaces 04 p0536 N67-13496
Evaluation system for classification of remote objects and materials identified by solar and thermal radiation emission [NASA-CR-90734] 04 p0551 N67-13468
Temperature of surface water and radiation components of Hudson Bay surveyed by airborne instruments [TR-33] 06 p0670 N67-15350
Liapunov stability and solar perturbations of passively damped gravity gradient satellite [TG-854] 07 p1189 N67-17236
Computation of equilibrium temperature distributional function of finned cylinder in sun radiation field using variant of successive approximation method 08 p1381 N67-18304
Spectrometer measurements made from jet aircraft and Nimbus II satellite of reflected solar and emitted thermal radiation from earth from 1.6 to 5.4 microns [NASA-TM-X-55662] 08 p1305 N67-18691
Solar radiation measurements at 430 megacycles [CRSR-256] 09 p1506 N67-19770
Radio frequency spectrum of Sun [AFCRL-66-523] 09 p1506 N67-19837
Solar pressure perturbation effects on orbit of flat reflecting satellite 09 p1513 N67-20273
Transitory increases in nuclear flux accompanied by outbursts of solar X-radiation recorded by Elektron II instrument package 10 p1757 N67-20402
Germanium extraction, formation, and decay studied for use of gallium as solar neutrino detector [BNL-TR-86] 10 p1899 N67-20752
Nonthermal solar radiation and energy transport leading to production of solar flares [NP-16433] 12 p2200 N67-23762
Environmental torque effects on satellite attitude control from solar radiation pressure, meteoroid impact, and earth atmosphere, gravitational field, and magnetic field 12 p2141 N67-23804
Extraterrestrial biophysical and biological studies in West Germany - scientific satellite experiment, space simulation effects on animals, plants, and microorganism, and future projects 12 p2024 N67-24424
Soft X-rays, hydrogen arc discharge, and mercury arc discharge for simulated solar radiation in biophysical experiments 12 p2083 N67-24445
Xenon arc discharge for simulated solar radiation in biophysical space research 12 p2083 N67-24446
Calculations on spectral distribution of solar radiation in space 12 p2366 N67-24447
Compilation of data on solar radiation at sea level [MEL-3/67] 12 p2097 N67-24902
Annual variation and anomalies of F-2 layer ionization and relationship to entry of solar radiation into atmosphere [FTD-MT-65-292] 13 p2310 N67-25101
Correlation of F-2 layer annual ionization anomaly as function of solar radiation entering atmosphere 13 p2310 N67-25103
Spacecraft and balloon radiometry data, theories, and mathematical model of reflectance and scattering of solar radiation by earth [NASA-CR-82954] 13 p2313 N67-25962
Solar and terrestrial optical radiation measurements for determining heat loads of second stage fuel and oxidant tanks and equipment of European I launch vehicle [WRE-TN-PAD-123] 13 p2314 N67-26195
Monthly and daily computations of total radiation from sunlight recordings in China [EMM-66-83] 14 p2567 N67-26894
Radiation factors contributing to melting of ice determined for glaciers in Polar Urals 14 p2523 N67-27149
Geometrical interpretation of mathematical model used to calculate energy distribution of solar radiation beam energy distribution in focal plane of paraboloid in collector receiver system 15 p2644 N67-28163
Computer program written in Fortran IV for computing orbital variation in incident and reflected solar and planetary emission radiant heat flux on plane surface elements [NASA-CR-65583] 16 p2968 N67-30165
Optical and electrical parameters of zinc oxide degradation during exposure to spectral radiation [NASA-CR-85834] 17 p3082 N67-31229
Photodissociative laser systems used to convert solar radiation to monochromatic coherent emission - excitation mechanisms, spectroscopy of gases absorbing light, and chemical processes [NASA-CR-85095] 18 p3277 N67-31658
Solar radiation, albedo, and terrestrial radiation contributions to spacecraft thermal environment 18 p3344 N67-32184
Tables of geophysics and space data for 1966 - magnetic field intensities, cosmic neutron intensities, high frequency propagation, solar optics, ionospheric sounding, and radio emission [AD-650274] 18 p3336 N67-32360
Performance evaluation of carbon-arc solar radiation simulator [NASA-TM-X-1411] 18 p3257 N67-32555
Intensity of radiation from aureole under standard conditions studied as function of atmosphere mass and surface albedo of sun [T-R-610] 18 p3269 N67-32692
Upper atmospheric temperature response to changes in solar extreme ultraviolet radiation and geomagnetic activity [NASA-TM-X-60155] 20 p3629 N67-34234
Solar absorptance and transmittance, total hemispherical emittance, and effective thermal conductance of space suit materials [NASA-CR-65678] 20 p3563 N67-34336
Potential of photodissociative laser system for converting solar radiation to monochromatic coherent emission [NASA-CR-85086] 20 p3653 N67-35020
Resonance scattering of solar radiation in prominences 20 p3723 N67-35043
Geographical distribution and intensity measurement of solar radiation scattered from earth-atmosphere system [NASA-TM-X-60233] 21 p3981 N67-35815
New spectrophotometer for measuring ultraviolet sky brightness and direct solar radiation [AFCRL-67-0410] 22 p4046 N67-37182
Unidimensional diffusion model for solar cosmic ray propagation within bounded layer 23 p4337 N67-38304
Accuracy of approximations for Chapman function over entire range of solar zenith angles [AFCRL-67-0468] 24 p4447 N67-40343

SOLAR RADIATION OBSERVATION
Observations of near infrared radiation from solar atmosphere, near infrared radiation from solar atmosphere during total eclipse, and radiometric observations of solar corona during eclipse [AFCRL-66-274] 01 p0146 N67-10008
Observations of near infrared radiation from solar atmosphere 01 p0146 N67-10009
Near infrared radiation from solar atmosphere during total solar eclipse of 20 July 1963 01 p0146 N67-10010
Infrared radiometric observations of solar corona during total solar eclipse of 20 July 1963 01 p0146 N67-10011
Methods of radio-astronomical observation and description of radio emission phenomena 06 p0656 N67-15493
Solar X-ray ultraviolet spectroscopic observations from stabilized Skylark rockets [ESRO-SM-67] 07 p1185 N67-17818
Skyhook balloon flights for study of radiation associated with solar magnetic storms [AD-647271] 12 p2097 N67-24580
Technical characteristics of radio telescope polarimeter for 4.28 cm solar radiation observation 13 p2318 N67-25140
Tropospheric temperature and absorption data for solar radiation observations with microwave radiometer 13 p2310 N67-25150
Astrophysics reports on galaxy, star cluster, and solar radiation observations [NASA-TT-F-455] 20 p3728 N67-35042
Global radiation balance of earth-atmosphere system obtained from Nimbus satellite data [NASA-TM-X-55696] 21 p3843 N67-36202
Solar radiation analysis using radio astronomy observations [NASA-CR-88839] 23 p4138 N67-39026
ESRO TD-2 satellite experiments on solar X-ray and ultraviolet radiation [ESRO-SN-65] 24 p4525 N67-40681

SOLAR RADIO BURST
Spreading of perturbing agents in chromosphere and corona which generates intensity changes of solar radio emission 12 p2205 N67-24352
Correlation between 810 Mc/s radio bursts and chromospheric flares and determination of spectral type of 810 Mc/s radio bursts 12 p2205 N67-24355
Preliminary model to explain behavior of radio and X-ray bursts connected with solar flares at various longitudes 12 p2205 N67-24356
Solar energetic particle intensities obtained with Mariner IV and Injun IV during 5-12 February 1965 cosmic ray event [NASA-CR-84126] 13 p2400 N67-26441
AIS Venera-2 observation of solar radio bursts at 925 kc/sec [NASA-CR-86633] 18 p3322 N67-31908

SOLAR RADIO WAVE
VLF propagation and solar microwave radio emission measurements at Brazil radio astronomical observatory [GRAM-23] 13 p2278 N67-25141

SOLAR REFLECTOR
Concepts and calculations for lunar solar reflecting beacon designs to be used in Apollo mission [NASA-CR-80341] 03 p0398 N67-12987

SOLAR ROTATION
Nonisotropic eddy viscosity assumption in comparison of theory and observation for problem of solar differential rotation [UTIAS-113] 01 p0152 N67-10561
Granulation, sunspots, and faculae used in describing structure of photosphere 06 p0656 N67-15487
Solar differential rotation and large-scale meridional currents investigated with axially symmetric time-independent hydrodynamic equations of motion [TR-1001/2200-01/-2] 19 p3537 N67-33695
Stationary rotation of stars based on law of solar rotation 20 p3729 N67-35033

SOLAR SAIL
Solar paddle and gyroscopic mechanism used for active and passive satellite attitude control for non-spinning spacecraft [NASA-TM-X-55575] 02 p0303 N67-11357
Design concept for solar sail vehicle with thin film blade rotor [NASA-CR-84480] 14 p2620 N67-27837
Mathematical proof of solar sail feasibility for spacecraft propulsion [NASA-TM-X-60560] 24 p4524 N67-40214

SOLAR SENSOR
Sun, earth, and star sensors for use in closed loop feedback systems to stabilize rocket or satellite attitude [ESRO-TM-33] 07 p1066 N67-17042
Sun, earth, and star sensors for use in closed loop feedback systems to stabilize rocket or satellite control 12 p2142 N67-23809
Sun sensor design and environmental requirements for Advanced Pioneer space probe [NASA-CR-73088] 14 p2539 N67-28586
Spacecraft attitude sensors design and operational features - horizon scanners, solar sensors, star trackers, space sextants, and map matchers [NASA-SP-145] 17 p3188 N67-31296
Attitude and stability control system with high accuracy for astronomical research satellites 20 p3677 N67-35068
Solar orientation error due to planetary

albedo, and selection of coarse and fine solar sensors for spacecraft
[NASA-TN-D-4123] 21 p3884 N67-35722
Horizon and solar sensor design used in space vehicle attitude control system 21 p3854 N67-36671
SOLAR SIMULATION
Solar simulation equipment for large space simulation plant
[DLR-MITT.-66-15] 03 p0380 N67-13695
Techniques and instrumentation for environmental, thermal vacuum, and solar simulation tests
[ESRO-TM-50] 09 p1432 N67-20295
Vortex arc studies, solar flux and spectral measurements, spacecraft coatings, solar simulation studies, and solar cell radiation effects testing
[NASA-TM-X-55735] 11 p1853 N67-22141
Solar simulation - paint testing, planning for high altitude tests of spectral irradiance, pressure arc and vortex stabilized radiation systems, and thermal control coating tests 11 p1853 N67-22142
Spectral distribution measurements of inert gas plasmas with vortex stabilized arc for source of solar simulation 11 p1956 N67-22143
Uniformity filtering, spectral filtering, and spectral matching using krypton and xenon lamps in solar simulation techniques development 11 p1853 N67-22147
Vortex stabilized arc, pressure arc facility, spectral irradiance measurements of light sources, and ultrahigh vacuum system in support of solar simulation testing 11 p1853 N67-22148
Soak test and solar simulation programs in thermal environmental testing of spacecraft 18 p3287 N67-32185
Optical characteristics and spectral irradiance of three solar simulation lamps 18 p3306 N67-32598
Arc lamps and other intense light sources for solar simulation testing, and spectral reflectance of coatings 18 p3306 N67-32602
Exposure of Apollo window material to 500 deg F temperature cycles and solar simulation approximating Johnson spectrum
[NASA-CR-85687] 20 p3665 N67-34672
Solar energy simulation techniques for testing spacecraft thermal performance
[NASA-CR-73098] 21 p3950 N67-36489
Fluid transpiration arc radiation source for solar simulation
[NASA-CR-89736] 24 p4513 N67-40555
SOLAR SIMULATOR
Spectral irradiance measurements on solar simulator sources 11 p1855 N67-22774
Internal gaseous convection effects in thermal models of space vehicles
[AEDC-TR-66-257] 13 p2434 N67-25622
Performance evaluation of carbon-arc solar radiation simulator
[NASA-TM-X-1411] 18 p3257 N67-32555
Solar simulation studies, coatings qualification testing, and solar cell calibration techniques
[NASA-TM-X-55827] 18 p3306 N67-32594
Operation and upgrading of 1200 solar simulator, including testing of arc lamp housing materials and water-cooled collectors 18 p3300 N67-32596
Spectral irradiance measurements on vortex stabilized helium and argon arcs made by solar simulators 18 p3315 N67-32597
Gebhart method applied to calculate radiative heat transfer of satellite exposed to solar simulator radiation in vacuum chamber
[ESRO-TN-13] 19 p3426 N67-33642
SOLAR SPECTROGRAPH
Design and installation of large coronagraph with stationary, high dispersion spectrograph
[JPRS-42960] 20 p3639 N67-34322
SOLAR SPECTRUM
Balloon flight data on upper limit solar gamma ray spectrum from quiet sun
[NASA-CR-79715] 01 p0148 N67-10071
Normal solar spectrum, identification of Fraunhofer lines, equivalent Fraunhofer line widths, and composition of solar atmosphere in study of solar line spectrum 06 p0956 N67-15486
Measurements of center limb variations on H and K lines of calcium in undisturbed and active regions on sun
[SR-12] 07 p1194 N67-17346
Table, and identification of solar spectrum from lambda 7490 to lambda 12016 10 p1750 N67-20492
Radio astronomy - Haystack-Millstone OH interferometer, K-band spectrum measurements of sun, inference of atmospheric attenuation from balloon flights, and microwave emission 11 p1976 N67-23645
Resonance fluorescence theory, polarization measurements of solar spectral line, and photoelectric recording photometer 12 p2391 N67-24322
Strong chromospheric K and H spectral lines of sunspot radiation 12 p2392 N67-24327
Research on solar activity, flares, terrestrial relationships, spectroscopy, and hydromagnetic theory
[AD-646372] 12 p2397 N67-24752
Balloon flight data on spectral absorption by earth atmosphere over long slant path at high altitude
[AFCRL-66-812] 12 p2398 N67-24885
Infrared solar spectra and moisture contamination in stratosphere determined with balloon probe
[AD-647561] 13 p2402 N67-25973
Solar simulation studies involving arc lamps, anode designs, and spectrum measurements
[NASA-CR-84023] 13 p2304 N67-26276
Continuous spectrum of sun and brightness at center of disk obtained by combined photography and spectrography
[NASA-CR-84169] 13 p2405 N67-26403
Oxygen and nitrogen lines in solar spectrum
[AFCRL-67-0095] 19 p3531 N67-32716
Nitrogen lines and excitation potentials in infrared solar spectrum
[SR-1] 19 p3531 N67-32717
Forbidden oxygen lines in solar spectrum
[SR-3] 19 p3531 N67-32719
Short wave solar spectrum and intensity, and diurnal variation in ionization rate in upper atmosphere caused by short waves 19 p3529 N67-32818
Relations between cometary, solar and upper atmospheric processes - molecular spectroscopy
[AFCRL-67-0303] 22 p4139 N67-36899
Solar iron abundance determination using lines in near ultraviolet
[NASA-CR-88743] 22 p4136 N67-37079
Extra atmospheric values of brightness and illumination of continuous solar spectrum in 2.7-5.9 micron range - table
[NASA-CR-88975] 23 p4145 N67-37847
SOLAR STILL
Economic and technological characteristics of several regenerative solar stills driven by solar thermal power as compared to solar stills of hotbed type 15 p2644 N67-28168
SOLAR STORM
Frequency drift and flash bursts connected with solar storm
[AFCRL-66-713] 05 p0757 N67-15105
Properties of solar storm bursts in 200 Mc/s region
[REPT.-18] 10 p1757 N67-20703
Cosmic ray data from Canada, including normalized graphs for January - April 1967 and five-minute results for solar-particle event of January 28
[AECL-2703] 23 p4300 N67-38354
SOLAR STREAM
Intervening role of magnetic fields of solar corpuscular streams in determining degree of geoeffectiveness
[NASA-CR-86819] 04 p0686 N67-14177
Irregular variations of earth rotation velocity explained by action of solar corpuscular streams on magnetosphere
[NASA-CR-89436] 06 p1350 N67-19957
Steady geomagnetic micropulsations and solar corpuscular streams
[NASA-CR-89563] 11 p1971 N67-22294
SOLAR SYSTEM
SA ASTEROID
SA GALAXY
SA PLANET
Spacecraft data used to explain origin and evolution of solar system
[NASA-CR-79734] 01 p0154 N67-10080
Nonprevalence of human forms of life in other parts of solar system 02 p0344 N67-12742
Physics of solar system - solar line spectrum, photosphere, chromosphere, prominences, flares, corona, radio emission, moon, planet physics, comets, meteors, and zodiacal light
[NASA-TT-F-343] 06 p0962 N67-15484
Propagation of cosmic ray nuclei in interstellar space and solar system
[NASA-TM-X-55674] 08 p1397 N67-18631
Planetology studies in 1965 by space probes, ground-based observations, and theoretical studies 08 p1307 N67-19087
Interrelationship of asteroids, meteorites, comets, and meteoric particles in solar system determined by magnitude of constant of Jacobi integral in limited circular three body problem
[NASA-TT-F-10985] 15 p2799 N67-26235
Mariner IV - data on Mars, solar system, and interplanetary space flight
[NASA-SP-126] 17 p3163 N67-31356
Zodiacal light as indicator of nature of interplanetary dust, and interpreted in terms of small solid particles in solar system 18 p3322 N67-32656
Origin of solar system - role of plasma physics and magnetohydrodynamics on future of cosmogony
[REPT.-67-07] 19 p3328 N67-32694
Ecology of meteoritic material in solar system involving immediate origin and dissipation 23 p4247 N67-38211
Planetary atmospheres and possibility of life in solar system
[P-3669] 24 p4281 N67-39518
SOLAR WIND
Positive ion component properties of solar wind determined by Mariner II
[NASA-CR-79821] 01 p0152 N67-10252
Satellite measurements of geomagnetic field interaction with solar wind
[NASA-TM-X-55695] 02 p0290 N67-11279
Explorer XII satellite measurements of geomagnetic field distortion by solar wind
[NASA-TM-X-55622] 02 p0556 N67-12274
Laboratory simulation of geophysical phenomena relating to perturbations induced by satellite motion in magnetized plasma, and solar wind interaction with magnetosphere 04 p0696 N67-13686
Laboratory model of solar wind based on similarity of solar wind interaction with earth B field to continuum flow
[AMP-304] 05 p0756 N67-14713
Characteristics of solar wind - magnetosphere transition region
[NASA-CR-88950] 05 p0757 N67-14804
Pioneer VI data on plasma instability in solar wind
[NASA-CR-89961] 05 p0757 N67-14805
Extraterrestrial physics and astrophysics research facility activities
[MPI-PAE-EXTRATERR.-32/66] 07 p1000 N67-17817
Interplanetary gas and solar wind plasma velocities from orientations of ionic comet tails
[NASA-CR-81608] 07 p1185 N67-18979
Lunar lee wake in solar wind interpreted on basis of IMP magnetic field and plasma measurements
[NASA-TM-X-57079] 09 p1359 N67-19715
Interplanetary scintillation observations from solar wind inhomogeneities
[NASA-CR-82481] 08 p1306 N67-19889
Turbulent shock model for electromagnetic wave instability in solar wind
[IC/66/89] 09 p1430 N67-20287
Cosmic ray acceleration in interplanetary space by friction with solar wind
[NASA-CR-82549] 11 p1975 N67-23279
Sputtering effects from solar wind on lunar surface investigated by ion bombardment of metal powder
[NASA-CR-83023] 13 p2491 N67-25668
Hydrodynamic mechanism of solar corona expansion
[NASA-CR-84094] 13 p2299 N67-26412
Energy spectra of solar wind ion fluxes beyond magnetosphere of earth measured from Venera 3 spacecraft
[NASA-CR-84099] 13 p2299 N67-26413
Ion concentration, ion velocity, and other solar wind characteristics measured simultaneously aboard spacecraft
[NASA-CR-84696] 15 p2600 N67-28429
Physical chemistry studies of high temperature equilibria and condensation in gas cloud with cosmic element abundance, and solar wind-solids interaction
[NASA-CR-84899] 16 p2973 N67-29077
Pioneer VII observations of geomagnetic tail downstream of solar wind interaction at 960-1050 Earth radii
[NASA-TM-X-55863] 19 p3329 N67-32797
Relationship between solar wind velocities and temperature field of lower troposphere

derived from satellite measurements [NASA-CR-87185] 19 p3449 N67-33356
Magnetic storm effects associated with tail of magnetosphere - solar wind interaction, energy dissipation [ESRO-SN-24] 19 p3530 N67-33532
Surface stability of dayside of magnetosphere associated with solar wind and geomagnetic field interaction 20 p3721 N67-34575
Model calculations of plasma flow and solar wind interaction with comets taking into account charge change effect and electron ionization [MPI-PAE/ASTRO-1/67] 20 p3722 N67-35165
Solar wind bombardment effects on lunar surface - sputtering [NASA-CR-86736] 22 p4141 N67-37577
American and Soviet space probe measurements of solar winds and interplanetary magnetic fields [JPRS-42567] 22 p4137 N67-37630
Scale model experiments of plasma flow such as solar wind or ionosphere past unmagnetized body such as moon, comet, meteor, or satellite 22 p4131 N67-37830
Scaling considerations for magnetospheric model experiments 22 p4122 N67-37831
Scale model experiments on interaction of solar wind with magnetosphere 22 p4122 N67-37832
Multiple satellite system for measuring interaction of solar wind and interplanetary magnetic field with geomagnetic field - appendices to feasibility study [NASA-CR-73143] 23 p4344 N67-38549
Multiple satellites in noncoplanar array used to define spatial and temporal variations of solar wind in interplanetary space [NASA-CR-73142] 23 p4351 N67-38585

SOLAR X-RAY
Solar X-ray and X-ray absorption measurements from satellites, balloons, and rockets [ESRO-SM-63] 03 p0458 N67-13057
E-layer ionization and solar X-ray emission in 44-60 angstrom band [NASA-CR-80656] 04 p0540 N67-13574
Centaur rocket photometric and spectrometric measurements of intensity and spectral distribution of solar soft X-ray flux [ESRO-SN-55 /ESLAB/] 07 p1185 N67-17803
Preliminary model to explain behavior of radio and X-ray bursts connected with solar flares at various longitudes 12 p2305 N67-24356
OGO III spectrometric determination time history and differential intensity of solar X-rays [NASA-TM-X-55446] 18 p3321 N67-31542
Measurement of solar X-ray emission from carbon 4 and nitrogen 7 ions - [LA-3729] 24 p4524 N67-39891

SOLDERED JOINT
Sterilization effects on soldered and welded joints, electronic equipment processes and materials, electric connectors, and wiring and cabling accessories 05 p0683 N67-14785
Metallization and hard soldering techniques for obtaining vacuum tight cermet joints through infusion of molybdenum manganese paste and nickel [FTD-HT-66-711] 15 p2717 N67-28265
Methods for testing tensile and shear strength of bulk solder and soldered joint cast specimens, and spread area test for determining wettability of solder on copper surfaces [BM-RI-6963] 18 p3281 N67-32475
Ultimate shear strength of brass joints soldered with tin-lead solder as function of age and temperature [LA-3638] 19 p3471 N67-33322
Nondestructive technique to inspect solder connections 20 p3947 N67-34476
Thermal sterilization effects and application parameters determined for connector cup joints soldered with tin and antimony [NASA-CR-86003] 21 p3861 N67-36194
Solder cracking of printed circuit boards from induced stress in soldered connections [NASA-TM-X-53653] 22 p4010 N67-36783
Diffusion layer structure in soldered titanium joints with various metals 22 p4089 N67-37164

SOLDERING
Soldering titanium alloy with protective coatings of rhenium, rhodium, or silver 02 p0265 N67-11803
Copper-cobalt silicon rotating seam-welding electrodes developed for soldering machines 06 p0885 N67-15511
Joining techniques for fabrication and repair of structures in extraterrestrial environment [NASA-CR-85569] 06 p0886 N67-15679
Manufacturing and quality control requirements for space vehicle electrical harnesses [NASA-TM-X-53404] 08 p1257 N67-18909
Soldering to gold plate [SC-DR-66-469] 10 p1652 N67-20649
Techniques and materials for soldering electrical connections - handbook [NASA-SP-5002] 21 p3864 N67-36880

SOLENOID
SA COIL
Cryogenic magnet system for quasi-continuous operation, using high purity aluminum solenoids cooled by compressed helium gas [TR-8] 06 p0918 N67-16111
Stress analysis of 100 kilogauss quasi-continuous cryogenic solenoid [TR-9] 06 p0918 N67-16437
Programmed mechanical design of air core solenoids constructed from hollow conductor [UCRL-70029] 10 p1680 N67-21002
Cryostat for superconducting solenoid [IAE-1178] 10 p1687 N67-21545
Feasibility of constructing large superconducting solenoids using partial insulation for achieving high current density [UCRL-70031] 10 p1604 N67-21556
Coil system design for proposed Astron thermonuclear device [UCRL-50136] 10 p1604 N67-21595
Motion of plasmoid in magnetic field of toroidal solenoid with helical winding 11 p1954 N67-21931
Magnetic field production in modified stellarator having solenoidal coil wound onto triangular base frame 11 p1957 N67-21947
Optimal parameters of magnetic field coil machine and of low temperature solenoids 11 p1949 N67-21951
Annotated bibliography on production of uniform magnetic field by compensated solenoids 11 p1929 N67-22759
Electromagnetic plasma acceleration research - studies of various plasma discharges surrounding solenoidal coil excited with current at four megacycles [REPT.-6136, VOL. II] 17 p3140 N67-30287
Research project on plasma radiation shielding for spacecraft application [NASA-CR-86614] 18 p3312 N67-31654
Superconducting solenoid lens designs for cryo-electron microscopes 19 p3456 N67-33790
Double acting, rotary solenoid-actuated shutter for Surveyor spacecraft cameras 21 p3852 N67-36220
Design and testing of solenoid and instrument lead connector for Southwest Experimental Fast Oxide Reactor [GEAP-5307] 21 p3869 N67-36340
Construction and testing of copper-tape-wound, edge-cooled solenoid [UCRL-17263] 21 p3819 N67-36534
Cryogenic cooling of stabilized superconducting solenoids [JINR-P6-3396] 21 p3897 N67-36628
Experimental test results on operational stability of cryogenic cooled superconductive solenoid during orbital flight [NASA-TT-F-11248] 24 p4519 N67-40435

SOLID LUBRICANT
Additions to fused-fluoride lubricant coatings for reduction of low temperature friction [NASA-TN-D-3793] 04 p0557 N67-14105
Solid lubricant film performance at high humidity [RAE-TR-65047] 11 p1890 N67-22787
Load and temperature as related to solid film lubricant wear life [RIA-TR-67-214] 15 p2718 N67-28271
Solid lubricants for bearings and gears of helicopter transmissions [USAAVLABS-TR-67-4] 16 p2900 N67-29600
Nondestructive method for determining residual gas life of charcoal beds, and motor and lubricant for vacuum operation at cryogenic temperatures [PB-173179] 17 p3180 N67-30282
Motor and solid film lubricant for vacuum operation at cryogenic temperatures 17 p3071 N67-30284
Lubrication of bearing steels with electroplated gold under heavy loads [AFML-TR-67-61] 19 p3464 N67-33572
High reliability electrical contacts lubricated with solid organic compounds [ECOM-03727-F] 19 p3418 N67-33687

SOLID PHASE
Intermediate phase identification in magnesium-cerium system [BM-RI-6866] 01 p0068 N67-11122
Thermodynamic properties of several solid phases of indium antimonide [TR-1] 05 p0751 N67-15088
Density measurements and chemical analyses to determine delta phase stability of plutonium-gallium alloys [LA-DC-7994] 07 p1100 N67-17432
Mathematical solutions for heat transferred from air directly to or through solid slab to semi-infinite solid 08 p1382 N67-18579
Solid hydrogen purification membranes - permeation rate of hydrogen through tantalum coated with thin film of palladium at high temperatures [ITR-2] 17 p3014 N67-30359
Microfractographical technique for determining sintering of ex carbonyl iron in alpha and gamma phases [CEA-R-2998] 19 p3471 N67-33280
Conditions for empirical and thermodynamic equilibria between solid and liquid phases 21 p3777 N67-35500
Solid and liquid state concepts for large particle or macromeritic systems - soil mechanics [AFCRL-67-0414] 23 p4240 N67-38072

SOLID PROPELLANT
SA COMPOSITE PROPELLANT
SA DOUBLE BASE PROPELLANT
SA PROPELLANT GRAIN
Analytical survey of Soviet literature on solid propellant combustion [ATD-66-68] 01 p0164 N67-10424
Particulate damping in solid propellant combustion instability [NASA-TM-X-52252] 02 p0297 N67-11235
Storage and static firing for solid propellant apogee motor for Applications Technology Satellite /ATS/ 02 p0298 N67-12119
Saturated hydrocarbon polymeric binder materials prepared for advanced solid propellant and hybrid solid grain [NASA-CR-89718] 04 p0602 N67-13674
Gravitational stresses in circular cylindrical orthotropic viscoelastic solid propellant grain 05 p0754 N67-14560
Liquid and solid propellant combustion and air breathing combustion [AFOSR-66-0581] 05 p0774 N67-14747
Low pressure combustion instability tests on solid propellants, and pressure oscillation rate of depressurization 06 p0900 N67-15718
Two subliming solid propellant thruster systems for spacecraft attitude control [NASA-TN-D-3841] 07 p1182 N67-17635
Abstracted data on propulsion technology - liquid and solid propellants, air breathing engines, and combustion engineering concepts [ATD-66-121] 07 p1183 N67-17785
Aluminum combustion in solid composite propellants 08 p1353 N67-18670
Initial ignition of solid propellants, using ammonium perchlorate as oxidizer and polysulfide and polybutadiene as fuels [TIL/T-5669] 09 p1544 N67-20218
Deflagration of gas mixtures and solid propellants [AFOSR-66-2763] 10 p1768 N67-20553
Development of 260-inch diameter solid propellant rocket motor [NASA-TM-X-52375] 10 p1756 N67-21382
Internal displacements in solid propellant grains - analysis of thick hollow cylinder with reinforcing layers [AD-646017] 11 p1969 N67-22521
Burning rate catalysts in ammonium perchlorate propellants, and surfactants with high metal contents [ERDE-15/M/65] 11 p1969 N67-22765
Conference presentations on preparation and properties of solid and composite propellants, fuel combustion, and combustion chambers [DLR-MITT.-66-14] 12 p2196 N67-24351
Theories and methods reviewed of solid propellant combustion process and efficiency 12 p2196 N67-24362
Energy balance and mass reduction calculated for combustion process of solid

propellants 12 p2196 N67-34383
Effectiveness of additives on combustion velocity determined for composite solid propellants 12 p2197 N67-34384
Chemical composition, production, and properties of oxidizer salts for composite solid propellants 12 p2197 N67-34385
Additives and composition changes considered to increase efficiency of solid propellants 12 p2197 N67-34386
Standardized combustion chamber and test method developed in Germany for solid propellants 12 p2197 N67-34387
Combustion instability in chambers investigated with solid propellant tests 12 p2197 N67-34388
Quantitative data obtained for combustion process of solid propellants 12 p2197 N67-34389
Safety measures and propellant sensitivities reviewed for fabrication, transport, and handling 12 p2197 N67-34390
Problems and combustion velocity analyzed for end burning solid propellants 12 p2198 N67-34391
Gas flow, propulsion properties, and burning process investigated in end burning solid propellants 12 p2198 N67-34392
Heat transfer in walls of combustion chambers and effects on solid propellant ignition 12 p2198 N67-34393
Hydraulic-electric system for measuring side thrust components of solid propellant rockets 12 p2199 N67-34395
Causes and methods for determining side thrust force components on solid propellant rocket engines 12 p2199 N67-34396
Test facility and methods for determining thrust vector deviations on solid propellant rockets 12 p2199 N67-34397
Combustion stability and burning process observed in slotted propellant disk 12 p2199 N67-34398
Test method for measuring burning process of solid propellants in combustion chamber 12 p2199 N67-34399
Self-deflagration of Hydroxylammonium Perchlorate /HAP/ and solid oxidizer and propellant extinguishment studies [AFOSR-67-0362] 12 p2199 N67-34839
Solid and liquid rocket engine propellants [FTD-MT-64-56] 13 p2295 N67-25155
Shock testing with solid propellant powered guns 13 p2413 N67-25170
Thermodynamic tables for solid and liquid rocket propellants by small and medium digital computers [DLR-FB-66-79] 13 p2425 N67-26063
Saturated hydrocarbon polymeric binder for advanced solid propellant and hybrid solid grain [NASA-CR-84443] 14 p2481 N67-27428
Constant volume bomb method for determining ballistic performance of solid propellants - combustion characteristics [ISAS-410, VOL. 32, NO. 3] 16 p2967 N67-30065
Solid propulsion technology development for altitude, velocity, and thrust vector control 17 p2151 N67-30858
Thermal radiation from liquid and solid propellant rocket exhausts [NASA-TM-X-53579] 17 p2153 N67-31300
Optimal specific impulse, fuel weight, and design factor values for solid propellant propulsion system used in placing solar probe into orbit - description of Burner II stage [NASA-TT-F-11214] 18 p2344 N67-32332
Evaluation of assay methods for elemental aluminum and method of measuring average particle diameter [PA-TR-3556] 18 p2319 N67-32645
Mechanical properties of simulated, wire reinforced solid propellants [TR-35] 18 p2319 N67-32656
Condensed phase reactions to ignition and deflagration of ammonium perchlorate propellants [SRI-PU-9573] 19 p2527 N67-32992
Solid propellant engineering, binder curing reactions, ATS engine development, pintle nozzle thrust vector control, and low pressure combustion 20 p2717 N67-34708
Projectile impact method for measuring rates of energy release in solid propellants subjected to strong shock waves [NASA-CR-66395] 20 p2716 N67-35233
Saturated hydrocarbon polymeric binder for solid propellants - ethylene-neohexene copolymer chain functional groups [NASA-CR-88018] 21 p2925 N67-35642
Abstracts on advanced air breathing, liquid rocket propellant, and solid rocket propellant combustion dynamics [AFOSR-67-0391] 21 p2947 N67-35697
Aeroballistic development of single-stage Nike-Tomahawk solid-propellant sounding rocket [SC-RR-2668] 21 p2937 N67-36138
Gas flow effects on solid propellant ignition behavior under convective heating [AFOSR-67-0932] 22 p4159 N67-36615
Composition and power characteristics of solid rocket propellants [FTD-MT-65-504] 22 p4139 N67-37226
Solid phase reaction effects on ballistic properties of propellants [NASA-CR-66457] 22 p4121 N67-37623
Realistic propellant nonlinearities in structural analysis of idealized solid rocket grains under slow cooling and ignition pressurization conditions [AA+ES-66-6] 22 p4131 N67-37988
Relation between solid propellant mechanical properties and explosion effects [NASA-CR-89221] 23 p4335 N67-39029
Transient solid propellant combustion analysis [AFOSR-67-1778] 24 p4520 N67-39547
Flame propagation inside of cracks in polyester ammonium perchlorate composite propellants [NASA-TM-X-66550] 24 p4520 N67-39564
Combustion instability and oscillatory burning behavior of solid propellant [REPT.-793] 24 p4521 N67-39710
Bibliography and analytical review of 34 U.S.S.R. titles on propellant properties and combustion processes [ATD-67-23] 24 p4521 N67-40166
SOLID PROPELLANT IGNITION
Ammonium perchlorate-based solid propellant ignition by convective heat transfer [AFOSR-66-1856] 01 p0167 N67-10980
Ignition of polyisobutene, polyurethane, polystyrene, and polymethyl methacrylate by oxygen gas and perchloric acid vapor [RPE-TR-66/8] 04 p0662 N67-14245
Applications of optimal control theory in aerospace engineering, plasmas in geophysics, fluidics, solid propellant ignition, and jet impingement - Conference [AFOSR-66-1943] 07 p1212 N67-17293
Solid propellant ignition and response of combustion to pressure transients 07 p1297 N67-17297
Ignition of solid propellants by radiant energy [RPE-TR-66/4] 09 p1504 N67-19972
Multiple point ignition in HARP project guns [BRL-MR-1832] 21 p3825 N67-35604
Critical analysis of arc image ignition and radiant energy effects on solid propellants [AFOSR-67-1594] 23 p4324 N67-36158
SOLID PROPELLANT ROCKET ENGINE
SA FW-4 ROCKET ENGINE
Structural dynamics survey for solid propellant rocket motors [NASA-CR-656] 02 p0296 N67-11953
Fluid controlled solid rocket motor using fully oxidized solid propellant grain configured with oversized nozzle throat area 02 p0296 N67-12130
Proportional hot gas secondary injection thrust vector control system for high energy solid propellant rocket motor [NASA-CR-627] 03 p0455 N67-13758
Radial acceleration spin effects on internal ballistics of rocket motor and combustion mechanism of solid propellant [NASA-CR-66218] 03 p0475 N67-13189
Heat sterilization of pyrotechnics and spacecraft onboard liquid and solid propulsion subsystems 05 p0754 N67-14790
Static test firing of 260 inch diameter solid rocket motors for demonstrating feasibility [NASA-CR-72127] 05 p0735 N67-14997
Carbon phenolic, graphite phenolic, and silica phenolic nozzle ablative materials performance for large solid propellant rocket boosters [NASA-CR-73060] 05 p0755 N67-15157
Applications Technology Satellite solid propellant apogee motor qualification tests 06 p0858 N67-15719
Flight subliming solid reagin rocket system development for OVS-1 satellite and nozzle optimization performance studies [NASA-CR-712] 08 p1355 N67-19084
Thrust vector deflection angle requirements for controlling solid propellant launch vehicle [NASA-TM-X-53278] 09 p1373 N67-19868
Subliming solid propellant attitude control rocket [NASA-CR-711] 09 p1505 N67-19885
Meteoroid hazards to solid propellant rocket motors [NASA-CR-83118] 10 p1730 N67-21166
Thermodynamic and ballistic fundamentals for solid propellant rocket engine design [FTD-MT-65-191] 10 p1756 N67-21842
Scale model compressed air tests of 260-inch solid rocket with submerged nozzle to determine exhaust flow velocity and direction in annular channel [NASA-TM-X-53265] 11 p1971 N67-23310
Performance of FW-4 third stage solid propellant rocket engine of Delta launch vehicle [NASA-TM-X-55777] 14 p2696 N67-26569
Digital computer simulation program on solid propellant breech-launched rockets [M67-16-1] 14 p2501 N67-26597
Feasibility, parametric design, and comparative analysis of unguided solid fuel rocket vehicle with solar orbit, earth probe, and reentry mission capabilities [NASA-CR-793] 16 p2973 N67-29025
Solid rocket combustion research in United States [NOTS-TP-4275] 16 p2994 N67-29122
High acceleration effects on interior ballistics of solid propellant rocket engines [F66-10] 16 p2963 N67-29457
Design and flight experiments for single-stage solid propellant research rocket NAL-16 [NAL-TR-115] 16 p2964 N67-29921
Composite layer conductive-rubber internal insulation malfunction sensor for large solid propellant rocket engines [REPT.-550] 17 p3152 N67-30824
In-flight performance of solid propellant rocket engine for Delta launch vehicle [NASA-TN-D-4050] 17 p3154 N67-31469
Environment test firing of INTELSAT satellite apogee motor in spin mode [AEDC-TR-67-43] 21 p3826 N67-35752
Multiple start-stop solid propellant rocket motor using highly aluminized ammonium perchlorate annular propellant grains [NASA-CR-72313] 22 p4135 N67-37790
Mathematical theory and practical considerations for selecting solid rocket motors as track test propulsion [MDC-TR-67-78] 24 p4524 N67-40842
SOLID ROTATION
Optimum stabilization of rotational motion of solid with fixed point using gyroscopes 13 p2369 N67-25186
SOLID SOLUTION
Period of identity and microhardness of semiconductor indium phosphide-gallium arsenide solid solutions [FTD-TT-65-2000] 01 p0142 N67-11155
Electrical conductivity and width of forbidden zone of solid solutions of semiconductor compounds of indium phosphide and gallium arsenide [FTD-TT-65-1000] 05 p0732 N67-15029
High purity beryllium alloy sheet strengthened in solid solution with copper alloy [AD-636238] 06 p0859 N67-15401
Superconductivity and critical temperature studied in niobium carbonitride solid solutions [NASA-TT-F-10448] 06 p0845 N67-15629
Crystal lattice parameters and solubility limits of alpha iron with binary transition element additions [AMRA-TR-66-25] 06 p0856 N67-16055
Chromium-tungsten solid solution decomposition [UCRL-16619] 07 p1101 N67-17689
Possibility of irradiation damage affecting rate controlling mechanism for slip in body centered cubic metals and solid solutions [ORNL-3998] 08 p1321 N67-18214
Four component semiconductive phase [FTD-MT-66-173] 10 p1751 N67-21521
Evaporation rates of thermal catheter made of zirconium carbide, uranium carbide, and solid solutions [JPRS-40000] 14 p2696 N67-27265
Dissolution and precipitation of uranium carbides [NLCO-TR-8] 15 p2880 N67-29449

Plastic deformation in ordered solid solutions and effects on physical properties
[REPT.-3] 15 p2726 N67-28554
Constitutive equations from molecular network theories for polymer solutions
[MRC-TSR-706] 17 p3064 N67-30281
Hydrodynamic aspects of macromolecular solutions
[TR-359-4] 19 p3439 N67-32751
Fcc solid solutions of silver and niobium-base bcc solid solutions
[TID-23747] 19 p3468 N67-32969
Mossbauer spectra for gold-iron solid solutions and electric field gradients from Mossbauer measurements
[UCRL-14929] 19 p3523 N67-33602
Chemical shift in nuclear magnetic resonance of fluoride ions in crystals and solutions 19 p3391 N67-33215
Phase diagrams and crystal structure of solid solutions of magnesium, cadmium, and nickel with chromium oxide, and europium titanium oxygen system
[ECOM-01364-7] 19 p3397 N67-33901
Phase diagrams of solid solutions of nickel oxide, magnesium oxide, and cadmium oxide with chromium oxide and oxygen gas 19 p3397 N67-33903
Magnetic properties, crystal structures, and transformations of rare earth metals, compounds, and solid solutions
[REPT.-66-C-225] 20 p3713 N67-34344
Reaction rate between titanium-oxygen solid solutions and titanium trichloride in molten sodium chloride
[BM-RI-7066] 20 p3596 N67-35215
Formation heat, microhardness, and lattice parameters measured of tin and lead telluride solid solutions
[TR-4] 23 p4327 N67-38171
Optical absorption spectra of uranium oxide and its solid solutions
[WAPD-316] 23 p4306 N67-38954
Phase equilibria in solid solution series of ternary plutonium iron manganese system
[MLM-1347] 24 p4491 N67-39860

SOLID STATE
Investigations of transport effects in solids
[AD-637829] 01 p0139 N67-10492
Differences in thermobalance measurements analyzed based on pyrolysis data, volumetric standards, and solid state reactions
[NASA-TT-F-10281] 02 p0261 N67-12099
Absolute position digital indicator developed for three-dimensional automatic neutron diffractometer for solid state studies 02 p0294 N67-12620
Abstracts on solid state chemistry of rare earth oxides
[COO-1109-22] 02 p0362 N67-13309
Instabilities in solid state plasmas, and two stream instabilities in electromagnetic field 04 p0599 N67-13694
Microwave radiation from solid state plasmas 04 p0599 N67-13696
Electromagnetic propagation properties of solid state plasma waveguides, and potential for nonreciprocal devices 04 p0599 N67-13697
Solid state plasma delay lines 04 p0599 N67-13698
High purity inorganic solid state research materials and available crystal growth references - tables
[ORNL-RMIC-5] 04 p0601 N67-14132
Data processing, radio physics, radar, engineering and solid state research reports
[ESD-TR-66-401] 05 p0686 N67-15082
Ceramics and ceramic engineering - zirconium oxygen carbon system, solid state ceramics, surface phenomena, radiation effects, and processing
[NASA-CR-81165] 06 p0896 N67-18390
Range measurement improvement techniques for rawin set receiving system, and solid state receiver subsystem hardware design
[NASA-CR-81528] 07 p1043 N67-18638
Solid state image sensor in infrared and visible regions
[NASA-CR-82478] 08 p1259 N67-19031
Solid state reactions of manganese with silica investigated in high temperature tests
[BM-RI-6905] 08 p1342 N67-19248
Dissimilar metal joining by solid state welding
[NASA-CR-82460] 08 p1386 N67-19274
Cadmium selenide mixtures for photoconductive layers, and problems in modular construction of solid state image intensifiers
[MTER-5] 10 p1751 N67-21256
Solid state scattering theory for localized defects
[U-3926] 11 p1824 N67-23143
Solid state polymerization by ionizing radiation
[NYO-1715-16] 12 p2040 N67-23739
Research project reports on coder components, infrared atomic spectra, semiconductor and plasma physics, and solid state spectroscopy
[NOLC-688] 12 p2154 N67-23781
Solid state and gaseous diffusion experiments on graphite, and dynamic properties of graphite and carbon
[NYO-1710-68] 13 p2343 N67-25549
Solid state plug in circuits as instrument building blocks
[DP-1079] 14 p2530 N67-26540
Titanium alloy solid state welding techniques for fabricating structural components
[GDC-ERR-AN-954] 14 p2544 N67-27220
Feasibility of system employing recirculating, gettered, hydrogen atmosphere to remove carbon from molybdenum
[BNWL-379] 16 p2900 N67-29765
Thermodynamics of solid and liquid gold-tin alloy and high temperature measurements of heat content of gold and tin
[UCRL-17401] 16 p2851 N67-29835
Characterization of defects in solids 17 p3147 N67-30367
Finite amplitude helical instability in solid state electron hole plasmas
[D1-82-0571] 17 p3148 N67-30583
Electronic equipment and development of solid state image converter 17 p3037 N67-30601
Solid state electronic circuits installed in mass spectrometer used for analysis and control of gaseous diffusion processes
[K-1692] 17 p3060 N67-30630
Piezojunction effect in miniature solid state pressure transducer
[NASA-CR-66428] 18 p3271 N67-32230
Modifications to bulk-shielding reactor, neutron scattering facilities at High Flux Isotope Reactor /HFIR/, and other brief summaries on solid state research projects
[ORNL-4098] 19 p3536 N67-33716
Thermal conductivity data on various metals, nonmetallic solids, liquids, and gases
[NSRDS-NBS-8] 20 p3745 N67-34492
Nonstoichiometry and crystal defects in solid state chemistry of lanthanides 21 p3785 N67-36317
Properties of metal chelates in solution and structures in solid state
[COO-1654-1] 23 p4306 N67-38913

SOLID STATE DEVICE
SA DIFFERENTIAL AMPLIFIER
SA LASER
SA MASER
SA SEMICONDUCTOR DEVICE
Solid state image intensifiers
[AD-638217] 01 p0139 N67-10419
Solid state counters for immediate determination of actinide and lanthanide elution peak positions during separation of rare earth and transplutonium elements
[UCRL-16869] 01 p0038 N67-10534
Solid state high power low frequency telemetry transmitters 01 p0042 N67-11123
Solid state electrometer for portable radiation detector using metal oxide semiconductor field effect transistor in high impedance input stage
[ECOM-2736] 02 p0258 N67-11254
All solid-state superheterodyne Dicke radiometer for submillimeter wavelengths
[NASA-CR-79739] 02 p0236 N67-12068
Mosaic electro-optical techniques 03 p0399 N67-13074
Analysis, design, and synthesis of solid state circuits with computer aid - Conference
[NASA-CR-88513] 04 p0521 N67-13341
Physical model of large-signal junction transistor 04 p0519 N67-13342
Active device models for linear circuit application and their application to design of operational amplifier and emitter-peaked voltage amplifier stage 04 p0519 N67-13343
Characteristics, availability, and present uses of computer programs for solid state circuit analysis and design 04 p0522 N67-13352
Theory and experiments in microwave propagation and amplification using solid state devices, and calculations of electronic deflection of laser beams
[NASA-CR-80727] 04 p0598 N67-13645
Solid state wide range low power timer for shutter of rocket or satellite-borne camera
[NASA-TN-D-3756] 04 p0552 N67-14101
Developments reported in varactor multipliers, crystal mixers, and diodes for microwave application 05 p0683 N67-14824
Theoretical model for predicting performance of thin base solid state diode in low current range 06 p0851 N67-15799
Photoconductor concepts, and properties of recrystallized evaporated cadmium sulfide layers 06 p0945 N67-15710
Low noise amplifiers, laser radar optics, gas lasers and holography, and microminiaturized solid state devices for radio electronics 06 p0852 N67-16000
Solid state device concepts pertaining to diodes, p-n junctions, and properties of selenium, cadmium selenide, cadmium sulfide, sodium, zinc, silicon, and telluride
[SR-6] 06 p0947 N67-16029
Solid state image converter capable of imaging radiation from near infrared to 11,000 Angstrom 07 p1076 N67-16728
Logic and control circuitry, and temperature tolerances of solid state displays - Psychophysical limits and capabilities of pilots to read displays 07 p1049 N67-16974
Solid state display device using binary input information
[GRR-65-1063] 07 p1051 N67-17634
Solid state display techniques for aircraft
[AFFDL-TR-66-123] 07 p1051 N67-17657
Solid state, low power, very high frequency transceivers for air traffic control towers
[FAA-RD-66-38] 07 p1038 N67-17673
Research summaries in nuclear physics, solid state studies, solid state radiation detector development, and computation 08 p1328 N67-18248
Solid state device for sensing angular rate by detecting presence of coriolis forces
[NASA-CR-80006] 08 p1282 N67-18735
Reproducibility checks and uniformity improvement of solid state image intensifiers
[REPT.-7] 09 p1502 N67-19980
Solid state rapid timing sequencer for obtaining toxic gas samples from rapid fire weapons and fast burning rocket engines
[USAARU-67-4] 09 p1451 N67-20063
All solid-state direct-current integrator
[ORNL-P-2639] 10 p1596 N67-21783
Solid state research, electromagnetic wave propagation, and information processing
[NASA-CR-83249] 10 p1754 N67-21833
Modulator performance of one-kilovolt solid state thyristors
[ECOM-2771] 11 p1837 N67-22450
Solid state high voltage dynamic filter
[ARL/FL-39] 11 p1786 N67-22466
Receiver-type instrument landing system monitor for all-weather landing system, using modular construction and solid state devices
[SRDS-RD-66-94] 11 p1883 N67-22591
Application of solid state amplifying radiation detectors in health physics
[AECL-2637] 11 p1885 N67-22989
Solid state devices, optical techniques and devices, materials research, and physics of solids
[ESD-TR-66-566] 13 p2388 N67-25121
Photovoltaic effect in diodes, infrared emission from diode lasers, phosphorus ion implantation in Ge, epitaxial Gunn effect oscillators, and bulk GaAs negative conductance amplifiers 13 p2388 N67-25122
Lithium-drifted silicon detector used to measure beta spectra 13 p2319 N67-25445
Five-watt solid state S-band telemetry transmitter
[NASA-CR-83836] 13 p2279 N67-25747
Solid state and diode infrared image converter
[J-255-3] 14 p2532 N67-26976
Proton-recoil proportional counter and helium sandwich detector for critical assemblies
[IITRI-878P51-1] 14 p2533 N67-26996
Solid state, pulse-train generator to control shutter and film-advance timing in camera experiments on sounding rockets
[NASA-TM-X-1390] 14 p2509 N67-27219

Solid state electrometer amplifier for radiological protection in work with ionization chamber
[CLOR-61/D] 15 p2709 N67-27878
Rechargeable battery of silver iodide pellets carrying thin silver and platinum film
[AD-634636] 15 p2843 N67-27977
Ferroelectric transchargers used as storage and control elements in electroluminescent solid state matrix display
[AFFDL-TR-66-5] 15 p2878 N67-28389
Solid state Mars probe radar altimeter
[NASA-CR-66383] 15 p2715 N67-28931
Photon actuated solid state switch, with silicon detector and GaAs diode 16 p2855 N67-29163
Noise performance and circuitry of charge sensitive field effect transistor preamplifier used in high resolution solid state radiation detectors
[AFWL-TR-67-39] 17 p3035 N67-30462
Circuitry, construction, and performance of portable wide range radiac instrument using solid state electrometer for measuring gamma radiation dose rates
[ECOM-2805] 17 p3092 N67-30769
Solid state shunt stabilizer circuits used in Mercury digital computer power supply as replacement for thermionic valve circuits
[RAE-TR-66296] 17 p3149 N67-31079
Photon actuated solid state switch development 18 p3244 N67-31583
Plasma and radio physics, solid state and electronic equipment, communication theory, and atmospheric science
[SEL-67-007] 18 p3254 N67-32501
New solid state device concepts
[AFCRL-67-0046] 19 p3416 N67-32429
Solid state device used in photovoltaic energy conversion 19 p3418 N67-32616
Digital solid state command system using high accuracy real time clock for controlling optical beacon geodesy experiment on GEOS B satellite
[TG-696] 19 p3498 N67-33991
Analysis of stability and configurations for linear solid state distributed amplifier
[AFOSR-67-1239] 21 p3814 N67-35486
Solid state traveling wave amplifier using n-type semiconductor
[ECOM-2903] 21 p3815 N67-35586
Functional design of silicon integrated circuit devices
[ASD-TDR-63-316, VOL. XVI] 21 p3817 N67-35786
Nuclear particle identification solid state detector telescope systems
[TR-163] 21 p3848 N67-35889
Solid state matrix for detecting low energy electrons
[NASA-CR-566] 21 p3923 N67-36507
Solid state detectors used in nuclear physics research
[PAECL/NP-6] 21 p3853 N67-36532
Solid state devices, optical techniques, materials and solids
[ESD-TR-67-366] 22 p4124 N67-36740
Two stream instability in bismuth, pyrolytic graphite, germanium, and silicon as radiation source in microwave region
[ECOM-63434-F] 22 p4117 N67-37564
Low temperature infrared photoconductors
[AD-657445] 23 p4228 N67-39232
Time-to-pulse-height converter design using transistor in avalanche switching mode
[IDO-17235] 24 p4449 N67-39532
Network analysis of solid state devices to assure component reliability over broad frequency ranges
[BRL-MR-1857] 24 p4423 N67-39541
Design and operational parameters of solid state polarimeter for sounding rocket measurements on ionospheric radio absorption
[SR-266/E/] 24 p4451 N67-39685
Logic and electronic design and circuit details for solid state programmable digital clock
[NASA-CR-89737] 24 p4451 N67-39906

SOLID STATE LASER
Feasibility of optical holography for detection and measurement of vibrational characteristics of solid state transducers
[REPT.-7899-F] 14 p2536 N67-27162
Czochralski growth technique for large ruby crystals with optical quality suitable for solid state lasers
[SRCR-67-5] 15 p2781 N67-28239
Solid state, liquid phase, semiconductor, and junction lasers for rangefinding in atmosphere and in space 16 p2902 N67-29264
Pulsed arc discharges used for optical pumping of high energy solid state lasers
[RR-67-9C1-ARCSO-R1] 21 p3896 N67-35785
Development, fabrication, and evaluation of neodymium doped YAG laser rods
[NASA-CR-88510] 22 p4059 N67-36842
Threshold computed for laser cutoff effect in rare earth doped crystals used in solid state lasers
[AFAL-TR-67-213] 24 p4461 N67-39604

SOLID STATE PHYSICS
SA HOLE MOBILITY
Phase equilibrium diagrams of hafnium-tantalum system in solid state
[NASA-TT-F-10260] 01 p0022 N67-10209
Ultrasonic reverberation in solids for loss factors exclusive of scattering and diffraction
[AD-638645] 02 p0295 N67-11039
Publications listed and progress reported in studies of single crystals, crystal growth, material analyses, and solid compounds
[AD-637946] 02 p0295 N67-12091
High energy physics, instrumentation, nuclear reactions, neutron scattering, fission, solid state physics, superconductivity, mathematics, and biomedicine
[ORNL-3924] 03 p0443 N67-13250
Specific heat of solid helium 3, and thermal equations of state determinations
[IS-T-84] 04 p0624 N67-14089
Superconductors, magnetic materials, and ionic crystals - solid state physics 05 p0746 N67-14616
Kinetics of reactions in solid state - bulk thermodynamic properties, diffusion in metals and alloys, nucleation, growth in solids, evaporation, dislocations, and polymer structure
[AD-640424] 06 p0936 N67-16419
High-intensity solid-state gamma-ray dosimeter system
[FZK-337] 07 p1083 N67-17702
Solid state physics and molecular theory group progress report
[AD-642566] 09 p1506 N67-19710
Electronic computer advantages in applications to solid state physics problems concerning transformation of mathematical expressions
[NP-TR-1434] 10 p1749 N67-20914
Cadmium selenide sintered and plastic embedded layers produced in solid state image intensifier study
[NAVTRADEVCEN-1440-2] 11 p1639 N67-23136
Research in solid state physics and molecular theory
[QPR-63] 11 p1988 N67-23153
Research studies in solid state physics, applied electromagnetics and plasmas, and information theory and control systems
[AD-662170] 12 p2189 N67-23641
Electron probe analysis of semiconductors, impurities in doped gallium arsenide crystals, charge transport in silicon thin film, and growth of gallium-indium arsenide films 12 p2189 N67-23642
Magnetic phenomena in solid state physics
[NYO-2156-22] 12 p2193 N67-24090
Automated multi-media self-study program for teaching electronic solid state fundamentals
[AMRL-TR-66-142] 12 p2934 N67-24776
Electronic band structure, transport theory, laser scattering, and magnesium and Heisenberg models - solid state physics research 13 p2360 N67-25125
Compilation of research activities in plasma physics, solid state physics, low temperature physics, low and high energy nuclear physics, and history of science
[NUP-67-2] 13 p2360 N67-26150
Theoretical and experimental research in solid state physics, nuclear physics, plasma physics, and general physics conducted at Illinois University 14 p2530 N67-26611
Scientific research in atomic physics, solid state physics, and radio and X-ray astronomy
[NASA-CR-84299] 14 p2584 N67-26616
Solid state physics research on nuclear magnetic resonance 14 p2601 N67-26619
Application of many-electron theory of solids to theory of metals
[NASA-TT-F-10070] 14 p2601 N67-26622
Solid state physics research in semiconductor devices, laser properties, crystal growth, magnetism, and electronic band structure
[REPT.-1907-I1] 16 p2857 N67-29041
Data systems, radio physics, radar microwave component development, mechanical engineering, and solid state research
[ESD-TR-66-173] 17 p3025 N67-29710
Solid state physics, methods, devices, and materials 17 p3146 N67-29715
Report for conference on quantum chemistry, solid state physics, and quantum biology 17 p3139 N67-29743
Neutron physics research project summaries in nuclear spectroscopy, scattering measurements, solid state studies, and fission processes
[JUL-463-NP] 20 p3691 N67-34366
Survey of nuclear and solid state physics research in Germany
[JUL-CONF-1] 21 p3865 N67-35817
Progress reports on data processing, radio physics, engineering, and solid state physics
[ESD-TR-67-245] 21 p3868 N67-35869
Use of research reactors in radiation damage studies and in solid state and metal physics
[ORNL-P-3028] 21 p3868 N67-35966
Solid state and molecular theory, structures of solids, low temperature and radio frequency physics, and interatomic and intermolecular forces - summaries of research activities 21 p3894 N67-36272
Solid state physics and theory, laser emission, and electron beam excitation studies at Lincoln laboratory 21 p3925 N67-36578
Metastable atoms and ions, atomic and molecular spectroscopy, radio astronomy, solid state physics, collision, and laser excitation
[PR-15] 22 p4090 N67-37261
Solid state physics, applied electromagnetics and plasmas, information sciences, and biological engineering research
[AD-650225] 22 p4125 N67-37429
Inorganic materials research in chemistry, metallurgy, ceramics, and solid state physics
[UCRL-17326] 22 p4129 N67-37546
Selected studies in solid state and molecular theory
[QPR-65] 23 p4228 N67-38231
Physics of failure in electronics - conference on material processes and phenomena influencing degradation and failure of solid state electronic devices and related structures
[AD-655297] 23 p4223 N67-38461
Interband dielectric properties of solids in electric field
[AROD-6412-5-P] 23 p4230 N67-38490
Microwave photon interaction with superconducting tunneling currents - plasma physics, semiconductors, and solid state spectroscopy
[NOLC-715] 23 p4230 N67-38560
Materials science, physical chemistry, solid state physics, metallurgy, magnets, and instrumentations
[TID-23562] 23 p4233 N67-38577
Theory and experiments on finite amplitude instabilities in weakly ionized gases and solids
[D1-82-0635] 23 p4238 N67-38636
Nanosecond risetime, high power, variable delay double pulser for measuring electron hole plasma decay
[D1-82-0628] 23 p4234 N67-38658
Digital computers, man-machine interactions, information processing, radio physics, radar astronomy, and solid state physics
[ESD-TR-67-327] 24 p4425 N67-40311

SOLID SURFACE
Physical electronics and surface physics - contact potential measurements of adsorption of oxygen on Ta and steady-state analysis of desorption of molecules from nonuniform surfaces 11 p1907 N67-23650
Controlling parameters of coalescence in solid-liquid systems
[REPT.-6706-02/01/-FP] 12 p2207 N67-25315
Local stability of finitely deformed solid subjected to follower type surface loads
[TR-7] 14 p2534 N67-26750
Momentum transfer to solid surfaces by nitrogen molecules at satellite velocities
[NASA-CR-66272] 15 p2790 N67-28035
Supersonic molecular beams applied to study of interactions of neutral-particle beams with solid surfaces
[NASA-CR-66283] 16 p2907 N67-31886
Radio induced polymerization of absorbed molecular layer on solid surface

[COO-1586-1] 22 p3993 N67-37962
Mass spectrometer analysis of solid materials using ion microprobe sputter source
[NASA-CR-89336] 23 p4255 N67-39265
SOLID SUSPENSION
SA COLLOID
Convective heat transfer of gas-solids suspensions at high Reynolds number in turbulent pipe flow
[NYO-2930-7] 01 p0165 N67-10672
Statistical turbulence properties of fluid phase in gas solid suspension
[TR-113-ME-F] 13 p2665 N67-23694
Numerical method for determining heat transfer characteristics of dilute solid-gas mixture in externally heated tube
[BM-IC-8343] 20 p3743 N67-34071
SOLIDIFICATION
Solidification in thermal energy storage systems with axisymmetrical heat transfer
[NASA-TN-D-3763] 09 p0472 N67-12816
Analytical method for determining sulfur in solid products from solidification of fission product wastes
[BNWL-265] 03 p0359 N67-12870
Solidification structures of magnesium base eutectic alloys and effect on strength
[QPR-4] 07 p1000 N67-17241
Microsegregation in dendritic solidification of ternary iron-carbon-chromium alloys
[AMRA-CR-63-04/4] 12 p2115 N67-23626
Approximate methods for examining solidification of castings 13 p2323 N67-26400
Transient ice growth of warm water flowing over chilled flat plate
[NASA-TN-D-4015] 15 p2906 N67-32738
Linear solidification of dilute binary solution
[AMRA-TR-66-34] 16 p2848 N67-29586
Solidification and segregation in welding of binary alloys
[AMRA-TR-67-19] 22 p4053 N67-37299
Solidification, structure, and properties of eutectic alloy - aluminum, nickel, and intermetallic aluminum nickel mixtures
[NASA-CR-88656] 22 p4073 N67-37901
SOLIDS
SA INFINITE SOLID
Radio frequency spark source spectrometer for analysis of high purity solids
[NBS-TN-386] 01 p0072 N67-10449
Steady-state-coupled fluid flow and heat conduction analysis of heat-generating solid, as applied to reactor design
[NASA-CR-79889] 01 p0112 N67-10920
Properties of solids at low temperatures - Bibliography
[AD-624824] 01 p0141 N67-10967
Materials for fixation of radioactive waste in glasses
[AEET-250] 02 p0236 N67-11753
Fundamental processes in optical behavior of solids and associated with photovoltaic energy conversion
[NASA-CR-90134] 02 p0295 N67-12166
Horizontal infiltration of liquids into porous solids 04 p0541 N67-13745
Application of pulsed neutron sources to structure and lattice dynamics studies of solids
[INR-744/II/PS] 04 p0586 N67-13919
Modified stretch calorimeter for measuring heat effects during deformation of solids 05 p0707 N67-14490
Wave propagation in viscoelastic solids with measured relaxation or creep functions 05 p0769 N67-14498
Incrementally loaded unstable solid specimens using annealed aluminum 05 p0716 N67-14503
Microbiological techniques for recovering trapped microorganisms from solids for use in spacecraft sterilization program 05 p0851 N67-14773
Sputter ion source mass spectrometer for analysis of solid materials
[NASA-CR-683] 05 p0742 N67-14927
Adsorption and desorption of activated gases, and interactions of activated gases with solids
[AFOSR-66-2673] 05 p0752 N67-15109
Approximation method for calculating temperature field in solids heated by convective and radiant fluxes
[TG-230-T498] 06 p0879 N67-15348
Derivation of explicit form of dissipation function associated with thermomechanical phenomena of viscoelastic solids
[TR-1] 06 p0874 N67-15412
Matrix methodology for comparing simplified space mechanisms using subliming solids with conventional aerospace devices 07 p0997 N67-16921
Rare gas diffusion in solids
[EUR-2848.D] 07 p1128 N67-17352
Irregular shaped boundaries and effect on temperature distribution in solid
[IN-1037] 07 p1206 N67-17468
Surface phenomena and diffusion in solids
[AD-640920] 07 p1178 N67-17647
Theory of ion and atom penetration in solids
[ARL-66-0149] 07 p1179 N67-17654
Influence of radiation on metallurgical processes
[BNL-10543] 08 p1333 N67-18585
Alteration of crystal wave functions by lattice imperfections
[CU-3-66-NONR-4259/16/-EE] 09 p1500 N67-19671
Pulse method to determine temperature and reactor radiation effects on elastic constants of solids
[FTD-HT-66-406] 09 p1479 N67-19948
Far infrared spectra of solids under high pressure 10 p1743 N67-20467
Compressibility, cohesive energy, and hardness of nonmetallic dielectric solids 10 p1744 N67-20468
Semiconductor devices, optical techniques, materials research, and physics of solids
[REPT.-1966-3] 10 p1745 N67-20543
Comparison of electromagnetic and neutron studies of solids 10 p1749 N67-21023
Elastoplastic wave propagation in solids - conference
[FTD-HT-66-497] 10 p1766 N67-21366
Optical properties of solids investigated by infrared and Raman spectroscopy 11 p1986 N67-22546
Numerical approach for wave motions in nonlinear media 11 p1991 N67-22829
Radiative heat transfer in solid with simultaneous transmission, absorption, and re-radiation 11 p2000 N67-23137
[FS66-2] Phonon physics measurements of thermal and infrared properties of solids
[NYO-2391-41] 11 p1943 N67-23200
Spectral and atomistic concepts derived from solids analysis
[AFCRL-66-541] 11 p1968 N67-23206
Propagation of finite shock waves in solids
[AD-648707] 12 p2153 N67-23560
Effect of radiation and gas concentration on rare gas diffusion in solids
[ORO-3506-1] 12 p2161 N67-23696
Neutron spectrum of inorganic and organic solids and liquids using molecular spectroscopy
[PA-TR-3366] 12 p2042 N67-24014
Zeeman effect on absorption spectrum of solids
[NT-155] 12 p2192 N67-24579
Solid state devices, optical techniques and devices, materials research, and physics of solids
[ESD-TR-66-506] 13 p2388 N67-25121
Data collection, evaluation, and processing methods and techniques for preparing handbook on thermophysical properties of high temperature solid materials
[AFML-TR-66-265] 14 p2551 N67-26757
Radiation effects following irradiation of aluminum
[SORIN-107] 14 p2604 N67-27249
Variational principles associated with neutron diffusion in solids
[MRC-TSR-711] 15 p2760 N67-28280
Chemical microstructure of liquids and solids using nuclear techniques
[ORO-3345-2] 15 p2656 N67-28342
Electron spin resonance and nuclear magnetic resonance studies of radiation damage in solids
[NYO-3924-10] 16 p2941 N67-29328
Absence of spin-density wave in ferromagnetic solids at finite temperatures
[TR-43] 16 p2944 N67-29644
Solids mixing in gas fluidized beds with continuous feed of solids
[BMWF-FBK-66-34] 16 p2849 N67-29703
Influence of various factors on radioinduced changes in characteristics of solids
[ZFK-WF-29] 17 p3148 N67-30659
Annotated bibliography on radiation damage in solids
[ATD-67-14] 17 p3149 N67-30949
Time dependent mechanical strength of fully oriented solids
[NASA-CR-85767] 17 p3173 N67-31066
Mechanical breakdown theory for homogeneous oriented solids subjected to time dependent load
[NASA-CR-85754] 17 p3174 N67-31367
Critical evaluation and compilation of viscosity and diffusivity data on gas, liquid, solid, and turbulent flow systems
[NASA-CR-85696] 17 p3020 N67-31416
Energy transfer and radiation effects on optical, mechanical, and electrical properties of ionic solids
[COO-1052-7] 19 p3524 N67-33344
Infrared radiation method for thermal diffusion, heat capacity and thermal conductivity of solids
[NAL-TR-128] 20 p3746 N67-34440
Grain boundaries in ionic bonded solids
[AROD-5727-5-MC] 21 p3873 N67-35637
Brief descriptions on status of three problems in program to develop techniques for analysis and manipulation of arbitrary geometric configurations using digital computer
[NASA-CR-88386] 21 p3952 N67-36406
Physics of solids, metallurgy, and materials science - summaries of research activities 21 p3924 N67-36574
Ritz series finite element analysis of axisymmetric solids under thermal, body force, and surface traction load
[SEL-67-6] 22 p4156 N67-37562
Literature survey on interaction of solids at high velocities, collision experiments, and state equations of solids
[JPRS-42562] 22 p4157 N67-37711
Micro-dynamical description of plastic flow in solids
[COO-1198-445] 22 p4158 N67-37968
Vapor pressures of fluorocarbon solutions at low temperature, liquid-liquid phase diagrams, mixing studies, solubility of solids, hydrogen bonding, and other fluorocarbon studies
[UCLA-34P13-22] 22 p3993 N67-37978
Atomic penetration in solids and crystal lattice influence on penetration behavior
[AECL-2757] 23 p4297 N67-38974
Mass spectrometric methods for trace analysis of insulating solids in powder form
[AFCRL-67-0451] 23 p4298 N67-38999
X-ray diffraction and electron probe analyses of alloy filamentary crystals grown from solids
[REPT.-67-26] 23 p4362 N67-39130
Role of diffusion in creep and stress rupture in polycrystalline solids
[SU-DMS-67-35] 23 p4365 N67-39825
Electric conductivity calculations of excitonic insulator in semimetallic region
[TR-47] 23 p4333 N67-39941
Equivalent equations which govern deformations of self-gravitating elastic bodies of nonuniform internal temperature
[NASA-CR-89939] 24 p4541 N67-39491
Adsorption induced embrittlement fracture of metal solids exposed to surface active liquid metals
[AR-1] 24 p4464 N67-39501
Liquid environment effects on embrittlement of solids
[AD-657854] 24 p4484 N67-39971
Gamma radiation effects on mechanical and dielectric properties of solids 24 p4517 N67-40078
SOLUBILITY
Solubilities of hydrogen fluoride and deuterium fluoride in molten fluorides
[ORNL-P-2202] 01 p0053 N67-10629
Density and vapor pressure measurements for and gas solubility and oxygen and hydrogen diffusivities in potassium hydroxide solutions
[NASA-CR-90376] 03 p0359 N67-12994
Solubility of molybdenum in liquid plutonium
[LA-3523] 04 p0565 N67-14009
Diffusion and solubility of sodium in cadmium sulfide 06 p0947 N67-16021
Silver 110 isotope for measuring solubility of metallic silver and silver chloride in aqueous zinc sulfate 06 p0822 N67-16226
Crystal lattice parameters and solubility limits of alpha iron with binary transition element additions
[AMRA-TR-66-25] 06 p0896 N67-16655
Solubility of calcium sulfate in high temperature and supercritical stream
[AERE-TRANS-1050] 07 p1031 N67-17942
Aqueous system chemistry -

thermodynamics, ion exchange, solubility, hydrolysis, and salt solutions 08 p1243 N67-19346
Solution rates of pure iron and molybdenum in liquid potassium 09 p1407 N67-19584
Equilibrium solubilities of niobium and tantalum in molten potassium 09 p1407 N67-19585
Solubility parameters for niobium and zirconium in lithium and potassium, and calcium solubility in eutectic sodium potassium alloy 09 p1408 N67-19586
Factors affecting corrosion of structural metals by liquid cesium - solubility of carbon in cesium, reflux capsule studies, and dissimilar metal tests 09 p1409 N67-19605
Phase analysis of uranium iron aluminum ternary system with electron microprobe [MCW-1503] 09 p1411 N67-20214
Solubility of vanadium in liquid plutonium [LA-3594] 10 p1568 N67-20405
Solubility of thulium in liquid potassium [LA-3623] 12 p2042 N67-24151
Harmonic approximation of isotope effects in diffusivity and solubility of hydrogen and deuterium in nickel, and quantum mass effects in diffusion [TR-5] 13 p2366 N67-25444
Solubility limit of potassium and cesium in liquid lithium [NASA-CR-83670] 13 p2270 N67-25822
Solubility of ternary mixtures of water/3-methoxybutanol-1/sodium tetraborate-diol condensates applied to hydraulic brake fluids [CCL-222] 14 p2475 N67-26688
Gas solubility and transport properties in fuel cell electrolytes [NASA-CR-84453] 14 p2481 N67-27439
Nitrogen solubility in liquid and solid chromium at elevated gas phase pressure [NASA-TT-F-11053] 16 p2842 N67-29018
Solubility of hydrogen in transition metals and elements, with bibliography [REPT.-6] 20 p3587 N67-34050
Diffusion coefficient and solubility for hydrogen in beryllium [AWRE-O-2/67] 20 p3656 N67-34319
Nitrogen solid solubility in stainless steel as function of temperature and stress corrosion [EURAEC-1838] 21 p3872 N67-36629
Nuclear magnetic resonance method for studying solubility of helium and hydrogen in liquid nitrogen [NASA-TT-F-10662] 22 p3962 N67-36732
Statistical mechanical interpretation of solubility isotherm of hydrogen in hydride phase for palladium, vanadium, niobium, and tantalum [LA-TR-67-55] 23 p4265 N67-38674
Solubility of uranium tetrafluoride in aluminum salt solutions [JPRS-43936] 24 p4394 N67-39573

SOLUTION
SA ITERATIVE SOLUTION
SA PROBLEM SOLVING
SA SOLID SOLUTION
Literature review on stability of solutions to partial differential equations [NASA-CR-79707] 01 p0096 N67-10689
Interfacial water structure - electric conductivity of aqueous electrolyte permeated particulate solids under hydrostatic pressure [TR-23] 02 p0225 N67-11304
Total solvation atmospheres of alkali metal cations in aqueous solution [TR-24] 02 p0225 N67-11305
Ion exchange phenomena and solution chemistry of alkali metals and earth, transition elements, and rare earth [NYO-2269-9] 03 p0362 N67-12306
Correlations between rheological behavior and structural changes of concentrated micellar isotropic solutions 05 p0694 N67-14538
Dissolution of uranium carbide samples 07 p1025 N67-17143
Oscillatory properties of solutions of self adjoint differential equations of fourth order [NASA-CR-81702] 07 p1115 N67-18054
Diffusion model used in studies on radiolysis of aqueous solutions [CALT-532-5] 10 p1571 N67-20734
Asymptotic solutions of differential second order equations with large varying coefficients [NASA-TT-F-10668] 13 p2349 N67-25814
Numerical investigation of one-dimensional search procedures in nonlinear regression problems [RE-306] 22 p4003 N67-36774
Sodium chloride solution densities as function of anhydrous salt content and temperature [UCRL-50256] 24 p4383 N67-39654

SOLUTION HEAT
SA SPECIFIC HEAT
Solution heats of various elements in liquid tin [DRI-214] 22 p4072 N67-37566

SOLVENT
SA TRAVELING SOLVENT METHOD
Solvent purification and water content determined by gas chromatography for nonaqueous electrolytes [NASA-CR-72106] 02 p0236 N67-11851
Comparison of nephelometric instrumental technique and gravimetric method for analysis of nonvolatile residue level in hydrocarbon cleaning solvents [NASA-TM-X-53330] 02 p0238 N67-11983
Flow birefringence measurements on polystyrenes in viscous solvent with varied concentrations and shear rates 05 p0720 N67-14882
Chemistry of vanadium, niobium, and tantalum in compounds and solvents [ARL-66-0063] 05 p0664 N67-14718
Effectiveness of electrolysis and solvents in removing vinyl paint from platinum anodes [PR-1] 05 p0713 N67-15078
Behavior of nonionic detergents in nonpolar solvents [AD-642804] 06 p0830 N67-16150
Absorption spectrophotometric methods for determining impurities tributyl phosphate and degraded process solvents [PG-737] 09 p1411 N67-20207
Electrochemical studies in nonaqueous nitrile solvent acetonitrile [NASA-CR-84657] 15 p2856 N67-28011
Survey of research on applications of molten carbonate electrolytes as acid-base solvent systems [TR-30] 17 p3013 N67-30288
Odor thresholds for assessing solvent odors in air 20 p3597 N67-35086
Screening of inorganic compounds as solvents for electrolytes in high energy density battery systems [NASA-TM-X-1437] 20 p3570 N67-35115
Absorption spectra of stable blue sulfur solutions in organic solvents 21 p3784 N67-35975

SOLVENT EXTRACTION
Mathematical model for recovery of aluminum nitrate nonahydrate from Redox acid waste by crystallization from concentrated nitric acid solution [HW-82771, PT. 3] 02 p0226 N67-11708
Separation of titanium, niobium, and tantalum through liquid-liquid extraction 03 p0356 N67-12340
Uranium /VI/ and iron /III/ extraction from cations with electronic configurations differing from those of inert gases 06 p0826 N67-16804
Colorimetric and coulometric methods for quantitative determination of uranium in purified solutions from dissolution of irradiated uranium carbide 07 p1025 N67-17146
Uranium purification from fission products 07 p1025 N67-17147
Slacked-clone solvent extraction contactor, power reactor fuel processing, thorium fuel cycle, uranium oxide-sol preparation, and fluidized bed volatility processing [ORNL-3905] 09 p1406 N67-19510
Stacked-clone solvent extraction contactor with continuous organic phase operation 09 p1406 N67-19511
Purification of natural thorium scrap materials using solvent extraction process [MCW-1513] 10 p1572 N67-20794
Solvent degradation products in development of separations processes for purifying curium-244 produced in Savannah River reactors [DP-1016] 11 p1908 N67-22315
Radioactive tracer procedure for investigating effect of elevated temperatures on chromium quantities dissolving from chemically chromated aluminum surfaces [NAEC-AML-2589] 15 p2856 N67-28035
Extraction of alkaline earth metals by organic solvents [UJV-1573] 16 p2944 N67-29321
Atomic absorption spectrophotometric method for determining submicrogram quantities of mercury in water and lithium hydroxide solutions [Y-1572] 16 p2850 N67-29771
Geometric scaling effect on performance of stacked clone contactor [ORNL-4008] 17 p3068 N67-31048
Model for transient holdup and separation efficiency of solvent extraction [RLO-1005-3] 17 p3018 N67-31188
Solvent extraction of metal fluoroacetylacetonates [ARL-66-0192] 19 p3269 N67-33148
Comparative studies of feasibility of tri-n-octylarsine oxide and tri-n-octylphosphine as extraction agents for trivalent lanthanides and actinides [JUL-434-PC] 20 p3582 N67-34359
Liquid-liquid extraction discrimination among rare earths 21 p3788 N67-36344
Geometrical and mechanical effects on extraction of europium by lithium amalgam from aqueous lithium citrate electrolytes 21 p3788 N67-36346
Comparison of TBP and DEHPA solvents in production of rare earth nitrate acid systems 21 p3790 N67-36351
Dielectric constants and refractive indices for n-octane solutions of high molecular weight organophosphorus compounds used in solvent extraction systems [ORNL-TM-1593] 22 p3901 N67-37091
Solvent extraction process for separating uranium from thorium, plutonium, polonium, iron and cobalt [BNWL-440] 24 p4396 N67-39751

SOMMERFELD APPROXIMATION
Kinetic theory of surface ionization of alkaline metal atoms, based on Sommerfeld approximation model of metal with free electron gas [NASA-TT-F-10978] 16 p2949 N67-29968

SONAR
Performance of sonar receiving arrays in presence of nonuniform and correlated background noise, for both linear and clipped processing techniques [NOLTR-66-56] 07 p1023 N67-16798
Adaptive mechanism theory in threshold gate network synthesis, moment invariant statistics, logic cell iterative arrays, computer design, functional equation solutions, and sonar systems [RADC-TR-66-519] 08 p1253 N67-18447
Parallel processing applicability to adaptive sonar systems 08 p1246 N67-18458
Mathematical model for deriving ambiguity function used to study signals from radar and sonar targets [NRL-6471] 11 p1819 N67-23225
Hydrodynamic testing of lightweight helicopter remote classification and localization system /Hercules/ sea unit XWO-1 [NOLTR-66-206] 11 p1821 N67-23683
Transient sound field of sonar with circular pistons [SR-1] 13 p2154 N67-23822
Tape recorder WOW and flutter effects on sonar data [NADC-AE-6626] 12 p2003 N67-34800
Sonar transducer analysis to determine hydraulic and mechanical shock stresses induced in ceramic drive element by underwater explosion 13 p2612 N67-25189
Personnel training in sound reverberation patterns to determine effects on Doppler discrimination [STB-67-12] 13 p2280 N67-25976
Construction of non-gridded, field effect tube for sonar applications [QR-6] 14 p2806 N67-26943
Analytical sonar and radar signal processing techniques in reverberation and fluctuation noise [RE-383] 14 p2496 N67-27724
Uniform theory for optimum array processing [REPT.-4166066] 16 p2862 N67-29679
Measurement of frequency spectrum of pulsed sine wave reverberation [NADC-AE-6713] 17 p3023 N67-30851
Compliant tube effect of acoustic interaction on radiation impedance of sonar transducers at air-water surface [ASR-3] 18 p3286 N67-32650
Target enhancement on simulated radar/sonar type display using multi-phosphor cathode ray tube [REPT.-9001621] 19 p3490 N67-33844

Mathematical analysis of recurrent transient signal detectability at low signal to noise ratio in sonar and radar for underwater acoustics applications
[REPT.-3674-11-T] 19 p3400 N67-32903
Two Fortran programs for computing electroacoustical behavior of transmitting sonar arrays
[USL-791] 25 p4213 N67-38393
SONDE
S RADIOSONDE
S SOUNDING
SONIC ANEMOMETER
Instrumentation, data reduction, processed spectral data from sonic anemometer measurements of low level air turbulence and vertical velocity fluctuations
[AFCRL-66-542] 05 p0703 N67-14942
Comparison of vertical heat flux measuring instrument performance 20 p3628 N67-34183
SONIC BOOM
Design problems, operational experiences, and human responses related to aircraft noise and sonic boom 01 p0006 N67-11116
Human physiological response to sonic boom 02 p0200 N67-11668
Statistical magnifications of sonic booms due to atmospheric wind and temperature effects calculated for steady state cruise
[FFA-104] 04 p0462 N67-14118
Richardson extrapolation applied to numerical evaluation of sonic boom integrals
[NASA-TN-D-3806] 06 p1218 N67-18949
Meteorological considerations for supersonic transport flights 12 p2014 N67-23981
Supersonic boom effects in relation to flights of supersonic aircraft 12 p2014 N67-23983
Sonic bang intensities in stratified atmosphere obtained by combining geometrical acoustics and standard procedure for modifying linear theory predictions for nonlinear effects
[RAE-TR-66003] 15 p3640 N67-28153
Sonic boom measurement with limited frequency response instrumentation
[WR-66-20] 16 p3819 N67-29692
Shock tunnel test facility for sonic boom simulation
[RAE-TR-66344] 16 p3875 N67-29963
Supersonic transport configuration effects on sonic boom 16 p3191 N67-31628
Ground overpressure exposure effects on sonic boom from supersonic transports and community reaction to sonic boom 16 p3191 N67-31629
Human tolerance to simulated sonic booms
[NASA-TT-F-10709] 20 p3566 N67-34536
Environmental simulation facilities, biplanar optical systems for nonplanar free flight tests, hypersonic boom and air radiation measurements, and X-15 and wedge wake studies 20 p3620 N67-34767
Shock wave and noise problem of sonic boom 20 p3567 N67-34810
Subsonic and supersonic aircraft used to test and measure sonic boom effects on human subjects, animals, and structures
[NSBEO-1-67] 22 p3989 N67-36765
Frequency response data for pressure transducers used in sonic boom evaluation
[NASA-CR-66369] 22 p4048 N67-37511
Mach number and geometry effects on level of sonic boom overpressure and applicability of Whitham theory to calculation of sonic boom
[NASA-TN-D-4214] 23 p4174 N67-38227
Aircraft noise - Selected bibliography with abstracts
[TDCK-15350-SII] 24 p4374 N67-39996
SONIC FLOW
Expansion for disturbance velocity potential of symmetric sonic flow past two-dimensional body
[RAE-TR-66000] 15 p3590 N67-28070
Sound wave propagation in saturated and wet vapor, and sound speed measurements on vapor-liquid phase equilibrium curve
[NASA-TT-F-10077] 15 p3691 N67-28294
Lift, drag, and pitching moment measurements on sonic leading-edge delta wing in flow field of semi-angle cone
[ARC-R+M-3433] 22 p3956 N67-37203
SONIC NOZZLE
Pneumatic temperature measuring system for in-reactor high temperature measurements 09 p1477 N67-19633
SONIC SPEED
SA SUBSONIC SPEED
Sonic region singularities, shock stand-off distance, and shock wave shape in solution for inviscid flow past blunt body
[TN-AE-31-66] 03 p0383 N67-12894
High pressure sonic velocity experiments on liquid mercury as function of temperature for volume determination
[TR-8] 05 p0739 N67-14729
Aerodynamic turbulent boundary layer noise simulation in sonic fatigue facility
[AFFDL-TR-66-112] 14 p3568 N67-37557
SORET COEFFICIENT
Soret and concentration diffusion coefficients for thermal diffusion columns, determined by unsteady state method 11 p1997 N67-22048
SORPTION
SA ABSORPTION
SA ADSORPTION
SA CHEMISORPTION
SA CRYOSORPTION
SA DESORPTION
Uranium sorption on peat from dilute solutions and reactor waste waters 09 p0823 N67-16349
Sorption and diffusion of water in rubbery polyurethane
[NASA-CR-81801] 07 p1108 N67-18188
Sorption kinetics of uranium from nitric acid solutions on anion exchange resin
[LA-3541] 11 p1998 N67-22309
Vacuum theory, adsorption, desorption, and diffusion phenomena, pumping systems, pressure measuring devices, and leak detection methods
[ESRO-TM-48] 11 p1855 N67-22503
Sorption kinetics and mechanical properties of dilute niobium-hydrogen solutions
[ORO-2570-10] 15 p3725 N67-28344
Ion exchange by continuous countercurrent and displacement electrochromatography, and water deuterium oxide separation by selective sorption
[JPRS-40433] 16 p3847 N67-29627
Selective sorption of water with swelling of ionite resins in deuterium oxide solutions 16 p3847 N67-29630
Mechanism of lanthanum, europium, and scandium sorption on iron hydroxide 21 p3778 N67-35507
Sorption of biphosphate ions by radioactive and irradiated barium sulfate precipitates 21 p3778 N67-35508
Classification of deviations from Henry law in radiochemical sorption systems 21 p3778 N67-35509
Radiocolloids in sorption systems with variable mass of sorbent 21 p3778 N67-35510
Polonium sorption on Teflon 21 p3778 N67-35511
Sorption of silver 110 on fluorinated surfaces of L-36 glass and quartz 21 p3778 N67-35512
Complex formation of protactinium with chloride and sulfate ions by sorption on silica gel 21 p3779 N67-35513
Sorption isotherms of uranyl sulfate complexes by anion exchange resins 21 p3779 N67-35518
Sorption of uranium /VI/ from hydrofluoric acid solutions by weak-base anion exchange resins 21 p3779 N67-35519
Sorption of uranium /VI/ from hydrofluoric acid solutions by strong-base anion exchange resin 21 p3779 N67-35520
Sorption of uranium /VI/ on anion exchange resins from sulfuric acid-hyrogen fluoride solutions 21 p3780 N67-35521
Sorption of uranium /VI/ from HCl-HF solutions by anion exchange resins 21 p3780 N67-35522
Sorption pumps to remove inert gases and attain higher vacuum by periodic flushing with gaseous nitrogen
[FTD-HT-67-17] 22 p4053 N67-37237
Sorption of radioruthenium in colloidal and ionic state on ferrous hydroxide formed by electrodissolution of iron anode
[UJV-1733] 23 p3992 N67-37942
SOUND
SA ACOUSTICS
SA UNDERWATER SOUND
SA ZERO SOUND
Characteristics of adrenal and thyroid glands and higher nervous activity under prolonged action of sound in rats 02 p0183 N67-11437
Mass entrainment by jets - effect of sound on jet and fluidics application
[AFOSR-67-0837] 13 p2900 N67-25418
Application of high frequency sound for atomization and combustion of fuel oils
[CMER1-A2] 13 p3425 N67-26148
Simultaneous transmission of two sound channels in television broadcasting 20 p3603 N67-34691
Abstracts on sound and vibration projects - structures, industrial acoustics, audiology, aerodynamics, and instrumentation 23 p4293 N67-38199
Elastic wave scattering by rigid bodies of arbitrary shape - integro-differential equations
[REPT.-24] 24 p4541 N67-39383
Diffraction of acoustic pulses by obstacles with impedance boundary conditions
[REPT.-19] 24 p4495 N67-39862
Steady state sound scattering by elastic cylinders
[REPT.-1-67] 24 p4496 N67-39901
SOUND AMPLIFICATION
Experiments and calculations to determine ion-acoustic and sound wave amplification in plasmas 05 p0743 N67-14627
SOUND DETECTOR
Sound detectors and flow noise of simple lines and perforated pipes in motion, and sampling pressure fields beneath turbulent boundary layer
[BR-4073] 12 p2086 N67-24701
Modified stethoscope acceptability and effectiveness for use in areas of high noise levels on aircraft carrier
[NAEC-ACEL-543] 18 p2834 N67-29627
Man-computer target detection systems and sonar operator performance characteristics
[U417-66-037] 18 p3238 N67-32313
SOUND FIELD
Joint acceptance equations for cylinder undergoing random vibration, and for simply supported beam in diffuse sound field
[NASA-CR-80239] 03 p0470 N67-13068
Anechoic water tank for high frequencies, normal mode sound field in shallow water, and orthogonal wave functions of stratified medium
[JPRS-39107] 08 p1225 N67-15491
Sound field and orthogonal wave functions of shallow water measured by continuous eigenvalues 08 p1226 N67-15495
Normal mode sound field for harmonic point source in shallow water with negative gradient 08 p1226 N67-15496
Transient sound field of sonar with circular pistons
[SR-1] 12 p2154 N67-23632
Comparison calibration of microphones in diffuse sound field
[REPT.-669] 16 p2938 N67-29971
Sound measurement in application to excessive noise propagation from static test firing of large space booster power plants 17 p3120 N67-30569
Device for computing correlation functions, sound field analyzer, method for finding envelopes of correlation functions, and pendulum device for measuring surface slope of underwater structures
[JPRS-40684] 20 p3636 N67-34227
Sonic field analyzer for evaluating acoustic properties of buildings 20 p3639 N67-34229
Radiation sound field of rectangular panel set in infinite wall and excited by turbulent boundary layer
[ARC-R+M-3491] 20 p3690 N67-35179
SOUND INTENSITY
SA NOISE INTENSITY
Sound and vibration research for industrial noise problems 01 p0168 N67-10478
Sound shock effects on physiological functioning of human body 02 p0210 N67-11677
Sound power level and airflow measurements for flat, cambered, and airfoil compressor blades
[FAA-AD6-62] 06 p1218 N67-19262
Wind tunnel studies on unsteady subsonic flow over cavity to determine frequency and intensity of generated sound field 06 p1274 N67-19812
Sound intensity measured at manned ship stations to determine excess over tolerable level
[IZF-1966-19] 11 p2007 N67-22674
Far-field acoustic environmental predictions for launch of Saturn V and Saturn V MLV configuration
[NASA-TN-D-4117] 21 p3395 N67-35775
Bibliography and discussion of non-auditory effect of high-intensity noise and

low frequency vibration on humans
[A66/KLU/639] 22 p3971 N67-37413
SOUND LOCALIZATION
Interaural intensity difference limen - measure of differential sensitivity and sound-localization discrimination
[AM-67-19] 24 p4383 N67-39795
SOUND MEASUREMENT
Acoustic method for measuring characteristics of ocean sound scattering layers
[JPRS-38379] 01 p0067 N67-10385
Theoretical and experimental aspects of analysis with sound spectrograph
[REPT.-7] 06 p0843 N67-16428
Prediction of rotational sound due to blade loadings in ducted propellers
[NASA-CR-66370] 06 p0786 N67-16662
Sound measurements on hydraulic control valves of submarine to improve noise reduction
[TDCK-47317] 13 p2328 N67-26031
Sound measurements on submarine ventilator and electric motor to reduce noise
[TDCK-47319] 13 p2328 N67-26032
Sound measurements performed on seawater pump and electric motor to reduce noise levels
[TDCK-46824] 13 p2328 N67-26034
Improvements and tests to determine effectiveness of noise reduction on seawater cooling pump of ship
[REPT.-606.112, II] 13 p2329 N67-26060
Spontaneous Brillouin scattering in carbon dioxide and nitrogen gases
14 p2547 N67-26705
Refraction of sound field of omnidirectional pure tone point source by temperature and velocity fields of 3/4-inch air or nitrogen jet
[NASA-CR-840] 18 p3259 N67-31985
Speech perception of vowels, tones, and non-speech patterns, electromyography study of articulatory dynamics in hearing-impaired and normal speakers, sound synthesis, and stop closure measures
[SR-7/8/1966/] 19 p3384 N67-32749
Maximum sound pressure spectrum calculated from fixed and mobile jets
21 p3897 N67-36461
Air shower experiments - sonic spark chamber studies
[BMWF-FBK-67-44] 23 p4254 N67-39141
SOUND PROPAGATION
Measuring internal friction, elastic modulus, and rate of sound propagation of solids in frequency range from 6 to 60 kilocycles
01 p0071 N67-10085
Rules for scale models to investigate sound radiation from ship to surrounding water
[TDCK-46172] 01 p0115 N67-10573
Ultrasonic reverberation in solids for loss factors exclusive of scattering and diffraction
[AD-636845] 02 p0395 N67-11939
Quadripole methods for determining sound propagation velocity through gases in tubes
[MRC-634] 03 p0438 N67-12434
Absorption of sound in air as function of humidity and temperature
[NASA-CR-647] 06 p0919 N67-16662
Sound propagation prediction affected by meteorological parameters such as atmospheric variability
[NASA-CR-61160] 06 p0908 N67-16681
Frequency and temperature dependence of sound propagation in liquid helium
[COO-1198-354] 10 p1693 N67-30013
Continuum and Boltzmann equation governing sound propagation in rarefied gas - molecular collision frequency, mean free path, and particle number density
12 p2158 N67-24237
Noise measurements of sound propagation related to jet aircraft takeoffs
[NASA-CR-787] 12 p2157 N67-25663
Fortran 63 program for computing sound ray paths in presence of wind
[SC-RR-67-53] 17 p3122 N67-31948
Sound transmission from plane source into scattering medium and incident wave reflection by scattering half-space applied to sound propagation in bubbly liquid
[REPT.-85-41] 23 p4295 N67-39719
SOUND RANGING
Sound ranging technique for locating supersonic guided missiles during descent trajectory
[ECOM-5065] 06 p0906 N67-16656
SOUND TRANSMISSION
Vibration transmission of flexible pipe couplings influenced by elements of trim pump system
[MEL-268/66] 01 p0139 N67-10364
Fundamentals of statistical energy analysis of vibrating systems
[BBN-1350] 02 p0288 N67-11703
Experiments to understand sound transmission and language of dolphins
[JPRS-39317] 05 p0656 N67-15180
Statistical energy analysis for predicting sound and vibration transmission in shroud-enclosed spacecraft
[NASA-CR-61688] 07 p1366 N67-18035
Functional analysis and design of electromagnetic impulse sound source transmission
08 p1326 N67-18513
Experiments for studying acoustic transmission property stability in Norwegian coastal waters
[U-191] 11 p1930 N67-23154
Model experiments on sound transmission from engine room to accommodation in diesel engine powered ships
[REPT.-875] 13 p2415 N67-25570
Weather effect on sound transmission from explosive detonation
[BM-RI-6921] 13 p2370 N67-26346
Cross correlation method for examining structural noise and vibration transmission in complex structures
[MAC-508-02A] 14 p2534 N67-26614
Acoustic signal transmission, fluctuations, scattering, and energy absorption in ocean
[JPRS-40014] 14 p2563 N67-27354
Structureborne sound transmission through flexible hoses and cables
[TDCK-46947] 17 p3122 N67-31443
Directional response characteristics displayed by thin-walled piezoelectric ceramic tube transducers
[NADC-AE-6709] 19 p3414 N67-32938
Meteorologic and sound transmission data from from Sotran I and II
[ECOM-5094] 19 p3443 N67-32411
Axisymmetric stress wave propagation across plane interface between cylindrical bounded media
[REPT.-1-67] 22 p4097 N67-36757
Sound transmission from plane source into scattering medium and incident wave reflection by scattering half-space applied to sound propagation in bubbly liquid
[REPT.-85-41] 23 p4295 N67-39719
SOUND VELOCITY
Velocity and attenuation of first sound measured in lambda transition of liquid helium
[TR-25] 04 p0542 N67-14322
Ion association in electrolyte solutions using ultrasonic absorption measurements
[AROD-3417-5] 06 p0838 N67-16431
Sound velocity measurements on specimens of polycrystalline forsterite, single crystal spinel, and obsidian
[AD-646782] 12 p2906 N67-24821
Ultrasonic interferometer utilizing acoustic path differences for determining sound speed
[NRL-6409] 12 p2156 N67-24950
Detonation characteristics of granular ammonium perchlorate and potassium chloride, and shock initiation in granular ammonium perchlorate
[AFOSR-67-0413] 13 p2434 N67-25623
Sound velocity in liquid helium, boundary trapping in unipolar space charge limited current, superconductivity applications, and enhanced electron emission in thermionic converter
16 p2926 N67-29146
Sound velocity and temperature data for North Atlantic area in terms of monthly and seasonal variations
[NADC-AE-6710, VOL. I] 16 p2867 N67-29655
Acoustic interferometric determination of sound velocity in saturated carbon dioxide vapors with ultrasonic frequency of 500 KHz
[NASA-TT-F-11067] 17 p3121 N67-31215
Variation of sound velocity and temperature in North Atlantic
[NADC-AE-6710, VOL. II] 18 p3264 N67-31981
Sound velocity and absorption in liquids
[TR-8] 19 p3497 N67-33050
Radiosonde ascents data by aerological station in Berlin - temperature, pressure, winds, density, refractivity, and sound velocity
23 p4279 N67-39939
North Atlantic velocity profile atlas for latitudes 40 to 60 degrees N
[NADC-AE-6647, VOL. I] 23 p4346 N67-39969
North Atlantic velocity profile atlas for latitudes 20 to 40 degrees N
[NADC-AE-6647, VOL. II] 23 p4346 N67-39969
SOUND WAVE
SA ELECTROACOUSTIC WAVE
SA PLASMA SOUND WAVE
Propagation of small amplitude ion acoustic solitary waves
[IPPJ-81] 01 p0113 N67-10129
Acoustic apparatus for study of acoustic wave pressure-disturbance propagation in plasma
[NASA-CR-79307] 05 p0598 N67-12233
Sound diffraction by obstacle of arbitrary shape with Robin boundary condition
[REPT.-12] 05 p0630 N67-13869
Sound wave velocities measured in textiles and other natural glasses
[NASA-TM-X-55693] 05 p0641 N67-13254
Studies and experiments to determine time dependency of plasma density, high frequency electron-phonon interactions in magnetic fields, and operation of stuffed-cusp plasma facility
05 p0766 N67-14638
Nature, propagation, and ducting of acoustic gravity waves in earths atmosphere
[NASA-CR-81697] 07 p1676 N67-17988
Generalized Kirchhoff law in acoustic energy calculation for moving point source of sound
[NASA-TM-X-53988] 08 p1327 N67-18458
Antennas and waves in plasma
[NASA-CR-83529] 08 p1351 N67-18886
Far field sound radiation from randomly vibrating structure oscillating in acoustic medium
[TR-15] 09 p1519 N67-19788
Acoustic wave propagation in non-Newtonian viscous fluid
12 p2566 N67-24145
Surface and sound wave diffraction, excitation of electromagnetic horn by wide waveguide, and solution of elliptic equations
12 p2344 N67-25114
Aerodynamic turbulent boundary layer noise simulation in sonic fatigue facility
[AFFDL-TR-66-112] 14 p2563 N67-27557
Dynamics of sound waves and acoustic radiation
[ISAV-MEMO-154] 14 p2582 N67-27601
Sound wave propagation in saturated and wet vapor, and sound speed measurements on vapor-liquid phase equilibrium curve
[NASA-TT-F-10977] 15 p2691 N67-28294
Reflected sound wave methods for determining irregularities on ocean floor
[JPRS-40696] 17 p3051 N67-30043
Determination of ocean bottom irregularities by sound wave scattering method
17 p3051 N67-30044
Measurements of sound reflection coefficient from ocean bottom
17 p3051 N67-30045
Reflected sound wave method for determining distances between irregularities on ocean floor
17 p3051 N67-30046
Excitation of first and second sound waves in superfluid solutions of helium isotopes
[ANL-TRANS-455] 20 p3989 N67-34306
Equations of motion used in numerical analysis of weak pressure wave propagation at very low pressure
[P-328] 24 p4423 N67-40173
SOUNDING
SA BALLOON SOUNDING
SA IONOSPHERIC SOUNDING
SA RADIOSONDE
SA ROCKET SOUNDING
Plotted charts of locations where echo soundings of Atlantic Ocean bottom were made along cruising route of Chain
[WHOI-66-2] 01 p0066 N67-10319
Method for sounding arterial vascular canal in dogs
02 p0282 N67-11788
Temperature and wind profiles in stratosphere and mesosphere from acoustic grenade soundings
[NASA-TM-X-55431] 03 p0891 N67-12185
Radio frequencies used to probe glacial ice and determine structure and thickness
04 p0606 N67-13434
Vertical incidence absorption measurements by ionospheric sounding and automatic recording system
05 p0709 N67-14043
Stratospheric sounds that utilizes chemiluminescent principle to measure ozone concentration after deployment from Arcas rocket vehicle
[ECOM-5064] 05 p0758 N67-14728
Water vapor observations at low, middle, and high latitudes during 1964 and 1965

[NRL-6447] 05 p0733 N67-15331
Radiosonde and radar sounding of troposphere and tropopause during clear weather, fall 1963
[T-R-239] 07 p1118 N67-17917
Atmospheric electrical soundings related to precipitation 06 p1275 N67-18213
Atmospheric structure measurements above 30 km using grenade method and acoustic techniques
[AFCRL-66-777] 10 p1630 N67-30574
Vertical echo soundings and tables on ionosphere data
[REPT.-292-F] 20 p3632 N67-34435
Ionospheric data on vertical echo soundings recorded at Freiburg
[REPT.-247-F] 20 p3632 N67-34466
Ionospheric data obtained by vertical soundings over Freiburg, Germany
[REPT.-231-F] 20 p3633 N67-34732
Statistical analyses of mesoscale rawinsonde measurement data to assess low level sounding variability and predictability 24 p4439 N67-39836
SOUNDING ROCKET
SA AEROBEE ROCKET
SA DORNIER PARAGLIDER ROCKET
SA JUDI ROCKET
SA METEOROLOGICAL ROCKET
SA NIKE-APACHE ROCKET
SA NIKE-CAJUN ROCKET
SA NIRO SOUNDING ROCKET
SA ROCKET SOUNDING
French space program, rocket firing, and construction of FR-I satellite - European space program
[NASA-TT-F-8594] 01 p0151 N67-10188
Solar plasma measurements from ionospheric sounding rockets and geocentric and heliocentric satellites
[TN-1966-26] 01 p0147 N67-10253
Summaries of sounding rocket, space probe, and artificial earth satellite launchings and observations 01 p0068 N67-10594
System for measuring vector magnetic fields from sounding rockets
[AFCRL-66-565] 01 p0069 N67-10651
Chronological listing, orbital data, and description of U.S. and Soviet satellites and space probes launched from 1957 to 1965 02 p0348 N67-11913
Sounding rocket measurements of temperature in stratosphere and mesosphere
[ECOM-5056] 02 p0383 N67-11934
Meteorological rocket network sounding data from December, 1965, firings
[IRIG-100-62, VOL. LII] 03 p0430 N67-12627
Electron density, and sounding rocket investigation of narrow sporadic ionosphere layers
[NASA-CR-66650] 04 p0539 N67-13541
Aeroelastic bending of upper atmosphere sounding rocket and its application to payloads on Nike-Capache 04 p0490 N67-14182
Impedance measurements of unbalanced whip rocket antennas near earths surface
[UU-66-10] 04 p0516 N67-14328
Aerodynamic and flight characteristics and trajectory analysis of NIRO sounding rocket - graphs
[SGC-916FR-1, APPEND. A] 05 p0767 N67-14993
Supersonic wind tunnel analysis of unguided sounding rocket roll lock-in
[NASA-CR-81142] 06 p0830 N67-15232
Launching program of French Dragon sounding rocket
[NASA-TT-F-10613] 07 p1191 N67-17394
Electrostatic rocket probe with grids for measuring ionospheric electron density and temperature
[CM-R37-10.1] 07 p1699 N67-17845
NASA space science astronomy program - orbiting satellite experiments for solar, stellar, and galactic observations
[NASA-SP-127] 08 p1363 N67-18730
Experimental packages of orbiting laboratory, and of sounding rockets for stellar and galactic astronomical observations 08 p1364 N67-18733
NASA survey for future development of sounding rockets
[NASA-TM-X-55685] 08 p1371 N67-18738
United States and U.S.S.R. use of scientific satellites, sounding rockets, and space probes for upper atmosphere studies
[NASA-TT-F-390] 08 p1376 N67-18967
ESRO sounding rocket program using Arcas, Beller, Centaur, Dragon, and Skylark rockets
[ESRO-SR-5] 08 p1387 N67-19069
Celestial observation, sounding rocket data, and emission spectrum used to identify Sco X-1 of Scorpio constellation
[NASA-CR-88112] 09 p1510 N67-19650
Sounding rocket data analyzed for X-ray source in Scorpio constellation 09 p1510 N67-19651
Location of Sco X-1, strong X-ray source in Scorpio constellation, from analysis of sounding rocket observations 09 p1510 N67-19653
Optical identification of Sco X-1, Scorpio constellation 09 p1510 N67-19654
Overall Aerobee sounding rocket flight performance for 1964 launchings
[NASA-TM-X-55712] 09 p1514 N67-19665
Muzzle velocity measurement for tube-launched meteorological probes
[ECOM-5065] 10 p1598 N67-30456
Radiance measurements of infrared horizon of earth in three infrared spectral regions during Aerobee sounding rocket flights
[AFCRL-66-631] 10 p1620 N67-30589
Nomograph for field determination of launcher settings to obtain theoretical impact for unguided rockets
[ECOM-5068] 10 p1762 N67-31334
Method for approximating unguided rocket drag coefficients from radar beam tracks
[ECOM-5064] 10 p1851 N67-31537
Analysis of flight characteristics and static stability of Tomahawk vehicle for use with 100-kilometer sounding rocket
[NASA-TM-X-55736] 11 p1920 N67-32075
Dynamics of upper atmosphere investigated through analysis of motion of sodium vapor trails ejected from sounding rockets
[NASA-CR-83394] 11 p1869 N67-32436
Wind and temperature measurements from meteorological sounding rocket firings and computed values for pressure, density, and speed of sound for July, 1966 11 p1917 N67-32417
Development of sounding rockets for upper atmosphere research 11 p1923 N67-32480
Nike-Apache rocket performance handbook
[NASA-TM-X-55700] 13 p2406 N67-35089
Manual for procedure of experiment proposal for inclusion in ESRO sounding rocket program
[ESRO-SP-3] 13 p2392 N67-35691
Preliminary results of Skylark sounding rocket payload to measure density and temperature profile of electrons during sporadic E layer
[ESRO-SN-58] 13 p2408 N67-35696
Payload engineering fabrication, checkout, and launching of Black Brant III sounding rockets
[SRPB-662] 13 p2409 N67-36200
Solid state, pulse-train generator to control shutter and film-advance timing in camera experiments on sounding rockets
[NASA-TM-X-1390] 14 p2509 N67-37293
Geophysical observations from sounding rockets and satellites, 1 July - 31 December 1966 - tables and bibliography 14 p2621 N67-37748
Recovery of sounding rocket by means of paraglider
[DGRR/WGLR PAPER-66-657] 15 p2794 N67-37956
Chronological summary listing of AFCRL rocket and satellite borne scientific experiments from 1946 to 1966
[AFCRL-66-868] 15 p2798 N67-38000
High altitude sounding rocket data on ionospheric inhomogeneities over Wallops Island 16 p2804 N67-38006
Static stability of sounding rocket at Mach numbers 1.50 to 4.63 to determine effect of body length and fin cant
[NASA-TN-D-4014] 16 p2973 N67-38060
Sounding rocket, satellite, and deep space probe instrumentation problems
[SR-1] 17 p3060 N67-38641
Aerodynamic effects of increased speed and altitude on sounding rocket flight
[TP-441/1967] 17 p3167 N67-31065
ESRO sounding rocket payload experiment - measurement of ionospheric electron and ion density in D and E layers using impedance and Langmuir probes
[ESRO-SN-63] 17 p3167 N67-31169
ESRO sounding rocket payload experiment for creation of artificial cloud of barium ions and for measurement of vertical ozone distribution in atmosphere between 30 and 90 km
[ESRO-SN-66] 17 p3167 N67-31170
ESRO sounding-rocket payload experiment utilizing Geiger-Mueller counter and far ultraviolet monochromator to determine relation between proton fluxes and intensity of auroral light
[ESRO-SN-61] 17 p3168 N67-31172
Sounding rocket and satellite measurements for composition of low energy cosmic rays
[NASA-TM-X-55825] 17 p3178 N67-31208
ESRO sounding-rocket payload experiments - total stellar flux measurement and primary cosmic radiation measurement
[ESRO-SN-62] 17 p3168 N67-31465
Stability and control mechanisms of French BER booster stage for sounding rockets analyzed to improve dispersion in impact zone
[TP-443] 17 p3154 N67-31494
Sounding rocket nuclear emulsion techniques for determining composition and energy spectra of low energy cosmic ray heavy nuclei
[NASA-TM-X-55840] 18 p3222 N67-31550
Sounding rocket experiment to study celestial X-ray sources
[NASA-CR-85787] 18 p3226 N67-31860
Calculation method for determining principal characteristics in design of sounding rockets
[NASA-TT-F-459] 18 p3243 N67-32123
Performance characteristics of 17 sounding rockets according to payload mass ratio
[ESRO-TM-8] 19 p3540 N67-32637
Sounding rocket free fall trajectory estimation from single station range measurements
[REPT.-67-19] 19 p3537 N67-32641
Collection analysis and impact measuring of microparticles obtained by sounding rockets, satellites, and space probes
[ESRO-SN-19] 19 p3537 N67-32647
Numerical method for rocket trajectory determination from multistation Doppler tracking data
[REPT.-67-K3] 20 p3600 N67-34215
Recovery of reentry rocket by sound ranging detection of shock wave
[REPT.-67-K2] 20 p3734 N67-34218
Environmental and functional flight proof tests of canister type MK 12 sounding rocket
[DOC.-66SD9144] 20 p3732 N67-34489
Sounding rocket daytime observations of energetic auroral zone electrons
[NASA-CR-87023] 20 p3721 N67-34729
Meteorological rocket network firings 21 p3683 N67-35690
Rocket sounding data from upper stratosphere and mesosphere
[NASA-TR-R-263] 21 p3838 N67-35777
ESRO sounding rocket project - study of comet tail photochemistry by observing fluorescent emission from ammonia cloud ejected into upper atmosphere at twilight
[ESRO-SN-67] 21 p3936 N67-35982
Ground support equipment, launch complex, and facilities of Indonesian sounding rocket center
[REPT.-4] 21 p3827 N67-36179
Physical and ballistic tests of sounding rocket motors
[E57-67] 21 p3927 N67-36430
Wind and temperature data measured by sounding rockets in meteorological rocket network 22 p4067 N67-37240
Designing minimum weight sounding rockets
[AFCRL-67-0223] 22 p4149 N67-37563
Feasibility of using Gerdien condenser on sounding rockets for measurements at supersonic and subsonic velocities
[UU-67-3] 22 p4150 N67-37907
Wind and temperature measurements and pressure, density, and speed of sound values obtained by meteorological rocket network firings during Dec. 1966 22 p4068 N67-37984
Cajun Dart vehicle for low cost meteorological soundings at 90 kilometers
[NASA-CR-81175] 22 p4151 N67-38069
Thrust history of rocket engine that produces maximum altitudes for two-stage sounding rocket launch vehicle
[P-3490] 23 p4235 N67-38108
Wind and temperature measurements from meteorological sounding rocket firings and computed values for pressure, density, and speed of sound for January

1967 23 p4351 N67-39203
Measuring particle density and temperature of lower thermosphere by sounding rocket and satellite [NASA-TM-X-55909] 23 p4349 N67-39235
Wind and temperature data measurements from meteorological sounding rocket firings during February, 1967 24 p4487 N67-39979
Design and operational parameters of solid state polarimeter for sounding rocket measurements on ionospheric radio absorption [SR-298/E/] 24 p4451 N67-39985
SOURCE
S COHERENT SOURCE
S ELECTRON SOURCE
S ENERGY SOURCE
S HEAT SOURCE
S ION SOURCE
S LIGHT SOURCE
S NEUTRON SOURCE
S POWER SUPPLY
S RADIATION SOURCE
S RADIO SOURCE
SOUTH AMERICA
SA ARGENTINA
SA BRAZIL
SA MEXICO
SA PERU
Activities of Casting Laboratory of University of Uruguay 05 p0711 N67-14803
Analysis of steel industry development in Latin America 05 p0780 N67-14810
Methodology and economic planning of metallurgical research in Latin America 06 p0964 N67-15520
Tropical rainfall patterns and associated mesoscale systems in Central America [ECOM-66202-F] 09 p1474 N67-36349
SOUTHERN HEMISPHERE
Fabry photometry of bright Southern stars and observations of variable stars 04 p0613 N67-14167
Photoelectric observations of magnitudes and colors of southern stars 06 p0964 N67-15766
Southern Hemisphere stratospheric circulation as indicated by shipboard meteorological rocket observations [NASA-TM-X-1346] 08 p1305 N67-18952
Trapped particle distribution at 900 km altitude near South Atlantic geomagnetic anomaly 13 p2311 N67-25151
U.S.S.R. study results on atmospheric composition during International Geophysical Year /IGY/-meteorological flight over Antarctica, and circulation anomalies over both hemispheres [REPT.-11] 15 p2739 N67-27856
Atmospheric processes and wind fields over oceanic areas of Southern Hemisphere 15 p2739 N67-27857
Development characteristics, and circulation frequencies of atmospheric processes over Southern and Northern Hemispheres during pressure anomalies 15 p2739 N67-27859
Airglow and enhanced penetrating electromagnetic radiation in southern radiation anomaly observed with photometers and scintillation counters 16 p2890 N67-30119
Tritium content in Southern Hemisphere precipitation 19 p3444 N67-33473
Orbital distributions of meteors detected during radio survey in Southern Hemisphere 23 p4348 N67-39214
SPACE
S AEROSPACE
S BANACH SPACE
S CARTAN SPACE
S CISLUNAR SPACE
S DEEP SPACE
S EUCLIDEAN SPACE
S FREE SPACE
S FUNCTION SPACE
S HALF-SPACE
S HILBERT SPACE
S HYPERBOLIC SPACE
S INTERPLANETARY SPACE
S INTERSTELLAR SPACE
S RIEMANN SPACE
S VECTOR SPACE
SPACE BIOLOGY
S BIOASTRONAUTICS
S EXTRATERRESTRIAL LIFE
SPACE BUS
On-board tracking system of two-way coherent Doppler between entry capsule and orbiting bus for determining orbit of entry capsule and estimating atmospheric parameters 06 p0964 N67-15904
SPACE CABIN
Bacterial contamination of living environment in sealed space cabin and shifts in immunology reaction of human organism 02 p0230 N67-11600
Optimal acoustic environment in spacecraft cabins for extended manned missions [NASA-TT-F-10000] 15 p2784 N67-28221
SPACE CABIN ATMOSPHERE
SA CLOSED ECOLOGICAL SYSTEM
Toxicological evaluation of materials for space cabin life support systems [AMRL-TR-66-49] 01 p0018 N67-11008
Biological effects of ionized space cabin atmosphere on human body 02 p0179 N67-11411
Performance characteristics of aerosol generator, and distribution sampling errors of electrostatic precipitator sampling device for space cabin atmosphere [NASA-CR-79536] 03 p0353 N67-12041
U.S.S.R. conference on space biology and medicine environmental factors in space cabins and human body reactions to acceleration, weightlessness, and isolation [JPRS-39596] 04 p0484 N67-12431
Fibrous polymer materials with molecular bonded bactericidal agents for reduced bacterial propagation during space flight 04 p0485 N67-12436
Influence of ionized space cabin atmosphere on human physiological parameters 04 p0486 N67-12437
Diffusion method for air dehumidification and purification in pressurized space cabin system 04 p0490 N67-12438
Various atmospheric compositions for use in closed ecological space cabin system 04 p0495 N67-12439
Space cabin atmosphere regeneration by physiochemical sorption and catalytic cycling through zeolite 04 p0496 N67-12442
Physiological factors of inert gases in space cabin atmospheres [NASA-SP-117] 11 p1799 N67-23078
Aerosol generation for instrument calibration, calibration of aerosol particle analysers, data analysis computer program, and particle monitoring in space cabin atmosphere study [NASA-CR-83915] 13 p2264 N67-26073
Physiological-hygienic requirements for space cabin atmosphere 12 p2261 N67-26422
Simulated environmental studies of gas-off and oxidation products from spacecraft cabin materials 14 p2470 N67-26716
Toxicological screening of space cabin materials 14 p2470 N67-26717
Identification of contaminants associated with human occupancy of sealed environmental simulator, and evaluation of suitability of helium - oxygen atmosphere 14 p2470 N67-26718
Response of animals to toxic materials under conditions of reduced pressure and varying partial pressures of oxygen 14 p2484 N67-26731
Biomedical effects of single and mixed gas space cabin atmospheres for manned flights 14 p2471 N67-26734
Chemical high vacuum system for desorption and manipulation of volatile organic contaminants in closed cabin atmospheres [AMRL-TR-65-61] 14 p2472 N67-27004
Problem of space cabin habitability and atmospheric contamination 16 p2838 N67-29210
Feasibility of phosphoric acid water vapor electrolysis cell for spacecraft cabin air conditioning system [NASA-CR-771] 16 p2821 N67-29499
Physiological factor, hardware, and environmental control tradeoffs for one and two gas systems of space cabin atmospheres [NASA-SP-118] 16 p2975 N67-29606
Spacecraft cabin atmospheres, tropospheric radio propagation, glass fiber laser, thermal stability of polymers, and biologically active organotin and organoiead compounds and polymers 18 p3236 N67-31672
Altered cabin atmospheres for manned spacecrafts 18 p3239 N67-31673
Fire prevention in oxygen-enriched space cabin atmospheres [AFAPL-CONF-67-19] 19 p3285 N67-33803
Engineering criteria on space cabin atmosphere selection, and effects on life support system design [NASA-CR-691] 22 p3978 N67-37580
Immobilized liquid membranes for continuous carbon dioxide removal from manned spacecraft [S-67-1078] 22 p3979 N67-37546
Volatile contaminants of space cabin materials [NASA-CR-89236] 22 p4079 N67-37581
Particle sensor evaluation to develop system for automatic monitoring of space cabin aerosols [NASA-CR-89075] 23 p4153 N67-38919
SPACE CABIN SIMULATION
Prototype life support system in simulated cabin, for extended manned space flights [NASA-CR-614] 02 p0216 N67-11342
Work capacity of human body during prolonged stay in simulated space vehicle 02 p0218 N67-11516
Long term effects of space cabin simulated oxygen breathing on rat physiology and reproduction [SAM-TR-66-96] 07 p1013 N67-17975
Astronaut performance during ingress and egress through airlocks and passageways evaluated in ground, aircraft, and water immersion tests simulating weightlessness [NASA-CR-66340] 11 p1801 N67-23029
Sleep characteristics in simulated manned space flight 23 p4161 N67-38918
SPACE CABIN SIMULATOR
Reaction of human organism to prolonged enclosure in space cabin simulator [FTD-TT-65-1591] 05 p0661 N67-14986
Infrared spectrophotometry used to study microcontaminants in sealed environments [SAM-TR-67-8] 15 p2834 N67-28504
Trace contaminants produced by man in space cabin simulator [NASA-CR-87451] 19 p3378 N67-33837
SPACE CAPSULE
SA SPACECRAFT
Hypersonic wind tunnel stagnation conditions, wedge flow measurements, transonic entry capsule configuration, and internal pressure in conical pintle nozzle 08 p0848 N67-12115
Wind tunnel stability tests of cone-shaped space capsule models up to angle of attack of 33 deg [NASA-TM-X-31] 18 p3230 N67-31530
Mission objectives, design criteria, and design constraints for preferred capsule bus concept of Voyager flight capsule [NASA-CR-89672] 24 p4585 N67-40041
Preferred design concept for capsule bus system of Voyager spacecraft [NASA-CR-89673] 24 p4585 N67-40042
Planetary quarantine, operational support equipment, system interfaces, and implementation of preferred design concept for capsule bus system of Voyager flight capsule [NASA-CR-89674] 24 p4585 N67-40043
Optimum capsule bus design for Voyager spacecraft based on mission analyses and system functional requirements [NASA-CR-89675] 24 p4585 N67-40044
Configuration selection for aeroshell, lander, and terminal deceleator and propulsion for Voyager capsule bus system [NASA-CR-89676] 24 p4585 N67-40045
Sterilization canister, adapter, aeroshell, and lander subsystem of Voyager capsule bus [NASA-CR-89677] 24 p4585 N67-40046
Telecommunications, power subsystem, guidance and control, sequencing and timing, and radar for Voyager capsule bus system [NASA-CR-89678] 24 p4585 N67-40047
Antenna, command, data storage, radio, telemetry, and structural/mechanical subsystems of preferred Voyager capsule bus system [NASA-CR-89679] 24 p4585 N67-40048
Interface, test requirements, reliability, safety, and functional aspects of subsystems of Voyager space capsule bus system [NASA-CR-89680] 24 p4587 N67-40049
Operational support equipment for Voyager space capsule bus system [NASA-CR-89681] 24 p4587 N67-40050
Engineering reliability studies for Voyager space capsule bus system based on failure modes, mission requirements, and tradeoff studies [NASA-CR-89682] 24 p4587 N67-40051
Aerodynamic decelerator, pyrotechnics, thermal control, propulsion, packaging and cabling, and independent data package for Voyager capsule bus system

[NASA-CR-89686] 24 p4538 N67-40234
Integrated test plan and implementation plan highlights for Voyager capsule - preliminary design phase B
[NASA-CR-89730] 24 p4538 N67-40442
Subsystems requirements, constraints, and configurations for preliminary design of Voyager capsule bus system
[NASA-CR-89732] 24 p4538 N67-40443
Operational support equipment preliminary design for Voyager flight capsule bus
[NASA-CR-89723] 24 p4539 N67-40444
Surface Laboratory preliminary configuration for Voyager mission - space capsule
[NASA-CR-89724] 24 p4539 N67-40445
Operational support equipment and mission dependent equipment for preliminary design of surface laboratory portion of Voyager capsule bus system
[NASA-CR-89725] 24 p4539 N67-40446
Entry Science Package preliminary design for Voyager flight capsule
[NASA-CR-89726] 24 p4539 N67-40447
Operational support equipment preliminary design for entry science package portion of Voyager flight capsule system
[NASA-CR-89727] 24 p4539 N67-40448
Hardware, software, and service interfaces between capsule bus, entry science package, and Voyager spacecraft
[NASA-CR-89728] 24 p4539 N67-40449
Hardware, software, and service interfaces between capsule bus, entry science package, surface laboratory, and Voyager spacecraft
[NASA-CR-89729] 24 p4539 N67-40450
Voyager capsule surface laboratory system - design concepts and objectives
[NASA-CR-89691] 24 p4540 N67-40581
Voyager capsule surface laboratory system - mission analysis, system functional requirements, and design selection and alternatives
[NASA-CR-89692] 24 p4534 N67-40582
Voyager capsule surface laboratory system - subsystem design analysis
[NASA-CR-89693] 24 p4534 N67-40583
Voyager capsule surface laboratory system - subsystem design analysis
[NASA-CR-89694] 24 p4495 N67-40584
Voyager capsule surface laboratory system - subsystem functional descriptions
[NASA-CR-89695] 24 p4541 N67-40585
Voyager capsule surface laboratory system - subsystem functional descriptions
[NASA-CR-89696] 24 p4541 N67-40586
Voyager capsule surface laboratory system - operational support equipment
[NASA-CR-89697] 24 p4538 N67-40587
Voyager capsule surface laboratory system - reliability
[NASA-CR-89698] 24 p4535 N67-40588

SPACE CHARGE
Capture efficiencies of synchocyclotrons
[CERN-66-27] 03 p0440 N67-13634
Physical mechanism of ion entrainment by electron space charge in acceleration by gradients of static magnetic and of electromagnetic fields 07 p1165 N67-17386
Space charge distribution of electrons and ions in neutral plasma 06 p1346 N67-18319
Broadband noise generation mechanism in space charge of miniature microwave noise generator
[AD-642186] 10 p1391 N67-20586
Space charge effects in proton linear accelerators
[BNL-10868] 10 p1711 N67-20970
Beam current restriction by space charge in synchrocyclotron
[JINR-P-2912] 10 p1719 N67-21490
Space charge effects by nonthermal ions in magnetized plasma
[REPT.-67-61] 11 p1985 N67-23398
Cesium vapor heat conduction in thermionic energy converters, space charge distribution in neutral plasma, and titanium oxide thin films 12 p3017 N67-32648
Numerical analysis of space charge effects 12 p3166 N67-34100
Space charge effects in proton linear accelerator 12 p3166 N67-34101
Space charge effects on longitudinal motion in proton linear accelerators 12 p3167 N67-34102
Electric charge on dislocation arrays in sodium chloride
[AD-647737] 13 p3943 N67-34417
Grid electrode advantages and space charge concepts in constructing rod magnetoelectric plasma gun
[INR-711/XVIII/PP] 15 p3775 N67-36592
Sound velocity in liquid helium, boundary trapping in unipolar space charge limited current, superconductivity applications, and enhanced electron emission in thermionic converter 16 p3926 N67-39146
Landau electrostatic space charge waves in isotropic hot electron plasmas
[ARL-67-0012] 17 p3140 N67-30255
New charge exchange method for producing molecular beams 17 p3913 N67-36277
Monte Carlo method for determining electron flow in low density argon gas including space charge and elastic collisions
[NASA-TN-D-4067] 17 p3143 N67-30946
Motion of particles in radial space-charge field and in magnetic field
[CEA-R-3103] 19 p3519 N67-33621
Silicon-sapphire space charge limited triode development
[NASA-CR-87493] 20 p3612 N67-34694
Storage ring luminosity dependence on region width and crossing angle
[DESY-67/7] 21 p3904 N67-36197
Electrostatic focusing of hollow spiraling electron beams
[ECOM-0159-1] 22 p4229 N67-38133
Mathematical treatment of axisymmetric wave propagation in uniform, finite, solid electron beam
[ECOM-2968] 24 p4506 N67-39618
Artificially produced space charge influence on electrification of clouds in lower atmosphere and formation of precipitation 24 p4446 N67-40183

SPACE COMMUNICATION
SA INTERPLANETARY COMMUNICATION
Terminal timing and frequency control equipment for satellite communication systems
[TN-1966-33] 01 p0036 N67-10280
Multiple access techniques and ground environment design studies in satellite communications research
[REPT.-5] 01 p0040 N67-10954
Performance tests with Telstar I satellite at French space communication station 03 p0363 N67-12304
Space communications theory
[NASA-CR-86077] 04 p0510 N67-13585
Deep Space Network - tracking and navigational accuracy analysis, communications research, development, and engineering, and Deep Space Station engineering and operations
[NASA-CR-86824] 05 p0670 N67-14421
International conference on scientific radio propagation - time synchronization by radio frequency standard
[NASA-CR-81249] 06 p0965 N67-16001
Clock synchronization by satellite, and radio frequencies from space 06 p0916 N67-16002
Reception of frequency modulated signals passed through deterministic and random time-varying channels
[NASA-CR-81379] 06 p0846 N67-16696
Tunable traveling wave maser for deep space communications and planetary radar
[JPL-TR-32-1073] 07 p1095 N67-17168
Large aperture telescope for use as coherent optical deep space communications receiver
[NASA-CR-81677] 07 p1066 N67-17948
Space communication techniques
[NASA-CR-83681] 08 p1250 N67-19117
Deep space communication system requirements for period 1970 to 1980
[NASA-CR-83979] 09 p1418 N67-20164
Space programs supporting research and advanced development in systems analysis, spacecraft guidance and control, materials science, communications and telemetry, and propulsion
[NASA-CR-83604] 12 p3073 N67-32641
Extraordinary Administrative Radio Conference to regulate space communications, and role of International Astronautical Federation as fact-finding body 13 p3436 N67-35284
Space communications studies of optimal signal reception, threshold extension, signal detection against noise, channel simulation, and synchronization techniques
[NASA-CR-84482] 14 p3494 N67-37635
Oscillator, transmitter, and receiver development for space communication systems 17 p3922 N67-36374
Methodology and heat radiators in microwave and laser systems for communication and tracking
[NASA-CR-85873] 17 p3928 N67-31206
Helium-xenon continuous wave gas lasers for space communications - testing of ultrahigh vacuum system and cascade pumping techniques
[NASA-CR-83577] 18 p3277 N67-31732
Parametric analysis of microwave and laser for communications and tracking systems
[NASA-CR-74989] 18 p3229 N67-32164
Parametric analysis of microwave and laser systems for communication and tracking - updated reference data for advanced space communication and tracking systems
[NASA-CR-77943] 18 p3230 N67-32165
Parametric analysis of microwave and laser systems for space communication and tracking
[NASA-CR-82101] 18 p3230 N67-32166
Systems studies to optimize missions using laser/optical, microwave, or combination of microwave and laser/optical communication and tracking systems
[NASA-CR-86910] 18 p3233 N67-32322
Spacecraft functional design, guidance and control, systems engineering, and communications
[NASA-CR-86916] 18 p3345 N67-32375
Random processes, filtering, and telemetry problems in space communications theory
[NASA-CR-87004] 18 p3234 N67-32534
Generalized multiplex transmission theory, and optimum multiplexing system for communication during manned interplanetary flight
[NASA-CR-87002] 18 p3235 N67-32579
International cooperation for using communication and meteorological satellites
[FTD-MT-66-154] 22 p4189 N67-37292
Radio frequency test console for deep space communications system simulation and telemetry and ranging system evaluation
[NASA-CR-89685] 24 p4409 N67-40251

SPACE DEBRIS
SA SAND PROJECT
Computation of impact densities and velocity distribution of debris from lunar surface explosions
[NASA-CR-78970] 02 p0306 N67-12235

SPACE DENSITY
SA ATMOSPHERIC DENSITY
Density of matter near moon found to be greater than that of interplanetary space
[NASA-CR-79831] 01 p0135 N67-11110
Space density and red shift observations in cosmology 05 p0760 N67-14849
Quantum theory of thermogalvanomagnetic phenomena in metals and semiconductors - heat flux and space density
[NASA-TT-F-11154] 21 p3924 N67-36520
Space-density distribution of dust in solar system observed from radar meteor orbits 23 p4348 N67-39213

SPACE ENVIRONMENT
SA EXTRATERRESTRIAL ENVIRONMENT
Rocket and balloon borne exposure experiments on survival of microorganisms in space environment
[NASA-CR-79911] 02 p0237 N67-11044
Modification of supersonic flow fields under near space conditions by cryopumping 04 p0532 N67-13854
Soviet physiological experiments and biological studies with animals during geophysical and orbital flights
[ATD-66-117] 04 p0496 N67-14317
Zinc oxide-potassium silicate thermal coating tested under various vacuum, temperature, solar electromagnetic, and proton environments to determine their effects on solar absorptance
[NASA-CR-73028] 05 p0774 N67-14923
Control engineering approaches to study of vestibular organs and human orientation in space 05 p0642 N67-15138
Composition and internal structure of moon, lunar surface environment in relation to establishing lunar base, and objectives for investigations
[D1-82-0662] 06 p0964 N67-15998
Space environment effect on lubricants and rolling element bearings
[NASA-TM-X-52388] 06 p0898 N67-16048
Adhesives, sealants, and gaskets developed to operate in space environment
[NASA-SP-5066] 06 p0827 N67-16099
Mechanism for measuring degradation of reflective materials after space environment

exposure 07 p1076 N67-16905
Conical pivot bearings for space environment use, minimal torque design criteria 07 p1089 N67-16919
Scientific and engineering data on space and launch environments [NASA-TM-X-53347] 07 p1193 N67-17967
Theory of radiant heat exchange for nongray nondiffuse surfaces in space environment [NASA-CR-81653] 07 p1210 N67-17996
State-of-art of metal-metal bonding in space environment - bibliography [NASA-TM-X-53995] 08 p1285 N67-18509
Environmental factors effect on voice communication in spacecraft and underwater operations [REPT.-485] 09 p1416 N67-19743
Sensitivity of developmental phases of Tradescantia paludosa microspores to Voskhod spaceflight conditions 10 p1559 N67-20896
Space flight physiological measurement and telemetry, and biological activity in space environment [FTD-MT-66-43] 10 p1559 N67-20444
Science fiction works and propositions on space environment, life support, weightlessness, and lunar exploration [FTD-MT-64-243] 10 p1761 N67-21431
SNAP-10A flight test data on overall system and component performance, and effects of launch and space environments on system operation [NAA-SR-11934] 10 p1687 N67-21510
Formaldehyde synthesis procedures under space conditions, with bibliography [NASA-CR-73070-1] 11 p1804 N67-22173
Space environment effect on spacecraft design, and laboratory simulation of weightlessness and combination of vacuum, heat sink, and thermal radiation sources [ESRO-TM-47] 11 p1855 N67-22500
Extravehicular protection and operations [APL-TG-841] 11 p1900 N67-23113
Cosmos satellites and exploration of the space environment [JPRS-39730] 11 p1983 N67-23456
Quality of hardware and faster methods for nondestructive testing techniques in industry, medicine, and space environment 12 p2106 N67-23676
Space environment effects on emissivity and optical absorption of thermal control surfaces 12 p2327 N67-24444
Organic Rankine cycle power conversion system for long term duration in space environment [SAN-650-3] 13 p2348 N67-25556
Upper atmosphere structure and environmental effects caused by electromagnetic and corpuscular radiation 13 p2317 N67-26407
Sun sensor design and environmental requirements for Advanced Pioneer space probe [NASA-CR-73086] 14 p2530 N67-26505
Dielectric polyurethane foam materials tested for high voltage insulation in space environment [NASA-CR-72100] 14 p2560 N67-27228
Feasibility and preliminary design study of nondestructive testing for space applications [NASA-CR-84443] 14 p2545 N67-27429
Reliability, weight, and environment requirements of electron tubes for spacecraft application [NASA-TN-D-3753] 15 p2681 N67-28751
Moving spacecraft interactions with surrounding plasmas - bibliography with abstracts [NASA-CR-84819] 15 p2791 N67-28768
Physiological and psychological effects of space environment on astronauts - aerospace medicine 16 p2826 N67-29206
Rankine cycle power conversion system for use in space environment [SAN-651-16] 16 p2823 N67-29611
Space environment data for use as space vehicle and spacecraft design criteria guidelines [NASA-TM-X-53821] 16 p2970 N67-29689
Polymeric materials for spacecraft application tested after curing and thermal vacuum exposure for weight loss and mechanical properties [NASA-CR-85381] 16 p2917 N67-30078
Space environmental and earth atmospheric effects on apparent size of radio sources 17 p3157 N67-30241
Effect of radiation on hereditary characteristics and radiobiological problems involved in space flight planning [JPRS-40446] 17 p3001 N67-30401
Radiobiological problems involved in space flight planning 17 p3001 N67-30402
Economic, geometrical, environmental, and operational factors affecting space astronomy [T66-8] 17 p3156 N67-30506
Thermophysics research on space environment, thermal control, infrared physics, and thermal flight experiments 17 p3155 N67-30536
Microbiological flora of human subjects under simulated space environments [NASA-CR-85813] 17 p3006 N67-31139
Communication techniques for space environment applications [NASA-CR-85695] 17 p3028 N67-31436
Space environment, effects on spacecraft design, and environmental testing 18 p3343 N67-32182
Annotated bibliography dealing with Soviet open literature on space environments and related research [NASA-CR-86652] 18 p3335 N67-32311
Temperature distribution in homogeneous opaque sphere traveling in space [NASA-TN-D-4046] 18 p3398 N67-32551
Modeling criteria for transient thermal test of spacecraft structures in space environment simulation [NASA-CR-87447] 20 p3743 N67-35262
Biosatellite environmental control and life support system design [NASA-CR-73116] 21 p3770 N67-35374
Simulated space environment effects on thermal radiation characteristics of black coatings [NASA-TN-D-4116] 21 p3745 N67-35729
Conference proceedings on design and performance of aerospace mechanisms and mechanical components in space environment [NASA-CR-87990] 21 p3737 N67-36263
High pressure, radiation, high vacuum, and high temperature chemistry of space environment [AFOSR-67-1494] 21 p3792 N67-36497
Simulated proton space environment effects on ultraviolet transmittance of optical materials [NASA-TM-X-55911] 21 p3897 N67-36569
Biology and medicine in aerospace applications [JPRS-42635] 23 p4189 N67-39905
SPACE ENVIRONMENTAL LUBRICATION
Lubrication, and friction and wear concepts for high vacuum applications [NASA-TM-X-52271] 07 p1094 N67-17831
SPACE ERECTABLE STRUCTURE
Development, fabrication, and testing of deployable solar cell array for spin-oriented spacecraft applications 21 p3764 N67-36210
Analytical and structural characteristics of BI-STEM mechanism for erecting unfurlable structures in space 21 p3942 N67-36321
Closed tubular extendible boom concept with applications for fluid transport and torque transmission 21 p3942 N67-36324
Concepts and considerations for manned extravehicular activities in assembly and operation of large space structures [NASA-CR-971] 23 p3981 N67-38023
Optimum antenna weight distribution curves for six techniques to erect large aperture antennas [NASA-CR-69572] 24 p4486 N67-39726
SPACE EXPLORATION
SA LUNAR EXPLORATION
Solar and nuclear power plants for future space missions 01 p0008 N67-10071
Space exploration and applications to earth sciences, weather forecasting, and related topics [NASA-TM-X-53126] 02 p0026 N67-12246
Annotated bibliography of NASA special publications through July 1966 02 p0477 N67-12730
Space launchings and explorations by NASA and other groups in United States during 1966 06 p1369 N67-19074
NASA program appropriations, future space exploration activities, and research in aerospace technology 10 p1774 N67-20413
NASA space exploration programs design modifications and instrumentation developments [NASA-CR-83745] 13 p2486 N67-25092
Surveyor project developments for lunar landing mission 13 p2486 N67-25092
Ground communication system, deep space network and facilities, instrumentation, and space flight operations and facility for NASA program 13 p2486 N67-25096
Symposium on legal problems of space exploration prepared for United States Senate Committee on Aeronautical and Space Science [DOC.-26] 13 p2427 N67-25221
International control of astronautical experiments and future operations in outer space 13 p2428 N67-25225
Problems in international law and their regulation in relation to space exploration activities 13 p2428 N67-25226
Legal problems inherent in use of outer space discussed at 1966 meeting on international law 13 p2425 N67-25228
Air sovereignty rule of international law in terms of use of outer space 13 p2429 N67-25229
International agreements affecting airspace above earth surface related to space exploration problems 13 p2430 N67-25241
Peaceful aspects of space exploration and international agreements 13 p2430 N67-25242
Legal aspects of space exploration and United Nations control of outer space 13 p2430 N67-25244
Strategic and legal impact of space activities on national interests and international cooperation 13 p2482 N67-25255
Foreign opinions regarding international laws on space exploration 13 p2482 N67-25260
Political and legal problems arising from space exploration, and cooperative efforts for international control of space flights 13 p2483 N67-25264
Patterns for political action and international controls in space exploration 13 p2483 N67-25267
Introduction of international legislation for control of space exploration 13 p2484 N67-25274
Existing terrestrial legislation as basis for international space laws, and specific legal problems arising from space exploration 13 p2485 N67-25279
Communist views on legal problems of space explorations, and bibliography of related references 13 p2487 N67-25294
International efforts to solve legal problem inherent in outer space exploration 13 p2487 N67-25299
Legal thinking and policies resulting from space exploration, military restrictions from use of outer space, and security of sovereign states 13 p2490 N67-25311
Bibliography on international law dealing with space exploration 13 p2490 N67-25315
Sensory, decision, and control systems for space exploration [NASA-CR-83052] 13 p2399 N67-25955
Adaptative telemetry systems in relation to space exploration requirements 14 p2492 N67-27492
Space exploration programs and space sciences - Lunar program, Planetary-Interplanetary program, and Deep space network program [NASA-CR-86007] 18 p3335 N67-32257
Maneuvering work platform and space taxi for space exploration - independent manned manipulator units [NASA-CR-86676] 18 p3387 N67-32573
Accessibility of solar system regions to earth launched spacecraft using Jupiter gravity-assisted trajectories [NASA-CR-87495] 20 p3730 N67-34994
Space exploration projects on systems, guidance and control, environmental simulation, space sciences, propulsion, telecommunications, and engineering mechanics [NASA-CR-87450] 20 p3727 N67-34761
Space exploration research on systems analyses, guidance and control, engineering development, propulsion systems, telecommunications, and space sciences [NASA-CR-86186] 21 p3982 N67-35972
Chemosynthetic bioregenerative system for long-term space exploration that employs functional coupling of water with biosynthesis by hydrogen bacteria [NASA-CR-86257] 21 p3773 N67-36382
Space exploration programs - systems analysis - spacecraft power and guidance systems - propellant engineering and communications systems [NASA-CR-86196] 21 p3983 N67-36967
Laboratory experiments on hypothermia in

animals for possible application to space exploration
[JPRS-42789] 23 p4189 N67-38998
Manned expeditions to Mars - Selective bibliography
[TRW-09900-6364-T001] 24 p4529 N67-39866
SPACE FLIGHT
SA INTERPLANETARY FLIGHT
SA INTERSTELLAR TRAVEL
SA PLANETARY SPACE FLIGHT
Comments by cosmonauts aboard Vostok 5 and 6 space flights
[NASA-TT-F-8598] 01 p0151 N67-10222
Photographs and summary of various phases of Gemini space flights 01 p0156 N67-10865
Summary reviews of flight of various Soviet spacecraft, and Venus probe
[FTD-HT-66-226] 01 p0155 N67-11168
Experimental investigations of biological, physiological, and psychological factors in aviation and space flight environments
[JPRS-36373] 02 p0178 N67-11401
Electrophysiological indices of two cosmonauts during orbital space flight 02 p0179 N67-11410
Interrelationships of clinical and aerospace medicine, and proposed diagnostic criteria for operational medical control during space flight 02 p0187 N67-11469
Critical analysis of physiological information obtained on man and animals during space flight, and planning of flight experiments 02 p0192 N67-11509
Problems in automating processing of physiological information obtained from space flight 02 p0210 N67-11531
Polycardiographic method for evaluating condition of blood circulation of man in space flight 02 p0194 N67-11538
Computer predictions of stimuli actions under space flight conditions 02 p0230 N67-11618
Physical training of astronauts for space flights 02 p0221 N67-11647
Flight results of cosmonauts on Vostok ships
[FTD-MT-65-256] 04 p0491 N67-13780
Conference on fluid dynamic aspects of space flight
[AGARDOGRAPH-97, VOL. 1] 04 p0531 N67-13842
Space flight effects on wheat seeds and plants produced from them 05 p0652 N67-14977
Vestibular changes encountered by Russians during space flights, parabolic flight of aircraft, and simulated laboratory experiments 05 p0654 N67-15122
Estimated man-machine requirement computations for space navigation and guidance
[NASA-CR-80011] 06 p1232 N67-18728
NASA space science astronomy program - orbiting satellite experiments for solar, stellar, and galactic observations
[NASA-SP-127] 06 p1262 N67-18730
NASA space flight program for solar astronomy 06 p1264 N67-18732
Space flight astronomy and future capabilities 06 p1264 N67-18734
Biotechnological development and fabrication of multi-chambered potato tuber respirometer for space flight application - contract
[NASA-CR-82467] 06 p1232 N67-19007
Data bank summaries of proposed MORL experiments in space sciences, earth-oriented applications, and space travel support
[NASA-CR-66283] 09 p1512 N67-19960
Automatic ecological support system for animals during space flight 12 p2032 N67-24429
Air regeneration in closed ecological systems during space flight 12 p2032 N67-24436
Prolonged storage of biological samples taken during Apollo-type orbital flights
[NASA-CR-761] 12 p2090 N67-25047
Air navigation regulations and specific international laws for legal treatment and obligations of spacecraft and satellites in flight 13 p2432 N67-25223
National and international legal problems posed by space flights 13 p2432 N67-25224
Air navigation rules, world parleys on airspace, international cooperation during IGY, and developments in space law 13 p2432 N67-25229
Sovereignty over space in relation to international laws governing high seas and conventional air travel 13 p2432 N67-25230
Legal status of space flights and international law aspects of high altitude flying, balloon and rocket sounding, and man-made satellites 13 p2429 N67-25232
Role of United Nations and international control of satellite launchings and space flights 13 p2430 N67-25238
United Nations space code to regulate space flights by international agreements 13 p2430 N67-25243
Legal treatment of high seas and international status of space flights 13 p2431 N67-25249
Scientific, commercial, and military uses of outer space related to development of international control laws 13 p2432 N67-25253
Development of international space laws to control activities and determine legal liability for damage from falling satellites 13 p2432 N67-25259
International legal status of spacecraft and ballistic missiles in orbital and superorbital flights 13 p2433 N67-25265
Legal problems arising from national and international space activities, and cooperative efforts to control outer space 13 p2433 N67-25268
National sovereignty and security related to space flights and international controls 13 p2434 N67-25271
Legal liability and problems resulting from space flights and military use of outer space 13 p2429 N67-25513
Review of conference on NASA mission-oriented vestibular research
[NASA-CR-83833] 15 p2357 N67-25743
Flights of Venus 2 and 3, including spacecraft configuration, telemetry, trajectory, and orbital elements
[RAE-LIB-PRESS-TRANS-97] 14 p2617 N67-26481
Biotelemetry problems associated with prolonged space flights
[NASA-TT-F-10484] 14 p2467 N67-26625
Drugs for prevention of disease and radiation damage, stimulation of adaptive mechanisms, and treatment of disease during space flights
[NASA-TT-F-10410] 14 p2452 N67-26632
Nuclear-electric space propulsion system with lithium arc jet unit
[LA-DC-8482] 14 p2578 N67-27449
Game theory for optimal parameter control of payload delivery by limited thrust engine space flight
[NASA-TT-F-10736] 14 p2565 N67-27575
Probability of mission success by trajectory optimization for translunar space flights
[NASA-CR-84615] 15 p2791 N67-28772
Temperature control of orbital otolith experiment on Apollo flight
[NASA-CR-815] 16 p2841 N67-29095
Flight project support for Surveyor III, Lunar Orbiter, Pioneer VII, and Mariner IV missions, facility construction and equipment for deep space network, and system reliability 17 p3043 N67-30675
Weight constraint influence on optimal motion parameters of variable mass body in gravitational field 18 p3326 N67-31846
Partial-pressure suit as emergency garment for astronauts and aircrew
[SAM-TR-67-15] 18 p3219 N67-32653
Closed cell sponge, integrated into partial pressure suit, to cause pressure on human body in vacuum environment
[AMRL-TR-66-103] 19 p3390 N67-33991
Operational and cost characteristics of low orbit space operations from manned space stations
[P-3570] 22 p4139 N67-36831
Problems in automation of operative medical control in space flight 23 p4190 N67-39007
Extramal factors of long-term space flight and health requirements for spacecraft crews 23 p4191 N67-39016
Chlorella development during space flight 23 p4194 N67-39102
Spermatogenesis and reproductive ability of dogs after 22-day space flight 23 p4194 N67-39103
Scanning performance of human operator exposed to space flight factors 23 p4195 N67-39111
Decoupled shifting memory filter method for radio tracking of boosted and ballistic phases of space vehicle flight
[ELDO-TM-F-35] 23 p4217 N67-39237
Collection and preservation of blood, urine, and feces and sweat samples obtained during space flights
[NASA-CR-89356] 23 p4196 N67-39361
Laboratory experiments and Voskhod flight data on vision sharpness, efficiency, and perception during space flights
[NASA-TM-X-60574] 24 p4390 N67-40069
Biological effect of gamma radiation and space flight factors on barley seed germination and chromosome aberrations
[JPRS-43153] 24 p4386 N67-40290
Experimental test results on operational stability of cryogenic cooled superconductive solenoid during orbital flight
[NASA-TT-F-11248] 24 p4519 N67-40435
SPACE FLIGHT FEEDING
SA DIET
Method of drying food stuffs for space feeding of cosmonauts
[FTD-HT-66-225] 01 p0026 N67-11167
Heterotrophic chickens and ducks in life support systems for space flight feeding 02 p0204 N67-11624
Heterotrophic fish and water invertebrates in life support system for space flight feeding 02 p0205 N67-11625
Space flight feeding by bioregenerative and biochemical methods 02 p0208 N67-11658
Regeneration and processing of human waste products for food synthesis onboard space ship 04 p0496 N67-13434
Metabolic processes of human body given diets made up from dehydrated food products 04 p0496 N67-13435
Space flight liquid diets tested for stability and effect on intestinal flora of rats
[NASA-CR-80969] 05 p0852 N67-14887
Preparation, taste, and nutritional balance of NASA freeze-dehydrated diet 07 p1013 N67-17614
Closed ecological system for circulation of food, water, and oxygen during space flight
[FTD-HT-66-123] 07 p1192 N67-17757
Effects of confinement on nutritional, biochemical, and physiological status of human subjects in life support systems evaluator
[AMRL-TR-66-2] 09 p1401 N67-19813
Nutritional evaluation of precooked dehydrated and bite-size compressed food diet as sole nutriment for six weeks
[NASA-CR-84069] 13 p2259 N67-25978
Biochemical and physiological evaluation of human nutritional requirements under simulated aerospace conditions
[NASA-CR-85252] 16 p2837 N67-30068
Nutritional evaluation of liquid diets for man in space
[NASA-CR-86617] 22 p3971 N67-37498
Nutrition problems during manned space flights 23 p4193 N67-39089
SPACE FLIGHT STRESS
SA MANNED SPACE FLIGHT
Neurosecretory activity change in hypothalamic region of rabbit exposed to space flight stress 02 p0180 N67-11417
Vibration, acceleration, and irradiation effects on animal organism 02 p0180 N67-11418
Effects of vibration, acceleration, and space flight on otolithic function of vestibular apparatus of guinea pig 02 p0180 N67-11420
Comparing laboratory acceleration effects with space flight effects on excretion of 17-oxycorticosteroids in urine 02 p0183 N67-11439
Vestibular functioning and motor activity under space flight conditions 02 p0192 N67-11512
Decalcination in man resulting from restriction of muscular activity during space flight 02 p0192 N67-11523
Reaction of rat cerebellum to afferent stimulation during space flight 02 p0194 N67-11540
Adaptation of human body to prolonged space flight conditions 02 p0196 N67-11554
Effect of changes in psychophysiological sensory loads on human body during prolonged space flight 02 p0196 N67-11556
Definition and aspects of space physiology, or study of vital functions of organisms under space flight conditions 02 p0203 N67-11608
Reduced vital activity for increased biological protection of living organism during space flight 02 p0208 N67-11654

Chimpanzee performance before, during, and after space flight conditions 05 p0857 N67-15143
Specific effects of medication during simulation of space flight stresses, and for enhancement of body tolerance to extreme flight factors
[SAM-TT-R-66-6167] 15 p2448 N67-28199
Space flight stresses and their effects on hemodynamic responses and general functioning of central nervous system in animals
[NASA-TT-F-413] 16 p2827 N67-29241
Vibration, acceleration, and ionizing radiation effects on central nervous system system during space flights 16 p2828 N67-29242
SPACE FOOD
Food values of yeast, microbacteria, and algae in rat diets 02 p0179 N67-11402
SPACE GLIDER
Space glider trajectory optimization methods 06 p1363 N67-18664
SPACE LABORATORY
Scientific payload objectives definition, and systems engineering for automated biological laboratory for exploration of life on Mars
[NASA-CR-81309] 06 p0969 N67-16575
Scientific objectives and payload definition for automated biological laboratory for exploration of life on Mars
[NASA-CR-81310] 06 p0969 N67-16576
Systems engineering studies for automated biological laboratory for exploration of life on Mars
[NASA-CR-81307] 06 p0973 N67-16577
Plan, scheduling, costs, and interactions of development program for automated biological laboratory for exploration of life on Mars
[NASA-CR-81312] 06 p0973 N67-16578
Annotated bibliography on various means of detecting extraterrestrial life for automated biological laboratory program
[NASA-CR-81311] 06 p0606 N67-16579
Instrumental, chemical, and environmental techniques for detecting extraterrestrial life on Mars - automatic biological laboratory for Mars exploration
[NASA-CR-81306] 06 p0606 N67-16580
Space laboratory for conducting low gravity fluid mechanics experiments
[NASA-TM-X-53561] 06 p1372 N67-18947
SPACE LAW
Law establishing National Space Research Commission - Spain
[NASA-TT-F-9004] 01 p0168 N67-10192
Space law development, emphasizing roles of U.S.S.R., United States, and international law
[FTD-TT-66-381] 01 p0169 N67-10976
Worldwide bibliography for the year 1965 of space law and related matters
[IISL-BIBL.-3] 04 p0628 N67-14274
Bibliography of space law and its background - political, economical, military aspects of astronautics 06 p1386 N67-18276
Worldwide bibliography for the year 1964 of space law and related matters
[IISL-BIBL.-1] 06 p1386 N67-18278
Legal terminology for upper atmosphere and outer space needed to formulate international astronautical laws 13 p2429 N67-25231
Doctrine of international waterways applied to development of code for use of outer space 13 p2429 N67-25233
National sovereignty, air navigation regulations, and discovery of planetary bodies in relation to international space laws 13 p2429 N67-25234
International laws governing air traffic, and proposed development of space laws by International Civil Aviation Organization
[PUBL.-3] 13 p2429 N67-25237
Intercontinental ballistic missiles and satellites related to space law development 13 p2431 N67-25245
Technical, legal, military, and political aspects of astronautics and rocketry related to space laws and policies 13 p2431 N67-25248
Natural law as basis for international agreements regarding space activities, and liability for damage by spacecraft 13 p2431 N67-25250
Cooperative international efforts during IGY, and development of space laws 13 p2431 N67-25251
National security and control of outer space by international efforts of United Nations 13 p2431 N67-25252
United Nations report on space law proposes international cooperation to attain disarmament and peace 13 p2432 N67-25261
United Nations cooperative efforts to develop international space laws, and United States right to nonaggressive use of outer space 13 p2434 N67-25269
International cooperation and space laws to achieve peace and abundance in world 13 p2434 N67-25270
Legal implications of United Nations Ad Hoc Committee for Peaceful Uses of Outer Space 13 p2434 N67-25272
Role of International Astronautical Federation in development of space laws 13 p2434 N67-25275
International space laws and evolution of social sciences in keeping with progress in natural and physical sciences 13 p2434 N67-25276
Public understanding and human factors in developing international space agreements 13 p2435 N67-25277
Orbiting satellites for military reconnaissance related to space control laws 13 p2435 N67-25280
Legal principles and liability concepts for international space law 13 p2435 N67-25281
Legal problems and jurisdiction of extraterrestrial space 13 p2436 N67-25285
International laws for outer space to enable cooperative research efforts for peaceful purposes 13 p2436 N67-25287
Legal dilemma about sovereignty beyond national airspace, and development of international space law 13 p2436 N67-25291
Analysis of existing literature and annotated bibliography of reports related to international space law and technical aspects of astronautics 13 p2436 N67-25292
International agreements and space laws for control of activities in outer space [T-98] 13 p2437 N67-25297
Legal problems of airspace and outer space above sovereign nations, and development of space law 13 p2438 N67-25304
National sovereignty over atmospheric space, free use of outer space, and international space law 13 p2438 N67-25305
Differentiation between atmospheric space and outer space, and development of international space law 13 p2438 N67-25306
International aviation and space laws to regulate satellites and rockets in outer space 13 p2439 N67-25309
Space law problems, legal implications of national sovereignty and security, and liability for damage caused by spacecraft 13 p2439 N67-25310
SPACE LOGISTICS
Contractor data package for Voyager logistics and support in transportation, communications, supply, and maintenance
[NASA-CR-89712] 24 p4522 N67-40419
SPACE MAINTENANCE
SA ORBITAL WORKER
Neutral buoyancy immersion techniques for tools developed for use in assembly, maintenance, and repair operations in space 03 p0402 N67-12716
Functional design of cryogenic computer system to be placed into outer space for simplified maintenance
[RM-5003-PR] 04 p0517 N67-12901
Astronaut performance limitations and support equipment capabilities in space maintenance activities
[AFAPL-CONF-67-4] 07 p1022 N67-17014
Maintenance aperture size on working reach of men for tasks requiring one and two hands
[AMRL-TR-66-27] 12 p2034 N67-24740
Adhesive pads for attaching astronauts and equipment to exterior of spacecraft during maintenance and repair functions
[AFAPL-TR-66-63] 12 p2110 N67-24779
Capsular adhesive system for use in development of stabilization device for astronaut attachment to extravehicular work site
[AFAPL-TR-66-59] 13 p2343 N67-25629
Practicality of redundancy and space maintenance in manned space flight
[AFAPL-CONF-66-3] 24 p4393 N67-40537
SPACE MECHANICS
Theoretical plasma studies for space physics application
[NASA-CR-69039] 07 p1167 N67-17671
New method for treating optimal trajectories
[NASA-CR-744] 11 p1909 N67-22206
Use of first integrals of theoretical space mechanics
[ELDO-TM-F-19] 15 p2751 N67-27628
SPACE MISSION
Mathematical model for space mission success evaluation
[NASA-CR-79232] 01 p0152 N67-10640
Space mission objectives of ELDO launch vehicle program
[ELDO-TM-F-27] 03 p0430 N67-12634
Propulsion system and launch vehicle stage requirements for automated space missions 03 p0437 N67-12901
Space mission requirements and technical feasibility of non-chemical space propulsion system 06 p0955 N67-18947
Trajectory and guidance analyses of Earth-Venus-Mercury mission in 1973
[NASA-CR-81636] 07 p1109 N67-19827
Characteristics and trajectory analysis of solar electric propulsion space missions - Mars orbiter and Jupiter flyby
[NASA-CR-84007] 15 p2494 N67-26870
Classification of Soviet spacecraft missions and evaluation of launch vehicles
[ELDO-TM-F-16] 15 p2794 N67-27827
Mission characteristics of space vehicles launched by United States
[ELDO-TM-F-14] 15 p2794 N67-27940
Logic and methodology for propulsion system comparison-evaluation, with consideration of mission objectives and operations 17 p3151 N67-30467
Systems configurations of Lunar Orbiter E spacecraft - missions, tracking, and launching
[NASA NEWS RELEASE-67-162] 18 p3540 N67-31712
Optimum thermal conditioning and control systems for instrument unit electronic packages in Saturn space missions ranging from 4-1/2 hours to 180 days
[NASA-CR-87289] 19 p3541 N67-32704
Intelligibility and physical characteristics of speech in artificial atmosphere studies during simulated space mission
[AMRL-TR-66-165] 20 p3594 N67-34681
Space flight missions in astronomy, solar physics, particles and fields, ionospheres and radio physics, planetary atmospheres, planetology, bioscience, and spacecraft applications
[NHB-8030.2A] 23 p4344 N67-38579
Statistical analysis of yaw steering law required to optimize propellant combustion for space missions
[TR-1001/2121-10/-1] 24 p4527 N67-39585
System functional requirements and configurations for roving vehicle missions on Moon and Mars - motion control
[NASA-CR-89623] 24 p4527 N67-39589
Test and mission operations contractor data package for Voyager spacecraft
[NASA-CR-89710] 24 p4532 N67-40417
Reliability analyses of global point-to-point communications system network for supporting manned and unmanned space missions
[NASA-TM-X-53565] 24 p4410 N67-40497
SPACE NAVIGATION
SA ASTRONAUTICS
SA INTERPLANETARY NAVIGATION
Space navigation, spacecraft trajectories, and space vehicle navigation systems
[NASA-TT-F-344] 04 p0613 N67-14199
Space satellite application in communications, navigation, geodesy, and meteorology
[NASA-SP-127] 08 p1371 N67-18724
Navigation and orbital performance of commercial communications satellites 08 p1371 N67-18725
Tracking and navigation, communications R+D, ground support equipment, and computer programming for space network
[NASA-CR-82741] 12 p2057 N67-25021
Tracking and navigational accuracy analysis for deep space network 12 p2057 N67-25022
High altitude flights and space navigation related to national sovereignty and international law 12 p2427 N67-25222
Space laws and international cooperation to regulate traffic, allocate radio frequencies, and establish legal liability 13 p2436 N67-25278
Tracking and navigation analysis, communications development, and facility engineering and operations for deep space

network
[NASA-CR-85298] 17 p3043 N67-36371
Trajectory and navigation accuracy studies related to deep space network 17 p3100 N67-36372
Error analysis of hyperbolic navigation system using synchronous high altitude satellites
[TN-1967-18] 17 p3106 N67-36671
Astronautics, space navigation, spacecraft propulsion, communication, and electronics, and operations research - abstracts of lecture series 17 p3182 N67-31404
Exact linear equations with applications to manual space navigation
[NASA-CR-841] 18 p3292 N67-33486
SPACE ORIENTATION
Vestibular motion sensor role in human dynamic space orientation and manual vehicle control
[NASA-CR-629] 01 p0016 N67-10751
Vestibular changes, human equilibrium and orientation, and adaptation of gravitoinertial receptor mechanisms during space missions - conference
[NASA-SP-115] 05 p0654 N67-15121
Effects of reduced gravity on human body, and ability of man to maintain his orientation and equilibrium on lunar surface 05 p0654 N67-15124
Launching and orbit determinations of Pioneer VII space probe 06 p0964 N67-15907
Human biomechanics and space orientation during weightlessness
[NASA-TT-F-10411] 14 p2451 N67-26574
Progressive method using two reference vectors and solar cell technique for determining rocket attitude allowing for automatic calculation on digital computer
[RAE-LIB-TRANS-1163] 15 p2795 N67-28709
Human dynamic space orientation models using control theory techniques
[NASA-CR-85781] 17 p3011 N67-31474
Solar orientation error due to planetary albedo, and selection of coarse and fine solar sensors for spacecraft
[NASA-TN-D-4123] 21 p3884 N67-35723
SPACE PHOTOGRAPHY
SA ASTRONOMICAL PHOTOGRAPHY
Scientific data and observations summary of Surveyor I lunar surface exploration 01 p0150 N67-10062
Objectives, launch and landing operations, and lunar surface photography of Surveyor I spacecraft 01 p0155 N67-10063
Surveyor I spacecraft photographs evaluated for lunar surface topography 01 p0150 N67-10064
Photographs taken by Surveyor I camera on lunar surface examined for dust particle locations 01 p0150 N67-10065
Lunar surface photographs obtained by LUNIK XII probe
[NASA-CR-79544] 02 p0313 N67-11734
Descriptions of routine flight onboard Soviet long range intercontinental strategic missile carrier jet aircraft and outer space views of earth by astronauts
[JPRS-36906] 03 p0354 N67-12231
Descriptions of outer space views of earth by astronauts 03 p0354 N67-12233
Raster camera for artificial space photography 04 p0590 N67-13546
Gemini IX experiments - zodiacal light and airglow horizon photography, micrometeorite collection, body fluid bioassay, astronaut maneuvering unit, and UHF-VHF polarization
[NASA-TM-X-68915] 06 p0965 N67-16021
Gemini IX experiment to photograph airglow, zodiacal light, and Milky Way 06 p0965 N67-16022
Dim light photography and visual observations of space phenomena from Gemini spacecraft
[NASA-TM-X-68732] 13 p2306 N67-23909
SPACE PROBE
SA DUMBBELL SPACE PROBE
SA ICARUS SPACE PROBE
SA MARINER I SPACE PROBE
SA MARINER II SPACE PROBE
SA MARINER IV SPACE PROBE
SA MARINER V SPACE PROBE
SA MARINER SPACE PROBE
SA MARS PROBE
SA PIONEER I SPACE PROBE
SA PIONEER VI SPACE PROBE
SA PIONEER VII SPACE PROBE
SA PIONEER SPACE PROBE
SA SOLAR PROBE
SA VENUS PROBE
SA ZOND II SPACE PROBE
SA ZOND III SPACE PROBE
Summaries of sounding rocket, space probe, and artificial earth satellite launchings and observations 01 p0068 N67-10594
Mission planning for exobiological measurements on Venus
[NASA-CR-79756] 02 p0214 N67-12073
Space research and lunar exploration activities reviewed in terms of interdisciplinary results and impact on teaching of science
[NASA-TM-X-52255] 03 p0480 N67-12719
Location of radiation pattern disturbing structures in vicinity of satellite antenna
[NASA-CR-79729] 03 p0367 N67-12933
Proton III satellite design and instrumentation
[NASA-CR-86666] 04 p0615 N67-13572
Operational and performance objectives of space probe radar altimeter, and evaluation of altimeter generic types for space probe applications
[NASA-CR-86362] 07 p1120 N67-17835
Development plan for radar altimeter applicable to deep space probes
[NASA-CR-86363] 07 p1120 N67-17836
Reliability and quality assurance plan for design and development of radar altimeter applicable to deep space probes
[NASA-CR-86364] 07 p1120 N67-17837
Momentum accomodation coefficients obtained from low velocity molecule-surface interactions, for space probe drag calculations
[NASA-CR-82092] 08 p1228 N67-18518
United States and U.S.S.R. use of scientific satellites, sounding rockets, and space probes for upper atmosphere studies
[NASA-TT-F-390] 08 p1278 N67-18967
Planetology studies in 1965 by space probes, ground-based observations, and theoretical studies 08 p1367 N67-19027
Twilight investigations of planetary atmospheres from space probes
[FTD-MT-65-400] 09 p1510 N67-19543
Satellite and space probe firings, space technology applications, Apollo project flights and university programs summary report
[NASA-TM-X-59454] 10 p1700 N67-21021
Integrated circuit amplifier and analog switching circuit for deep space probes
[NASA-CR-86017] 11 p1833 N67-23176
Survey on chemical analytical methods for planetary exobiological probes 12 p2025 N67-24440
Pulse coherent transponder for space probe and tracking applications
[AR-2218] 13 p2278 N67-25448
Onboard equipment for space probe data acquisition and transmission
[NASA-CR-73083] 13 p2290 N67-25858
Lightweight deep space probe design for spin stabilization
[NASA-CR-73084] 13 p2290 N67-25859
Determination of efficient data format and data system for lightweight deep space probe
[NASA-CR-73085] 13 p2290 N67-25860
Objectives and mission instrumentation for comet probes
[RF-72OE] 14 p2812 N67-27132
Galactic space probe mission involving flight through asteroid belt and Jupiter flyby
[NASA-TM-X-55785] 14 p2819 N67-27368
Statistical probability and sampled data method for compressing data from deep space probes 14 p2492 N67-27406
Automatic computer techniques for reduction and analyses of space research data
[NASA-TM-X-55766] 14 p2503 N67-27562
Satellite and rocket data obtained from electrostatic analyzers and spectrometer instrumentation
[ASE-1457] 18 p3323 N67-31786
Space probe investigation of meteor showers with retrograde motion, and application to Halleys comet, 1986 18 p3290 N67-32949
Comet-intercept space probe mission constraints, and suggested scientific payload for cosmogonical research 20 p3737 N67-34781
Satellite velocity and magnetic field effects resolution into separate velocity and magnetic field modulations of current superimposed upon some constant electron current
[NASA-CR-86356] 21 p3841 N67-36063
Monte Carlo computer analysis of free molecular flow characteristics of thermosphere probe
[NASA-TM-X-53641] 21 p3843 N67-36302
Status of space effort and of space center condition in Indonesia - ionospheric probes 21 p3863 N67-36454
Solar phenomena, planetary and lunar compositions, plasmas, interplanetary particles, satellite probes, animal neurophysiology, engineering structures, and related space activities
[NASA-CR-86383] 21 p3922 N67-36480
Van Allen belt measurements by artificial satellites and space probes
[FTD-MT-65-417] 22 p4136 N67-36929
American and Soviet space probe measurements of solar winds and interplanetary magnetic fields
[JPRS-42567] 22 p4137 N67-37630
NASA launchings, space probes, manned space flights, and other space-related and aeronautics events and discoveries in 1966
[NASA-SP-4007] 23 p4345 N67-38868
SPACE PROGRAM
SA EUROPEAN SPACE PROGRAM
SA NASA PROGRAM
SA U.S.S.R. SPACE PROGRAM
Space program research and advanced development in guidance and control, engineering mechanics, environmental simulation, propulsion, space sciences, and telecommunications
[NASA-CR-79917] 02 p0329 N67-12101
Narrative dealing with space age effect on national character 03 p0476 N67-12969
Bibliography on Jet Propulsion Laboratory technical reports and memorandums, space programs summary, astronautics information, and literature searches
[NASA-CR-61253] 08 p0965 N67-16656
Program planning and economic analysis for Manned Orbital Research Laboratory
[NASA-CR-86294] 09 p1514 N67-19974
Use of cost effectiveness techniques in space program planning
[NASA-TM-X-59453] 09 p1511 N67-19003
ESRO spacecraft technology - launch vehicle effect on spacecraft design, ESRO construction and scientific payload program, spacecraft orbit mechanics, and composition of space radiation
[ESRO-SP-9] 12 p2214 N67-24451
International cooperation policy of United States in space activities 13 p2432 N67-25257
International cooperative efforts of United States related to programs in outer space 13 p2437 N67-25296
National sovereignty in airspace and United States balloon launching discussed from Soviet viewpoint 13 p2437 N67-25296
United Nation efforts on international space program cooperation, and problems related to use of military spacecraft
[DGRR/WGLR PAPER-66-030] 13 p2440 N67-25684
Geophysics and space data bulletin - cosmic ray neutron monitor, field intensity magnetometer, high frequency propagation, solar radio emission, and ionospheric soundings
[AD-648044] 14 p2527 N67-27464
Activities, services, and organization of regional information dissemination center in Pittsburgh
[NASA-CR-84508] 14 p2835 N67-27676
Management methods used to evaluate priorities and costs of West German space projects and long range planning
[RF-73O] 14 p2816 N67-27762
History and future projects of United States space program 15 p2790 N67-28285
Congressional hearings in January and February 1967 on government and industry policy planning of aeronautical research and development 15 p2906 N67-28990
NASA program bill for appropriations authorization for space projects - hearings before United States Senate Committee 15 p2889 N67-28577
Future prospects for American economy and their effects on national space program
[NASA-CR-86617] 18 p3256 N67-32151
Organization and methodology of managing space projects 20 p3750 N67-34661
Space exploration programs - systems analysis - spacecraft power and guidance systems - propellant engineering and communications systems
[NASA-CR-86186] 21 p3953 N67-36647
Compilation of articles on space biology

and medicine
[JPRS-43730] 23 p4193 N67-39097
Technical, administrative, and managerial data documentation by contractors on interfaces between Voyager project and related space programs
[NASA-CR-89730] 24 p4555 N67-40427
SPACE RADIATION
SA EXTRAGALACTIC RADIATION
SA GAMMA RADIATION
SA PRIMARY COSMIC RADIATION
Space radiation effect on MOSFET devices
[NASA-TM-X-55597] 02 p0243 N67-11373
Problems of calculating protection against space radiation 02 p0187 N67-11467
Problems involved in modeling various types of space radiation effects on biological subjects 02 p0154 N67-11542
Antiradiation drugs to increase space radiation resistance 02 p0206 N67-11633
Infrared contrast observed in transition zone between earth and space, and comparison of findings with those of theoretical study on atmospheric model
[TP-350/1966/] 02 p0256 N67-11916
Energetic space radiation and dose rate analysis
[NASA-TM-X-53531] 05 p0756 N67-14461
Calculations of energy deposition and air fluorescence from radiation produced by nuclear explosion in space
[LA-3439-MS] 06 p0939 N67-16395
Energy dissipation characteristics in tissue for ionizing radiation in space
[NASA-CR-82932] 09 p1402 N67-19935
Catalog of east-west visibility functions for extraterrestrial radio sources
[AD-645528] 12 p2306 N67-33622
Attitude control of stellar observatory satellites for observing radiation in ultraviolet and shorter wavelengths 12 p2142 N67-33815
Formation of ionizing radiation field in space 12 p2206 N67-34422
Diffusion semiconductors for measuring ionizing space radiation 12 p2206 N67-34433
Space radiation and measurement techniques 12 p2206 N67-34453
Nuclear and space radiation effects on materials and components used in space vehicles
[NASA-TM-X-53556] 12 p2188 N67-34547
Manned spacecraft radiation dosimetry experiment on Gemini spacecraft
[SSD-TR-66-115] 12 p2207 N67-34835
Characterization plan for testing of amplifier, micropower, MOS, and dielectrically isolated circuits - space radiation effects on silicon integrated microcircuits
[NASA-CR-83802] 13 p2292 N67-35482
Space radiation doses absorbed by Voskhod I and Voskhod II spacecraft crews
[NASA-TT-F-10400] 14 p2451 N67-36561
Radiation safety of manned space flights - radiobiological aspects 16 p2827 N67-39217
Space radiation equivalences for permanent damage to silicon transistors by measuring changes in transistor parameters after exposure to proton, electron, and gamma ray irradiation
[NASA-CR-814] 18 p2349 N67-32026
Problems connected with development of spacecraft radiation protection system and associated ground support equipment 23 p4190 N67-39006
Conference on space radiation biology
[NASA-CR-99561] 24 p4304 N67-39965
SPACE RADIATOR
Emissivity coatings for low-temperature space radiators
[NASA-CR-72069] 01 p0068 N67-10063
Environmental control system space radiators to dissipate heat generated within spacecraft 03 p0402 N67-13797
Emissivity coatings for low temperature space radiators
[NASA-CR-72059] 05 p0737 N67-14886
Solar absorptance and emittance of candidate zinc oxides/silicone and zinc oxide/potassium silicate coatings measured at room temperature for application to space radiators
[NASA-CR-72060] 05 p0736 N67-14914
Emittance and thermal cycling tests of stainless steel tubes coated with iron and calcium titanate, and niobium-zirconium tubes coated with iron titanate
[NASA-CR-72149] 06 p0923 N67-16569
Size and weight computations for internally and externally finned Brayton cycle radiators using gas as working fluid
[NASA-CR-615] 10 p1558 N67-21448
Moving belt radiator for waste heat transfer in space - dynamic model analysis of belt shape and transducer measurement of belt pressures
[R-6289-7] 12 p2018 N67-34495
Thermoconductivity of coating materials used on space radiators 12 p2237 N67-34642
Collector-radiator fabrication and brazing materials evaluation in solar thermionic generator development
[NASA-CR-83886] 13 p2349 N67-35676
Combined passive and active methods for thermal control of manned orbital space station to reduce heat flux on space radiators
[NASA-TN-D-3995] 14 p2466 N67-36551
Space radiator simulator, using finned tube heat exchanger cooled by controllable airflow, for SNAP-8 ground test facility
[NASA-TM-X-1375] 14 p2511 N67-36557
Feasibility studies of space radiators using vapor chamber fins 14 p2631 N67-36795
Open-cycle fuel cell development - space radiator optimization, techniques, mathematical models and reliability
[NASA-CR-84307] 23 p3983 N67-36783
SPACE REFERENCE SYSTEM
Simple control reference as aid to thrust axis orientation during ascent of lunar module from lunar surface to circular orbit and rendezvous with command and service module
[NASA-TN-D-3681] 01 p0153 N67-10744
Space reference systems
[ACIC-TR-90] 10 p1780 N67-30647
SPACE RENDEZVOUS MANEUVER
Fluid mechanic and radiation pressure effects on satellite orbits and orbital decay, and space rendezvous maneuvers - mathematics conference
[NASA-CR-86873] 05 p0691 N67-14401
Ascent trajectory, transfer and parking orbits for lunar and interplanetary space rendezvous maneuvers 05 p0758 N67-14409
SPACE SCIENCE
Space travel research problems
[NASA-TT-F-9459] 01 p0151 N67-10185
Research in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space
[JPRS-38460] 01 p0066 N67-10283
Research in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space
[JPRS-38230] 01 p0066 N67-10284
Abstracts of studies on planetary physics, exobiology, space physics, physiology, social science, and engineering
[NASA-CR-79710] 01 p0154 N67-10672
Space science research on elevation differences on Mars
[NASA-CR-80110] 02 p0360 N67-12348
Future directions for space research in planetary and lunar exploration, astronomy, geophysics, physics, rockets, satellites, universities, biology, medicine, physiology, and manpower role
[PUBL.-1408] 03 p0465 N67-13085
Research summaries on systems analysis, guidance and control, environmental factors, engineering development, propulsion, space sciences, and telecommunications
[NASA-CR-81201] 06 p0880 N67-15701
European space program, research projects in space technology, and international cooperation of Swiss organizations 07 p1213 N67-17050
Geomagnetism, solar and galactic cosmic rays, and comets, and influence on earth environment
[NASA-SP-114] 07 p1185 N67-18141
Advanced research and development program on space sciences and technologies
[NASA-CR-81466] 08 p1360 N67-18361
NASA space science astronomy program - orbiting satellite experiments for solar, stellar, and galactic observations
[NASA-SP-127] 08 p1363 N67-18730
NASA space astronomy program 08 p1364 N67-18731
Space sciences data processing
[NASA-TM-X-55690] 08 p1354 N67-18740
Research project reports pertaining to physics, space sciences, computer systems, information processing, and control systems
[NASA-CR-81394] 08 p1369 N67-18970
Highlights of space science achievements in 1965
[NASA-SP-136] 08 p1368 N67-19022
Satellite and space probe firings, space technology applications, Apollo project flights and university programs summary report
[NASA-TM-X-55454] 10 p1700 N67-21021
Scientific objectives and experiments for comet mission
[NASA-CR-83113] 10 p1761 N67-21442
NASA educational booklet on space science, spacecraft, and planetary exploration 11 p1983 N67-23236
NASA program for application of space science and technology to public sector
[NASA-SP-142] 11 p2007 N67-23238
Space research activities in Switzerland dealing with communications, rocketry, satellites, and horology 11 p2007 N67-23460
Soviet studies in geophysics, astronomy, and space science
[JPRS-39718] 11 p1873 N67-23421
Research in geophysics, astronomy, and space science - annotated bibliography
[JPRS-39065] 11 p1873 N67-23460
Biophysical and biological space research in West Germany 12 p2024 N67-24425
University participation in NASA scientific space programs 12 p2340 N67-24427
Summary of extraterrestrial biological research in U.S.S.R. satellite experiments 12 p2024 N67-24428
ESRO space science and technology program 12 p2311 N67-24454
Dynamic developments of international space laws, and shift of space technology efforts away from military-related efforts 13 p2432 N67-28254
Legal implications of international race in space science and technology, and cooperative efforts among nations 13 p2432 N67-28256
Spin-off from space science and technology to industry and influence of European space program on technology, economy, education and politics 13 p2441 N67-25258
Congressional hearings for NASA 1966 budgetary appropriations in space science and applications 15 p2909 N67-28574
Congressional hearings on 1965 to 1966 research and development activities of Science and Astronautics Committee 15 p2909 N67-28576
Research in systems analysis, propulsion, guidance and control, telecommunication, and space sciences
[NASA-CR-84965] 16 p2988 N67-29141
Soviet research in astronomy, meteorology, oceanography, geophysics, upper atmosphere, and space
[JPRS-41443] 16 p2889 N67-30028
Recent publications of Sino-Soviet bloc countries in areas of geophysics, astronomy, and space science
[JPRS-41256] 16 p2889 N67-30029
Thermally isolated temperature sensor for space application Pegasus satellite 17 p3060 N67-30565
Scientific and technical work during 1965 at Institute for Extraterrestrial Physics in Germany
[BMWF-FB-W-67-01] 17 p3044 N67-30695
Scientific and technical work from January 1965 through December 1965 at Institute for Extraterrestrial physics in Germany
[BMWF-FB-66-04] 17 p3044 N67-30754
Optimal transfer between hyperbolic asymptotes when planet has finite radius
[TP-391/1966/] 17 p3169 N67-30907
NASA Space Science and Applications Program
[NASA-EP-47] 17 p3164 N67-31439
Soviet-Bloc research in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space science
[JPRS-41856] 20 p3834 N67-34814
Studies and analyses of space science problems related to NASA lunar and planetary programs
[NASA-CR-87396] 20 p3728 N67-34825
Adaptability of four lunar orbiter spacecraft configurations to other space related and surface related experiments
[NASA-CR-66449] 21 p3894 N67-35052
Advanced development and research on lunar exploration, biosciences, and manned space sciences
[NASA-CR-66980] 21 p3781 N67-35770
Space exploration research on systems analyses, guidance and control, engineering development, propulsion systems,

telecommunications, and space sciences
[NASA-CR-86186] 21 p3952 N67-35972
Research project summaries in propulsion, guidance and control, trajectory optimization, physics and chemistry, communications, and related space sciences
[NASA-CR-86160] 21 p3952 N67-36101
Computer program solutions to space science problems
[AFCRL-67-0465] 23 p4341 N67-38127
Compilation of Soviet articles on astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmosphere and space research
[JPRS-43674] 23 p4343 N67-38415
Summaries and notes on major Soviet achievements during 1966 in physical, life, and material sciences, space medicine, mathematics, and astronomy 23 p4370 N67-39198
NASA space science and applications program and budget request
[NASA-TM-X-66553] 24 p4553 N67-39668
Research in astronomy, meteorology, oceanography, geophysics, upper atmosphere, and space science
[JPRS-43231] 24 p4443 N67-40005
Spacecraft guidance and control, propulsion, telecommunications, and systems analysis, and space science research
[NASA-CR-89567] 24 p4531 N67-40233
Medical benefits resulting from utilization of devices and techniques of space research within NASA program
[NASA-EP-46] 24 p4386 N67-40287
News reports and abstracted data on Soviet-bloc research in geophysics, astronomy, meteorology, and space sciences
[JPRS-42990] 24 p4447 N67-40285

SPACE SIMULATION
SA ENVIRONMENT SIMULATION
Effectiveness of testing complete satellite systems in attaining reliable performance - comparison of simulation and flight results
[NASA-TN-D-3713] 02 p0211 N67-11347
Solar simulation equipment for large space simulation plant
[DLR-MITT.-66-15] 03 p0389 N67-12895
Thermal scale modeling in simulated space environment
[NASA-CR-90372] 03 p0473 N67-12998
Acceleration, vibration, and ionizing radiation effects on central nervous system and mitosis
[JPRS-39159] 04 p0491 N67-13307
Long-term performance of squirrel monkeys under space simulation conditions 05 p0657 N67-15144
Behavioral measures from squirrel monkeys under two-degree of space simulation conditions 05 p0657 N67-15145
Space simulation tests on temperature control, inorganic and silicone coatings, zinc titanate pigment synthesis and evaluation, and silicone photolysis
[NASA-CR-83001] 06 p1296 N67-16517
Spectral properties of ultraviolet gratings, original and replica, before and after exposure to simulated space environment
[NASA-CR-82826] 09 p1474 N67-19990
Analysis of simulated space tests on OGO experiments
[NASA-TM-X-55748] 11 p1983 N67-23318
Beta emitting strontium 90 used as electron source for material testing in space environment simulation chamber
[NASA-CR-73063] 12 p2074 N67-23959
Microbiological effects of oxygen atmosphere and space diet on human intestinal and skin flora
[NASA-CR-661] 12 p2024 N67-24421
Extraterrestrial biophysical and biological studies in West Germany - scientific satellite experiment, space simulation effects on animals, plants, and microorganism, and future projects 12 p2024 N67-24424
Ultrahigh vacuum space simulation tests on fungus and bacteria 12 p2025 N67-24442
Construction and instrumentation of ultrahigh vacuum chamber for biophysical experiments 12 p2062 N67-24443
Instrumentation of ultrahigh vacuum chambers for biological experiments 12 p2026 N67-24444
Soft X-rays, hydrogen arc discharge, and mercury arc discharge for simulated solar radiation in biophysical experiments 12 p2063 N67-24445
Xenon arc discharge for simulated solar radiation in biophysical space research 12 p2063 N67-24446
Calculations on spectral distribution of solar radiation in space 12 p2206 N67-24447
Cryogenic techniques for space simulation and rocket test facility purposes
[DGRR/WGLR PAPER-66-043] 15 p2755 N67-28702
Various facets of thermal testing of space vehicles in cold vacuum chambers, with and without solar simulation
[AEDC-TR-67-36] 16 p2983 N67-28987
Digital data acquisition system for big space simulation chamber
[DLR-MITT.-67-06] 19 p3412 N67-33722
Program, facility, and equipment for vacuum chamber simulation of ELDO A second and third stage separation 19 p3542 N67-33870
Tests and analyses to select materials and techniques for thermal insulation of planetary spacecraft
[NASA-CR-88009] 21 p3873 N67-35552
Life studies of simulated extraterrestrial environments
[NASA-CR-88134] 21 p3769 N67-36560
Evaluation of single unit and integrated life support system for simulated twenty day aerospace mission
[AMRL-TR-66-195] 22 p3978 N67-37077

SPACE SIMULATOR
Theory of coplanar two-bar zero gravity simulator
[NASA-CR-78515] 02 p0248 N67-12218
Aerospace medicine safety considerations in rating space simulators for manned operations
[AMD-TR-66-2] 05 p0660 N67-14719
Solar simulation studies involving arc lamps, anode designs, and spectrum measurements
[NASA-CR-84023] 13 p2304 N67-26276
Microwave spectromastric gas analyses in determining trace constituents collected from space simulator
[SAM-TR-67-3] 14 p2471 N67-26760
Instrument to detect molecular flow rates in presence of background gas noise of space environment chamber
[AEDC-TR-67-35] 14 p2534 N67-27046
Attitude control, temperature control, power system transducers, and space simulator tests for Mariner Venus 67 spacecraft 14 p2621 N67-27743
One-watt refrigerator used for attaining clean room conditions in vacuum system of space simulator
[NASA-TN-D-4006] 16 p2987 N67-30121
Mathematical model of space simulator to obtain gas flow distribution patterns on test vehicle 18 p3258 N67-32633
Aluminum collimating mirror nickel plated for use in space simulator
[NASA-CR-89755] 24 p4400 N67-40367
Simulators for testing aircraft, spacecraft, and launch vehicles and for training pilots and astronauts
[NASA FACTS 36, VOL. IV, NO. 8] 24 p4428 N67-40439

SPACE STATION
SA MANNED ORBITAL LABORATORY /MOL/
SA MANNED ORBITAL RESEARCH LABORATORY /MORL/
SA ORBITAL SPACE STATION
Manned dynamic testing in space station development, inclusion of failure analysis capability with space rescue mission, and manned orbiting structures laboratory
[NASA-TM-X-53545] 05 p0772 N67-14923
Small animal space station model mechanical details and testing for application to long term space flight studies of movement freedom in weightless environment 05 p0657 N67-15146
DeepSpace Network Research and Development
[NASA-CR-81200] 06 p0837 N67-15901
Improved radio frequency calibration techniques - refinement of daily system noise temperature calibration technique 06 p0838 N67-15909
Improved calibration techniques - weekly noise temperature calibrations for Mars and Venus Deep Space Stations 06 p0838 N67-15910
X-band gain measurement of Venus Deep Space Instrumentation Facility antennas 06 p0838 N67-15912
X-band cone radio frequency instrumentation 06 p0879 N67-15914
Soviet literature on computer reliability, seismic waves, semiconductors, ocean sediments, mobile lunar station, scientific conferences, and other technical activities 06 p0885 N67-16075
Optimal control in linear feedback attitude control systems for spinning space station
[NASA-TN-D-3854] 07 p1121 N67-18152
Mathematical model of space station mission simulation
[NASA-CR-66316, VOL. II] 11 p1961 N67-22168
Concepts for emplaced scientific station on lunar surface 12 p2311 N67-24377
Freedom of airspace and national sovereignty aspects of international air navigation laws, and legal problems inherent in space stations 13 p2431 N67-25347
Legal liability for damage due to space flights, sovereignty over space stations, and outer legal problems requiring international cooperation 13 p2433 N67-25363
Navigation systems for manned lunar missions and earth space station rendezvous 17 p3101 N67-30597
Computer programs to computer dynamic response characteristics of elastic space stations
[NASA-CR-66445] 18 p3351 N67-32139
Dynamic response characteristics of elastic space stations - computer program descriptions
[NASA-CR-66444] 18 p3352 N67-32140
Dynamics of two cable connected space stations
[NASA-TM-X-53650] 23 p4352 N67-38630

SPACE STORAGE
Reliquefier design and cycles studied to reduce boiloff in extraterrestrial cryogenic propellant storage
[NASA-CR-80720] 04 p0602 N67-13672
Performance and space storage characteristics of small propane-flox upper stages
[NASA-TM-X-52280] 10 p1762 N67-21219

SPACE SUIT
SA PRESSURIZED SUIT
Project Gemini - spacecraft, space suits, astronaut selection and training, Gemini-Titan and Atlas-Agena launch vehicles, Gemini missions, and brief outline of Project Apollo
[NASA-TM-X-59048] 01 p0153 N67-10741
Gemini extravehicular suit pressurization ventilation test program
[NASA-CR-65559] 07 p1020 N67-17282
Internal restraint system, composed of liquid filled garment and separate auxiliary system, for integrated restraint pressure suit for acceleration protection and thermal transport
[NASA-CR-718] 08 p1231 N67-18238
Design, fabrication, and testing of prototype one-atmosphere arm and overglove system for astronauts
[NASA-CR-65605] 11 p1961 N67-23327
Feasibility of controlling cosmonaut thermal balance in space suit by physiological perspiration
[NASA-TT-F-10413] 14 p2468 N67-26575
Performance and thermal response of Gemini extravehicular space suit tested in simulated environment
[NASA-CR-65617] 14 p2473 N67-27223
Extravehicular protection and operations
[NASA-CR-773] 16 p2829 N67-29088
Human water exchange in space suits and capsules
[NASA-CR-804] 16 p2829 N67-29089
Solar absorptance and transmittance, total hemispherical emittance, and effective thermal conductance of space suit materials
[NASA-CR-65678] 20 p3562 N67-34539
Mechanically operated pressure sealing closure for space suits
[NASA-CR-65685] 20 p3585 N67-34705
Space suit design concept for passive thermal control tested under simulated space conditions
[NASA-CR-89546] 23 p3976 N67-36234
Hydraulically driven articulated dummy for testing space suits
[NASA-CR-65740] 23 p4109 N67-38840

SPACE SURVEILLANCE SYSTEM
SPAD formatter - buffer interface between satellite prediction computer and display
[NRL-6431] 07 p1047 N67-17666
Computer program for satellite position display - computer description, modes of display operation, and operator and nonoperated selected interrupts

[NRL-6446] 10 p1606 N67-21872
Radio physics and astronomy research
[ESD-TR-66-446] 11 p1976 N67-22533
Random scan-display of predicted satellite positions
[NRL-6453] 13 p1385 N67-25181
Radar and radio astronomy methods for satellite, ionospheric, auroral, and lunar surveillance 17 p2026 N67-30712
SPACE SYSTEMS ENGINEERING
Principles, techniques, and approach used in conducting training program in space system engineering
[NASA-CR-79753] 02 p0329 N67-12221
Development and evaluation of high temperature magnetic and electrical materials for advanced space electric power systems
[NASA-CR-54357] 03 p0413 N67-13188
Optical technology development plan, experiments, spacecraft and subsystems, and resources analysis of optical technology Apollo extension system
[NASA-CR-66666] 18 p2305 N67-32119
Conceptual designs for radioisotope heat source systems to provide 25 kW thermal power to Brayton cycle power conversion system for space applications
[NASA-CR-72090] 22 p4089 N67-36876
Competitive system approach to design of earth orbital transport systems for passenger and cargo traffic
[NASA-TM-X-53636] 22 p4147 N67-36929
SPACE TEMPERATURE
Sky temperature measurements made at 90-Gc with radio telescope system consisting of 60-inch millimeter searchlight antenna and superheterodyne radiometer 02 p0237 N67-13137
SPACE-TIME CONTINUUM
Singlet-D atomic oxygen reaction with alkanes, Coulomb integral of continuum functions, and rigid motions in conformal space-time 13 p2038 N67-23659
Relativistic space-times having corresponding geodesics, classified according to Segre characteristics
[NASA-CR-89771] 24 p4489 N67-40473
SPACE-TIME FUNCTION
Nonlinear system stability, optimal control, reactor dynamics, space-time effects, and pulsed neutron research covered in symposium on neutron dynamics and control
[CONF-650413] 07 p1122 N67-17041
Xenon induced space-time variation of reactor neutron flux investigated in adiabatic approximation 07 p1134 N67-17059
Space-time correlation functions of scattered fields
[JPRS-39414] 08 p1385 N67-18363
Space-time correlation functions of scattered fields 08 p1344 N67-18364
Space-time correlation function of noise field 08 p1326 N67-18515
Unitarity representations of space-time similitude group 11 p1936 N67-23483
Conformal group transformation in space-time realized in Hilbert spaces of harmonic functions
[IC/66/113] 11 p1945 N67-23387
Quasi-energy integrals of motion equations for variable mass mechanical points and systems when Lagrange condition is time dependent 13 p2360 N67-26184
Space-time properties of hydroxyl emission in infrared region 15 p2496 N67-27984
Equations, methods, and facilities for space-time correlations of velocity and temperature in boundary layer
[ASR-3] 16 p2976 N67-29042
Space time correlations of longitudinal velocity fluctuations measured in turbulent boundary layer
[AFOSR-67-0860] 16 p2976 N67-29135
Some total invariants of asymptotically flat space-times
[AD-651006] 16 p2921 N67-29569
Group theoretic basis of harmonic analysis using time-like, space-like, light-like, and null representations
[IC/67/9, PT. I] 19 p3363 N67-32998
Computer program modification for solution of one-dimensional two-group space-time diffusion equations accounting for temperature, xenon, and control feedback
[WAPD-TM-532, ADDEND. 1] 20 p3607 N67-34314
Quasi-stellar radio source analysis by correlating space-time distribution of luminosities
[MPI-PAE/ASTRO-3/67] 20 p3730 N67-35074
Correlation properties of quantities depending on space and time
[NASA-CR-88366] 22 p4097 N67-36776
Space-time correlations of velocity and pressure and role of convection for homogeneous turbulence in universal range
[TRG-611-TN-67-1] 22 p4143 N67-37372
SPACE-TIME METRIC
S CARTAN SPACE
S SCHWARZSCHILD METRIC
SPACE TOOL
Tool mitten concepts and work panels for use in extravehicular activities
[NASA-CR-85556] 17 p3073 N67-30736
Design, development, and tests of explosive space cutting tool
[NASA-CR-88966] 22 p4058 N67-37019
SPACE VEHICLE
SA EXTRAVEHICULAR OPERATION
SA RECOVERABLE SPACE VEHICLE
SA SATELLITE
Role of liquid sloshing in attitude stability equations of liquid propellant space vehicles
[NASA-CR-79541] 02 p0250 N67-11726
Chronological listing, orbital data, and description of U.S. and Soviet satellites and space probes launched from 1957 to 1965 02 p0248 N67-11913
Behavior of propellant liquid-vapor interface outflow from cylindrical space vehicle tanks in weightlessness
[NASA-TN-D-3746] 02 p0252 N67-11952
Synthesis and characterization of polymeric systems for space vehicle protective coatings 07 p1034 N67-16857
Vacuum, electron, proton, and ultraviolet radiation stress results for space vehicle materials
[NASA-CR-81708] 07 p1094 N67-18048
Nuclear energy in aerospace technology - space power reactor developments, thermionic energy conversion techniques, and emitter materials
[DLR-MITT.-66-07] 08 p1307 N67-18221
Design study of nuclear thermionic power plant for space vehicle 08 p1307 N67-18223
Zirconium hydride, yttrium hydride, and beryllium hydride moderator thermionic reactor systems for space vehicle power supply 08 p1308 N67-18224
Fast reactor plant evaluation for space vehicle power source 08 p1309 N67-18231
Energy method and Fortran computer program for calculating vibrational characteristics of large complex space vehicles
[NASA-CR-82665] 08 p1379 N67-19106
Trajectory approximation by two-body problem analyses for space vehicle in earth-moon system
[ESRO-TM-26] 09 p1513 N67-30262
Shock and vibration problems in ballistic and space vehicle technology 13 p2411 N67-25162
International law dealing with legal liability for damage caused by space vehicles 13 p2435 N67-25382
Manufacturing capabilities of superinsulation materials designed for use with liquid hydrogen propellant tanks and space vehicle structures
[GDC-ERR-AN-966] 14 p2544 N67-27210
Plasma radiation shield concept and applications to space vehicles
[NASA-CR-84429] 14 p2600 N67-27769
Thermodynamics of air separation in air-breathing boosters for space vehicles
[DLR-FB-66-96] 15 p2786 N67-28664
Three classes of composite materials for space vehicle application
[NASA-CR-785] 16 p2973 N67-29030
Support facilities and equipment for missile and space systems
[ATD-67-12] 16 p2973 N67-29545
Space environment data for use as space vehicle and spacecraft design criteria guidelines
[NASA-TM-X-53521] 16 p2970 N67-29689
Fuel cell technology for space vehicle application 17 p2986 N67-30583
Two brushless direct current motor systems for space vehicle application 17 p2986 N67-30591
Applications Technology Satellite F and G project analytical report including description of 30 foot diameter, deployable spacecraft antenna with good RF performance up to 10 GHz
[NASA-TM-X-53637] 18 p2343 N67-32118
Leak detection techniques improvement for space vehicles - literature search
[NASA-CR-88670] 18 p2372 N67-32472
Leak detection technique improvement for space vehicles - development of halogen gradient detector using dual-flow principle
[NASA-CR-88677] 18 p2372 N67-32488
Automatic checkout of space systems as result of cost - effectiveness study
[P-3023] 18 p2357 N67-32859
Leak detection technique improvement for space vehicles - halogen gradient detector using dual-flow principle
[NASA-CR-87186] 19 p3454 N67-33271
Statistical methods for analyzing stochastic effects influencing design of space vehicle control systems
[NASA-CR-825] 19 p3540 N67-33461
Packaging and preservation of space vehicle hardware
[NASA-CR-87419] 20 p3650 N67-35007
Supporting research on electronics, space vehicle, electronics, communication, human factor, and chemical propulsion systems
[NASA-CR-88078] 21 p3696 N67-36013
System and subsystem requirements for remote control of roving space vehicle motion
[NASA-CR-88288] 21 p3682 N67-36075
Soviet open literature survey on tracking of missiles and space vehicles
[ATD-67-45] 21 p3691 N67-36455
Low gravity experiment designs to advance space vehicle cryogenic technology
[NASA-CR-88712] 22 p4130 N67-37619
Design and development of heat and shock resistant qulbs for deep space probe vehicles
[NASA-CR-88881] 22 p3966 N67-37778
Data transmission and instrumentation systems for space vehicles
[AFCRL-67-0838] 23 p4350 N67-38298
Plasma radiation shield - concept and applications to space vehicles
[NASA-CR-81176] 23 p4353 N67-38327
Countdown procedures and checkoff list for large space vehicles
[NASA FACTS 8-4/8-67] 24 p4586 N67-40575
SPACE VEHICLE CHECKOUT PROGRAM
Gemini launch vehicle pilot safety program 07 p1019 N67-16963
Hardware, software, and evaluation of digital computer systems used in various phases of automatic space vehicle checkout
[NASA-TM-X-53589] 11 p1851 N67-23042
Structure and operating procedures of experimental computer programs for simulating real time moving network display of spacecraft checkout operations
[RM-5183-PR] 12 p2068 N67-23619
Prediction of prelaunch checkout procedures in 1970
[P-3518] 12 p2213 N67-24913
Space vehicle stage checkout in Saturn launch application 17 p3186 N67-30572
SPACE VEHICLE CONTROL
Control of space vehicle with low thrust engine on accelerating segment in absence of information on present velocity vector 05 p0782 N67-14564
Effect of prior experience on acquiring skill on simulated inertial control task
[AMRL-TR-66-25] 08 p0814 N67-16941
Space vehicle, guidance, and control summary and bibliography
[NASA-TM-X-53660] 12 p2264 N67-24297
Pulse ratio modulation used for linearization of on off control especially for attitude control of space vehicles - static characteristics, circuits, and phase leads
[NAL-TR-121] 16 p2972 N67-29008
Methods for use in design and analysis of space vehicle flight control systems - recommendations for placing man in control loop of boosters
[NASA-CR-820] 16 p2976 N67-29133
Analysis and design of space vehicle control systems - short period dynamics of attitude control during launch and autopilot design
[NASA-CR-826] 20 p3730 N67-34681
Load relief autopilot for space vehicle control and stability
[NASA-CR-822] 20 p3732 N67-34682
Analysis and design of space vehicle linear flight control systems
[NASA-CR-823] 20 p3733 N67-34683
Elastic body equations in analysis and design of space vehicle flight control systems
[NASA-CR-824] 20 p3733 N67-34743
Mathematical model for space vehicle

thrust vector control system
[NASA-CR-87448] 20 p3733 N67-34613
Analysis and design of nonlinear space vehicle flight control systems
[NASA-CR-823] 20 p3734 N67-34940
Variational calculus, gradient methods, maximum principle, and dynamic programing methods of optimal control theory of space vehicles
[NASA-CR-828] 20 p3735 N67-35169
SPACE WEAPON
United States and Soviet policies on outer space and arms control
[NASA-CR-86853] 04 p0626 N67-14260
SPACECRAFT
SA APOLLO SPACECRAFT
SA EUROPEAN I SPACECRAFT
SA GEMINI SPACECRAFT
SA INFLATABLE SPACECRAFT
SA INTERPLANETARY SPACECRAFT
SA LUNAR SPACECRAFT
SA MANEUVERABLE SPACECRAFT
SA MANNED SPACECRAFT
SA MARS SPACECRAFT
SA MILITARY SPACECRAFT
SA PLANETARY SPACECRAFT
SA REENTRY VEHICLE
SA RENDEZVOUS SPACECRAFT
SA REUSABLE SPACECRAFT
SA SATELLITE
SA SURVEYOR I SPACECRAFT
SA SURVEYOR II SPACECRAFT
SA SURVEYOR III SPACECRAFT
SA SURVEYOR SPACECRAFT
SA UNMANNED SPACECRAFT
SA VOSTOK SPACECRAFT
Plasma rocket engine used in Mars probe
[FTD-TT-65-1886] 01 p0146 N67-11092
Compression spring mechanisms for spacecraft and shroud separation 07 p1199 N67-16913
Statistical energy analysis for predicting sound and vibration transmission in shroud-enclosed spacecraft
[NASA-CR-81688] 07 p1205 N67-16935
Readout and evaluation of lunar photographs taken by orbiting lunar spacecraft
[NASA-CR-782] 10 p1762 N67-21449
Photograph of Soviet spacecraft ready for launching with group of eleven cosmonauts alongside
[NASA-CR-84698] 13 p3410 N67-26406
Performance evaluation tests on secondary spacecraft cells
[NASA-CR-84421] 14 p3450 N67-27639
Mission characteristics of space vehicles launched by United States
[ELDO-TM-F-14] 15 p3794 N67-27940
Moving spacecraft interactions with surrounding plasmas - bibliography with abstracts
[NASA-CR-84819] 15 p3791 N67-28768
Mathematical method for determining signal levels as function of time for communicating or tracking equipment before mission
[NASA-TM-X-55861] 19 p3404 N67-33354
Development, fabrication, and testing of deployable solar cell array for spin-oriented spacecraft applications 21 p3764 N67-36210
Feasibility of wet oxidation for spacecraft waste treatment and water recovery
[NASA-CR-86450] 22 p3978 N67-37030
SPACECRAFT COMMUNICATION
SA DEEP SPACE NETWORK /DSN/
Applications Technology Satellite /ATS/ launching, communications, power supply, control, and ground station activities
[NASA NEWS RELEASE-65-57] 02 p0311 N67-11548
Performance of tape recorder with incremental playback capabilities for use in deep space missions 02 p0262 N67-12135
Detailed ground station construction and equipment installation procedures for Deep Space Communication 06 p0699 N67-14455
Feasibility of direct relay of Apollo spacecraft data via communication satellite
[NASA-TM-X-55637] 05 p0676 N67-15230
Extreme value theory for estimating statistical parameters of spacecraft communication systems
[NASA-CR-81521] 07 p1035 N67-17167
Signal attenuation, signal distortion, and radio noise generation due to ion engine exhaust beam
[NASA-CR-81651] 07 p1041 N67-17992
Optical equipment and 96-GHz millimeter wave components for space communications and tracking 12 p3060 N67-23883
Spacecraft radio studies on multipacting between coaxial electrodes, S-band ranging, radar beam guidance, and rectangular cup radiator for high impact antenna 12 p3080 N67-23664
TASS communique regarding loss of cosmonaut on flight of Soyuz-1 spacecraft
[NASA-CR-84095] 13 p3410 N67-26411
Photon actuated solid state switch development 18 p3244 N67-31583
Design concept of combined counter/shift register module and applications as spacecraft telemetry encoders and logarithmic data compressor 18 p3245 N67-31594
Design feasibility and applications of adaptive antenna circuits for deep space communication - antenna concepts, environmental effects, and phase lock loops and adaptive circuitry
[NASA-CR-73119] 21 p3795 N67-35372
Graphs of station contact times for Apollo parking orbits with variable launch azimuths
[NASA-TM-X-55965] 24 p4530 N67-40168
SPACECRAFT COMMUNICATIONS SYSTEM
Planetary probe conical scanning system, signal processing, S-band power amplifier survey, modulation and bit synchronization, antenna temperature, and trajectory perturbations
[NASA-CR-79604] 02 p0236 N67-12047
Low data rate telemetry radio frequency solid state transmitter for telecommunication system capable of surviving high impact on lunar or planetary surface 02 p0237 N67-12139
Radiation patterns of high impact coaxial cavity radiator antenna before and after impact 02 p0237 N67-12140
Probability distribution of phase error of Mariner type communication system - differenced output statistics of cross correlators 02 p0239 N67-12149
Beam alignment techniques based on current multiplication effect in photoconductors for application to spacecraft communications system
[NASA-CR-86804] 06 p0947 N67-16054
Unified S-band system in Apollo network to provide tracking and communications to lunar distance 08 p1249 N67-18993
Phase locked loops in space communications 11 p1822 N67-22749
Machine language to describe on board and ground station data handling and processing of satellite experiments 11 p1830 N67-22750
Expandable directive high gain spacecraft antenna
[NASA-CR-83787] 13 p3278 N67-25497
Microwave, millimeter, and optical communication systems for spacecraft at Mars distances
[NASA-TN-D-3984] 14 p3549 N67-27327
Electric power, environmental control/life support, instrumentation, communications, and cryogenic storage systems for earth orbital manned space station
[NASA-TM-X-53499] 14 p3820 N67-27654
IMP-E flight plan, communications system, power supply, attitude control system, contamination monitor, experiments, and Delta launch vehicle
[NASA NEWS RELEASE-67-178] 17 p3168 N67-31436
Conceptual mechanization for horizon definition spacecraft communications and data handling subsystem
[NASA-CR-66381] 18 p3235 N67-32625
Signal margin calculation procedures for CSM unified S-BAND downlink channel Apollo AS-202 to aircraft NASA 432
[NASA-TM-X-55854] 19 p3407 N67-33855
Digital communications subsystem for Sunblazer space probe
[NASA-CR-87411] 20 p3731 N67-34193
Planetary entry blackout, instrumentation and data reduction for lunation experiment, spacecraft communications system, and low noise transponder preamplifier 20 p3803 N67-34779
Use of giant aperture telescopes as ground receivers for spacecraft laser communication system
[NASA-CR-87987] 21 p3794 N67-35834
Computer program requirements for onboard checkout and data management system of Saturn/Apollo application program
[NASA-CR-86406] 22 p4003 N67-36767
Data transmission capabilities of spacecraft telemetry communications systems, and guidelines for planning 1975-1980 missions
[NASA-CR-86859] 22 p4002 N67-37941
Performance analysis of Apollo unified S-band communications system for typical lunar mission
[NASA-TM-X-53446] 23 p4216 N67-39125
Design, alignment, testing, and specifications of S-band transponder Mark I with 20-cycle bandwidth for planetary spacecraft
[NASA-CR-89080] 23 p4217 N67-39114
Multipath environment using planetary surface model and fast fading effects on relay link of communications between spacecraft and probe entering planetary atmosphere
[NASA-CR-73145] 24 p4403 N67-39624
SPACECRAFT COMPONENT
Wire-connected electronic module as standard configuration for operational tests of spacecraft components 02 p0245 N67-12114
Environmental hazards encountered in spacecraft flights 04 p0612 N67-13280
Qualification test program for hermetically sealed fuses used in satellites
[TG-824] 05 p0623 N67-14710
Clean room assembly and sterilization laboratories for experiments on Voyager capsule, components and modules 05 p0690 N67-14795
Chemical conversion coating methods for protection of aluminum alloys
[NASA-CR-82460] 08 p1293 N67-19114
Digital computer analysis of temperature control characteristics of spacecraft louvers in sunlight
[NASA-CR-83115] 10 p1771 N67-21162
High temperature polyimide film and adhesive materials for spacecraft electrical equipment
[NASA-TM-X-52523] 12 p3125 N67-24630
Human factors in design of electroluminescent display systems for aerospace equipment
[AMRL-TR-66-130] 12 p3823 N67-24734
Acoustically induced vibration testing of spacecraft components 14 p3823 N67-28666
Materials research - diffusion bonding methods, stress corrosion tests, nondestructive testing, material designs for electronic equipment, and nonmetallic material development
[NASA-TM-X-53610] 16 p2906 N67-29281
Saturn vehicle stress corrosion failure analyses and preventive methods 16 p2907 N67-29282
New apparatus for depositing thin film electrical components and related microcircuitry 19 p3242 N67-31569
Digital microcircuit test program 18 p3247 N67-31804
Conference proceedings on design and performance of aerospace mechanisms and mechanical components in space environment
[NASA-CR-87990] 21 p3937 N67-36289
Laboratory model waste management unit for use in space simulator
[U-413-66-145] 21 p3773 N67-36429
Analytical determination of shutter type temperature control system effective radiative properties
[REPT.-65SD329] 22 p4160 N67-36888
Manufacturing contractor data project for Voyager spacecraft systems
[NASA-CR-87707] 24 p4460 N67-40414
Contractor data package for administration of procurement and contracting of Voyager spacecraft systems
[NASA-CR-89714] 24 p4427 N67-40421
Centaur solid state inverter failure during simulated flight in environmental space chamber
[NASA-TM-X-53236] 24 p4380 N67-40826
Test program, facilities, and procedures for space power test engine
[NASA-CR-89567] 24 p4380 N67-40545
Voyager capsule surface laboratory system - subsystem functional descriptions
[NASA-CR-89685] 24 p4541 N67-40685
Voyager capsule surface laboratory system - subsystem functional descriptions
[NASA-CR-89686] 24 p4541 N67-40686
SPACECRAFT CONFIGURATION
Evaluation of 3-axis stabilized, 50-lb science payload spacecraft, Jupiter flyby and orbiter missions, flyby missions to planets beyond Jupiter, capsule entry, and cost effectiveness
[NASA-CR-76961] 02 p0213 N67-12046
Total equilibrium shock layer radiative

heat transfer for entry body configurations in simulated Mars atmosphere 02 p0318 N67-12109
Lunar mobility systems derived from Lunar Excursion Module, Apollo Command Module, and Multimission Module - configuration, system design, human factors, mobility, and performance [NASA-CR-82753] 09 p1514 N67-19280
Apollo Applications Program - objectives, experiments, instrumentation, funding, and space vehicles 11 p1982 N67-23363
Slant thickness calculations between successive quadric surface representations of space vehicle and shield configurations [RM-345] 13 p2420 N67-26555
Spacecraft configuration, attitude control, propulsion, and temperature control for Mariner Mars 1969 project 14 p2621 N67-27744
Nuclear electric spacecraft configurations effects on mass of spacecraft radiation shield, heat rejection radiators, booster adapter, and aerodynamic shroud subsystems [NASA-CR-84098] 16 p2974 N67-29431
Conceptual mechanization for horizon definition spacecraft structures and thermal subsystem - spin-stabilized, hexagonal cylinder for launch of two-stage Improved Delta /DSV-3N/ [NASA-CR-66300] 18 p3341 N67-32907
Separated flow effect on dynamic behavior of bulbous-based reentry vehicles [NASA-CR-66434] 20 p3562 N67-35011
SNAP-8 configuration reentry hypersonic heating rates derived from shock tunnel test [NAA-SR-12383] 22 p4093 N67-37519
Contractor data package for Voyager spacecraft configuration management [NASA-CR-89786] 24 p4355 N67-40415
SPACECRAFT CONSTRUCTION MATERIAL
Effects of ultraviolet radiation on thermal control surfaces, structural plastics, elastomers, polymeric films and solar cell covers, coatings, and adhesives 03 p0459 N67-13238
Evaluation of applicability of fiber reinforced plastics in spacecraft and launch vehicle structural components, especially for support of cryogenic tanks [NASA-CR-81717] 07 p1107 N67-18906
Glass fiber reinforced plastic materials for spacecraft and launch vehicle structural components [NASA-CR-83889] 13 p2408 N67-25679
Spacecraft materials guidebook [NASA-CR-83992] 13 p2409 N67-26006
Parts and materials data retrieval system for selection of spacecraft materials for toxicological testing and off-gassing rates 14 p2452 N67-26715
Toxicological screening of space cabin materials 14 p2470 N67-26717
Mechanical and physical properties of elastomers used in spacecraft launching equipment, propellant system, electric insulation, and as sealant for capsules [NASA-TT-F-10051] 14 p2561 N67-27313
Corrosion test results of spacecraft construction materials stored with nitrogen tetroxide in sealed capsule [NASA-CR-88121] 21 p3970 N67-34235
Selection and testing of polymeric products for spacecraft applications [NASA-CR-89557] 24 p4474 N67-40270
SPACECRAFT CONTAMINATION
Bacterial contamination of living environment in sealed space cabin and shifts in immunology reaction of human organism 02 p0220 N67-11600
Planetary quarantine mission [NASA-CR-90201] 05 p0945 N67-12902
Contaminant collection and identification, and biological effects due to contamination encountered on manned space flights 04 p0496 N67-14247
Surface decontamination procedure for Anchored Interplanetary Monitoring Platform /AIMP/ [NASA-TM-X-55529] 06 p0972 N67-16051
Total microbial burden after decontamination determined for surfaces of Anchored Interplanetary Monitoring Platform /AIMP/ spacecraft [NASA-TM-X-55631] 06 p0972 N67-16053
Low shock joint design for eliminating spacecraft contamination produced by explosive separation - Zip Project 07 p1198 N67-18906
Experiments, evaluation, and monitoring of microbiological contamination of plastics, metal surfaces, spacecraft, and facilities [NASA-CR-81775] 07 p1018 N67-18139
Identification of volatile contaminants of space cabin materials [AMRL-TR-66-53] 09 p1404 N67-19716
Proceedings of conference on atmospheric contamination in confined spaces [AMRL-TR-66-139] 14 p2452 N67-26714
Simulated environmental studies of gas-off and oxidation products from spacecraft cabin materials 14 p2470 N67-26716
Response of animals to toxic materials under conditions of reduced pressure and varying partial pressures of oxygen 14 p2454 N67-26731
Gas chromatography and mass spectrometry used to analyze trace contaminants trapped in closed environment simulating space cabin [SAM-TR-67-6] 17 p3099 N67-30439
Planetary quarantine program for spacecraft contamination control [NASA-CR-85573] 17 p3093 N67-30747
Planetary quarantine requirements research - microorganism release from solids on impact, recovery of microorganisms, and efficiency of culture media in recovering anaerobic spores [NASA-CR-85557] 17 p3093 N67-30752
Microbiological survey of vertical laminar airflow surgical theater [NASA-CR-87428] 20 p3578 N67-34949
Volatile contaminants of space cabin materials [NASA-CR-88436] 23 p4079 N67-37551
Space hardware sterilization studies including clean rooms, hand contact contamination experiments, and vertical laminar flow room evaluation [NASA-CR-890] 23 p4189 N67-38824
Selected bibliography on clean rooms and spacecraft contamination control [NASA-TM-X-60555] 24 p4435 N67-39499
SPACECRAFT CONTROL
Measurement of torques generated by interaction between magnetic dipole of spacecraft and ambient magnetic field [NASA-TN-D-3711] 01 p0074 N67-10782
Compatibility test data on strapdown electrically suspended gyroscope 03 p0284 N67-12103
Spacecraft control, navigation, and guidance [NASA-SP-88] 04 p0906 N67-16059
Reference data for spacecraft environmental testing and evaluation [NASA-TM-X-53946] 07 p1197 N67-18162
Advanced communications techniques and control capability studies for Deep Space Network [NASA-CR-83940] 09 p1417 N67-19870
Equations for calculating control gains with filters for rigid body motion of space vehicle 09 p1429 N67-20269
Spacecraft control studies on antenna pointing, capsule sterilization, propulsive lander, optical sensing for soft landing spacecraft, and gyro data reduction computer programs 12 p2017 N67-23647
Measuring parameters of angular motion for spacecraft control [FTD-MT-65-157] 13 p2313 N67-25835
Legal liability for damage from spacecraft, and international cooperative efforts 13 p2432 N67-25238
Legal liability and international funding to cover damage caused by spacecraft 13 p2436 N67-25238
Review of studies on heat pipes and vapor chambers and their application to thermal control of spacecraft 14 p2532 N67-26796
Artificial intelligence applied to spacecraft control problem [NASA-CR-755] 16 p2971 N67-29827
Cruise fuel consumption, horizon scan platform requirements, and calibration of nozzle thrust measuring techniques for spacecraft control 16 p2926 N67-29145
Feasibility of 2000-lb inflatable buoyant Venus station, and balloon and control development [NASA-CR-66460] 18 p3346 N67-32923
Semi-active gravity gradient system for attitude control of earth-oriented spacecraft [NASA-CR-87422] 20 p3577 N67-35154
Conference papers on attitude control and stabilization of spacecraft [ESRO-SP-18] 21 p3938 N67-36889
Conceptual design and analytical evaluation of hydrogen-oxygen cryogenic propellants for reaction control systems [NASA-CR-72178] 22 p4131 N67-37769
Design equations for large angle three-axis attitude servomechanism for controlling spacecraft [NASA-TM-X-53562] 24 p4434 N67-40669
SPACECRAFT DESIGN
Vostok spacecraft design [FTD-TT-65-1708] 01 p0157 N67-10975
Science and engineering problems of spacecraft engineers 02 p0210 N67-11582
Design procedures for Mariner spacecraft 02 p0210 N67-11583
Structural engineering to control thermal problems in spacecraft design 02 p0210 N67-11597
Thermal design evaluation of meteoroid detector panels, louver system, and service module adapter for Pegasus satellite [NASA-TN-D-3643] 02 p0213 N67-11986
Apollo wind tunnel test program and configuration design developments [NASA-TN-D-3748] 02 p0243 N67-11999
Study approach to planetary spacecraft designs and missions - spin-stabilized spacecraft design for Jupiter flyby mission in 1973 with 50-lb scientific payload [NASA-CR-73580] 02 p0266 N67-12044
Computer program users manual for entry vehicle design [NASA-CR-66869] 03 p0272 N67-13141
Design considerations for midcourse guidance and terminal descent system of Surveyor lunar soft landing spacecraft [NASA-CR-66529] 03 p0469 N67-13263
Preliminary design of spacecraft configuration and performance analysis of passive attitude control subsystem for gravity gradient stabilized Nimbus satellite [NASA-CR-66869] 04 p0515 N67-14178
Advanced solar probe design - ICARUS [NASA-CR-66965] 04 p0515 N67-14263
Design criteria for planetary spacecraft subject to heat sterilization 05 p0765 N67-14782
Conference papers on spacecraft mechanism design and development [NASA-CR-81369] 07 p1189 N67-16981
Matrix analysis of boom extension devices for spacecraft configuration design 07 p1189 N67-16983
Lunar surface mobility systems comparison and evolution - resource planning for mobility systems derived from lunar module, command module, and multimission module [NASA-CR-82752] 09 p1507 N67-19281
Lunar surface mobility systems comparison and evolution - lunar flying vehicle systems engineering [NASA-CR-82742] 09 p1508 N67-19284
Lunar surface mobility systems comparison and evolution [NASA-CR-82744] 09 p1508 N67-19288
Technical requirements study for applicability of lunar orbiter subsystems to Venus and Mars orbiters [NASA-CR-66302] 10 p1763 N67-21438
Space environment effect on spacecraft design, and laboratory simulation of weightlessness and combination of vacuum, heat sink, and thermal radiation sources [ESRO-TM-47] 11 p1955 N67-23369
Cabin atmospheres evaluated in terms of spacecraft design and astronaut protection [JPRS-39740] 11 p1982 N67-23459
ESRO spacecraft technology - launch vehicle effect on spacecraft design, ESRO construction and scientific payload program, spacecraft orbit mechanics, and composition of space radiation [ESRO-SP-9] 12 p2214 N67-24451
Launch vehicle constraint effects on spacecraft design 12 p2215 N67-24457
Application Technology Satellite /ATS/ spacecraft tradeoff and analysis - configuration paraboloid antenna, guidance and control power, spacecraft design, and apogee motor selection [NASA-CR-81707] 12 p2216 N67-24462
Dual-loop gradient optimization method to solve design synthesis problems on large multiple liquid propellant launch vehicles [NASA-CR-66345] 15 p2795 N67-28279
Space environment data for use as space vehicle and spacecraft design criteria guidelines [NASA-TM-X-53921] 16 p2970 N67-29829
Sensitivity theory for design of spacecraft flight control systems [NASA-CR-894] 19 p3576 N67-33139
Meteoroid and hypervelocity impact criteria for spacecraft design

study 17 p3171 N67-30613
Theory and performance of viscoseal and buffered seal under laminar and turbulent conditions
[NASA-CR-85903] 17 p3074 N67-31390
Meteoroid penetration measurements by Explorer XVI and XXIII satellites and Pegasus satellites for application to spacecraft design 18 p3332 N67-33064
Space environment, effects on spacecraft design, and environmental testing 18 p3343 N67-33182
Spacecraft functional design, guidance and control, systems engineering, and communications
[NASA-CR-86916] 18 p3345 N67-33275
Mars probe design and subsystem performance characteristics for investigating Martian atmosphere
[NASA-CR-530] 19 p3532 N67-33719
Simulation of deployment dynamics of spinning spacecraft
[NASA-TN-D-4074] 19 p3539 N67-33947
Thermal protection system for cryogenic spacecraft propulsion module
[NASA-CR-54879, VOL. I] 21 p3926 N67-36076
Technical data for cryogenic spacecraft propulsion module thermal protection design
[NASA-CR-54879, VOL. II] 21 p3926 N67-36077
NASA fact sheet on Pioneer spacecraft design, and interplanetary space monitoring
[NASA FACTS, VOL. IV, NO. 3] 21 p4147 N67-36936
Designing minimum weight sounding rockets
[AFCRL-67-0233] 23 p4149 N67-37563
Multiple satellite mission analysis, specification requirements and configuration concepts
[NASA-CR-73146] 23 p4340 N67-38302
Preferred design concept for capsule bus system of Voyager spacecraft
[NASA-CR-89673] 24 p4536 N67-40642
Planetary quarantine, operational support equipment, system interfaces, and implementation of preferred design concept for capsule bus system of Voyager flight capsule
[NASA-CR-89674] 24 p4536 N67-40643
Optimum capsule bus design for Voyager spacecraft based on mission analyses and system functional requirements
[NASA-CR-89675] 24 p4536 N67-40644
Objectives, constraints, and design of Voyager entry science package for Mars atmosphere probe
[NASA-CR-89699] 24 p4540 N67-40557
Design alternatives and systems analysis of Voyager entry science package for Mars atmosphere probe
[NASA-CR-89700] 24 p4523 N67-40556
Major equipment and subsystem descriptions of Voyager entry science package for Mars
[NASA-CR-89701] 24 p4540 N67-40559
Reliability, planetary quarantine, support equipment, and interface alternatives of Voyager entry science package for Mars atmosphere probe
[NASA-CR-89702] 24 p4534 N67-40560
SPACECRAFT DOCKING
& DOCKING
SPACECRAFT ELECTRONIC EQUIPMENT
Small scientific satellite PFM telemetry encoding system evolution
[NASA-TN-D-3787] 04 p0611 N67-13781
Heat sterilization program for spacecraft electronic parts 05 p0658 N67-14783
Sterilization of spacecraft telecommunications system - pressure transducers, magnetic tape recorders, and magnetic core memories 05 p0674 N67-14789
Design considerations in radiation hardening of spacecraft telemetry and control circuitry
[NASA-TM-X-57993] 08 p1346 N67-18431
Bibliography and new techniques for use of error correction and redundancy to improve reliability of spaceborne computers
[NASA-CR-66019] 12 p2056 N67-23952
Hybrid tunnel-diode/transistor integrated circuit squaring counter system for spacecraft
[NASA-CR-83879] 13 p2394 N67-25689
Onboard computers for pre-transmission data processing, automation of data acquisition centers, and real time data relay to control centers for advanced space information systems
[NASA-TM-X-55774] 14 p2496 N67-26587
Spacecraft data system with stored program computer
[NASA-TN-D-3968] 14 p2502 N67-27275
Test tool to simulate critical portions of Pegasus meteoroid detector electronics
[NASA-CR-84431] 14 p2513 N67-27440
Component reliability and machine language features of onboard spacecraft digital computer
[NASA-TM-X-55843] 18 p3235 N67-31509
Marshall Space Flight Center microelectronics program implementation, hardware development, and research and development 18 p3241 N67-31565
Metallurgical methods for detection and analysis of failure mechanisms in microelectronic devices 18 p3241 N67-31566
Marshall Space Flight Center thin film microcircuit development program 18 p3242 N67-31568
Hybrid analog-to-digital converter for spacecraft applications 18 p3244 N67-31582
Packaging methods for electronic components encased in flat pack geometries, and spacecraft applications of proposed methods 18 p3245 N67-31592
Electronic systems integration plan for radio astronomy Explorer satellite
[NASA-TM-X-55255] 19 p3542 N67-33953
Electrostatically focused klystron development for use in interplanetary spaceborne communication systems
[NASA-CR-86116] 21 p3818 N67-35999
Fabrication and testing of high-efficiency 100 W S-band traveling wave tube for spacecraft application
[NASA-CR-88000] 21 p3819 N67-36281
X-ray television system for use in inspection and evaluation of spacecraft electronic parts
[TG-920] 23 p4251 N67-38336
NASA aircraft/spacecraft telemetry receiving systems
[NASA-TM-X-55960] 23 p4218 N67-39368
SPACECRAFT ENVIRONMENT
SA CLOSED ECOLOGICAL SYSTEM
Spacecraft environmental and decontamination tests on polymers
[NASA-CR-79414] 01 p0080 N67-10760
Experimental method for solving human factors engineering and methodological decision problems in designing multiman systems
[AMRL-TR-66-121] 01 p0026 N67-11163
Water electrolysis subsystems for orbital test - application to spacecraft environmental control systems
[NASA-CR-648] 02 p0175 N67-11822
Literature survey and experimental observations of human skin microflora, including study of men confined in simulated spacecraft environment
[NASA-CR-663] 03 p0349 N67-13259
Environmental hazards encountered in spacecraft flights 04 p0612 N67-13850
Viral antibody production in animals exposed to space cabin environment
[SAM-TR-66-82] 06 p0668 N67-16417
Environmental testing of polymeric materials for spacecraft hardware
[NASA-CR-81277] 06 p0668 N67-16695
Polymers for spacecraft hardware screened with apparatus determining volatile condensable material
[NASA-CR-81361] 06 p0963 N67-16696
Scientific and engineering data on space and launch environments
[NASA-TM-X-53247] 07 p1102 N67-17967
Shock and vibration environment of Ranger Block III during surface transportation
[NASA-CR-71771] 09 p1530 N67-19856
Human factors, environment, logistics, and crew operations of earth orbital manned space station
[NASA-TM-X-53700] 14 p2620 N67-27652
Human factors, environment, logistics, systems, weights, and configurations for earth orbital manned space station
[NASA-TM-X-53699] 14 p2620 N67-27655
Fabrication, packaging, and testing of microelectronic equipment for Applications Technology Satellite /ATS/ scientific experimental package 18 p3247 N67-31605
Thermal, weightlessness, and corpuscular radiation environments, meteoritic damage, and vacuum equipment for spacecraft testing - conference
[ESRO-SP-13] 18 p3343 N67-32181
Solar radiation, albedo, and terrestrial radiation contributions to spacecraft thermal environment 18 p3344 N67-32184
Soak test and solar simulation programs in thermal environmental testing of spacecraft 18 p3237 N67-32185
Spacecraft cabin radiation distribution measurements for fourth and sixth Gemini flights
[AFWL-TR-65-149] 18 p3347 N67-32874
Magnetometer experiment for measurement of magnetic field environment of applications technology satellite
[NASA-CR-86998] 19 p3452 N67-33033
Natural environment surrounding satellite in synchronous circular orbit defined in terms of thermodynamic and geophysical variables, and electromagnetic and particle radiation field
[TR-192] 24 p4527 N67-39264
SPACECRAFT GUIDANCE
Hybrid simulation of space vehicle guidance systems 01 p0103 N67-10582
Electronic commutator and rate-sensor for brushless direct-drive solar array reorientation systems
[NASA-TM-X-55641] 06 p0794 N67-16544
Application of protective redundancy in digital systems in spacecraft guidance computer and extension to multiprocessing 07 p1045 N67-17108
Space programs supporting research and advanced development in systems analysis, spacecraft guidance and control, materials science, communications and telemetry, and propulsion
[NASA-CR-83864] 12 p2073 N67-23641
Space vehicle, guidance, and control summary and bibliography
[NASA-TM-X-53660] 13 p2354 N67-26197
Guidance laws for propellant efficiency with optimum thrust program and error analysis for Voyager mission orbit insertion
[NASA-TM-X-53801] 14 p2613 N67-27229
Radio antenna, transponder, multipacting in coaxial transmission, and radar beam geometry for spacecraft guidance and telecommunication 16 p2855 N67-29184
Four approximations to closed loop steering function in application to spacecraft guidance 17 p3101 N67-30394
Spacecraft guidance radar beam performance, and performance margin and cost tradeoff for telecommunication system design 20 p3603 N67-34789
Digital simulation of Saturn guidance system stabilized platform dynamics
[NASA-TM-X-53628] 22 p4007 N67-37774
Performance analysis of two-burn guidance equations for injecting Atlas/Centaur vehicle into lunar trajectory
[NASA-CR-72311] 22 p4144 N67-37986
Optimization study of computation and display requirements for human control of reusable orbital transport ascent
[NASA-CR-89006] 24 p4391 N67-40254
SPACECRAFT INSTRUMENTATION
Mechanical design of spacecraft - engineering problems of spacecraft design, structural materials, and instrument integration
[NASA-CR-79531] 03 p0310 N67-11281
Scientific instrument design and integration for space missions 03 p0256 N67-11284
Design of actuators and mechanical positioning subsystems for space missions 03 p0310 N67-11285
Expired air analyzers with time-of-flight and magnetic deflection mass spectrometers for spacecraft use
[NASA-CR-619] 03 p0211 N67-11821
Manned meteorological satellite instrumentation and observation
[DAC-59300] 04 p0571 N67-13282
Sterilizability of scientific payloads for planetary exploration 05 p0785 N67-14778
Instruments for measuring altitude dependent physical properties of Venus atmosphere from entry capsule 06 p0971 N67-15781
Functional requirements for spacecraft computers on advanced manned flyby missions
[NASA-CR-81237] 06 p0847 N67-15882
Deep Space Network Inherent Activities Project 06 p0837 N67-15883
Radio and radar studies of space plasmas, lunar and planetary surfaces, communication theory, and spacecraft instrumentation
[NASA-CR-81206] 06 p0849 N67-16882
Multiprocessor organization, integrated circuit techniques, self-repairing systems for

spaceborne computer designs - conference
[NASA-TM-X-53362] 07 p1044 N67-17101
Functional requirements for spacecraft computers on advanced manned flyby missions 07 p1044 N67-17102
Advanced digital computer design for spacecraft 07 p1044 N67-17104
Automation techniques for self-repairing digital computers in spaceborne multiprocessor systems 07 p1045 N67-17106
Analytical methods defining location of reference horizons in earth horizon radiance profile
[NASA-CR-726] 12 p2141 N67-33713
Passive and active satellite attitude control systems and instrumentation 12 p2141 N67-33802
Configurations, performance capabilities, command and data handling systems, stabilization and control systems, and scientific missions of OSO and AOSO 12 p2315 N67-34467
Surveyor spacecraft systems engineering, thermal control, propulsion system, and scientific instrumentation 14 p2631 N67-37743
Launch vehicle and spacecraft control, navigation, and guidance methods and systems for Apollo project 16 p2926 N67-39367
Scientific measurement and instrument requirements for lunar orbiter Block III missions
[NASA-CR-85019] 17 p3068 N67-31659
Vibration and thermal radiation effects on filter wedge infrared spectrometer used in spacecraft studies of planetary atmospheres
[NASA-CR-85797] 17 p3070 N67-31336
Design, launching, and polar orbit of OGO-D, and its instrumentation and observational data
[NASA NEWS RELEASE-67-187] 18 p3340 N67-31707
Modifications to interim visual space flight simulator
[NASA-CR-85659] 18 p3357 N67-33368
Surveyor E instrumentation, propulsion and control systems, and flight plans
[NASA NEWS RELEASE-67-227] 22 p4148 N67-37235
Design study of temperature control flux monitor for Mariner Mars 1969 spacecraft
[NASA-CR-86746] 22 p4850 N67-37786

SPACECRAFT LANDING
Estimated strength of human spine to withstand spacecraft landing impact 02 p0294 N67-11630
High impact resistant mechanisms for surviving spacecraft landing 07 p1199 N67-16917
Dynamic model investigation of rough-water landing characteristics of Gemini-type spacecraft
[NASA-TN-D-3774] 11 p1982 N67-22361
Apollo spacecraft landing simulation to determine impact water pressures, accelerations, and landing dynamics
[NASA-TN-D-3980] 21 p2944 N67-36564
Cyclic strain impact attenuators to determine maximum output accelerations and resultant attenuator deflections in spacecraft landings
[AMRL-TR-66-221] 24 p4542 N67-39686

SPACECRAFT MANEUVER
SA STATIONKEEPING
Subsystem component design and development, and system performance of ammonia fueled resistojet thrustor for spacecraft inversion maneuvers
[NASA-CR-72123] 06 p0953 N67-15678
Problem of time open maneuvering of orbital vehicle in Newtonian gravitational field while conserving characteristic velocity of maneuver
[NASA-CR-83544] 11 p1978 N67-22271
Optimal coplanar orbit transfer in Newtonian gravitational field minimizing characteristic velocity of maneuver
[NASA-CR-83830] 13 p2401 N67-25741
Midcourse maneuvers in interplanetary flight for flyby Jovian mission with spin stabilized spacecraft
[NASA-TM-X-55756] 15 p2792 N67-38890

SPACECRAFT MODEL
Lunik IX lunar probe model display
[FTD-HT-66-345] 01 p0157 N67-11173
Improved linear axisymmetric shell fluid model for launch vehicle longitudinal response analysis 11 p1901 N67-22821
Evaluation of transient loads for environmental testing of spacecraft using multiple degree of freedom model 13 p2413 N67-25172
Internal gaseous convection effects in thermal models of space vehicles
[AEDC-TR-66-257] 13 p2424 N67-25622
Static stability characteristics of reentry spacecraft model in free flight for Mach numbers from 2.62 to 1.11 launched at 180 deg angle of attack
[NASA-TM-X-615] 18 p3241 N67-31809
Modeling criteria for transient thermal test of spacecraft structures in space environment simulation
[NASA-CR-87447] 20 p3743 N67-35282

SPACECRAFT MOTION
Mathematical model for motion of rotating or nonrotating space vehicle having passive moving parts
[ADR-06-07-64.3] 01 p0114 N67-10425
IBM 7094 computer program for simulated spacecraft motion
[NASA-TN-D-3463] 02 p0240 N67-11344
Analytic geometry method for determining parameters of spacecraft motion in Newtonian force field
[NASA-TT-F-10459] 04 p0612 N67-12786
Liquid equilibrium configurations and disturbances of vehicle motion due to liquid sloshing in space 04 p0631 N67-13044
Solar radiation pressure effect on motion of artificial orbiting satellite using approximation method 05 p0758 N67-14456
Rocket motion in central force field with constant reaction-acceleration vector 05 p0783 N67-14878
Aerodynamic characteristics and motion of artificial satellite about its center of mass
[NASA-TT-F-429] 06 p0959 N67-15429
Engineering study for Apollo application program flight experiment to investigate spacecrew motion disturbance of vehicle
[NASA-CR-66277] 09 p1495 N67-19079
Data on simulated spacecrew activities and vehicle disturbance experiment for Apollo applications program engineering study
[NASA-CR-66277, SUPPL.] 09 p1495 N67-19080
Two matrix forms of estimating spacecraft motion parameters 10 p1758 N67-20365
Optimum spacecraft acceleration with low thrust from circular to hyperbolic orbit
[FTD-MT-65-568] 10 p1769 N67-20614
Determination of second and fourth order sectorial harmonics in earth gravity field from motion of twelve hour satellites
[NASA-TM-X-55762] 12 p2209 N67-32910
San Marco phenomena involving relative motion of two orbiting vehicles
[RM-358] 13 p2410 N67-26440
Theory of orbital mechanics of artificial earth satellites
[NASA-TT-F-391] 16 p2972 N67-30156
Weight constraint influence on optimal motion parameters of variable mass body in gravitational field 16 p2236 N67-31846
Motion of spacecraft near triangular libration point of Earth-Moon system
[NASA-CR-65577] 20 p3738 N67-34870
Effects of weight limitations on optimal motion of variable mass body with limited velocity jet
[NASA-TT-F-10437] 22 p4145 N67-37906

SPACECRAFT ORBIT
Determination of major semi-axis of satellite orbit from limited number of observations 04 p0569 N67-12547
Orbit determination of two spacecraft using earth based multiple link Doppler tracking data 05 p0671 N67-14481
Gas leak effect on Pioneer VI orbit 05 p0785 N67-14435
Measurability of difference between orbits of two spacecrafts operating by Newtonian and relativistic mechanics 06 p0963 N67-15703
Approximation methods of solving spacecraft orbit problems, and application of two-body problems to space vehicle in Earth-Moon trajectory 12 p2211 N67-34456
Visual techniques for astronaut determination of spacecraft altitude
[NASA-TM-X-1398] 14 p2473 N67-37386
Tracking station location uncertainties studied for effect on root-mean-square errors in spacecraft position and velocity
[NASA-TM-X-55804] 15 p2970 N67-38747
Performance and orbital characteristics of Anchored Interplanetary Monitoring Platform-I Explorer XXXIII
[NASA-TM-X-55852] 18 p3344 N67-32907
First order analysis to determine optimal heliocentric orbit for Sunblazer space probe
[CSR-TR-66-10] 21 p2921 N67-35979
Nonlinear differential equations for position and attitude of spacecraft with time dependent mass and mass properties
[TG-919] 23 p4844 N67-39676
Weighting factors combined with individual value functions for 350 candidate orbits for Voyager Mars missions to develop computer-determined overall value functions for optimum orbits
[NASA-CR-89731] 24 p4828 N67-39764
Computer program description and sample printout for orbital mission by Voyager project - users manual
[NASA-CR-89732] 24 p4836 N67-39765

SPACECRAFT ORBITAL RENDEZVOUS
Documentation for addition to digital computer program for rapid earth-to-space trajectory optimization of orbital rendezvous option
[NASA-CR-695] 06 p0962 N67-15667

SPACECRAFT PERFORMANCE
Flight performance, system integration, and test program for Nimbus II and B spacecraft and launch vehicle
[NASA-CR-86047] 03 p0407 N67-13091
Launch, orbital, and landing information on various Soviet satellites, rockets, automatic interplanetary stations, and spacecraft - Table 04 p0618 N67-14235
Mission planning, launch operations, and performance of Ranger VI lunar probe and Atlas Agena launch vehicle - TV subsystem failure
[NASA-CR-81193] 06 p0971 N67-15682
Real time performance computation technique for optimizing Gemini booster performance by providing accurate information to mission and launch directors and crew during countdown 07 p1195 N67-16989
Orbital mission Mercury-Atlas 7, spacecraft 18 - prelaunch and launch, flight control, recovery, aeromedical analysis, astronaut activities, and spacecraft performance and description
[NASA-TM-D-3814] 07 p1197 N67-16145
Mariner IV spacecraft system and subsystem performance and analysis
[NASA-CR-82154] 08 p1371 N67-18625
Launch operations, orbit, and performance of Anchored Interplanetary Monitoring Platform AIMP I-Explorer XXXIII
[NASA-TM-X-55662] 08 p1371 N67-18630
Systems performance analyses, launch vehicle configuration, and launch and flight operations of Lunar Orbiter 1
[NASA-CR-66324] 14 p2630 N67-37419
Aerodynamic lift in future space vehicle design during various flight regimes in atmospheres of earth and planets
[P-3580] 15 p2838 N67-38513
Lunar orbiter operation, performance, and thermal degradation
[NASA-CR-848] 19 p3588 N67-33730
Cross reference index of lunar photos, FPAC supporting data, sequence of events, anomalies, V/H sensor performance, and telemetered vibration data from Lunar Orbiter II
[NASA-CR-66438] 19 p3686 N67-32684
Launch and flight operations performance during Lunar Orbiter II Project
[NASA-CR-66437] 19 p3542 N67-32698
Lunar Orbiter I subsystem performance during extended mission
[NASA-CR-870] 21 p2935 N67-36740
Applications technology satellite gravity gradient stabilization system
[NASA-CR-86190] 21 p2936 N67-36922
Solar energy simulation techniques for testing spacecraft thermal performance
[NASA-CR-73080] 21 p2950 N67-36489
Performance of photographic, communications, power, attitude control, and velocity control subsystems of Lunar Orbiter III
[NASA-CR-86481] 22 p4148 N67-37275
Lunar Orbiter II photography of landing sites, and spacecraft systems performance
[NASA-CR-883] 23 p4850 N67-38269
Surveyor spacecraft A-21A design and performance
[NASA-CR-84186] 23 p4858 N67-38540
Surveyor I spacecraft accomplishments, flight and lunar landing performance, electronic and telecommunications equipment, and lunar operations
[NASA FACTS, VOL. IV, NO. 6] 24 p4840 N67-40500

SPACECRAFT POSITION INDICATOR
Simplified prediction equations for

satellite position display equipment
[NRL-6396] 04 p0613 N67-13957
Space vehicle position determination 05 p0763 N67-14879

SPACECRAFT POWER SUPPLY
Chemical and nuclear power, reactor heat sources, and power conversion - space power system technology
[NASA-SP-131] 01 p0007 N67-10261
Chemical and nuclear space power systems 01 p0007 N67-10263
Conventional and thin-film solar cells for space power application 01 p0007 N67-10264
Thermionic diode-controlled spacecraft power supply system
[NASA-CR-642] 01 p0008 N67-10752
Test rig and computer program for hydrodynamic journal bearing for spacecraft power supply
[NASA-CR-72883] 02 p0283 N67-11350
Thermophysical properties of potential thermal energy storage materials for design of TES thermionic systems for long duration space flights
[NASA-CR-80058] 02 p0176 N67-12043
Fabrication and testing of hydrodynamic journal bearing for spacecraft power system
[NASA-CR-72868] 02 p0256 N67-12095
Optimum charge regulator design evaluation for coupling spacecraft solar array to battery
[NASA-CR-79093] 02 p0177 N67-12215
Interplanetary spacecraft power supply system configurations and solar cell array analysis
[NASA-CR-80533] 03 p0336 N67-13200
Solar cells, fuel cells, and heat exchangers for spacecraft power supply system
[AI-TRANS-209] 04 p0483 N67-14027
Heat sterilizable batteries and separator materials for planetary landing capsules 05 p0637 N67-14786
Alternate approaches to sterilizable planetary landing spacecraft power supplies 05 p0637 N67-14787
Optimum power system configurations for planetary spacecraft probes 06 p0791 N67-15704
Non-dissipative charge controller using rotary transformer to provide spacecraft power from solar array output
[NASA-CR-81365] 06 p0795 N67-16636
Thermodynamic and turbine characteristics of gas turbine-driven hydrogen fueled open cycle auxiliary space power systems
[NASA-TM-X-1237] 06 p0796 N67-16679
Computer program for calculating thermodynamic performance of Brayton cycle space power systems
[NASA-TM-X-1339] 06 p0796 N67-16680
Extendible structure to angularly position planar surfaces of solar cells for spacecraft electric power system 07 p0907 N67-16927
Superconductive magnets for use in advanced space and power propulsion systems, and research in solid-state, plasma, and low temperature physics
[NASA-TM-X-52369] 07 p1000 N67-17839
Feasibility of programmed heat shield for temperature and power control for spacecraft on-board power
[NASA-CR-75707] 07 p1000 N67-17907
High efficiency dc to dc converter regulators for spacecraft power supply
[NASA-CR-81663] 07 p1002 N67-17994
Acceptance tests of auxiliary electrode nickel cadmium secondary spacecraft cells
[NASA-CR-82500] 08 p1234 N67-19110
Sealed nickel cadmium secondary spacecraft cell acceptance tests
[NASA-CR-82006] 08 p1234 N67-19150
Characterization of recombination and control electrodes for spacecraft nickel cadmium cells
[NASA-CR-82463] 08 p1234 N67-19157
Electric properties of fuel cell power systems to meet short and long mission requirement
[NASA-CR-83001] 09 p1396 N67-20280
Photovoltaic power system design optimization and procedures for five interplanetary missions
[NASA-CR-83139] 10 p1558 N67-21173
High temperature magnetic alloys, dielectric materials, and lightweight capacitor design for advanced spacecraft power supply system
[NASA-CR-54256] 11 p1894 N67-23606
Atomic rocket, electric rocket engine, and space atomic electric power supply research
[FTD-MT-66-28] 11 p1971 N67-23359
Rollup solar array, thermoelectric failure mode testing, sterilizable battery, and surface potential of silver electrodes - spacecraft power 12 p2017 N67-23646
Analysis and correlation of thermodynamic cycles for spacecraft power systems using maximum cycle irreversibility concept and second law of thermodynamics 12 p2235 N67-24273
Power supply system, orbital analyses, and propulsion and guidance of Applications Technology Satellite-4
[NASA-CR-81590] 12 p2217 N67-24607
Review of potential chemical and atomic fuel rocket engines for space power systems
[FTD-TT-65-693] 13 p2347 N67-25446
Characterization of recombination and control electrodes for spacecraft nickel-cadmium batteries
[NASA-CR-83908] 13 p2250 N67-26170
Characterization of recombination and control electrodes for spacecraft nickel-cadmium batteries
[NASA-CR-84083] 13 p2250 N67-26174
Plasma generators using electric field-fluid dynamics for energy conversion in spacecraft power supply system
[ARL-66-0187] 13 p2367 N67-26322
Spacecraft power supply system and component reliability, efficiency, weight factors, and electromagnetic compatibility
[NASA-CR-84816] 15 p2645 N67-28771
Cycling, charge efficiency, and transducer studies with nickel-cadmium cell for spacecraft power supply systems
[NASA-CR-84569] 15 p2645 N67-28773
Computer program, radioisotope thermoelectric converter shielding, and thermionic energy conversion for spacecraft power supply systems 16 p2821 N67-29144
Development and evaluation of magnetic and electric materials to operate in 800 deg to 1600 deg F temperature range for application to space electric power systems
[NASA-CR-54359] 16 p2912 N67-29968
Electrical power system for Pegasus satellite 17 p2995 N67-30590
Electrical power systems applicable to earth orbital and lunar surface missions 17 p2995 N67-30593
Geology, soil, and climate at specific points used in predicting penetration depth of reentry impact of power supply capsule
[TEI-867] 17 p3054 N67-30750
Silver-cadmium secondary battery energy storage system using vented cells for manned orbital spacecraft
[NASA-CR-85706] 17 p3060 N67-31411
Solar cell-battery electrical power subsystem for horizon definition spacecraft
[NASA-CR-66378] 18 p3197 N67-32606
Solar-conversion power-supply subsystem for Nimbus B, using pulse width modulated voltage regulator
[NASA-TM-X-55852] 18 p3198 N67-32093
Life cycle tests of nickel-cadmium space cell packs
[NASA-CR-85976] 18 p3199 N67-32259
Telecommunication and power supply requirements for inflatable buoyant Venus station
[NASA-CR-84407] 18 p3345 N67-32391
Acceptance testing of four ampere hour flooded sealed nickel-cadmium secondary spacecraft cells
[NASA-CR-87175] 19 p3371 N67-33348
Separators for zinc-silver oxide battery and cadmium-silver oxide cells for spacecraft applications
[NASA-CR-87823] 20 p3569 N67-34439
Spacecraft power supply evaluation of solar cells, and thermionic energy conversion systems 20 p3569 N67-34784
Satellite solar cell power supply systems
[TR-1001/2250-20/-7] 21 p3763 N67-36202
Launch time effect on performance of solar cell array/battery electric power system
[NASA-CR-88404] 22 p3963 N67-36708
Development of 100 watt S-band traveling wave tube for space applications
[NASA-CR-88505] 22 p4000 N67-36730
Optimization of solar cells and radioisotope thermoelectric generators for satellite power supply systems
[NASA-CR-896] 22 p3964 N67-37223
Power system configurations and reliability for interplanetary missions to Mercury, Venus, Mars, and Jupiter
[NASA-CR-88473] 22 p3966 N67-37879
Neutron and gamma ray shielding, heat transfer problems and physics theory for thermionic reactors as power supply for spacecrafts
[BMWF-FBK-67-46] 22 p4095 N67-37907
Secondary rechargeable zinc-oxygen battery for spacecraft
[NASA-CR-89311] 23 p4183 N67-39070
Zinc electrode improvement work for use in spacecraft electrochemical cells
[NASA-CR-89290] 23 p4184 N67-39908
Free electrolyte hydrox fuel cell power supply for spacecraft
[NASA-CR-72305] 23 p4184 N67-39340
Acceptance test data and mechanical pressure effects on 20 ampere-hour nickel-cadmium secondary spacecraft cells
[NASA-CR-89536] 24 p4375 N67-39088
Program to modify hypergolic propellant spacecraft power unit to operate on gaseous hydrogen and oxygen
[NASA-CR-89538] 24 p4376 N67-39412
Parametric screening studies, system definitions, and experimental verification to determine electrical component technology for 0.25 to 10.0 megawatt space power system
[SAN-679-2] 24 p4377 N67-39752
Design study for electrical components for 0.25 to 10.0 megawatt space power systems using Rankine conversion cycle
[SAN-679-1] 24 p4377 N67-39754
Preliminary power system configuration tradeoffs to select optimized systems with respect to reliability and weight - manual
[NASA-CR-89598] 24 p4379 N67-40098

SPACECRAFT PROPULSION
SA ROCKET ENGINE
European space technology studies program - spacecraft propulsion, optical and scientific instruments, guidance stability, data processing, and related topics
[NASA-TT-F-9445] 01 p0151 N67-10183
Spacecraft propulsion, and nuclear-electric power supply for space travel
[NASA-TT-F-8807] 01 p0104 N67-10189
Lithium-boiling potassium Rankine cycle heat transfer data for application to spacecraft propulsion systems 02 p0236 N67-12117
Propulsion requirement for high-thrust round-trip trajectories to Jupiter
[NASA-TN-D-3739] 03 p0462 N67-12797
Electrodeless plasma acceleration studied in ring discharge for spacecraft propulsion devices
[JUL-358-PP] 03 p0449 N67-13044
Electric spacecraft propulsion unit using electron cyclotron resonance to ionize mercury plasma and raise electron temperature 04 p0603 N67-13699
Comparative performance and applications of high energy propellant combinations for space propulsion systems
[BOLKOW-RF-13] 04 p0602 N67-14306
Research summaries on systems analysis, guidance and control, environmental factors, engineering development, propulsion, space sciences, and telecommunications
[NASA-CR-81201] 06 p0660 N67-15701
Space mission requirements and technical feasibility of non-chemical space propulsion system 06 p0955 N67-16947
Design of high frequency dc-dc converter modules for power conditioning subsystems, and control system for operating ion engines in space environment
[NASA-CR-54714] 07 p1000 N67-17934
Radioisotope heating of ionizers in contact ionization thruster in primary electric propulsion systems 10 p1755 N67-20511
Mission performance gains from using spent booster tankage as propellant source for electric propulsion spacecraft 10 p1755 N67-20512
Performance and space storage characteristics of small propane-flox upper stages
[NASA-TM-X-52280] 10 p1762 N67-21219
Criteria for selecting radioactive isotopes for space propulsion systems and auxiliary power generation and synthesis of radio guidance and tracking stations 12 p2209 N67-23911
Criteria for selecting radioactive isotopes for space propulsion systems and auxiliary power generation 12 p2148 N67-23913
Engineering design and development of large solar cell array
[NASA-CR-83990] 13 p2250 N67-26000
Magnetic Cyclops plasma accelerator studies for space propulsion applications

[NASA-CR-72227] 14 p2599 N67-27601
Turboramjet engine design for use as propulsion system in space transport vehicle 16 p2963 N67-29190
Astronautics, space navigation, spacecraft propulsion, communication, and electronics, and operations research - abstracts of lecture series 17 p3182 N67-31404
Apogee stage for Europa I launch vehicle [DTA-50-4644] 21 p3935 N67-35014
Mission analysis and design study of Mars spacecraft solar-powered electric propulsion system
[NASA-CR-89653] 24 p4378 N67-39960
Spacecraft guidance and control, propulsion, telecommunications, and systems analysis, and space science research
[NASA-CR-89567] 24 p4531 N67-40233
Aerodynamic decelerator, pyrotechnics, thermal control, propulsion, packaging and cabling, and independent data package for Voyager capsule bus system
[NASA-CR-89686] 24 p4536 N67-40234
Mathematical proof of solar sail feasibility for spacecraft propulsion
[NASA-TM-X-68560] 24 p4534 N67-40314
SPACECRAFT RADIATOR
Addition to spacecraft radiator system computer program 06 p0791 N67-15729
Low solar absorption emissivity coatings for low temperature spacecraft radiators - ultraviolet radiation tests
[NASA-CR-72130] 06 p0962 N67-16568
Selection of diagram for spacecraft cooling system
[FTD-MT-66-30] 07 p1020 N67-17235
Evaluation of aluminum silicate - potassium silicate, and zinc oxide - potassium silicate emissive coatings for spacecraft radiators
[NASA-CR-72161] 09 p1543 N67-19871
Spacecraft and radiator interrelations defined for nuclear Rankine systems using Saturn launch vehicles
[NASA-CR-72245] 14 p2619 N67-27221
Description and mathematical analysis of thermal control aspects of spacecraft louvers
[NASA-CR-88876] 23 p4168 N67-38054
Direct condensing and indirect radiators for nuclear potassium Rankine systems
[NASA-CR-72318] 23 p4182 N67-38494
SPACECRAFT RECOVERY
Lateral range requirements used in selecting spacecraft landing recovery sites for return from low circular orbits
[NASA-TR-R-260] 16 p2926 N67-29220
Biosatellite B spacecraft, scientific experiments, flight plan, Delta launch vehicle, flight events and sequence, and tracking and recovery
[NASA NEWS RELEASE-67-217] 20 p3733 N67-34623
SPACECRAFT REENTRY
Apollo passive infrared acquisition and tracking system analysis
[NASA-CR-661] 04 p0515 N67-14330
Hypersonic nonequilibrium flow at reentry of space vehicles and thermodynamic relations 12 p2311 N67-24390
Trajectory optimization for Apollo-type vehicle under entry conditions during lunar return
[NASA-TR-R-258] 12 p2313 N67-25043
Legal liability for ground damage caused by spacecraft reentry 13 p2433 N67-25366
Feasibility, parametric design, and comparative analysis of unguided solid fuel rocket vehicle with solar orbit, earth probe, and reentry mission capabilities
[NASA-CR-753] 16 p2972 N67-29025
Afterbody heating by Mercury spacecraft during reentry determined from skin temperatures
[NASA-CR-649] 16 p2973 N67-29369
Static aerodynamic characteristics of scale model of escape and exit configurations of Mercury spacecraft
[NASA-TM-X-701] 18 p3343 N67-32146
Model atmospheres information on atmospheric structure of intervening layer
[P-3598] 19 p3439 N67-33960
Reentry thermal analysis of Agena destruct and generator eject systems on Nimbus B/SNAP-19 mission
[SC-RR-66-3672] 19 p3491 N67-33562
Longitudinal stability and control to optimize aerodynamic heat transfer during lifting reentry of recoverable space vehicle
[REPT.-66-861] 19 p3541 N67-33719
Charts for determining reentry errors due to errors in retardation velocities imparted to satellites in circular orbit
[REPT.-66SD311] 20 p3737 N67-34719
Attitude control system to regulate skin temperature of manned lifting spacecraft during reentry into earth atmosphere
[UTIAS-126] 21 p3933 N67-36586
Entry flight aerodynamics from Apollo mission AS-202
[NASA-TN-D-4185] 22 p4147 N67-37074
SPACECRAFT RELIABILITY
Effectiveness of testing complete satellite systems in attaining reliable performance - comparison of simulation and flight results
[NASA-TN-D-3713] 02 p0311 N67-11347
Responsibility of spacecraft manufacturer during launch operation and throughout spacecraft life 03 p0408 N67-12712
Mariner Mars 1964 failure rates computed for use in reliability predictions and cost allocations
[NASA-CR-81192] 06 p0851 N67-15684
Reliability assessment guidelines for Apollo contractors
[NASA-CR-83055] 10 p1639 N67-20981
Philosophy, purpose, and effectiveness of unmanned environment simulation in ground tests of spacecraft reliability
[NASA-TN-D-4009] 14 p2512 N67-27222
Flight project support for Surveyor III, Lunar Orbiter, Pioneer VII, and Mariner IV missions, facility construction and equipment for deep space network, and system reliability 17 p3043 N67-30275
Spacecraft vibration qualification test effects on vibration reliability during launching 18 p3329 N67-31689
Reliability analysis for lunar orbiter subsystem
[NASA-CR-66459] 22 p4150 N67-37811
Requirements and elements of systems safety program for launch vehicle development
[NASA-TM-X-53612] 23 p4350 N67-38394
Interface, test requirements, reliability, safety, and functional aspects of subsystems of Voyager space capsule bus system
[NASA-CR-89686] 24 p4527 N67-40049
Engineering reliability studies for Voyager space capsule bus system based on failure modes, mission requirements, and tradeoff studies
[NASA-CR-89690] 24 p4527 N67-40051
Redundancy at both mission and spacecraft systems level of Voyager program
[NASA-CR-89703] 24 p4532 N67-40411
Contractor data management package for system, subsystem, and component reliability assurance of Voyager spacecraft
[NASA-CR-89711] 24 p4461 N67-40418
Voyager capsule surface laboratory system - reliability
[NASA-CR-89698] 24 p4535 N67-40588
SPACECRAFT SENSOR
Dynamic analysis of satellite angle of attack sensor 07 p1077 N67-16924
Fluxes and spectra of electrons and protons in atmosphere measured by spectrometer experiments on Gemini spacecraft
[NASA-CR-65604] 11 p1973 N67-23226
Optical and electronics systems for Apollo spacecraft carbon dioxide sensor
[NASA-CR-65614] 14 p2537 N67-27234
Experimental payloads for manned Mars flyby mission, including onboard remote sensors and unmanned probes for measuring Martian environment
[NASA-CR-65123] 16 p2976 N67-29891
Spacecraft attitude sensors design and operational features - horizon scanners, solar sensors, star trackers, space sextants, and map matchers
[NASA-SP-145] 17 p3168 N67-31296
Applicability of magnetic or integrated circuits to micrometeoroid sensor scanning 18 p3346 N67-31596
Survey of unattached sensors for use in remote physiological monitoring in space including techniques for measuring eyeblink, eye movement, and pupillary diameter
[NASA-CR-85022] 18 p3218 N67-32493
Earth trapped proton measurements using sensors on board four Elektron series satellites
[NASA-CR-85388] 23 p4340 N67-38832
Experimental verification of mathematical model performance predictions for gamma ray atmospheric density sensors
[NASA-CR-66476] 24 p4452 N67-40152
SPACECRAFT SHIELDING
SA HEAT SHIELD
SA RADIATION SHIELDING
Spaceflight experiment to assess radiation shielding calculations
[NSL-65-156] 01 p0149 N67-10950
Panel attachment mechanism for replaceable heat shield system of manned lifting entry vehicle
[NASA-CR-640] 02 p0316 N67-11950
Self-regulating finned thermal control systems for spacecraft skin
[NASA-CR-82945] 09 p1520 N67-19954
Spacecraft and component shielding against earth magnetic field - annotated bibliography 11 p1929 N67-22788
Research project on plasma radiation shielding for spacecraft application
[NASA-CR-66614] 13 p2512 N67-31454
Environmental testing of tape-wound shield structure for Mark 12 reentry vehicle
[DOC.-66SD9101] 20 p3732 N67-34317
Phase change coatings for use as variable thermal control surfaces
[NASA-CR-66394] 21 p3946 N67-36060
Problems connected with development of spacecraft radiation protection system and associated ground support equipment 23 p4190 N67-38006
Multilayer insulation systems evaluation for 300 to 700 degrees K temperatures
[NASA-CR-907] 24 p4542 N67-39588
SPACECRAFT STABILITY
Satellite technology - orbiting satellite, spacecraft stability, space vehicle control, radio wave propagation, signal reception, cosmic ray studies, and related topics
[FTD-HT-66-244] 03 p0762 N67-14561
Flywheel stabilization of satellite relative equation 05 p0762 N67-14563
Combination passive damper for gravity gradient stabilized spacecraft 07 p1190 N67-16926
Nonlinear effects of liquid motion in fixed and moving containers on stability and control of liquid rocket powered missiles and spacecraft
[NASA-CR-63867] 08 p1278 N67-19104
Orbital results from gravity-gradient stabilized satellites
[TG-836] 11 p1961 N67-23813
Antenna structures for gravity gradient satellite stabilization booms
[NASA-CR-64044] 12 p2283 N67-24291
Stable equilibrium orientation of spacecraft using wheel for storing angular momentum
[TN-1967-16] 15 p2799 N67-28243
Complete computer simulation and equilibrium analysis of spacecraft attitude control systems
[NASA-TR-R-270] 18 p3345 N67-32239
SPACECRAFT STERILIZATION
Spacecraft sterilization procedures in U.S.S.R. 01 p0024 N67-10596
Analytical techniques and calculations in planetary quarantine and spacecraft sterilization
[NASA-CR-80237] 03 p0346 N67-12071
Conference proceedings on NASA spacecraft sterilization requirements, microbiological contamination control, and sterilization techniques
[NASA-SP-108] 05 p0660 N67-14761
Necessity for spacecraft sterilization requirement to prevent planetary environment contamination in detecting extraterrestrial life 05 p0660 N67-14762
NASA spacecraft sterilization program, and constraints for preventing extraterrestrial life contamination during planetary explorations 05 p0779 N67-14763
NASA management of spacecraft sterilization program 05 p0780 N67-14764
NASA requirements for decontamination and sterilization of planetary landing capsules 05 p0849 N67-14765
Sterilization requirements affecting planetary spacecraft design, and known contamination sources 05 p0849 N67-14766
Clean room environment for controlling microbial contamination in spacecraft sterilization program 05 p0850 N67-14767
Techniques for assessing bacterial population on and in human skin in relation to spacecraft sterilization procedures 05 p0850 N67-14768
Microbiotank for quantitative study on shedding of microorganisms by humans, in relation to spacecraft sterilization program 05 p0850 N67-14769
Microbiological contamination barrier techniques for solving spacecraft

sterilization problems 05 p0650 N67-14770
Visual monitoring techniques for microbiological contamination control to meet spacecraft sterilization requirements 05 p0650 N67-14771
Microbial surface sampling techniques for spacecraft sterilization program 05 p0650 N67-14772
Microbiological techniques for recovering trapped microorganisms from solids for use in spacecraft sterilization program 05 p0651 N67-14773
Microbiological indicator for dry heat spacecraft sterilization 05 p0651 N67-14774
Ionizing radiation techniques for spacecraft decontamination and sterilization 05 p0651 N67-14775
Dry heat sterilization for planetary impacting spacecraft 05 p0651 N67-14776
Gases with bactericidal properties for spacecraft sterilization 05 p0651 N67-14777
Applications of air filtration methods of bacteria removal from air to spacecraft sterilization program 05 p0651 N67-14778
Spacecraft sterilization studies on microbial contamination transferred by human hands 05 p0651 N67-14779
Engineering problems in sterilization of planetary spacecraft 05 p0660 N67-14780
Probability theory applied to contamination analysis and monitoring of spacecraft sterilization requirements 05 p0652 N67-14781
Planetary landing spacecraft sterilization program 05 p0652 N67-14782
Special problems in spacecraft sterilization 05 p0690 N67-14796
Sterilization plan for Voyager capsule 05 p0765 N67-14797
Effectiveness of dry heat and ethylene oxide gas on spore contamination located between mated surfaces and on exterior surfaces of materials
[NASA-CR-61344] 06 p0888 N67-16614
Gnotobiotic insertion technique reliability in spacecraft sterilization applications
[NASA-CR-61316] 07 p1056 N67-16721
Mathematical model for planetary quarantine requirements
[NASA-CR-61656] 07 p1193 N67-17983
Mission planning, and spacecraft sterilization model for microbe decontamination in application to planetary travel studies
[NASA-CR-61784] 07 p1017 N67-18127
Sterilizable potting compounds and conformal coatings for space applications
[NASA-CR-62464] 08 p1249 N67-19158
Rational model to meet spacecraft sterilization requirements set by COSPAR
[NASA-CR-63799] 13 p2255 N67-25483
Microbiological sterilization problems in support of planetary quarantine requirements
[NASA-CR-63833] 13 p2357 N67-25744
Ethylene oxide sterilization, and applications to spacecraft - bibliography
[NASA-CR-64827] 15 p2662 N67-28787
Surveyor sterilization study - spacecraft material and component compatibility to sterilization process, sterile techniques for aseptic assembly, and operation plan
[NASA-CR-65872] 17 p3167 N67-31115
Ethylene oxide and Freon 12 gas mixture and formaldehyde as sterilants for components of Surveyor spacecraft
[NASA-CR-66673] 18 p3218 N67-31580
Bibliography on applications of ethylene oxide gas to spacecraft sterilization 18 p3211 N67-32349
Test program to demonstrate feasibility of assembly/sterilizer facility for spacecraft decontamination and sterilization, and full scale design study of concept
[NASA-CR-66440] 18 p3257 N67-32374
Ultra-biocleen-room facility for decontamintion and sterilizion of disassembled spacecraft, and subsequent assembly and repair
[NASA-CR-66439] 19 p3425 N67-32714
Inorganic separator for use in heat sterilized, silver-zinc primary cell with space mission applications
[NASA-CR-73110] 20 p3568 N67-34069
Bio-isolator suit system for sterile spacecraft assembly facility
[NASA-CR-66441] 20 p3585 N67-34812
Microorganism recovery experiments, and microbial contamination detection in various Apollo areas and on spacecraft surfaces
[NASA-CR-66962] 22 p3973 N67-37837
Space hardware sterlization studies including clean rooms, hand contact contamination experiments, and vertical laminar flow room evaluation
[NASA-CR-890] 23 p4189 N67-38824
Activity summaries and bibliographies on physical and environmental biology, exobiology, space bioscience, radiobiology, and quarantine and sterilization techniques
[NASA-CR-89213] 23 p4192 N67-39023
Time, temperature, and microbial effects on terminal heat sterilization of spacecraft
[NASA-CR-89233] 23 p4196 N67-39251
Sterilization canister, adapter, aeroshell, and lander subsystem of Voyager capsule bus
[NASA-CR-89677] 24 p4536 N67-40046
Spacecraft sterilization standards and microbial contamination of Mars
[NASA-CR-89768] 24 p4533 N67-40438
Contractor data management package for Voyager spacecraft sterilization project
[NASA-CR-89706] 24 p4533 N67-40533
SPACECRAFT STRUCTURE
Mechanical design of spacecraft - engineering problems of spacecraft design, structural materials, and instrument integration
[NASA-CR-79531] 02 p0310 N67-11281
Materials evaluation for design and fabrication of lightweight spacecraft structures 02 p0263 N67-11288
Glass fiber reinforced plastic material for spacecraft structural components
[NASA-CR-80685] 04 p0566 N67-13575
Meteoroid hazard and high velocity impact studies with spacecraft structures 04 p0618 N67-13855
Impact performance of composite spacecraft structures 04 p0619 N67-13854
Optical characteristics of vapor deposited coating systems for thermal control of spacecraft structural surface
[NASA-CR-73039] 07 p1090 N67-17182
Heat treatment of beryllium alloys for spacecraft structure application
[NASA-TM-X-53453, VOL. V] 09 p1461 N67-19655
Surface treatment techniques of beryllium for spacecraft structure application
[NASA-TM-X-53453, VOL. IV] 09 p1453 N67-19656
Metal removal techniques for beryllium in spacecraft structure application
[NASA-TM-X-53453, VOL. III] 09 p1453 N67-19657
Forming techniques of beryllium alloys for spacecraft structure application
[NASA-TM-X-53453, VOL. II] 09 p1453 N67-19658
Mathematical model for determining ballistic limit of double-walled meteoroid bumper systems
[NASA-TN-D-3916] 12 p2221 N67-23799
Structure, design, and fabrication of Mariner IV 1964 spacecraft and electronic assembly
[NASA-CR-63959] 13 p2409 N67-25996
Hysteresis model for analyzing dynamic behavior of complex structures
[NASA-CR-63993] 13 p2418 N67-26003
Test program for polymeric products with spacecraft applications
[NASA-CR-65614] 18 p3282 N67-32396
Canted turnstile as omnidirectional spacecraft antenna system
[NASA-TM-X-53924] 22 p3996 N67-37172
Sunshield solution to thermal bending problem of spacecraft extendible booms
[TG-915] 23 p4358 N67-38062
Antenna, command, data storage, radio, telemetry, and structural/mechanical subsystems of preferred Voyager capsule bus system
[NASA-CR-89679] 24 p4536 N67-40048
Doubly-curved shell elements for advanced spacecraft structural design technology
[NASA-CR-89637] 24 p4544 N67-40130
SPACECRAFT TELEVISION
Performance evaluation of Ranger VIII Flight Model III-3 television subsystem
[NASA-CR-63784] 13 p2407 N67-25491
Flight evaluation on Model III /RA-6/ of Ranger television subsystem - failure analysis
[NASA-CR-73783] 13 p2407 N67-25492
Development of electronic visual instrumentation for spacecraft applications 18 p3269 N67-31891
SPACECRAFT TRACKING
Observation of Luna X lunar probe and reception of telemetry, field intensity, and Doppler effect
[NASA-TT-F-10603] 02 p0239 N67-12151
Aspects of hyperbolic space localization system
[ELDO-TM-F-34] 04 p0516 N67-14364
Planetary approach orbit determination target errors using Mariner IV Doppler tracking data 05 p0670 N67-14423
Pioneer project support - Doppler tracking data analysis, trajectory dispersions and initial tracking station acquisition, and gas leak effect on orbit 05 p0672 N67-14432
DeepSpace Network Research and Development
[NASA-CR-81209] 06 p0837 N67-15901
Deep Space Stations flight support operations for Surveyor II, Lunar Orbiter I, Pioneer VI and VII, Mariner IV, and Atlas Centaur 06 p0839 N67-15823
Deep Space Stations construction and equipment installation 06 p0861 N67-15824
Orbital position and attitude tracking of ATS spacecraft using parabolic ground antennas
[NASA-TM-X-55716] 09 p1417 N67-19068
Ionospheric and atmospheric refraction effects on over-horizon propagation of electromagnetic transmissions from spacecraft
[NASA-CR-82956] 09 p1418 N67-19942
Abstract compilation on tracking of missiles and space vehicles
[ATD-66-140] 12 p2053 N67-24420
Specifications for infrared acquisition and tracking system used for aircraft monitoring of Apollo command module reentry
[NASA-TM-X-59659] 13 p2282 N67-26164
Spacecraft tracking, ground support equipment, and communication system components for deep space instrumentation facility 14 p2515 N67-27746
Brownian motion under micrometeorite impact effects on accuracy of spacecraft measurements of Einstein light bending
[NASA-CR-85828] 17 p3121 N67-31212
Tracking and data acquisition supporting research and technology /new systems and spacecraft subsystems/
[NASA-CR-88567] 22 p3998 N67-37186
Simple method using frequency synthesizer and sweep circuit for bandpass observation of S-band klystron power amplifier
[NASA-TM-X-55948] 23 p4226 N67-38868
Spacecraft tracking and communication systems
[NASA FACTS 5-2/5-67] 24 p4411 N67-40513
SPACECRAFT TRAJECTORY
Capabilities and trajectory parameters for encounter of Mariner IV spacecraft with Mars 03 p0461 N67-12749
Properties of two-component solar corrections of spacecraft trajectories 03 p0463 N67-12944
Mathematical models for effect of tracking systems on RMS errors in spacecraft position and velocity - least squares method
[NASA-TN-D-3776] 03 p0269 N67-13175
Space navigation, spacecraft trajectories, and space vehicle navigation systems
[NASA-TT-F-344] 04 p0613 N67-14100
Differential motion equations of probe numerically integrated in rectangular coordinate system for probe ephemeris 05 p0671 N67-14425
Pioneer VII trajectory dispersions and Deep Space Network initial acquisition 05 p0672 N67-14434
Effect of constant acceleration on information content of single pass of Doppler data 06 p0837 N67-15803
Nonlinear feedback solution for minimum-time injection into circular orbit with constant thrust acceleration magnitude
[NASA-CR-61474] 07 p1185 N67-16797
Two-variable asymptotic solution for three-dimensional solar powered low thrust trajectories in vicinity of ecliptic plane
[NASA-CR-62913] 09 p1512 N67-19016
Method for equalizing observations of positions of earth satellites - celestial mechanics
[FTD-TT-65-2030] 09 p1513 N67-20017
Comparison of lunar orbiter trajectory calculation programs
[NASA-CR-66344] 12 p2309 N67-23919
Technical details reviewed on NASA sponsored research at Experimental Astronomy Laboratory
[NASA-CR-84291] 14 p2569 N67-26821

Optimal control in presence of measurement uncertainties and application to spacecraft midcourse trajectory correction 14 p2611 N67-36528
Trajectory equations describing spacecraft motion from launch to earth impact or orbit injection
[NASA-CR-821] 16 p2976 N67-30131
Optimization techniques for orbital transfer, and spacecraft trajectories 17 p3158 N67-30695
Atomic clocks and ruby lasers used for greater precision in trajectory analysis
[TP-446/1967/] 17 p3076 N67-31165
Low-thrust orbit raising in continuous sunlight during satellite thrusting in plane perpendicular to earth-sun line
[NASA-TN-D-4104] 19 p3536 N67-33552
Surveyor D spacecraft, Atlas Centaur launch vehicle, tracking and communication system, trajectory, and flight plan
[NASA NEWS RELEASE-67-172] 19 p3541 N67-33759
Accessibility of solar system regions to earth launched spacecraft using Jupiter gravity-assisted trajectories
[NASA-CR-87495] 20 p3736 N67-34604
Ultrasonic modeling system for simulating lunar excursion module landing trajectory on lunar surface
[NASA-CR-65670] 20 p3738 N67-34895
Return-to-earth trajectories from Mars with Venus swingby for 1971-1999
[NASA-CR-85761] 22 p4141 N67-37396
Computer program for simulating uprated Saturn I trajectories
[NASA-CR-89756] 24 p4533 N67-40551
Spacecraft trajectories, aerospace systems analysis, launch vehicle capabilities for Jupiter flyby, and radar system for detection asteroids
[NASA-CR-89638] 24 p4554 N67-40580
SPACECREW
Psychophysiological afferentation effects of sensory overload conditions in spacecrew
[JPRS-39077] 04 p0491 N67-13906
Stay time extension module shelter structure to support 2 men for 8 days on lunar surface 04 p0614 N67-14350
Engineering study for Apollo application program flight experiment to investigate spacecrew motion disturbance of vehicle
[NASA-CR-66277] 09 p1405 N67-19070
Data on simulated spacecrew activities and vehicle disturbance experiment for Apollo applications program engineering study
[NASA-CR-66277, SUPPL.] 09 p1405 N67-19650
Preflight and postflight clinical and physiological observations of Voskhod manned spacecraft crew members 10 p1559 N67-20297
Space radiation doses absorbed by Voskhod I and Voskhod II spacecraft crews
[NASA-TT-F-10409] 14 p2451 N67-29561
Point-kernel radiation shielding computer program to evaluate propellant heating and dose to crew during engine operation
[NASA-TM-X-1397] 14 p2579 N67-27615
Human factors, environment, logistics, and crew operations of earth orbital manned space station
[NASA-TM-X-59700] 14 p2630 N67-27853
Spacecrew sleep characteristics under conditions of simulated manned space flight
[NASA-TT-F-11130] 18 p3212 N67-32331
Statistical analysis of crew performance data in ground base simulated mission in Apollo command module
[NASA-CR-65757] 23 p4196 N67-38906
Extremal factors of long-term space flight and health requirements for spacecraft crews 23 p4191 N67-39016
SPACING
SA SEPARATION
Tests of dielectric strength of large air gaps to determine minimum clearances for high voltage overhead transmission lines and substations 11 p1835 N67-22194
Spacing technique for satellites in unperturbed circular orbit
[RM-5156-PR] 16 p2968 N67-29415
SPAIN
Law establishing National Space Research Commission - Spain
[NASA-TT-F-9004] 01 p0168 N67-10192
SPALLING
SA NUCLEAR REACTION
Hypervelocity impact testing of aluminum spheres on targets for determining role of mechanical strength properties on spallation phenomena
[NOLTR-66-42] 06 p0978 N67-16480
Incipient spall thresholds of I-400 beryllium disks at planar impact
[SC-CR-66-2065] 16 p1912 N67-29960
SPAN
S LIFESPAN
SPAN LOADING
Span loading and aerodynamic characteristics for tip and trailing edge controls on 60 deg delta wing at Mach numbers 1.61 and 2.01
[NASA-TM-X-51] 18 p3187 N67-31988
Spanwise loadings and aerodynamic characteristics for trailing-edge controls on 40 deg sweptback wing at Mach numbers 1.61 and 2.01
[NASA-TM-X-758] 18 p3188 N67-32005
SPANWISE
Camber distribution of spanwise uniformly loaded subsonic wing
[NASA-TT-F-10781] 12 p2010 N67-34319
SPARK
SA DISCHARGE
Spark current flow velocity measurement in hypersonic tracer stream
[NASA-CR-790] 14 p2445 N67-27573
Radioactive material analyses using spark source mass spectrometry
[ORNL-P-3051] 21 p3775 N67-35442
Micro spark analysis of gaseous inclusions in titanium alloy 22 p4069 N67-37165
SPARK CHAMBER
Precision momentum calculations of electrons deflected by magnetic field and detected by spark chambers
[ISS-66/18] 03 p0444 N67-13282
Track particle detection by spark and streamer chambers
[JINR-P-2745] 03 p0383 N67-12312
Design and organization of wire spark chamber system with magnetostrictive readout for nuclear research
[CERN-66-30] 04 p0585 N67-13814
Bubble and spark chamber experiments with kaons and hyperons
[ORO-2304-96] 04 p0590 N67-14070
Digitized spark chamber for charged particle and gamma radiation detection during balloon and satellite sounding
[NASA-TM-X-55643] 06 p0963 N67-16548
Performance characteristics and new developments in magnetostrictive readouts for wire chambers
[UCRL-17121] 06 p1231 N67-16523
Development summary for digitized spark chamber
[BNL-10576] 08 p1262 N67-18540
Flexible electronic system for automatic readout of magnetostrictive spark chamber operation
[PPAD-005E] 10 p1592 N67-20806
Automatic device for measurement of spark chamber photographs
[DESY-66/25] 10 p1625 N67-21072
Two-channel system of jointly operating spark chambers and Cerenkov gamma spectrometer for investigating resonance radiative decays
[JINR-E13-2971] 10 p1737 N67-21642
Method for increasing discharge duration in spark chamber
[JINR-P13-3064] 10 p1739 N67-21678
Spark chamber with magnetostrictive wire used as particle hodoscope
[LNF-66/62] 11 p1856 N67-23017
Spark chamber measurements on electron decay modes of neutral vector mesons
[JINR-E1-3148] 14 p2591 N67-27450
Digitized wire spark chambers compared with other track determination track techniques
[BNL-11081] 15 p2757 N67-27913
Semiautomatic device for scanning and measuring spark chamber photographs
[NP-TR-1416] 15 p2712 N67-28451
Scattering cross section measurement near 180 degrees using filmless spark chamber technique
[JINR-P13-3123] 16 p2950 N67-29666
Magnetic core digitized spark chamber for use on balloons and satellites
[NASA-TM-X-55613] 16 p2970 N67-29990
Digitalization of wire spark chamber by magnetostrictive signals
[BMWF-FBK-67-07] 17 p3058 N67-30620
Automatic spark chamber film digitiser for linear accelerator
[SLAC-PUB-251] 17 p3091 N67-30916
Instrumentation for nuclear particle detection in spark and bubble chambers, digitized readout systems, and automatic scanning processes
[CONF-660918] 17 p3068 N67-30958
Current flow in spark chamber for measurements of coordinates 17 p3064 N67-30960
Performance characteristics of spark chamber magnetostrictive readout system 17 p3066 N67-30967
Development of digitized spark chambers with automatic readout 17 p3064 N67-30969
Wire spark chamber as momentum spectrometer to analyse inelastically scattered protons 17 p3064 N67-30969
Wire spark chamber with two coordinated readout systems for particle tracking 17 p3064 N67-30980
Design of wide gap spark chamber with multiple magnetostrictive readout system 17 p3064 N67-30981
Development of large spark chambers for streamer photography 17 p3064 N67-30982
Spark chamber double-arm magnetic spectrometer with automatic vidicon readout system 17 p3064 N67-30984
Revolving cylinder with electrophotographic layers for particle track evaluation in spark chamber 17 p3064 N67-30985
Characteristics of track-following spark chamber 17 p3065 N67-30986
Discharge oscillograms from helium filled streamer chamber discharge 17 p3065 N67-30987
Streamer observation in high energy pressurized gas discharge chamber 17 p3065 N67-30988
Discharge track chamber for detection of muon capture by nuclei and atomic processes 17 p3133 N67-30989
Streamer chamber with multiple wire proportional counter for registering stopped mesons 17 p3132 N67-30970
Magnetic detector design evaluation for electron positron colliding beams 17 p3066 N67-30992
Developments in conventional and digitized spark chambers for particle tracking 17 p3067 N67-31009
Wide-gap, projection, and streamer spark chambers for particle detection and tracking 17 p3067 N67-31010
Digital acquisition of spark chamber data and automatic processing of photographic particle tracks 17 p3068 N67-31013
High altitude balloon magnetic-core digitized spark chamber detector system for determining point sources of cosmic gamma radiation
[NASA-TM-X-55631] 17 p3184 N67-31421
Irradiation, nuclear reaction, fission, and decay studies involving high proton energies, heavy elements, mesons, and neutretto mass 18 p3212 N67-32347
Research projects and facilities of Illinois University physics department counter and spark chamber and bubble chamber groups
[COO-1196-91] 19 p3566 N67-33943
Fully automatic Hough-Powell device system for spark chamber pictures
[NYO-3171-321] 19 p3455 N67-33780
Shift and angular efficiency measurements of ionizing particle in wide gap spark chamber
[LNF-67/23] 20 p3618 N67-34189
Cosmic gamma radiation searched with vidicon spark chamber flown in high-altitude balloon
[NASA-CR-87429] 20 p3692 N67-34259
Test results of digitized wide gap wire spark chambers
[CERN-67-13] 20 p3696 N67-34634
Hummingbird digitizers for spark chamber and bubble chamber film scanning and measuring
[SLAC-PUB-269] 20 p3696 N67-34907
Flying spot digitizer /CYCLOPS/ for spark chamber film analysis 21 p3696 N67-36242
Software for DDP 224 control computer of Cyclops flying spot digitizer used in spark chamber film measurements 21 p3696 N67-36243
Development of flying spot digitizer and automatic data processing methods for analysing spark chamber pictures 21 p3696 N67-36244
Automatic Hough-Powell device for processing spark chamber pictures 21 p3696 N67-36245
CERN spark chamber film experiments using Hough-Powell Device

/HPD-1/ 21 p3807 N67-36248
Automatic analysis of spark chamber film at CERN using LUCIOLE cathode ray tube flying spot digitizer 21 p3807 N67-36249
Simple computer controlled flying spot digitizer for scanning and measuring spark chamber film 21 p3807 N67-36250
Glasgow measuring machines for spark chamber film analyses 21 p3807 N67-36253
Introductory remarks on future use of computers in flying spot device bubble or spark chamber data processing systems 21 p3806 N67-36256
Performance and quality of measurements of CERN Hough-Powell Device /HPD-1/ road guidance system 21 p3806 N67-36259
Improved programming system for Paris off-line Hough-Powell Device 21 p3809 N67-36260
Cosmic ray measurements on spark location accuracy in magnetostrictive delay line wire chamber
[COO-1545-17] 22 p4101 N67-37940
Ethanol and water admixture effects on dispersion and width of charged particle tracks in spark chamber
[ANL-TRANS-426] 22 p3994 N67-38015
Small experimental air-filled spark chamber for recording cosmic ray showers 23 p4251 N67-38229
Design and efficiency of large area spark chamber for counting cosmic ray particles 23 p4251 N67-38230
Momentum distribution and charge ratio of cosmic radiation at sea level - spark chamber and spectrograph measurements
[BMWF-FBK-67-29] 23 p4340 N67-38411
High energy physics experiments in various bubble and spark chambers, beam designs, and geometric reconstruction computer programs
[NYO-2262TB-131] 23 p4303 N67-38541
Air shower experiments - sonic spark chamber studies
[BMWF-FBK-67-44] 23 p4254 N67-39141
SPARK DISCHARGE
Production of recombination continua in spark discharge for absolute intensity measurement in vacuum ultraviolet
[JUL-360-PP] 07 p1167 N67-17865
Direct current crossed magnetic field effects on electric discharge characteristics of gases in Townsend region
[AFCRL-67-0033] 13 p2383 N67-25459
Low inductance three electrode spark source for vacuum ultraviolet
[NASA-TM-X-55622] 16 p2940 N67-30149
Very high frequency closed ring magnetic dipole spark transmitter development
[TN-1967-24] 22 p4014 N67-37547
Optical phenomena of electrode processes in high current spark discharge
[AFCRL-67-0446] 24 p4496 N67-40371
Cosmic and experimental radiation effects on sphere gap and rod-plate spark discharge voltage potential and intensity
[DISC-3958] 24 p4495 N67-40483
SPARK EROSION MACHINING
Electrical erosion of metallic electrodes in low voltage spark
[NASA-TT-F-11267] 24 p4497 N67-40374
SPARK GAP
SA DIELECTRICS
Enclosed spark gap light source designed for operation in low pressure environment
[BRL-TN-1618] 01 p0075 N67-10985
Dwell time and reignition of exploding wires, spark gap for exploding wire experiments, shock tube wave velocity enhancement, and photographic method to determine absorption coefficients
[BMWF-FBK-66-27] 10 p1739 N67-21538
Intensity of light emitted form gap prior to breakdown measured as function of voltage
[ECOM-2781] 12 p2153 N67-23627
High voltage pulse generator to trigger spark gaps and Kerr cells
[IPP-4/43] 20 p3619 N67-34499
High current switching circuit with low inductance field distortion spark gaps in parallel
[CLM-R-71] 20 p3621 N67-34920
Sequential spark method for velocity profile measurements across wake of hypersonic and supersonic spheres 23 p4230 N67-37611
Construction and testing of enclosed high voltage spark gaps and crowbar devices for low inductive condenser banks used in plasma physics experiments
[BMWF-FBK-67-36] 22 p4018 N67-37914
Spark gap device for passive crowbar operation at zero voltage of ringing discharge
[BMWF-FBK-67-34] 22 p4014 N67-37964
SPARK IGNITION
Ignition and knocking parameters of hydrocarbon fuels in internal combustion engines 04 p0433 N67-13830
Pulse magnetic field ferromagnetic microwave generator tested with voltage-triggered spark gap switch
[ECOM-0215-1] 22 p4012 N67-37280
SPARK PHOTOGRAPHY
Development of large spark chambers for streamer photography 17 p3064 N67-30062
Free flight measurements of axial force, normal force, and pitching moment of HB-2 model in shock tunnel using multiple spark photographic recording
[NPL-AERO-1212] 20 p3560 N67-34626
Multiple spark recording of free-flying models behavior in shock tunnel
[ARC-CP-934] 21 p3755 N67-36431
SPATIAL DEPENDENCY
Measurement of spatial dependent transfer function in zero power reactor
[KR-107] 01 p0109 N67-10727
Second-order one-group perturbation theory for approximating reactor control rod interaction effects
[AE-250] 03 p0425 N67-12825
Fundamental mode shape difference found to account for spatial dependence of pulsed neutron reactivity measurements 07 p1123 N67-17054
Space dependent theory for reactor noise spectral density function applied to cubical reactors and compared with space independent theory 07 p1124 N67-17057
Spatial dependence of intensity fluctuation correlation measured by Brown-Twiss interferometer
[NASA-TM-X-55657] 07 p1082 N67-17634
Adiabatic invariance properties of charged particles in middle of transient weakly but spatial strongly changing electromagnetic fields
[JUL-384-PP] 08 p1347 N67-18609
Spatial variation, size, heat balance, and altitude studied for effects on surface ablation of glaciers in Polar Urals 14 p2524 N67-27153
Weighting function in spatially dependent fission product poisoning code of IBM 7030 computer
[AWRE-O-69/66] 17 p3111 N67-31042
Concepts and techniques of spatial data systems for urban and transportation planning
[NASA-CR-85616] 17 p3023 N67-31145
Space and time variations in outer belt electron spectra 18 p3334 N67-31791
Spatial structure, spatial process, order, and hierarchy in theoretical geography and properties of surfaces
[AD-653464] 20 p3633 N67-34574
SPATIAL DISTRIBUTION
Data collection and evaluation with X-ray diffractometer designed for study of spatial distribution of atoms in liquids
[ORNL-3980] 01 p0028 N67-10538
Spatial distribution of absorbed doses of high energy protons behind shield 02 p0299 N67-11507
Spatially distributed control systems studies for resolution capacity of fields of objects with distributed parameters 03 p0377 N67-12521
Error effect on optimal distribution filter and effect on error in reproduction of information 03 p0386 N67-12522
Defect cluster formation by irradiation shown to be controlled by spatial distribution of displacement cascade defect 07 p1169 N67-16732
Analytical methods and observational requirements for interpretation of asteroid distributions
[NASA-CR-81078] 07 p1193 N67-17961
Spatial distribution measurements of fluorine and sodium nuclide activation products from irradiated aluminum target
[NASA-CR-81796] 08 p1328 N67-18340
Spatial and temporal distributions in terrain related cloud cover over Vietnam 10 p1671 N67-20429
Temporal and spatial behavior of low energy solar protons in magnetosphere
[NASA-TM-X-55729] 10 p1757 N67-21459
Algorithm for construction of spatial description of body given by projections 11 p1838 N67-22418
Spatial distribution of sporadic E layer in polar cap 16 p2987 N67-29571
Fortran /Nova/ program for calculating spatial distribution of burnup in reactors in one or two dimensions
[AEEW-M-697] 17 p3112 N67-31142
DC-8 aerosol sampling to determine spatial density of dust, and particle types and size distributions as functions of altitude and time 18 p3265 N67-32069
Spacial-diurnal distribution of high latitude ionospheric irregularities 19 p3438 N67-33620
Time-space distribution of geomagnetic disturbance 19 p3447 N67-33676
Spatial and temporal distribution of radiation balance components in Soviet Arctic 20 p3674 N67-34854
Milky Way structure in direction of Sagittarius spiral arm, and spatial distribution of stars 20 p3729 N67-35057
Earth surface curves significance in interpreting spatial distribution of geomagnetic field
[ACIC-TC-1194] 22 p4039 N67-37641
Monte Carlo method for calculating heat source spatial distribution in infinite reactor lattice with uniform spacing
[UJV-1734] 22 p4093 N67-37773
Gust velocity spatial distribution effect on lateral direction response of VTOL aircraft
[AFFDL-TR-67-93] 23 p4176 N67-38182
SPATIAL FILTERING
Aerial photograph scenes analyzed for spatial frequency content using optical Fourier analyzer 04 p0548 N67-13495
Enhanced filtering and matched filtering methods for improving photographic details 07 p1085 N67-17790
Spatial filtration of electron images at accumulation on target
[ERDL-T-1584-66] 12 p2153 N67-23604
Applicability of spatial filtering to astronomical photography - auxiliary device for destroying coherence of laser light 18 p3328 N67-31950
Spatial filtering characteristics of electronic optical direction-finder scanning devices 21 p3798 N67-35823
SPATIAL ORIENTATION
Spatial orientation and weightlessness problems in manned space flight
[NASA-CR-80123] 02 p0233 N67-12177
Role of informational feedback in producing visual adaptation to visual rearrangement and to various head, eye, and arm positions
[NASA-CR-663] 04 p0496 N67-14219
Central nervous, cardiovascular, and visuomotor studies relating to spatial orientation during 30-day primate flight in Biosatellite D 05 p0658 N67-15147
Review of vestibular function, spatial disorientation, and motion sickness
[AD-637943] 18 p1560 N67-28642
Extravehicular dynamics of cosmonaut body movements and spatial orientation
[NASA-TT-F-10407] 14 p2467 N67-26626
Quadrupole reversal in high frequency separator at high energies - spatial orientation theory
[CERN-67-22] 23 p4314 N67-39237
SPATIAL PERCEPTION
Tactual perception experiments and models
[NASA-CR-623] 06 p0816 N67-16661
Quantitative analysis and mapping of spatial perception 14 p2468 N67-26685
Saccadic suppression explanation of Pulfrich phenomenon
[USAMRL-718] 16 p2833 N67-29492
SPECIES DIFFUSION
Evolution by speciation or species diffusion 07 p1094 N67-16713
Species diffusion in frozen compressible laminar boundary layer on catalytic flat plate
[AEDC-TR-67-88] 16 p2848 N67-29556
SPECIFIC HEAT
SA FORMATION HEAT
SA SOLUTION HEAT
SA VAPORIZATION HEAT
Low temperature specific heat of tin and tin-indium alloys
[AROD-3771-12] 02 p0278 N67-11882
Specific heat of solid helium 3, and thermal equations of state determinations
[IS-T-84] 04 p0634 N67-14089
Enthalpy and specific heat of liquid cesium

[AGN-8192, VOL. 5] 10 p1772 N67-21515
Spectral and atomistic concepts derived from solids analysis
[AFCRL-66-541] 11 p1966 N67-23306
Specific heat determinations of pure, solid para deuterium
[COO-532-14] 12 p2037 N67-23543
Electronic specific heat coefficient and superconducting transition temperature with control of alloyed transition metals 13 p2309 N67-25347
Critical constants of uranium dioxide assessed from low temperature vapor pressure and specific heat measurements to derive limits for equation of state
[TRG-1344/R/] 13 p2357 N67-25439
Specific heat of fcc and d-hcp La measured in temperature range from 1.0 to 10.0 deg K in both superconducting and normal states
[IS-T-124] 17 p2149 N67-31056
Density, viscosity, surface tension, electrical resistivity, thermoconductivity, enthalpy, specific heat, and vapor pressure thermophysical properties of potassium
[NASA-TN-D-3139] 18 p2379 N67-31919
Equilibrium specific heats and specific heat ratios, isentropic exponents and equilibrium speeds of sound for constant-volume combustion of stoichiometric mixtures of hydrogen-oxygen
[UTIAS-TN-102] 19 p2549 N67-32712
Specific heats of vanadium, molybdenum, and niobium carbides in 3 deg to 9 deg K range
[ONERA-TP-480/1967/] 19 p2553 N67-33425
Specific heats of hydrogen tantalum compounds in 3 deg to 9 deg K range
[ONERA-TP-479/1967/] 19 p2525 N67-33426
Thermoconductivity, specific heat, and density of insulants for liquid hydrogen propellant tanks 20 p2748 N67-35822
Specific heat and electric resistivity of neodymium-iron compounds 21 p2923 N67-36571
Specific heat in coexistence region of water
[NASA-TT-F-11283] 22 p4165 N67-37579
Specific heats and heats of transformation measured for Zircaloy-2 and low-nickel Zircaloy-2
[BMI-1803] 23 p4264 N67-38869
Enthalpy and specific heat of liquid sodium and lithium between 250 deg F and 2150 deg F temperatures
[AGN-8191, VOL. 6] 23 p4365 N67-38991
SPECIFIC IMPULSE
Distribution of total specific impulses and specific shock impulse on walls of cylindrical shell submerged in fluid in which energy is instantaneously liberated 18 p2350 N67-31838
Optimal specific impulse, fuel weight, and design factor values for solid propellant propulsion system used in placing solar probe into orbit - description of Burner II stage
[NASA-TT-F-11214] 18 p2344 N67-32338
Specific impulse, and propulsion system optimization with electrothermal thrustors 22 p4132 N67-36944
SPECTRAL ABSORPTION
S ABSORPTION SPECTRUM
SPECTRAL ANALYSIS
Multichannel beta spectrometer with uniform magnetic field for studying decay schemes of short lived nuclides
[CEA-R-2950] 01 p0073 N67-10662
Spectral analysis techniques and pattern recognition methods for electroencephalographic data
[NASA-CR-79743] 01 p0084 N67-10886
Highly sensitive, photoelectric spectropolarimeter for measuring dispersion of optical activity in biopolymers
[TT-66-63179] 01 p0074 N67-10964
Optical electronic device to orient rocket-borne lunar spectrographs toward moon
[AFCRL-66-102] 02 p0260 N67-11928
Application of variance spectrum analysis to cloud measurements
[TN-34] 02 p0257 N67-12830
Chemistry and physics technology - polymer structure, ion exchange, absorption spectrum, electrodeposition, chlorides, electrokinetics, crystal growth, and spectral analyses
[FTD-MT-64-223] 02 p0254 N67-12364
Isotope spectral analysis of boron 02 p0255 N67-12373
Spectral analysis to assess vibration effect on humans 02 p0233 N67-12392
Application of transformation spectrum for analysis of continuous signal frequencies 02 p0262 N67-12404
Computer program for processing and analyzing spectral data and excitation functions recorded by four detectors 02 p0270 N67-12617
Spectral observations of haze that obscures lunar craters 02 p0461 N67-12731
Power and cross power spectrum analysis by hybrid computers
[NASA-TM-X-1234] 05 p0366 N67-12809
Image intensifier for analyzing coherent radar Doppler spectrum 03 p0260 N67-13078
Laser kinetics studied to obtain coherent sources of infrared radiation
[NASA-CR-80726] 04 p0681 N67-13266
Quantitative emission spectrum analysis during combustion from electric discharge
[NASA-TT-F-10396] 04 p0623 N67-13794
Spectral analysis of human pilot performing compensatory tracking task 06 p0813 N67-15879
Procedure for spectral analysis of seismic body waves
[AFOSR-66-1825] 06 p0874 N67-16184
Scale analysis of intra-cloud variations in meteorological parameters - hurricane clouds
[TN-35] 07 p1118 N67-17901
Theoretical relationship between spectral density function and probability distribution of crossings for stationary random function with Gaussian distribution
[ARC-CP-834] 07 p1140 N67-18189
Digital spectral analysis methods based on certain data processing techniques
[NASA-CR-83488] 08 p1256 N67-19000
Spectral analysis of mechanisms and kinetics of thermal energy reactions of long-lived energetic helium species with simple molecules
[TR-20] 09 p1487 N67-19455
High altitude multispectral imagery of wildland area studied to determine accuracy of mapping wildland resources
[NASA-CR-83973] 09 p1450 N67-19939
Angular distribution, spectra, cross section, and elastic and inelastic scattering analyses of various nuclear reactions
[USC-136-114] 10 p1725 N67-21002
Spectrochemical analysis of aluminum, aluminum alloys, and sintered aluminum powder
[JEN-165-DQ/1-58] 10 p1580 N67-21647
Spectrochemical analysis of sodium uranate
[JEN-164-DQ/1-57] 10 p1580 N67-21652
Spectral characteristics of incoherent scattered electromagnetic waves for plasma probing 11 p1957 N67-21966
Vortex arc studies, solar flux and spectral measurements, spacecraft coatings, solar simulation studies, and solar cell radiation effects testing
[NASA-TM-X-55735] 11 p1885 N67-22141
Uniformity filtering, spectral filtering, and spectral matching using krypton and xenon lamps in solar simulation techniques development 11 p1963 N67-22147
Vortex stabilized arc, pressure arc facility, spectral irradiance measurements of light sources, and ultrahigh vacuum system in support of solar simulation testing 11 p1888 N67-22148
Data reduction techniques for spectral radiance analysis 11 p1930 N67-22771
Mass spectrum digitizer for rapid spectrum data analysis
[EUR-3176.E] 11 p1886 N67-23096
Frequency spectrum method for analyzing ground motion data produced by single and multiple vibratory sources
[AD-645479] 11 p1856 N67-23160
Micrometeoroid composition determined using spectrographic analyzer to measure emission spectra of heated particles
[NASA-CR-65607] 11 p1887 N67-23235
Spectral analysis of titanium from 2000 to 9000 angstroms 11 p1816 N67-23442
Methods for analyzing spectral and directional effects in radiative heat transfer
[SC-CR-66-2134] 12 p2234 N67-23773
X-ray diffraction and spectral analyses to determine aging and improve reliability of quartz resonators
[A-696-11] 12 p2866 N67-24799
Compilation of data on solar radiation at sea level
[MEL-2/67] 13 p2097 N67-24902
Shock spectra of practical shaker shock pulses using piezoelectric accelerometers, magnetic tape system, galvanometers, and tape speed translations 13 p2412 N67-25165
Spectral analysis of vocal signals with aid of computer 13 p2288 N67-25764
Quantization frequency of random speech signals in correlation and spectral analysis 13 p2279 N67-25789
Three-dimensional, temperature, luminosity, and metal deficiency spectral classification scheme applicable to late type stars 13 p2403 N67-26180
Radioactive isotope abundance estimation using least square analysis of time dependent set of gamma ray pulse height spectra
[UHNRDL-TR-67-3] 13 p2391 N67-26231
Electro-optic instrumentation for measuring spectral response of solar cells
[NASA-TM-X-55773] 14 p2448 N67-26582
Planar retarding-potential analyzers examining photoelectron emission from solid tungsten, nickel, and semitransparent aluminum cathodes exposed to extreme ultraviolet radiation
[AFCRL-66-718] 14 p2691 N67-26930
Spectral properties of radiometer with KRS 5 filter 14 p2536 N67-27116
Need in U.S.S.R. for increased production of nuclear geophysical and X-ray spectral analyses instrumentation and equipment
[JPRS-40624] 14 p2557 N67-27304
Adaptation of field infrared terrain analysis spectral correlation program to IBM 7090 and recording tape voltage drift correction procedures
[NASA-CR-84486] 14 p2563 N67-27643
Physical characteristics of spectral analysis with sampling by electric discharge to auxiliary electrode
[NASA-TT-F-10976] 15 p2657 N67-28235
Results and evaluation of test instrumentation for measuring selectivity, sensitivity reduction, bandwidth limited time response, and pulse spectra
[REPT.-53-5309.82] 15 p2667 N67-28250
Molecular beam electric resonance spectra of lithium fluoride, sodium fluoride, and potassium chloride
[UCRL-17919] 15 p2659 N67-29410
Spectrum composition of radiation, radiativity, and absorptivity of air at high temperatures 15 p2682 N67-29529
Abstracted technical reports on time series statistical tests, spectral characterization of nonstationary processes, and time-varying spectral estimates
[R-6984] 16 p2712 N67-29561
Spectral response and thermal cycling tests on solar cells with integral coatings
[AFAPL-CONF-67-8] 16 p2820 N67-29139
Improved techniques for design of water cooled and water moderated reactors by lattice spectra analyses
[GA-7378] 16 p2781 N67-29729
Spectral studies of tritonic fluorine ion centers radio induced in sodium fluoride by X-rays at room temperature
[NYO-3464-6] 16 p2690 N67-29760
Ability of position azimuth range spectrum analyzer modified by addition of image storage tube electro-optical triangulation computer to detect and track thunderstorms
[AFCRL-67-0182] 17 p2890 N67-30613
Technique for measuring power spectra of complex nonstationary signals
[D1-82-0295] 18 p2349 N67-32129
Nonstationary random processes in nonreal-time applications - theories for nonreal-time correlation and spectrum analysis
[NASA-CR-87269] 19 p2602 N67-32362
Measurement and interpretation of spectral sky radiation and other atmospheric optical radiation transmission data
[AFCRL-67-0207] 19 p2444 N67-33200
Digital filtering, correlation function analysis, spectral smoothing, special functions, and spectrum analysis of nonstationary signals in random process theory research
[NASA-CR-61061] 20 p2827 N67-34605
Infrared spectrum analysis by means of selective modulation spectrometer
[ONERA-PUBL.-117/1967/] 20 p2845 N67-34860
Spectral decomposition of cross correlation function
[NASA-TM-X-53866] 22 p4021 N67-36977
Spectroscopic study of visible radiation emitted by pyrotechnic compositions

containing magnesium and calcium
[DRI-880-6703-F] 23 p4160 N67-36904
Turbulence and spectral distributions of velocity and density fluctuations in stratified atmosphere
[R67SD45] 23 p4696 N67-37041
Computer code for identification and quantitative determination of isotopic components producing complex germanium/lithium/ spectrum
[UCID-15146] 23 p4112 N67-38028
Measurement and analysis of radio frequency spectrum of cesium fluoride and design, construction, and operation of high resolution molecular beam electric resonance spectrometer
[COO-1112-112] 23 p4303 N67-38529
Spectral composition of earth radiation determined using monochromators installed on board Cosmos series earth satellites
[NASA-CR-88969] 23 p4344 N67-38707
Radio photoluminescence spectra of silver activated dosimeter glasses
[USNRDL-TR-67-66] 23 p4306 N67-38870
ACOF IBM 7044 orthonormal expansion code for analysis of neutron spectra and dosimetry
[JAERI-1140] 23 p4321 N67-39035
Nightglow spectral line shape of oxygen lambda 6300 and lambda 5577 radiation measured with Fabry-Perot interferometer
[NASA-CR-89317] 23 p4346 N67-39053
Spectral analyzer for radio signal frequencies
[EUR-3446.F] 23 p4328 N67-39231
Bibliography on flame spectroscopy covering period from 1800 to 1966 and emphasizing analytical applications
[NBS-MISC.-PUBL.-281] 24 p4398 N67-39956
Literature survey on methods of calculating and measuring thermal neutron spectra and review of spectral measurements techniques
[GA-7092] 24 p4501 N67-40349

SPECTRAL BAND
Hypothesis dealing with Wolf-Rayet stellar atmospheres 04 p0669 N67-13413
Automatic voice recognition techniques based on spectral band analysis and statistical parameters of speech signals 06 p0669 N67-14352
Spectral bands of fission gamma rays studied by using germanium/lithium/ detector with bent crystal spectrometer
[UCRL-70690] 07 p1061 N67-17596
Absorption and spectral transmittance expressions derived for clarifying statistical basis of gas band models - Recirculation of gas flow field in space vehicle
[NASA-CR-81748] 07 p1140 N67-18092
Multiband reconnaissance concepts, and color photography techniques for target identification
[NASA-CR-84063] 13 p2323 N67-26325
Band intensity of aluminum oxide trails in upper atmosphere for temperature measurement
[NASA-CR-85009] 17 p3056 N67-31190

SPECTRAL EMISSION
Radio astronomical studies in OH interferometry, discrete radio sources, and spectrum measurements of Venus and Jupiter
[NASA-CR-79023] 02 p0304 N67-11853
Spectral normal emissivity of highly doped opaque silicon determined by free carrier absorption theory
[NASA-TM-X-53254] 03 p0452 N67-12718
Infrared spectral emittance of natural rock surface from Pisgah Crater and Mono Craters area in California
[NASA-CR-88479] 03 p0390 N67-13102
Evaluation system for classification of remote objects and materials identified by solar and thermal radiation emission
[NASA-CR-89734] 04 p0651 N67-13668
Interpretation of Rydberg and valence states of nitrogen below first ionization limit
[NASA-CR-81777] 07 p1158 N67-18168
Solar physics involving electromagnetic radiation and solar spectrum at all wavelengths 08 p1359 N67-19038
Rotating emission ring in terms of stability of periodic orbits in restricted three-body problem for binary systems
[NASA-CR-89476] 08 p1367 N67-19034
Solar simulation - paint testing, planning for high altitude tests of spectral irradiance, pressure arc and vortex stabilized radiation systems, and thermal control coating tests 11 p1553 N67-22142
Experiment to measure solar radiant flux and solar spectral irradiance from aircraft 11 p1695 N67-22144
Spectral emissivity of carbon particles in exhaust gases of rocket engines using oxygen and RP-1 propellants
[NASA-CR-83790] 13 p2432 N67-25494
Apparatus for measuring mid-infrared spectral emission from cold powders in vacuum
[NASA-CR-84158] 14 p2529 N67-26506
Peculiarities of spatial inhomogeneities of atomic oxygen emission at 5577 angstroms in nightglow 15 p2695 N67-27682
Visible spectral of auroral display 15 p2697 N67-27694
Spectral reflection coefficient, emittance, and true temperature of zirconium dioxide and magnesium oxide determined in reflector furnace 15 p2803 N67-28167
Thermal radiation properties of emittance and reflectance for refractory materials
[NBS-TN-292] 16 p2964 N67-29416
Spectral irradiance measurements on vortex stabilized helium and argon arcs made by solar simulators 16 p3315 N67-32597
Optical characteristics and spectral irradiance of three solar simulation lamps 16 p3366 N67-32596
Relative spectral intensities of light charged particles associated with thermal neutron fission of uranium 235
[INR-765/IA/PL] 20 p3703 N67-35126
Ballistic range measurements of wake electron density and spectral emission from projectiles during reentry 23 p4117 N67-37533

SPECTRAL ENERGY DISTRIBUTION
Intensity and spectral composition of lunar gamma radiation
[JPRS-38793] 02 p0300 N67-12006
Angular and spectral distribution measurement of atmospheric infrared radiation by Cosmos 45 satellite 04 p0633 N67-13388
Spectral energy distribution of unfiltered beams from X-ray machine
[HASL-179] 06 p0863 N67-16398
Averaged distribution moment method applied to spectral energy distributions and nuclear excitation spectra 07 p1143 N67-17134
Spectral distribution of turbulent fluctuations of wind components 07 p1071 N67-17310
Spectral distribution of transition radiation and low energy bremsstrahlung from silver and aluminum foils bombarded by grazing incidence electrons
[ORNL-TM-1571] 07 p1147 N67-17468
Centaur rocket photometric and spectrometric measurements of intensity and spectral distribution of solar soft X-ray flux
[ESRO-SN-55 /ESLAB/] 07 p1185 N67-17663
Relation between diameter of lightning streamer and its radiated radio frequency spectrum
[NASA-CR-83475] 08 p1276 N67-19036
Spectral sensitivity and thermal properties of photoelectric transducers and effective ranges of application 10 p1555 N67-20294
Vortex stabilized plasma arc used to obtain spectral energy distribution data
[NASA-TM-X-55725] 10 p1739 N67-21400
Spectral distribution measurements of inert gas plasmas with vortex stabilized arc for source of solar simulation 11 p1958 N67-22143
Charge and energy spectra of primary cosmic rays made with large area Cerenkov scintillation counter on balloon flights - heavier than iron nuclei
[NASA-CR-83419] 11 p1937 N67-22376
Electronic recorder for quantitative distribution of spectral impulses from multiple channel spectrograph
[JUL-270-RB] 11 p1895 N67-22035
Spectral energy balance in turbulent mixing layer
[ARC-CP-890] 13 p2306 N67-26045
Spectral energy and angular distributions of gamma radiation through single and double layered shielding barriers 17 p3115 N67-31266
Relationship between interferogram obtained in Fourier spectroscopy and corresponding spectral distribution
[AFCRL-67-0649] 18 p3271 N67-32333
Spectroscopic methods to measure ion and electron temperatures of thermally thin plasma in local thermal equilibrium, spectral distribution of zirconium lamp, and vortex stabilized arc 18 p3315 N67-32596
Ground measurements of angular distribution and spectral composition of diffuse sky radiation
[T-R-809] 18 p3269 N67-33693
Integral short circuit current of photoelectric cells determined from power spectral distribution of light source radiation - silicon photocell coatings 21 p3700 N67-35471
Spectral angular radiation distribution from channel walls in shielding 23 p4311 N67-38974

SPECTRAL LINE
5A SODIUM D-LINE
Atomic transition probabilities tabulated for some 4,000 spectral lines of first ten elements at various ionization stages
[NSRDS-NBS-4, VOL. I] 01 p0131 N67-11118
Line blocking prediction in ultraviolet spectrum of B star 03 p0464 N67-13003
Averages of interferometric measurements of thorium lines - tables
[ANL-7200] 04 p0501 N67-13633
Instrumentation used to detect and analyze spectral line radio astronomy signals 07 p1102 N67-17787
Scattering theory parameterization of absorption cross sections, and profiles of autoionizing spectral lines
[NASA-CR-82000] 08 p1331 N67-18800
Newly identified lines of highly ionized nickel, copper, and zinc in sodium I isoelectronic sequences
[NASA-TM-X-55695] 08 p1238 N67-18752
Fabry-Perot duochromator for measurement of small wavelength displacements of spectral lines
[ORNL-4019] 08 p1283 N67-19014
Identification of zero-phonon emission spectral lines at color centers in alkali halides
[NYO-3464-2] 10 p1573 N67-20901
Effect of homogeneous magnetic field on line profiles of hydrogen
[CEA-R-3057] 10 p1730 N67-21686
Unusual resonance lines of highly ionized atoms of first long period
[NASA-TM-X-55757] 11 p1931 N67-22976
Grazing-incidence spectrometer and low inductance spark source used to study lines of high degrees of ionization of Sc, Ti, and V
[NASA-TM-X-55734] 11 p1931 N67-22980
Intensity variations of H alpha and N II 6 583 A lines in night sky spectrum
[NASA-CR-83561] 11 p1974 N67-22207
Carbon dioxide spectral line positions and intensities for 2.05 and 2.7 micron regions of infrared spectrum
[NBS-TN-332] 11 p1931 N67-23413
Mathematical model of spectral line profiles of solar flares and prominences 12 p2204 N67-24343
Kinetic equations and distribution functions for ion laser - measurement of argon ion laser line spectrum profile
[F-920479-2] 12 p2112 N67-24364
Hyperfine structure of spectral lines and nuclear magnetism of many-electron atomic species
[T-R-630] 12 p2168 N67-24410
Identification of forbidden lines OI and SI in sunspot spectrum - excited and ground state diagram
[NASA-CR-84096] 13 p2399 N67-26410
Intensity of absorption bands of ruby
[FTD-HT-66-498] 14 p2803 N67-26978
Calculation method for true profile of Raman lines
[NASA-TT-F-10998] 15 p2658 N67-28288
Time-dependent measurements of spectral line intensities performed on rod plasma gun
[INR-719/XVIII/PP] 15 p2774 N67-28488
Radiation transfer in spectral line and properties of transfer equation solutions to facilitate numerical solution and improve accuracy of approximation method
[CLM-TRANS-10] 15 p2771 N67-28849
Effects of organic additives on intensities of metallic element spectral lines
[T67-8-1] 17 p3012 N67-30283
Strengths of lines in nu-1 and nu-3 infrared bands of water vapor
[W+S-TR-42] 17 p3015 N67-30547
Bibliography on arc, spark, and grating spectra of iron, band spectra of metallic oxides, thorium spectra, and atomic spectra in vacuum ultraviolet 17 p3017 N67-30630
Measuring oscillator strengths in arc spectrum of iron, line strengths in

intermediate coupling for iron, inhomogeneous vector couplings in atomic spectra, and stellar evolution
[SAO-611-40] 18 p3234 N67-31796
Spectral line strengths in intermediate coupling for iron II 18 p3234 N67-31797
Radiation transfer in spectral lines, and applications to plasma kinetics and diagnostics
[FTD-MT-65-531] 18 p3257 N67-32685
Lyman alpha, Lyman beta, and hydrogen alpha spectral line shapes for hydrogen atom in presence of magnetic field in plasma
[CEA-R-3161] 19 p3518 N67-33516
Index of refraction in neighborhood of stark broadened spectral line calculated by using relation between absorption coefficient and refractive index
[NASA-CR-89560] 24 p4506 N67-39587
SPECTRAL LINE WIDTH
Revised energy levels and wavelengths for M series X-ray emission lines of rare earths 21 p3919 N67-36316
Solar iron abundance determination using lines in near ultraviolet
[NASA-CR-88743] 22 p4136 N67-37079
SPECTRAL NOISE
Statistical theory for deriving expression for dynamic model for spectral density of noise for power and stationary reactors
[ANL-TRANS-415] 16 p2934 N67-29829
SPECTRAL REFLECTANCE
Field and greenhouse experiments to determine effects of plant height, ground cover, and soil salinity on spectral reflectance of cotton 04 p0489 N67-13491
Aircraft mounted radiometer used to measure anisotropy of reflected solar radiation from various surfaces 04 p0536 N67-13496
Spectrophotometric reflectivity data of terrestrial specimens compared to spectral measurements of Martian continents to verify hypothesis of limonite covering on Mars 07 p1188 N67-16815
Photodegradation effect on attenuated total reflectance spectra of organic coatings
[R-479] 09 p1464 N67-19541
Reflectivities of several metallic crystals used in neutron spectrometers
[AEET-259] 10 p1692 N67-20796
Acoustic reverberation at sea surface - wind driven sea surface statistics for determining scattering and reflection strength of surface and subsurface
[P-284] 11 p1928 N67-22540
Infrared spectral and total reflectances for metals at cryogenic temperatures - literature data compilation and bibliography
[NBS-TN-348] 14 p2634 N67-27774
Computer program used in effectiveness study of chemically induced clouds and application of radiant energy to fire spread
[RACIC-TR-57] 16 p2886 N67-29481
Room temperature optical constants of germanium in spectral region from 2.4 to 3.85 eV using pseudo-Brewster angle technique 18 p3316 N67-31684
Spectral brightness contrasts between clouds and snow 18 p3363 N67-31911
Arc lamps and other intense light sources for solar simulation testing, and spectral reflectance of coatings 18 p3396 N67-32062
Ultraviolet calibration procedures for determining spectral reflectivity of lunar surface for use in Gemini experiments
[NASA-TM-X-58009] 19 p3498 N67-33422
Spectral reflectance of silicate rock powders, Jupiter atmosphere measurements, and visible and near-infrared spectrum data for analyzing lunar surface 20 p3727 N67-34775
Atlas of spectra from 1.6 to 5.4 microns recorded by Convair 990 jet aircraft measurements over wide range of natural surface and atmospheric conditions
[NASA-TM-X-53862] 20 p3675 N67-35352
Calculated potential increase in solar cell array conversion efficiency with dispersion by prism reflector
[NASA-TN-D-4156] 21 p3782 N67-35760
Spectral studies of Mars surface materials
[AD-655257] 22 p4140 N67-37051
Spectral reflectances of water and carbon dioxide cryodeposits measured in vacuum integrating sphere as function of incidence angle, substrate material, and cryodeposit thickness
[AEDC-TR-67-121] 23 p4293 N67-38186
SPECTRAL RESOLUTION
Development of differential neutron spectrometer with charged particle collimation for improved neutron detecting resolution
[MLM-1339] 06 p0682 N67-16394
Secondary standardization using digital computer to normalize multiple gamma ray spectra for direct efficiency determinations
[ORNL-P-2432] 07 p1149 N67-17433
Resolving power of mass spectrometers for nuclear fission product separation
[JUL-248-NP] 10 p1631 N67-21063
Design notes on intermediate resolution experiment for ultrasoft X-ray measurements of solar corona
[AFOSR-66-2446] 11 p1971 N67-22561
Use of Fabry-Perot interferometers for resolution of infrared water vapor spectrum in upper atmosphere
[BMWF-FB-W-66-03] 14 p2537 N67-27197
SPECTRAL THEORY
Spectral families of measures and spectral representation theorem
[AROD-5254-10] 06 p0904 N67-16347
Mathematical models and techniques for solving problems on spectral theory and statistical mechanics
[BNL-993/T-422/] 13 p2130 N67-24231
Application of spectral theory of operators in relation to wave diffraction and oscillation 13 p2364 N67-25203
SPECTROGRAM
Sound spectrogram for analyzing and displaying language data 06 p1246 N67-16516
Radial velocity of delta Ceti derived from spectrograms
[PUBL.-187] 12 p2389 N67-24940
Photometry of spectrograms of three artificial meteors
[NASA-TN-D-3930] 12 p2313 N67-25039
Radio communication system instrumentation for Mariner IV space probe, and received spectrograms
[NASA-CR-83987] 13 p2469 N67-25986
Design and development of instrument for measuring and recording local displacements on spectrogram 14 p2532 N67-26787
SPECTROGRAPH
SA SOLAR SPECTROGRAPH
SA ULTRAVIOLET SPECTROGRAPH
Permanent magnet semicircular beta ray spectrograph
[REPT.-476/PL] 01 p0112 N67-10034
Split pole magnetic spectrograph with strong vertical focusing 03 p0360 N67-12609
Scanning slit influence on line profile observed by spectrograph
[SR-3] 03 p0429 N67-12656
Acoustic analysis of materials in dynamic applications to detect malfunctions by sound spectrograph
[M67-6-1] 05 p0712 N67-14963
Lenticular screens used in illumination design to produce multiple image of light source and uniformly and reproducibly illuminate optical system of spectrograph
[T-1071-66] 05 p0749 N67-15383
Theoretical and experimental aspects of analysis with sound spectrograph
[REPT.-7] 06 p0845 N67-16438
Astronomy conference papers on light diffraction spectrograph, and vacuum chamber tests of astronomical mirror
[FTD-TT-65-1537] 07 p1079 N67-17170
Electronic recorder for quantitative distribution of spectral impulses from multiple channel spectrograph
[JUL-270-RB] 11 p1885 N67-22035
Cassegrain spectrograph of 36-inch reflector 12 p2161 N67-24021
Resolution, dispersion, and signal to noise ratio in single and double pass spectrographs 14 p2531 N67-26704
Additional cross dispersion method to prevent superposition in grating spectrograph 17 p3061 N67-30700
Development of large prism spectrograph with high dispersion spectrum 17 p3061 N67-30701
Spectrographic and photomultiplier measurements of light phenomena due to ammonia release into upper atmosphere 23 p4049 N67-37936
Comparison and descriptions of slitless spectrographs for low-light-level research
[NASA-TN-D-4145] 23 p4251 N67-38262
Spectrograph with solid iron magnet for measuring cosmic ray muon momentum spectrum
[BMWF-FBK-67-33] 23 p4283 N67-38346
Fast spectrographic shutter for measuring high temperature light sources
[NASA-CR-89556] 24 p4452 N67-40296
SPECTROGRAPHY
SA X-RAY SPECTROGRAPHY
Fabrication of thin walled boron absorption tubes uses as hollow cathode discharge tube for spectrographic applications
[ANL-7164] 01 p0078 N67-10522
Spectrographic determination of silicon in uranium carbon silicon alloys using spark excitation under controlled argon atmosphere
[CEA-R-2968] 01 p0032 N67-10777
Spectrographic measurements of plasma properties in direct energy conversion devices and cesiated helium arcs 05 p0744 N67-15231
Isotopic determination of uranium 235 at low concentration by optical spectrography 07 p1025 N67-17144
Spectrochemical method for determining individual rare earth elements in uranium ore concentrates and high purity uranium compounds
[MCW-1496] 08 p1238 N67-18773
Spectrographic determination of silver and zinc in silicates chemically similar to tektite glass 09 p1495 N67-19899
Spectrographic analysis of radioactive sources containing two alpha-gamma emitters or two beta-gamma emitters
[CEA-R-3023] 10 p1700 N67-20773
Spectrographic analysis of element concentrations applied to metallic and refractory samples
[JEN-163-DQ/I-56] 10 p1580 N67-21853
Spectrography of coronal emission lines 12 p2304 N67-24546
Spectrographic analysis of combustion product radiation in supersonic rocket nozzle flow
[TG-677] 14 p2630 N67-26498
Spectrographic methods and observations of stimulated and spontaneous Rayleigh scattering, Raman effects, and Brillouin effects in gases, solids, and liquids
[AD-647364] 14 p2547 N67-26703
Spectrographic observations of ruby laser stimulated Rayleigh scattering from liquids 14 p2548 N67-26711
Observations of heterogeneous structure and kinematics of solar atmosphere, and engineering development of instrument for measuring local displacements on spectrogram
[AFCRL-67-0094] 14 p2608 N67-26765
Instrumentation development and observations of heterogeneous structure and kinematics of solar atmosphere 14 p2608 N67-26766
Automatic electrode loader and positioner for emission spectrographs
[Y-1569] 14 p2540 N67-27586
Spectrography of gegenschein and indications that earth has gaseous emanation of matter similar to comets
[NASA-TT-F-11025] 16 p2865 N67-29016
Fabry-Perot interferometric method for determining instrumental function of spectrographic device used with infrared spectrometer
[NASA-TT-F-11126] 17 p3069 N67-31189
Spectrographic studies on exploding wires and infrared spectra of adsorbed combustion products
[UCRL-12296] 20 p3580 N67-34213
Spectrographic analysis of impurities in plutonium dioxide separated from impurities by adsorption chromatography
[AAEC/TM376] 20 p3591 N67-34337
Modification of 82 inch coude spectrograph of observatory telescope
[NASA-CR-86363] 22 p4044 N67-36817
Thermochemical separation and spectrographic determination of impurities in rhenium
[UCID-15153] 22 p3981 N67-37989
Spectrographic method for determining trace impurities in sodium chloride
[BARC-284] 23 p4201 N67-38349
Momentum distribution and charge ratio of cosmic radiation at sea level - spark chamber and spectrograph measurements
[BMWF-FBK-67-29] 23 p4249 N67-38411
Spectrographic determination of rare earth impurities in sodium chloride
[BARC-283] 23 p4282 N67-38414
SPECTROHELIOGRAPH
Solar magnetic field distributions observed with fine-scan magnetograms and spectrohelioghraphs 13 p2302 N67-24226

Chromospheric problems and investigation by satellite observations of extreme ultraviolet solar spectrum, filtergrams, spectroheliograms, and radio flux measurements 12 p2306 N67-34463
SPECTROMETER
SA EBERT SPECTROMETER
SA FABRY-PEROT SPECTROMETER
SA INFRARED SPECTROMETER
SA MASS SPECTROMETER
SA SCINTILLATION SPECTROMETER
SA ULTRAVIOLET SPECTROMETER
Peak deterioration in spectra using single-channel analyzer spectrometer with assumption of Gaussian amplitude distribution at input
[INR-695/III/PL] 01 p0071 N67-10059
Internal Compton effect, and use of superconducting magnet spectrometer to determine multipolarity assignments
[NASA-CR-633] 01 p0119 N67-10239
Broad-range low-deflection magnetic neutron spectrometer for measuring neutron spectrum from pulsed and steady state sources
[BRL-MR-1753] 01 p0053 N67-10504
Spectrometric measurements of energies in muonic atoms of elements
[JINR-P-2735] 01 p0122 N67-10617
Multichannel beta spectrometer with uniform magnetic field for studying decay schemes of short lived nuclides
[CEA-R-2950] 01 p0073 N67-10662
Spectrometer stabilization systems for precise measurements of pulse-height spectra
[JINR-P-2707] 01 p0073 N67-10722
Sensitive stable amplitude signal discriminator for spectrometer
[FTD-TT-65-1819] 01 p0035 N67-11081
Burnup measurement on spherical fuel elements by high resolution semiconductor-gamma spectrometer
[THTR-8] 02 p0287 N67-11977
Neutron cross sections and isomeric ratios at 14.8 MeV 03 p0433 N67-12551
Neutron resonance parameters studied using slowing down time lead spectrometer 03 p0439 N67-12598
Response characteristics of ionization chamber and spectrometer experiments aboard Orbiting Geophysical Observatory /OGO/
[CR-87] 04 p0615 N67-13710
Breadboard model of solar proton-alpha telescope spectrometer
[NASA-CR-65571] 06 p0678 N67-15674
Feasibility study and breadboard fabrication of switching proton electron channeltron spectrometer for detection of charged particles during manned spacecraft missions
[NASA-CR-65567] 06 p0678 N67-15680
Field stabilization of nuclear magnetic resonance spectrometers by means of samples coaxial and external to receiver coil 06 p0679 N67-15737
Gamma spectrometric determination of trace contaminant in active matrix 06 p0831 N67-16225
Time-of-flight spectrometer for measuring total collision cross section of electrons
[AD-641394] 06 p0862 N67-16427
Pulse height distribution and cosmic ray intensity investigated by silicon spectrometer
[CLOR/IBJ-54/D] 07 p1086 N67-17937
Spectrometers for neutron inelastic scattering studies
[AERE-R-5259, PT. 2] 07 p1137 N67-18067
Fast neutron spectrum determined by using lithium 6 and helium 3 semiconductor spectrometers
[AERE-R-5483] 07 p1137 N67-18077
Testing and evaluation of acoustic spectrometer for nondestructive measurement of stress and location of flaws in materials
[NASA-CR-81791] 07 p1068 N67-18134
Optical properties on neodymium-doped glasses, and spectrofluorophosphorimeter construction
[AD-642100] 08 p1351 N67-18555
Focusing of triple-axis neutron spectrometer for studying inelastic neutron scattering in crystals 10 p1631 N67-21045
Multiarm spectrometer used for studying phonon energies in crystal lattices 10 p1631 N67-21049
Stimulated emission and nonlinear absorption spectrometers for upper atmosphere measurements
[CARDE-TR-457/65] 10 p1594 N67-21416
Interference spectrometer used to measure complex permittivity of dielectric materials in millimeter and submillimeter wave regions
[TR-1] 10 p1752 N67-21428
Large transmission, heavy particle spectrometer using preceding magnetic quadrupole lens for improved resolving power
[MIT-2068-276] 10 p1634 N67-21508
System for ultrafast registration of spectral line shapes
[NP-16394] 10 p1635 N67-21583
Electrostatic spectometric measurements of electron currents emitted from metal plates bombarded with gamma rays
[EGG-1183-2110] 10 p1725 N67-21600
Wideband, variable frequency nuclear magnetic resonance spectrometer for frequency range from 2 to 90 MHz
[IS-1477] 10 p1595 N67-21634
Two-channel system of jointly operating spark chambers and Cerenkov gamma spectrometer for investigating resonance radiative decays
[JINR-E13-2971] 10 p1727 N67-21642
Transmitter-receiver with increased sensitivity and resolution for electron resonance spectrometer
[REPT.-3574] 10 p1595 N67-21777
Operation of semiconductor Compton spectrometer and performance in determining burnup history of reactor fuels
[SGAE-G-4/1966] 10 p1635 N67-21806
Spectrometer with highly sensitive electrometer to measure ion spectra over wide range of ion mobility 11 p1876 N67-22027
Nuclear component of primary cosmic rays aboard Proton II satellite studied with aid of Cherenkov spectrometer
[NASA-CR-83562] 11 p1971 N67-22293
Spectrometer for measuring mobility spectra of ions in earth upper atmosphere
[AVSSD-0200-66-RR] 11 p1882 N67-22326
High resolution spectrometer for measuring absorption cross sections between 1000A and 2000A 11 p1883 N67-22770
Rotating crystal spectrometers with and without auxiliary device to suppress unwanted reflection
[SGAE-PH-48/1966] 11 p1885 N67-22980
Revised anticoincidence shielded gamma ray spectrometer data processing program
[NOLTR-66-196] 11 p1831 N67-23147
Gamma spectrum of tantalum 182 for energy range 50 to 1500 keV studied by using semiconductor spectrometer
[JINR-P6-2979] 11 p1942 N67-23195
Operation principles and parameters of infrared radiometric and spectrometric instrumentation used aboard Saturn vehicles for determining characteristics of exhaust plume and heat flux 12 p2237 N67-24447
Lithium-drifted silicon detector used to measure beta spectra 13 p2319 N67-25465
Use of single crystal high resistivity cadmium telluride as gamma ray spectrometer
[SAN-549-2] 13 p2320 N67-25606
Spectral radiance measurements of scale model rocket engine exhaust gases at simulated altitude using high speed scanning spectrometer
[NASA-CR-83937] 13 p2302 N67-25691
Raindrop spectrometer and automatic liquid water content meter design and performance
[AFCRL-66-782] 13 p2323 N67-26241
Microwave spectrometric gas analyses in determining trace constituents collected from space simulator
[SAM-TR-67-3] 14 p2471 N67-26760
Electron-gamma and electron-electron coincidence spectrometers with Li-drifted Si detectors
[LR-12] 14 p2533 N67-26956
Linear motion bent crystal spectrometer
[IN-1025] 14 p2533 N67-26994
Detection of radicals through electron magnetic resonance spectrometer 14 p2477 N67-27084
Mossbauer effect in ruthenium 99, use of Ru 99 as sensitive probe for internal magnetic fields, and Mossbauer spectrometer design
[BNL-11026] 14 p2665 N67-27487
Anticoincidence shield multidimensional gamma ray spectrometers for low level counting
[BNWL-SA-927] 15 p2700 N67-27912
Crystal spectrometers for measuring gamma radiation from neutron capture
[BNL-10991] 15 p2709 N67-27914
Construction and characteristics of simple X-band electromagnetic resonance spectrometer
[FTD-TT-65-2016] 16 p2892 N67-29055
Spectrometer for simultaneous NMR spectra, gas chromatography, relativistic collapse to Schwarzschild sphere, and Gibbs phenomenon 16 p2908 N67-29161
Nuclear magnetic resonance spectrometer with automatic tuning to signal maximum
[FTD-HT-66-701] 16 p2892 N67-29466
Modified stethoscope acceptability and effectiveness for use in areas of high noise levels on aircraft carrier
[AFCRL-66-528] 16 p2898 N67-29638
Thermal neutron capture gamma rays using lithium drifted germanium spectrometer
[MITNE-80] 16 p2944 N67-29676
Lunik X spectrometric determination of gamma radiation intensity of lunar rocks 16 p2982 N67-29842
Theoretical and experimental investigation to determine performance of pair spectrometer with high-focusing magnetic field
[DISS-3869] 17 p3063 N67-30898
Instrument for use in semiconductor detector spectroscopy to stabilize gain of conventional amplification chain and pulse-height to digital converter during long term measurements
[UJV-1729] 17 p3063 N67-30903
Magnetic Hall probe developed for use in spectrometer system aboard OGO-E satellite
[UCRL-14650-T] 17 p3063 N67-30920
Fast neutron generators and gamma spectrometers for direct activation analysis of steel structures
[MG/D-329/65] 17 p3081 N67-31141
Monte Carlo method of analyzing gamma radiation and fast neutron spectrometer characteristics 17 p3117 N67-31277
Single crystal fast neutron spectrometer for measuring continuous spectra 17 p3069 N67-31279
Permissible gamma background radiation when measuring fast neutrons with single sensor spectrometer 17 p3137 N67-31280
Single crystal gamma spectrometer for reactor measurements 17 p3117 N67-31282
Mechanical high transmission selector of neutron velocities
[INP-527/PS] 17 p3070 N67-31298
Fourier transform spectrometer for measurement of atmospheric thermal radiation
[NASA-CR-85892] 17 p3099 N67-31484
Satellite and rocket data obtained from electrostatic analyzers and spectrometer instrumentation
[ASE-1457] 18 p3323 N67-31786
High resolution beta spectrometer used to study electron values, particle properties, and decay, and beta-gamma circular polarization correlation of Co 60 and Na 22 18 p3311 N67-32344
Electronic Scanning Spectrometer /ESS/ and data acquisition technique for Convair 990 flight experiment 18 p3272 N67-32390
Gamma radiation detection system using coincidence anticoincidence spectrometer
[AFOSR-67-1215] 19 p3450 N67-32702
Photoelectron energy spectrometer determinations of partial photoionization cross sections of molecular gases
[AD-653214] 19 p3386 N67-32774
Applications and optimization of lithium-drifted germanium detector system as spectrometer for gamma and other radiation detection
[UCRL-50156] 19 p3454 N67-33417
Stabilization systems of spectrometric channels
[JINR-P13-3225] 19 p3454 N67-33517
Magnetic spectrometer as voltage stabilizer and energy analyzer 19 p3457 N67-33562
Superconducting magnetic spectrometer used to determine energy spectrum of electron beam and to stabilize high voltage power supply 19 p3457 N67-33563
Airborne all-electronic ultra-fast scanning spectrometer for studying transient optical emission phenomena
[SR-1] 20 p3627 N67-34062

Multidetector spectrometer for measuring surface temperature of Mars, and error analysis on application of stereophotogrammetry to extraterrestrial mapping 20 p3642 N67-34773
Time-channel response function for time of flight spectrometer to measure monoenergetic secondary neutrons in 2 to 100 MeV energy region
[NASA-CR-87865] 20 p3702 N67-35018
Suitability of lithium-6 and helium-3 semiconductor sandwich spectrometer to determine fast-neutron spectrum in Daphne reflector
[AERE-R-5347] 29 p3684 N67-35619
Magnetic spectrometer for high-energy electron scattering experiments
[DESY-67/10] 21 p3849 N67-36021
Neutron crystal spectrometer for research and training
[CNAEM-33] 22 p4045 N67-37075
Improved beta spectrometer arrangement for measuring conversion electron spectra from /n, gamma/ reactions at Swedish research reactor
[LF-16] 22 p4050 N67-37896
Measurement and analysis of radio frequency spectrum of cesium fluoride and design, construction, and operation of high resolution molecular beam electric resonance spectrometer
[COO-1112-112] 23 p4303 N67-38529
Properties of germanium-lithium detectors as gamma ray spectrometers measured over 5 deg to 220 deg K temperature range
[AECL-2762] 23 p4252 N67-38634
Time of flight spectrometer stabilization system
[JINR-P13-3342] 23 p4253 N67-38906
Intermediate neutron spectra from time of flight spectrometer measurements 23 p4311 N67-38967
Gamma radiation spectrometers with silicon and germanium semiconductor detectors 23 p4254 N67-39071
Neutron time of flight spectrometer operating characteristics
[JAERI-1138] 23 p4254 N67-39048
Research on lithium drifted silicon detectors, Compton effect using superconducting magnet beta ray spectrometer, and high Z semicondductors for radiation detectors
[NASA-CR-89234] 23 p4227 N67-39072
Electronic equipment for simultaneous operation of scintillation counters, Cerenkov counter, neon hodoscope, and meson spectrometer - digital recorder for air showers
[BMWF-FBK-67-41] 23 p4256 N67-39380
Automatic counting of atmospheric aerosols from Goetz ultracentrifuge collection
[ECOM-2858] 24 p4456 N67-39828
Laser radiation for spectrometer scanning function calibration
[AD-654214] 24 p4463 N67-40055
DIDO triple axis spectrometer used to measure frequencies of longitudinal optic modes propagating along three symmetry directions in magnesium oxide
[AERE-R-5467] 24 p4519 N67-40483
SPECTROMETRIC TRACKING
Design and performance of beta spectrometer for measurements of nuclear reaction conversion electrons
[INEJ-98] 03 p0400 N67-12313
Coherent particle production in collisions of 200 GeV pions with nuclei of photographic emulsions
[REPT.-774/VI/PH] 17 p3135 N67-31100
Fission of gold-197 by 13.4 MeV deuterons
[REPT.-773/I/IA/PL] 17 p3136 N67-31134
SPECTROMETRY
SA MASS SPECTROMETRY
SA NEUTRON SPECTROMETRY
SA X-RAY SPECTROMETRY
Gamma spectrometric analysis of fission products into fuel particle coatings for high temperature reactors
[SOAE-CH-26/1966] 01 p0194 N67-10180
Spectrometric measurements for half-life of gadolinium
[AE-242] 03 p0290 N67-11752
Chemical separation and spectrometric analysis of alkali metals, alkaline earths, rare earths, chromium, hafnium, lanthanum, manganese, silver, and scandium neutron-activated biology material
[AE-247] 03 p0237 N67-11864
Electron-electron scattering cross section measured by transverse beta-ray spectrometer 03 p0456 N67-12574
Martian surface and atmospheric parameter measurements by means of gamma ray spectrometric instrumentation aboard Voyager mission 03 p0499 N67-12667
High resolution spectrometric studies of gamma and X-ray radiation from fission products
[UCRL-70045] 04 p0525 N67-14523
Experimental apparatus problems in intensity measurements of Raman effect
[TIL/T-3657] 04 p0563 N67-14320
Measurement of plutonium 239 plus plutonium 240 activity by isotopic dilution with plutonium 236 and alpha spectrometry with silicon radiation detectors 07 p1127 N67-17150
Direct spectrometric determination of rare earths in high purity thorium dioxide
[MCW-1490] 07 p1057 N67-17474
Spectrometer measurements made from jet aircraft and Nimbus II satellite of reflected solar and emitted thermal radiation from earth from 1.6 to 5.6 microns
[NASA-TM-X-55682] 08 p1305 N67-18691
Calibration of zirconium 95, niobium 95 mixtures by gamma spectrometry
[CNEA-177] 10 p1575 N67-21144
Value of gamma spectrometry applied to biological samples
[EUR-3906.F] 10 p1564 N67-21623
Microwave spectrometer design and applications for chemistry and chemical kinetics
[UCID-5169] 10 p1635 N67-21693
Burn-up determination by high resolution gamma spectrometry - axial and diametrical scanning experiment on irradiated fuel element
[AE-267] 10 p1731 N67-21773
Spectrometry of primary and solar protons by meteorological balloons over Iceland using scintillation and Cerenkov counters 11 p1971 N67-22918
Gamma spectra of Se-75, Rh-106, Ag-110m, Sb-124, Sb-125, Ba-140, La-140, and Eu-154 investigated with Li-drifted Ge spectrometer
[JINR-P6-2988] 14 p2589 N67-27844
Integral and differential energy spectra of secondary cosmic ray photons between 0.2 and 12 GeV measured with balloon borne lead scintillator sandwich spectrometer
[NASA-TT-F-11080] 16 p2851 N67-29681
Time-of-flight spectrometer used to study spectra of neutrons coming from special moderators of Silosette reactor
[NP-18581] 17 p3089 N67-30515
Mechanism and kinetics of silicon oxidation in air-instrumentation for ellipsometry and use in determining refractive index and thickness of thin oxide films on silicon
[NASA-CR-83091] 17 p3086 N67-31050
Radio frequency mass spectrometer for determining composition and content of gas mixtures by ionizing gases and determining ion mass number
[FTD-HT-66-699] 19 p3451 N67-33504
Scintillation detector for gamma ray spectrometry
[ISO-499] 19 p3393 N67-33453
Oxygen, nitrogen, carbon, and silicon contents in refractory metals and alloys obtained from far ultraviolet emission spectra
[ONERA-TN-166/1967/] 19 p3393 N67-33501
Elementary neutron-nucleus interactions, reactor constants, neutron cross section calculations by optical model and data processing for single-crystal fast-neutron scintillation spectrometry
[ANL-TRANS-168] 19 p3508 N67-33702
Sensitivity, inter-element interference, and other aspects of atomic fluorescence spectrometry in trace analyses
[AWRE-O-37/66] 20 p3703 N67-34436
FET preamplifier developed for gamma ray spectrometry, and radiation detector data
[IDO-17223] 20 p3700 N67-34930
Fabrication of germanium detectors for gamma spectrometry - electric contacts prepared for lithium drifted germanium detectors
[ORNL-TR-1651] 21 p3850 N67-36051
Spectrum shape measurements of first forbidden beta transitions in some nuclei
[NP-16764] 21 p3906 N67-36969
Detection and estimation of indium-114 in effluent
[AAEC/TM373] 22 p3983 N67-38084
Design and performance of size separating aerosol centrifuge facilitating particle size spectrometry in submicron range
[UR-49-778] 23 p4056 N67-37965
Monitoring of radioactive rare gases in air by gamma ray spectrometry
[AECL-2696] 23 p4283 N67-38119
Spectrometry of neutron capture gamma radiation of gases in reactor
[BMWF-FBK-67-25] 23 p4267 N67-38045
Temperature measurements behind strong shock waves in argon
[UTIAS-119] 24 p4500 N67-39891
Alternating direction implicit method for calculation of magnetic field components from measured boundary - Cyclotron and spectrometry applications
[UUIP-526] 24 p4483 N67-40194
Gamma ray resolution variation of germanium-lithium detectors based on irradiation position
[AECL-2764] 24 p4455 N67-40582
SPECTROPHOTOMETER
SA INFRARED SPECTROPHOTOMETER
Upper atmosphere humidity measurements by balloon-carried spectrophotometer
[NASA-TT-F-10909] 01 p0065 N67-10213
High pressure absorption spectrophotometer cell application to enzyme reaction
[REPT.-32] 03 p0453 N67-12949
Far infrared spectrophotometer and electron plasma oscillations 11 p1969 N67-22854
Data reduction procedures for ultraviolet spectrophotopolarimeter for measuring skylight radiation
[B-216] 16 p2894 N67-29497
Atomic absorption spectrophotometric method for determining submicrogram quantities of mercury in water and lithium hydroxide solutions
[Y-1572] 16 p2850 N67-29771
Design and construction of He-Ne laser Raman spectrophotometer
[TR-32] 17 p3075 N67-29486
Microspectrophotometer, M-5, for study of biosynthesis and various metabolic processes in living cells
[NASA-CR-85091] 17 p3086 N67-31176
Recording spectrophotometer for ground and balloon measurements of daytime sky brightness
[T-E-609] 18 p3269 N67-32690
Remote sensing, and pattern recognition studies in application to agriculture 19 p3434 N67-32819
Twelve channel Doppler profile spectrophotometer for plasma scattered laser light
[AWRE-O-43/67] 20 p3638 N67-34179
Design and performance of microspectrophotometer
[NASA-CR-86491] 22 p4048 N67-36742
New spectrophotometer for measuring ultraviolet sky brightness and direct solar radiation
[AFCRL-67-0419] 23 p4066 N67-37182
Lock-in amplifier for use with single-beam atomic absorption spectrophotometer - analysis of calcium, magnesium, palladium, rhodium, and strontium
[ISO-SA-37] 23 p3993 N67-37979
SPECTROPHOTOMETRY
SA STELLAR SPECTROPHOTOMETRY
Spectrophotometric and calorimetric determination of chlorine and sulfur in terphenyls
[EUR-3962.I] 01 p0029 N67-10617
Hypothesis dealing with Wolf-Rayet stellar atmospheres 04 p0560 N67-13412
Determination of iron and nickel in uranium by atomic absorption spectrophotometry
[RFP-696] 04 p0566 N67-14019
Microspectrophotometry and psychophysical measurements of color vision pigments in human retinas
[AD-660714] 08 p0797 N67-18357
Spectrophotometric study of Nova Hercules, polarimetric observations of nan Capheus, polarization of cold supergiants, Everhart comet studies, and brightness distribution measurement 06 p0957 N67-16161
Spectrophotometric data on atmosphere of Nova Hercules 1963 06 p0957 N67-16162
Spectrophotometric determination of trace amounts of uranium in high purity plutonium metal after anion exchange separation in hydrochloric acid

[LA-3551] 06 p1239 N67-19065
Absorption spectrophotometric methods for determining impurities tributyl phosphate and degraded process solvents
[PG-737] 09 p1411 N67-20207
Determination of iron in plutonium using chemical extraction and spectrophotometric methods
[CEA-R-2960] 10 p1571 N67-20736
Hydrous uranium dioxide precipitates and sols examined by electron microscopy, electron diffraction, and spectrophotometry
[ORNL-3963] 11 p1908 N67-22334
Microgram quantities of silicon measured spectrophotometrically as silicomolybdic acid complex following distillation separation from plutonium and other elements
[LA-3559] 11 p1909 N67-22384
Molecular fluorine dissociation studied by spectrophotometric observation behind shock waves in shock tube
[AROD-2062-11] 11 p1814 N67-23122
Spectrophotometric study of chemical reaction of copper/II/ ion with 4-methyl-3penten-2-one
[NASA-CR-83537] 11 p1815 N67-23264
Spectrophotometric determination of zirconium in bismuth-lead alloys using Alizarin Red S method
[AECL-3829] 13 p2369 N67-25579
Intrinsic colors and absolute magnitude of stars as function of spectrophotometric criteria used to determine galactic structure of Cassiopeia 14 p2617 N67-27780
Atomic absorption, flame emission, cathodic etching, spectrophotofluorimetry, X-ray fluorescence, gas chromatography, densitometer, mass spectrometer, and coulometer
[UCID-15066] 15 p2659 N67-29402
Chemical analyses by helium analyzer, atomic absorption spectrophotometry, mass spectrometer, X-ray fluorescence spectroscopy, coulometer, vacuum fusion device, and gas chromatography
[UCID-15079] 15 p2659 N67-29403
Analysis of aluminum alloys by atomic absorption
[Y-KG-37] 15 p2660 N67-29413
Rhenium separation from copper, molybdenum, and tungsten and spectrophotometric determination
[LA-3560] 15 p2662 N67-29811
Airglow observations, diurnal variations, variations during solar eclipse and activity, and instrument calibration
[AFCRL-67-0028] 16 p2885 N67-29447
Burning process of nuclear fuels - uranium 235 thermal fission yields and spectrophotometric method for determining technetium fission yields for uranium 233 and 235
[IN-1064] 16 p2934 N67-29856
Programmed recording spectrophotometer used as analytical and control instrument in recovery by ion exchange of promethium 147 and americium 241
[BNWL-327] 17 p3060 N67-30676
Spectrophotometric measurements of vibrational relaxation of CO in shock wave and nozzle expansion-flow environments
[NASA-CR-97376] 19 p3550 N67-32915
Applications of spectrophotometric titrations to analysis of uranium-containing solution
[CEA-R-3140] 19 p3595 N67-33655
Spectrophotometric analysis of thin antimony/arsenic alloy films
[AERE-M-1886] 20 p3590 N67-34310
Spectrophotometry results on bright prominences 20 p3723 N67-35045
Spectrophotometric determination of iron and aluminum in low-alloyed uranium alloys
[UJV-1681] 20 p3597 N67-35118
Physical and mechanical properties of Teflon film by X-ray diffraction, differential thermal analysis and infrared spectrophotometry
[NASA-CR-86126] 21 p3861 N67-36115
Spectrophotometry of neptunium in nitric acid solutions
[RFP-958] 23 p4206 N67-38702
Spectrophotometric measurement of low rhenium concentrations as furil dioximate after separation from plutonium rhenium alloy
[LA-3711] 24 p4397 N67-39905
Numerical analysis of spectral lines on photographic plates of nebulae to determine characteristic curves of spectrophotometric emulsion
[ARL-67-0125] 24 p4453 N67-40174
SPECTROSCOPE
Balancing device for paramagnetic resonance
radiospectroscope 12 p2008 N67-23514
SPECTROSCOPY
SA AURORAL SPECTROSCOPY
SA COLORIMETRY
SA ELECTRON MICROSCOPY
SA GAS SPECTROSCOPY
SA INFRARED SPECTROSCOPY
SA MAGNETIC SPECTROSCOPY
SA MASS SPECTROSCOPY
SA MOLECULAR SPECTROSCOPY
SA NUCLEAR SPECTROSCOPY
SA OPTICAL EMISSION SPECTROSCOPY
SA RADIO SPECTROSCOPY
SA RAMAN SPECTROSCOPY
SA ULTRAVIOLET SPECTROSCOPY
SA VACUUM SPECTROSCOPY
SA X-RAY SPECTROSCOPY
Application of lithium drifted germanium diodes in neutron capture gamma ray spectroscopy
[KFK-429] 01 p0127 N67-10770
Fast Fourier transform used to solve interferogram integral obtained in Fourier spectroscopy
[NASA-TM-X-55613] 01 p0117 N67-10663
Crystal spectroscopy research, and free ion analyses
[NASA-CR-79996] 02 p0294 N67-11842
Spectroscopic experiments with gas-driven shock tube - technical developments, redundant measurements of plasma state, and atomic line strengths for neutral carbon
[NASA-CR-79763] 02 p0293 N67-12078
Derivatives of trifluoromethylsulfenyl chloride investigated by nuclear magnetic resonance 02 p0239 N67-12123
Doppler radar spectroscopy of Mars surface - elevation differences between bright and dark areas
[NASA-CR-80134] 02 p0309 N67-12271
Photoelectric method, and spectroscopic determination of isotopic composition of nitrogen 02 p0255 N67-12372
Intensity line ratio, line width, and area ratio methods for spectrochemical analysis of copper base solution
[AFCRL-65-855, PT. II] 03 p0357 N67-12582
Spectrophotometric analysis and X-ray diffraction of fine grained rocks and minerals for examining composition of Martian surface
[AD-630076] 03 p0459 N67-12661
Planetary physics seminar - polarization, spectrometric, and radio signal techniques for measuring Martian surface and atmospheric parameters 03 p0459 N67-12664
Possible errors due to lack of spatial resolution in spectroscopically determined temperatures in plasmas
[NASA-TN-D-3737] 03 p0447 N67-12796
Planetary reflection spectroscopy for studying extraterrestrial life
[NASA-CR-80353] 03 p0464 N67-12962
Mass spectrometry, spectroscopy, and thin layer and gas chromatography studies of hydrocarbons in banana leaves
[NASA-CR-80360] 03 p0346 N67-13002
Spectroscopic measurements of helium and argon plasma parameters produced in high frequency field of torus wound coil
[DLR-FB-66-61] 03 p0450 N67-13149
Physical processes of novae outbursts and related spectroscopic phenomenon 04 p0610 N67-13417
Research reports in theoretical physics, plasma dynamics, spectroscopy, radio astronomy, and communication sciences and engineering
[NASA-CR-80895] 05 p0779 N67-14621
Radio frequency and spectroscopic diagnostics of low density helium plasma in steady magnetic field 05 p0746 N67-15232
Spectroscopic and photometric analysis of Venus and Mars atmospheres to determine luminescence and other properties
[NASA-TT-F-394] 07 p1186 N67-16801
Spectroscopic investigation of Venus atmosphere to determine nitrogen, oxygen, carbon dioxide, water vapor, and other components 07 p1186 N67-16802
Discrepancy between Mars atmospheric pressure data from spectroscopic measurements and from photometric and polarimetric observations 07 p1188 N67-16811
Reflectance spectra of organic coatings in 0.2 to 40 micron region
[CCL-213] 07 p1185 N67-16823
Modifications to diagnostic facility for time-resolved spectroscopic studies of pulsed plasmas 07 p1076 N67-16827
Fission product determination by gamma spectroscopy 07 p1127 N67-17148
Journal of Applied Spectroscopy articles on ruby lasers and activated alkali halide scintillators
[FTD-HT-66-310] 07 p1096 N67-17169
Electron-optical instrumentation applied to direct photography and astrospectroscopy 07 p1079 N67-17179
Instrumentation for spectroscopy at microwave frequencies 07 p1085 N67-17782
Infrared Fourier spectroscopy techniques, and interferometric spectroscopy studies on near infrared region of spectrum 07 p1085 N67-17784
Bibliography on spectroscopy of high temperature chemistry and reactions between gases and condensed phases 07 p1022 N67-18184
Chemical analysis - analytical development, radiochemistry, electroanalysis, facilities, spectroscopy, equipment and methods, and standards and quality control
[IDO-14079] 08 p1234 N67-18301
Spectrochemical analysis for determinations of iridium in aluminum and boron in thorium, and separation and analysis of Sm 151 in CPP feed solutions 08 p1255 N67-18368
Equipment and methods for spectrochemical analysis 08 p1261 N67-18389
Atomic absorption and emission spectroscopy, and neutron activation for ultratrace chemical analysis of materials for semiconductor
[NASA-CR-82011] 08 p1237 N67-18519
Neutron resonance spectroscopy approach using bremsstrahlung radiation to study highly excited nuclear states of heavy nuclides 08 p1242 N67-18868
Chemical physics - molecular beam studies, calorimetry, microwave and radio frequency spectroscopy, neutron and X-ray crystallography, and mass spectrometry 08 p1244 N67-18949
Chemical biodynamic research on spectroscopic techniques, photosynthesis, amino acid synthesis, organic geochemistry, and ion accelerator improvements
[UCRL-16806] 09 p1397 N67-19621
Electron spin resonance, Mossbauer, electronic, and optical rotatory spectra applications to problems in biology 09 p1397 N67-19622
Radio frequency spectrum of Sun
[AFCRL-66-533] 09 p1806 N67-19627
Spectroscopic analysis of optical precursor radiation in electromagnetic shock tubes
[TR-4] 10 p1691 N67-20438
Nuclear chemistry - radioactive decay, energy levels, separation processes, charged particles, and emission spectroscopy
[PPAD-593E] 10 p1703 N67-20634
Circularly polarized beta-gamma correlation and gamma spectroscopy of magnesium-27
[UCRL-14084] 11 p1895 N67-22317
Microwave spectroscopy - electric field effects in nuclear magnetic resonance of fluids, expansion of velocity surfaces in spherical harmonics, and electron cross relaxation in dilute ruby 11 p1866 N67-22643
Theoretical and experimental studies in chemical physics - transport properties, molecular energy levels, excitons, phase studies mathematical models, quantum mechanics, and spectroscopy
[AFOSR-67-0041] 12 p2027 N67-23518
Research project reports on coder components, infrared atomic spectra, semiconductor and plasma physics, and solid state spectroscopy
[NOLC-688] 12 p2154 N67-23761
Design and construction, operation of servo system, and sweep circuit input for interferometer applicable to Fourier spectroscopy
[AFCRL-66-847] 12 p2101 N67-24041
Hyperbolic excitons as unstable and not accountable for resonance structure in optical spectra of insulators
[NASA-CR-83780] 13 p2370 N67-25119
Applied spectroscopy studies - phase relations in light modulation by electro-optic effect and measurement of electro-optic effect in crystals
[FTD-HT-66-857] 13 p2366 N67-25381
Phase relationships in light modulation by

means of linear electro-optic effect 13 p2366 N67-25383
Measurement of electro-optic effect in crystals 13 p2366 N67-25383
Comprehensive review of theories, data handling, systems, and calibration in Fourier transform spectroscopy [NASA-CR-84119] 13 p2370 N67-26448
Molecular physics research on maser spectroscopy, electron excitation, molecular spectra of cesium, and related topics 14 p2385 N67-26618
Ultrasonic pulse-echo spectroscopic methods for nondestructive determination of defect characteristics and to distinguish microstructures of steel specimens [AMRA-TR-66-38] 14 p2531 N67-26743
Czochralski technique for growing high quality single crystals of undoped and chromium doped stoichiometric spinel magnesium aluminate - crystal spectroscopic and lasing tests [SRCR-67-3] 14 p2549 N67-26779
Molecular beams, and velocity of sound surfaces in lithium niobate 14 p2603 N67-27083
Gamma ray spectroscopy in Van de Graaff accelerator research [BNL-10663] 15 p2763 N67-28416
Spectroscopic measurements in quiet flow water tunnel of wall pressure fluctuations in thick turbulent boundary layers [RT-15101] 15 p2893 N67-28547
Spectroscopic measurements of ion and electron temperatures and plasma density in rod plasma gun [INR-717/XVIII/PP] 15 p2774 N67-28568
Spectroscopic electron and ion temperature measurements in rod plasma guns [INR-718/XVIII/PP] 15 p2775 N67-28569
Spectroscopic analysis of stellar atmosphere chemical composition [NASA-CR-84923] 15 p2795 N67-28928
Differential ultrasonic spectroscopy for defect and microstructure identification [AMRA-TR-67-07] 15 p2715 N67-28900
Primary processes in photochemistry [TID-25710] 16 p2843 N67-29267
Interaction of matter and radiation, and radiation stability and damage 16 p2846 N67-29465
Spectroscopic method for measuring electron temperature of plasma [PH-41] 16 p2957 N67-30040
Spectrochemical analysis of impurities in plutonium and plutonium compounds [CEA-R-3051] 17 p3015 N67-30068
Estimated effects of gaseous contaminants on Apollo applications lunar module spectroscopy [BM-301] 17 p3167 N67-31135
Photodissociative laser systems used to convert solar radiation to monochromatic coherent emission - excitation mechanisms, spectroscopy of gases absorbing light, and chemical processes [NASA-CR-85865] 18 p3277 N67-31658
Spectroscopic measurements on electrodeless plasma accelerator to estimate radiation energy loss [NP-16694] 19 p3313 N67-33899
Spectroscopy of A and B star of peculiar chemical composition - planetary nebulae - and chemical composition of gaseous nebulae [AFOSR-67-1065] 19 p3322 N67-33921
Facilities for spectroscopic analysis of plasma flow in magnetic field, and photography of visible spectrum 19 p3517 N67-33389
Spectroscopic methods for diagnostics of low temperature plasma [FTD-MT-65-539] 19 p3518 N67-33503
Neutron physics, nuclear reactions with charged particles, spectroscopy, muonic X-rays and nuclear structures, neutron interactions with matter, neutron gas kinetics, and instruments [NYO-GEN-75-133] 19 p3507 N67-33563
Data handling and analysis, statistical analysis, modeling, and field spectroscopy for application to agriculture 19 p3411 N67-33630
Properties of planar and coaxial germanium lithium detectors including use in gamma spectrometry [PEL-135] 19 p3460 N67-33659
Vibronic transitions in spectra of gadolinium and negative hydrogen ion pair in calcium fluoride crystals [AFCRL-67-0278] 20 p3712 N67-34348
Spectroscopic diagnostics for measuring electron temperature and ion density in 2X mirror machine plasma [UCID-15107] 20 p3706 N67-34443
Brief summary of results of spectroscopic research program on molecular structure, particularly of atmospheric gas molecules [AFCRL-67-0388] 20 p3695 N67-34523
Atomic absorption spectroscopy for determination of arsenic in copper-arsenic copper alloys [ARL/MET-42] 20 p3594 N67-34617
Telescopic spectroscopic, and photometric observations of galaxies, various types of stars, night sky, and sodium light 20 p3728 N67-34671
Computational algorithms in Fourier transform spectroscopy [TR-1001/9200-01/-8] 21 p3803 N67-35429
Nonlinear least squares computer analysis of Mossbauer transmission spectra [AD-654029] 21 p3899 N67-35565
Calibration standards for photon spectroscopy between 20 keV to 300 keV - photodetectors [NASA-TM-X-55012] 21 p3852 N67-35459
Linear accelerator radiation field measurements by gamma detection, gamma ray spectroscopy, and neutron detection methods [AFCRL-67-0301] 21 p3906 N67-35493
Survey on photochromism in triphenylmethane derivatives and related compounds [C+OM-29] 22 p3923 N67-36977
Metastable atoms and ions, atomic and molecular spectroscopy, radio astronomy, solid state physics, collision, and laser excitation [PR-15] 23 p4099 N67-37381
European space research on laser-produced plasmas, and application to plasma physics and spectroscopy [ESRO-SN-69] 23 p4118 N67-37715
Spectroscopy of proton ground state configurations in zirconium isotopes [ORNL-TM-1860] 22 p4108 N67-37936
High temperature plasma spectroscopy - laboratory experiments related to ultraviolet and X-ray astronomy 22 p4121 N67-37627
Vibrational analysis of carbon 13 oxygen 16 - determination of vibrational and potential constants of symmetric isotopic species of carbon dioxide [AFCRL-67-0321] 23 p4162 N67-38388
Electron donor acceptor complexes - haloquinone complex absorption in polymer matrices [TR-5] 23 p4203 N67-38558
Bibliography for flame spectroscopy analytical measurements - 1960 to 1966 23 p4269 N67-39036
Fluid mechanics of magnetically balanced arcs in cross flows, spectroscopic studies of supersonic air arc, and preliminary design of magnetic field coils [NASA-CR-89436] 24 p4305 N67-39510
Spectroscopic application of optical and infrared masers [NASA-CR-89433] 24 p4421 N67-39893
Uranium hollow cathode lamp as primary source in atomic absorption spectroscopy [EUR-3589.E] 24 p4347 N67-39918

SPECTRUM

SA ABSORPTION SPECTRUM
SA ASTRONOMICAL SPECTRUM
SA DIFFRACTION GRATING
SA ELECTRON SPECTRUM
SA EMISSION SPECTRUM
SA ENERGY SPECTRUM
SA INFRARED SPECTRUM
SA LINE SPECTRUM
SA LYMAN SPECTRUM
SA MASS SPECTRUM
SA MICROWAVE SPECTRUM
SA MOLECULAR SPECTRUM
SA NEUTRON SPECTRUM
SA NOISE SPECTRUM
SA OPTICAL SPECTRUM
SA OXYGEN SPECTRUM
SA PLASMA SPECTRUM
SA POWER SPECTRUM
SA RADIATION SPECTRUM
SA RADIO SPECTRUM
SA RAMAN SPECTRUM
SA SHOCK SPECTRUM
SA SOLAR SPECTRUM
SA SPECULAR REFLECTION
SA STELLAR SPECTRUM
SA ULTRAVIOLET SPECTRUM
SA VIBRATIONAL SPECTRUM
SA VISIBLE SPECTRUM
Peak deterioration in spectra using single-channel analyser spectrometer with assumption of Gaussian amplitude distribution at input [INR-695/III/PL] 01 p0071 N67-10659
Identification of mirabilite and thenardite in airborne dust by infrared absorption spectroscopy [ECOM-5073] 06 p0674 N67-16187
Turbulence measurements relevant to jet noise [UTIAS-119] 11 p1961 N67-22155
Spectrum of nonself-adjoint Sturm-Liouville operator 15 p2139 N67-25955
Spectra and angular distributions of alpha particles from interaction of accelerated neon 22 and argon 40 ions with gold and thorium nuclei [JINR-P7-3041] 12 p2163 N67-25722
Spectrum measurement of photons emanating from Crab nebula [AFOSR-67-0410] 13 p2349 N67-25943
Low frequency spectrum analyzer for shipboard use 19 p3432 N67-33139
Acoustic spectrum shaping utilizing finite hyperbolic horn theory [NASA-CR-87499] 20 p3687 N67-34280
Broadening of spectrum in which laser visible and near-infrared spectroscopy performs effectively [IPP-6/60] 20 p3688 N67-34688

SPECULAR REFLECTION

Photometric measurements of Echo I satellite on specular degradation of aluminized Mylar surface during orbit [NASA-CR-86179] 02 p0260 N67-12307
Specular analysis of reflections from flat region and smooth surface tangent to plane along curve to obtain data on radar target geometry [MTR-233] 22 p3986 N67-36972

SPEECH

Effect of multiple paths on acoustical signals as related to speech recognition and improvement of signal-to-noise ratios - delay lines [AD-637870] 01 p0027 N67-10317
Speech associative activity under conditions of signal interference and time shortage 02 p0219 N67-11894
Environmental factors effect on voice communication in spacecraft and underwater operations [REPT.-485] 09 p1416 N67-19743
Speech decoding method [TR-9] 10 p1886 N67-20472
Frequency and intensity characteristics of astronaut speech during emotional stress under flight conditions [JPRS-36988] 10 p1907 N67-21171
Intelligibility test methods and procedures for speech communication system evaluation [ESD-TR-66-977] 12 p2065 N67-24824
Computer computations of errors in energy and envelope of voice signal 12 p2086 N67-25765
Quantization frequency of random speech signals in correlation and spectral analysis 13 p2370 N67-25789
Russian open syllable count for automatic speech recognition in man-computer information systems 13 p2370 N67-25790
Linguistic research on transformational grammar, Lithuanian morphophonemics, English directionals, and concept of performance 14 p2473 N67-27108
Neural modeling of human processes of speech production and pattern recognition [REPT.-9] 15 p2950 N67-28730
Computer simulations of vocoded speech in absence of laryngeal frequency and its restoration by full wave rectification [ESD-TR-67-237] 17 p3024 N67-29490
Data transformation of acoustic information to neural form [AMRL-TR-66-209] 18 p3214 N67-30588
Correction of distortion inherent in speech uttered in helium rich atmosphere [REPT.-4007-F-1] 20 p3690 N67-34564
Perturbation functions for determining vocal tract area functions from vocal tract eigenvalues 20 p3696 N67-35239
Speech Communication Index Meter /SCIM/ applications and improvements [BBN-1461] 23 p4214 N67-38565
Development of reading machine for speech segment synthesis [FTD-MT-66-469] 23 p4210 N67-38823

SPEECH DISCRIMINATION

Critical instant sampling of speech

parameters for automatic recognition of spoken words
[FSC-T-1/141] 01 p0037 N67-10429
Influence of strong sound stimulus on acoustic perception of tones and speech of civil aviation flight personnel 01 p0230 N67-11546
Feasibility of voice actuated address mechanism for use as input device to Army field telephone communications system
[REPT.-3] 02 p0296 N67-12065
Technique for automatic evaluation of speech intelligibility in communication channel transmission
[ECOM-0900-E-F] 04 p0511 N67-13914
Automatic voice recognition techniques based on spectral band analysis and statistical parameters of speech signals 05 p0669 N67-14352
Pattern recognition methods for speech signal discrimination 05 p0670 N67-14353
Frequency shifts of whistle blown in different gases - speech discrimination
[MR-66-16] 05 p0661 N67-15034
Communication systems and automatic speech recognition
[AFOSR-66-2692] 05 p0675 N67-15106
Testing for speech discrimination using consonant nucleus consonant monosyllabic words
[SAM-TR-66-35] 05 p0682 N67-15263
Language, speech discrimination, analysis and synthesis
[AD-640406] 05 p0677 N67-15214
Effect of frequency passband on intelligibility of helium speech in noise
[REPT.-466] 06 p0866 N67-16424
Theoretical and experimental aspects of analysis with sound spectrograph
[REPT.-7] 06 p0843 N67-16428
Monaural versus binaural speech discrimination for filered central nervous system materials - impaired auditory mechanism
[SAM-TR-66-84] 06 p0807 N67-16653
Phonemic transcription of speech entered into computer by microphone and analog to digital converter - classification, segmentation, pitch detection, and parameters of speech
[CS-49] 09 p1414 N67-19612
Voice communication systems
[FTD-HT-66-362] 10 p1585 N67-21332
Computer analysis of speech, vowel perception by children, and articulatory activity during production of intervocalic fricative consonants 11 p1830 N67-23461
Characteristics determining speaker recognition
[ESD-TR-66-636] 11 p1890 N67-23057
Evolutionary approach to speech perception theory and application to machine recognition of human speech
[NASA-CR-80020] 12 p2032 N67-24479
Methods for determining intelligibility of voice communication systems
[IZF-1967-2] 13 p2378 N67-25565
Computer systems for automatic control of project planning, speech discrimination, and computations - U.S.S.R.
[AEC-TR-6637/10-14] 13 p2287 N67-25761
Speech discrimination and verbal information exchange between man and computer systems 13 p2288 N67-25763
Speech recognition criteria for estimating information efficiency of independent vocal signal parameters 13 p2288 N67-25763
Russian phoneme analysis for machine recognition of speech 13 p2288 N67-25767
Digital computer methods for automatic speech pattern recognition 13 p2298 N67-25786
Dimensional analysis of vowel frequency spectra for speech discrimination equipment
[IZF-1966-14] 13 p2441 N67-26100
Doorman speech membrane influence Dutch gas mask to improve speech intelligibility
[A65/KM/661] 13 p2364 N67-26197
Linguistic and speech communication concepts on mechanism of glottal vibration for vowels and consonants, and homomorphic speech processing 14 p2489 N67-27101
Signal analyzer for observing basic speech tone changes 15 p2864 N67-27824
Speech recognition machine for use with computers and applications of cybernetic modeling in medicine and sociology
[JPRS-40456] 16 p2940 N67-29543
Speech recognition device for use with computer system 16 p2940 N67-29546
Speech intelligibility - statistical determination of sensitivity of diagnostic rhyme test to characteristics of speaker, speech transmission channel, and listener
[SRRC-CR-67-6] 16 p2961 N67-29628
Testing filter and signal to noise ratio effects on transmitted speech perception
[APCRL-67-0197] 17 p3022 N67-30469
Speech transmission, voice perception, and musical acoustics
[STL-QPSR-4/1966] 18 p3214 N67-32570
Machine recognition of speech, and magnetic memory units for controlling computers
[FTD-MT-65-481] 19 p3411 N67-33477
Automatic machine recognition of speech signals, and machine control by speech 19 p3405 N67-33478
Auditory perception of speech signals, and physiological response to electric stimulation in cerebral cortex 19 p3406 N67-33504
Speech perception of vowels, tones, and non-speech patterns, electromyography study of articulatory dynamics in hearing-impaired and normal speakers, sound synthesis, and stop closure measures
[SR-7/8/1966/] 19 p3364 N67-33749
Acoustic stimulation of human auditory analyzer studied in connection with speech signal recognition 20 p3563 N67-34513
Intelligibility and physical characteristics of speech in artificial atmosphere studies during simulated space mission
[AMRL-TR-66-165] 20 p3564 N67-34681
Swedish research on speech production, perception, and discrimination, and musical acoustics
[STL-QPSR-1/1967] 20 p3586 N67-35238
Phonetic variability of phoneme production, and articulatory model compatible with acoustic variability 20 p3586 N67-35239
Syllable coder communication system designed to reduce channel capacity normally required for voice transmission
[AD-656330] 24 p4406 N67-39774

SPEED

S AIR SPEED
S CRITICAL SPEED
S GROUND SPEED
S HYPERSONIC SPEED
S LANDING SPEED
S PERCEPTUAL SPEED
S ROTOR SPEED
S SONIC SPEED
S SUBSONIC SPEED
S SUPERSONIC SPEED
S TIME MEASUREMENT
S TIP SPEED
S TRANSONIC SPEED
S ULTRASONIC SPEED
S VELOCITY

SPEED REGULATION

Analog computer study of parasitic load speed control for solar Brayton system turboalternator
[NASA-TN-D-5784] 05 p0637 N67-14029
Turboalternator speed control with valves in two-spool solar Brayton system
[NASA-TN-D-3788] 05 p0637 N67-14990
Automatic acceleration and speed control for analytic ultracentrifuge
[UCRL-16983] 06 p0863 N67-16529
Dynamic longitudinal stability of aircraft in constant glide path angle
[NASA-TT-F-10782] 12 p2015 N67-24318
Stability of closed loop control system for rotational speed and temperature of variable nozzle turbojet engine 16 p2821 N67-29193
High accuracy digital controller for speed control of electric motors
[ISAS-414, VOL. 33, NO. 7] 21 p3823 N67-35936
Static parasitic speed controller for Brayton cycle turboalternator
[NASA-TN-D-4176] 21 p3762 N67-36012

SPERT REACTOR

Loading of enriched oxide core, and control rod and transient rod reactivity measurements for Spert III reactor
[IDO-17256] 10 p1677 N67-20869
Model for analysis of fast transient reactivity effects in low enriched oxide fueled reactors
[IDO-17234] 16 p2935 N67-29872
SPERT XVIII E core experiments relating to reactor kinetics behavior
[IDO-17297] 16 p2935 N67-29873

SPHERE

SA HEMISPHERICAL SHELL
SA OGIVE
SA ROTATING SPHERE
Determination of forces exerted by viscous fluid on sphere accelerating under gravity
[CRREL-RR-190] 02 p0249 N67-11239
Method for calculating angle through which telescope views sunlit portion of central body
[NASA-TM-X-55588] 02 p0288 N67-11366
Magnetic balance measurements of sphere drag in low density gas flows 04 p0529 N67-13589
Generation of numerical models, using digital computer, of various arrangements of hard spheres packed in cylindrical vessel
[BNL-997/T-424/] 04 p0561 N67-13624
Structural and geometric requirements, design problems, and testing of optimum inflated sphere impact limiter landing vehicle
[NASA-CR-61030] 05 p0772 N67-14906
Hydrodynamic forces and pressure distributions for oscillating sphere in incompressible, nonviscous fluid of finite depth formulated as boundary value problem
[AD-640393] 05 p0696 N67-15004
Low melting metal alloys for casting and transfer molding of hollow plastic spheres
[PA-TR-3220] 06 p0837 N67-16423
Strain gauges used to compare theoretical and experimental results from steel models having single nozzles radially and nonradially attached to spherical shell
[JAERI-1106] 07 p1132 N67-17529
Computer program listings for calculating interstitial geometry in tetrahedral lattices of crystalline hard spheres
[NASA-CR-81750] 07 p1180 N67-18094
Radiation transfer and radiant heat exchange in spherical and cylindrical radiating systems 08 p1384 N67-19169
Sphere techniques for measuring flux densities and dose rates of thermal, intermediate, and fast neutrons
[JUL-213-ST] 11 p1941 N67-23075
Gravitational collapse of isothermal gas sphere 12 p2086 N67-23999
Integral relations method used to calculate flow over sphere by supersonic stream of perfect gas
[TR-37] 12 p2087 N67-24228
Thermal instability in spherical fluid region heated from below
[P-3516] 13 p2422 N67-25402
Sphere bridging in circular channel by diametric arches
[AAEC-TM-331] 13 p2362 N67-25928
Mathematical model for calculating radar scattering from cone-sphere
[ESD-TR-66-550] 13 p2383 N67-26245
Numerical solution for problem of supersonic airflow around sphere taking into account vibrational relaxation 13 p2309 N67-26391
Electromagnetic scattering behavior of sphere with circumferential slot
[SR-6] 14 p2497 N67-26880
Transverse elastic impact of sphere against anisotropic plate
[NASA-TT-F-10971] 14 p2630 N67-27314
Resonant frequencies and damping factors of solid dielectric sphere immersed in warm collisional plasma
[NASA-TN-D-4003] 15 p2772 N67-28290
Electromagnetic frictionless accelerometer for measuring drag accelerations at high altitudes of falling spheres
[SR-3] 15 p2713 N67-28550
Transverse impact of sphere on elastic plate 15 p2803 N67-28815
Lubrication and elasticity equations established for elastohydrodynamic problem of normal approach of two spherical bodies
[MTI-67TR21] 16 p2876 N67-29057
Equilibrium air radiation from stagnation region of high velocity spheres
[NOLTR-65-199] 16 p2765 N67-29650
Electromagnetic wave scattering by expanding conducting sphere
[TR-40] 16 p2787 N67-29599
Modified vacuum integrating sphere for in situ reflectance measurements of low temperature surfaces
[AEDC-TR-67-10] 16 p2896 N67-29654
Fortran program for buckling of truncated spheres
[BNWL-330] 17 p3172 N67-30773
Heat transfer and equilibrium temperature of sphere in supersonic rarefied gas flow
[TG-330-T522] 18 p3356 N67-32465
Oxidation of suspended carbon spheres at

normal pressure
[FS67-2/U/] 18 p3236 N67-32541
Temperature distribution in homogeneous opaque sphere traveling in space
[NASA-TN-D-4046] 18 p3288 N67-32551
Forces on sphere moving steadily along circular path in viscous fluid
[CRREL-RR-229] 19 p3431 N67-32924
Buckling characteristics of elastic complete spherical shells of high radius-to-thickness ratio
[SUDAAR-301] 19 p3544 N67-32954
Fractional gas release calculated from recoil bombarded sphere of inert material on annealing at given temperature
[EUR-3488.E] 19 p3504 N67-33061
Focusing blast accuracy for antiaircraft missile warheads using a sphere of Composition C-4 19 p3369 N67-33377
Transient temperature distribution in solid sphere of low conductivity material after application of aerodynamic heating
[PIBAL-934] 20 p3743 N67-34084
Density disturbance ahead of sphere in rarefied nitrogen or argon supersonic flow, and stability of viscous three-dimensional disturbances in laminar compressible boundary layer 20 p3635 N67-34776
Neutrino motion in Volkoff spheres
[NP-16738] 20 p3690 N67-34890
Neutrino motion in fluid sphere described by solution with singularity 20 p3702 N67-35034
Fortran programs for computation of light scattering functions for heterodisperse systems of isotropic spheres
[TR-15/61/] 21 p3894 N67-35549
Finite difference method to obtain numerical results on normal shock wave diffraction by sphere and subsequent transient flow
[NASA-TR-R-268] 21 p3831 N67-35723
Finite difference method for solving initial and boundary value problems of spherical cavity dynamic expansion in elastoplastic material
[BRL-1357] 21 p3943 N67-36201
Bistatic radar measurement for determining permeability and dielectric constant of smooth spherical target material
[NASA-CR-86062] 21 p3901 N67-36421
Electromagnetic scattering from absorbing spheres
[NASA-CR-86226] 21 p3897 N67-36604
Hypersonic flow of rarefied rhenium gas around sphere
[NASA-TT-F-11194] 22 p4033 N67-36698
Precession and nutation of deformable bodies - oscillations of incompressible viscous fluid globes
[D1-82-0618] 22 p4023 N67-36844
Engineering development of 1680 MHZ telemetry antenna for Arcus type rocket ejectable twenty-four inch sphere
[AFCRL-67-0236] 22 p3996 N67-36926
Fluid free surface proximity effect on sphere vertically accelerated from rest
[E-134.2] 22 p4034 N67-37099
Heat transfer from sphere to liquid sodium during forced convection
[ANL-7296] 22 p4162 N67-37295
Pulsations in turbulent wakes of hyperballistic spheres during atmospheric reentry 22 p4028 N67-37835
Wake electron density measurements behind hypersonic spheres and cones 22 p4118 N67-37529
Dynamic behavior during reentry of plutonium dioxide microspheres
[SC-CR-67-3635] 22 p4167 N67-37920
Spectral reflectances of water and carbon dioxide cryodeposits measured in vacuum integrating sphere as function of incidence angle, substrate material, and cryodeposit thickness
[AEDC-TR-67-131] 23 p4293 N67-38105
Dynamic flight characteristics of ballasted sphere at various speeds
[NASA-TN-D-4196] 23 p4323 N67-38361
Light scattering by banded two-dimensional biaxial crystal spherulite
[ONR-TR-90] 23 p4296 N67-38839
Methods of measuring velocity distribution, pressure loss, and voidage fraction for randomly packed beds of spheres
[AAEC/E178] 24 p4483 N67-40356

SPHERICAL HARMONICS
Expansions in spherical harmonics - integral form of radial dependence
[NASA-CR-79839] 01 p0114 N67-10436
Spherical harmonics techniques applied to dynamic equations, highly truncated systems, and large scale atmospheric wave motions
[APCRL-65-708] 05 p0733 N67-15061
Root-mean-square differences between measured magnetic field values obtained by rubidium vapor magnetometer aboard OGO-2 satellite and values derived from spherical harmonic expansions
[NASA-TM-X-55665] 08 p1370 N67-18567
Method for calculating geomagnetic field strength components in solar-ecliptic coordinate system 10 p1617 N67-20400
Spherical harmonics method for problem of two adjoint half-spaces, and problem of infinite slab
[BMWF-FBK-66-19] 10 p1703 N67-20815
Microwave spectroscopy - electric field effects in nuclear magnetic resonance of fluids, expansion of velocity surfaces in spherical harmonics, and electron cross relaxation in dilute ruby 11 p1986 N67-22642
Generalized spherical functions for solving problem of motion of axisymmetric solid with spherical cavity filled with viscous fluid around fixed point 13 p2419 N67-26182
Spherical harmonic analysis of Sq-fields for September 1958 19 p3446 N67-33670
Graphic representation of spherical harmonics, tensor, and rotation matrices of nuclear physics problems
[LYCEN-6663] 23 p4214 N67-39906
Spherical harmonic analysis of Department of Defense seismodetic control system 1966
[D1-82-0631] 24 p4527 N67-39892
Spherical harmonic expansion of lunar gravity field data from lunar orbiter and Lunik 10 analyses, and calculation of moon shape and internal structure
[NASA-CR-89683] 24 p4531 N67-40320

SPHERICAL SHELL
Dynamic stability criterion applied to conical and spherical shallow shells of revolution 01 p0158 N67-10074
Buckling load of spherical shells by incompressible fluid, and by compressible gas pressure
[REPT.-4] 01 p0159 N67-10438
Buckling strength of fabricated HY-80 steel spherical shells
[DTMB-1721] 02 p0318 N67-12196
Axisymmetric dynamic response of spherical and cylindrical shells
[NASA-CR-86270] 03 p0470 N67-13000
Partial differential integral equations for diffuse light transmission from central source through inhomogeneous spherical shell with isotropic scattering
[RM-5126-PR] 05 p0739 N67-14791
Feasibility of glass and ceramic pressure vessels for deep submergence applications
[DTMB-2343] 06 p0977 N67-16402
Strain gauges used to compare theoretical and experimental results from steel models having single nozzles radially and nonradially attached to spherical shell
[JAERI-1108] 07 p1123 N67-17529
Design graphs for determining flexibility of nozzles in spherical shells
[TID-22344] 07 p1268 N67-17563
Theoretical technique for predicting thermal stresses in thick walled ablating sphere of low conductivity material subjected to point symmetric aerodynamic thermal and pressure load
[PIBAL-930] 07 p1268 N67-17569
Linear equation solutions for small symmetrical deformation of shallow spherical sandwich shells under local loading
[NASA-TN-D-3855] 07 p1295 N67-18155
Creep calculations on pressurized thin spherical shell with sealed opening
[NONR-562/36//51] 08 p1375 N67-18391
Monte Carlo analysis of sphere transmission data for gold and iodine slow neutron capture cross sections at 24 keV 08 p1327 N67-18818
Spherical shell transmission method for measuring total neutron absorption cross sections of boron and lithium 08 p1329 N67-18835
Free vibrations of shallow spherical membrane shells
[NASA-CR-82325] 08 p1378 N67-19051
Green function approach to vibration problem of thin spherical shells
[NASA-CR-83507] 08 p1376 N67-19091
Static and cyclic fatigue tests of fusion-sealed Pyrex spheres for deep submergence system
[DTMB-2346] 09 p1519 N67-19618
Motion analysis of momentless spherical shell made of rigid plastic material 09 p1532 N67-20082
Equilibrium equations and successive approximation methods for solving axisymmetric elastic deformation of shallow spherical segment 09 p1524 N67-20047
Approximate solutions to transverse vibrations in shallow spherical shells 09 p1525 N67-20049
Elastic-plastic deformation theories and elastic solutions method for solving problem of stress concentration around circular hole in spherical shell 09 p1525 N67-20051
Stress concentration about nonreinforced circular hole in thin elastic domelike spherical shell 09 p1533 N67-20071
Spherical shell vibrations under continuously distributed load over surface solved by Fourier method 09 p1523 N67-20080
Cylindrical and spherical reinforced concrete panels and shells for use as roofs and ceilings in industrial buildings 09 p1536 N67-20120
Dynamic stability of solid shallow shell of revolution with arbitrary elastic clamping at edge 09 p1526 N67-20143
Equilibrium radiation effects on flow of supersonic airstream past spherical body 10 p1696 N67-20699
Theoretical and experimental stresses determined on steel spherical shell models with single radially attached nozzle
[ORNL-TM-1634] 10 p1705 N67-20758
Lathe machining device and splitter for disassembly and sampling of graphite ball fuel elements
[JUL-23-RW] 11 p1925 N67-22045
Equations for spherical shell used to determine stress state of shallow ellipsoidal shell of revolution weakened by hole 13 p2234 N67-24308
Elastoplastic state near ring-reinforced hole in spherical shell 12 p2234 N67-24308
Approximate solution for elastic equilibrium of hinge-supported shallow spherical shell 13 p2235 N67-24512
Differential equation system for elastic equilibrium of hinge-clamped shallow spherical shell bounded by ellipse and rectangle 12 p2235 N67-24513
Stress concentration in shallow spherical shells determined by method with controlled boundary conditions 12 p2235 N67-24515
Approximation method to examine equilibrium of spherical shell weakened by two curvilinear holes 12 p2235 N67-24516
Secondary load producing zero moment stress in spherical shell with hole 13 p2236 N67-24523
Acoustic attenuation by spherical shells at low frequencies
[REPT.-3784-6-F] 13 p2321 N67-24927
Stress concentration near elliptical hole in steep spherical shell
[NASA-TT-F-10894] 13 p2323 N67-25036
Differential equilibrium equations for numerical computation of elastic displacements and stresses in axially symmetric spherical shells
[EIC-07-SR + STR-2] 14 p2329 N67-27786
Forced vibrational motion of shallow spherical shells
[REPT.-21] 14 p2978 N67-32908
Stress concentration in spherical shell near square hole
[NAVSHIPS-TRANS-1036] 17 p3172 N67-30726
Membrane frequencies for spherical shell vibrations
[NLABS-TR-67-74-OSD] 17 p3172 N67-30729
Reinforcing rings effects on stressed state of spherical shell weakened by two equal circular openings
[NAVSHIPS-TRANS-1036] 17 p3172 N67-30876
Overall buckling of submerged vessels composed of spherical and cylindrical shells using theorem of stationary potential energy
[TR-43] 19 p3544 N67-32954
Extension of calculated frequency data for nonsymmetric mode vibrations of clamped-edge shallow spherical shell
[TR-1001/2360-20/-11] 21 p3940 N67-35634
Snapping of shallow spherical shells under dynamic step pressure loads
[TR-1001/2360-20/-9] 21 p3943 N67-36412
Buckling of cylindrical and spherical shells
[TR-7] 22 p4154 N67-37260
Monte Carlo analysis of neutron transport through spherical boron carbide shell

[ORNL-TM-1816] 22 p4108 N67-37768
Effective elastic coefficients for spherical shells perforated by radial holes
[REPT.-113-A] 23 p4356 N67-38417
Spherical shell equations and inertia terms for dynamic behavior of eye globes
[NASA-CR-80804] 23 p4188 N67-38492
Free vibrations of spherical dome 23 p4360 N67-39178
Non-symmetric, free, elastic vibrations of thin domes of revolution
[TR-68-14-OSD] 24 p4546 N67-40231
SPHERICAL TANK
Stress determination at nonradial openings in spherical pressure vessel
[REPT.-66-9D7-520-R1] 04 p0630 N67-13910
Neutron flux distribution in water-reflected spherical cavity
[NASA-CR-72231] 16 p2952 N67-30128
Normal gravity self-pressurization of 9 in. diameter spherical liquid hydrogen tankage
[NASA-TN-D-4171] 23 p4334 N67-38294
SPHERICAL WAVE
Spherical wave representation theory and functions for treating electromagnetic scattering
[LMSC-M-97-66-1] 06 p0841 N67-16133
Mathematical analysis of propagation of spherical shock waves in radiating dynamical gas systems
[D1-82-0555] 07 p1062 N67-16822
Computer program on far field scattering pattern of arbitrary spherical wave by arbitrary surface of revolution 15 p2869 N67-28727
Iterative method to evaluate partial wave scattering amplitude produced by spherically symmetrical multichannel potential
[NP-16844] 23 p4363 N67-38545
SPHEROID
SA GEOID
SA PROLATE SPHEROID FUNCTION
Static pressure distribution and bow shock shape measurements on oblate spheroid at hypersonic speed
[NOLTR-66-138] 02 p0171 N67-11291
Zero order potential and Hamilton-Jacobi equation as basis for spheroidal method of satellite motion theory 03 p0465 N67-13157
Oblate radial functions for spheroidal wave functions - tables
[NRL-6472] 13 p2369 N67-26234
Course in spheroidal geodesy for fourth year students at Soviet colleges
[FTD-MT-64-390] 16 p2884 N67-29419
Satellite tracking applications of potential function and force field of spheroid in rectangular coordinates
[NASA-TM-X-55956] 19 p3535 N67-33444
Plane wave scattering by spheroids and disks
[AFCRL-67-0360] 22 p4097 N67-36799
SPHYGMOGRAPHY
S PULSE RECORDER
SPIKING
S LASER OUTPUT
SPIN
SA ANGULAR MOMENTUM
SA ELECTRON SPIN
SA ELECTRON SPIN RESONANCE
SA ISOTOPIC SPIN
SA NUCLEAR SPIN
Spin calculation method and results of vertical wind tunnel testing on delta aircraft scale model
[TP-388] 04 p0569 N67-14196
Technique for measuring spin and yaw of shell along entire trajectory 06 p0877 N67-16379
Monte Carlo simulation of proton-proton spin correlation experiment
[LA-3558] 07 p1150 N67-17461
Energy level, spin, and decay rate of 138 praseodymium
[JINR-P-2819] 07 p1150 N67-17495
Nuclear reactions involving isobaric spin conservation and angular correlation measurements
[COO-1430-134] 10 p1734 N67-21831
Spin and wind tunnel tests in application to aircraft design
[NASA-TT-F-10012] 12 p2016 N67-25083
Spin testing technique as function of spin of modern aircraft
[NASA-TT-F-10011] 12 p2016 N67-25084
High acceleration effects on interior ballistics of solid propellant rocket engines
[F66-10] 16 p2943 N67-29457
Spin quadrupole force effect on allowed beta decay rate
[JINR-P4-3171] 17 p3125 N67-30291
Determination of electromagnetic form factors of spin 1 particle
[JINR-P2-3227] 19 p3505 N67-33301
Spins of first two excited states in Mg 27 by angular correlation technique in reaction Mg 26 /deuteron, proton gamma/ Mg 27
[BARC-276] 20 p3698 N67-34708
Integrated rocket spin-up launch mechanism with pyrotechnic and mechanical events initiated by single electric signal 21 p3937 N67-36216
Unitarity representations of Lorentz group and functions with spin that form basis for integral representations of scattering amplitudes
[JINR-E2-3294] 22 p4110 N67-37929
SPIN DECOUPLING
Graphic representation of spherical harmonics, tensor, and rotation matrices of nuclear physics problems
[LYCEN-6663] 23 p4314 N67-39306
SPIN DYNAMICS
Effect of anomalous magnetic moment of charged particles with spin in electromagnetic scattering
[COO-1573-1] 01 p0116 N67-10714
Comparison of rotational M1 transition rates between high and low spin states of rare earth nuclei
[CONF-660906-11] 04 p0586 N67-13966
Spins and parities of nuclei, stripping and pick-up reactions, and nuclear structure and mechanism of direct processes 06 p0921 N67-15566
Techniques for assignment of spins to nuclear states applied to 3.51 and 3.79 MeV levels of silicon 06 p0921 N67-15568
Maser spin dynamics
[NASA-TM-X-55675] 06 p1287 N67-18747
Rate equations and shell model developed for dynamic proton polarization and relaxation
[UCB-34P26-T-1] 10 p1699 N67-20756
Covariant wave equation for spin-one particle in external electromagnetic field
[IS-T-95] 10 p1705 N67-20868
Dispersion sum rule for magnetic moments and spin dependence of photoabsorption cross sections
[JINR-P2-2974] 10 p1717 N67-21461
Quasispin formalism and applications to nucleon system and proton-neutron system
[NUP-66-16] 11 p1936 N67-23480
Quantum statistical mechanics of anisotropic Heisenberg spin systems - ferromagnetic case
[PAECL/TP-8] 12 p2190 N67-23968
Development of formulas for efficient use of projection-operator method of describing spin eigenfunctions 17 p3135 N67-31107
Structural stress and deflection and electrical performance analyses of boom antenna configurations for spinning navigation satellite
[NASA-CR-85061] 17 p3163 N67-31479
Relationship between magnitude of applied spin recovery moment and ensuring number of recovery turns made to determine control required for satisfactory recovery
[NASA-TN-D-4077] 19 p3367 N67-33457
SPIN-LATTICE RELAXATION
Maser spin dynamics
[NASA-TM-X-55675] 06 p1287 N67-18747
Proton spin-lattice relaxation in liquid methane
[NP-560/PL] 11 p1812 N67-22910
Proton spin-lattice relaxation time in various liquids
[INP-507/PL] 14 p2593 N67-27690
Hydrogen bond dynamics and spin relaxation in crystals
[AROD-3955-3-P] 15 p2783 N67-28973
Ultrasonic attenuation and temperature dependence of nuclear spin-lattice relaxation time of magnetic materials
[REPT.-4906.3-RT] 24 p4516 N67-39731
SPIN-ORBIT INTERACTION
Two-particle spin-orbit nucleon-nucleon interaction of oxygen 16 and nitrogen 16 nuclei
[NASA-CR-81069] 05 p0742 N67-15032
Quantitative analysis of competition between spin-orbit and two-body forces leading to formation of intermediate coupling in nuclei of p-shell 06 p0934 N67-15650
Polarization in elastic scattering of deuterons on atomic nuclei, and nuclear reactions with polarized deuterons 06 p0937 N67-16271
Molecular orbital techniques used to find cubic field splitting 3a of certain ions in periodic group II-VI compounds of T sub d symmetry
[NASA-CR-81736] 07 p1180 N67-18100
Negative pion proton scattering polarization parameter measurements
[UCRL-17153] 10 p1722 N67-21558
Unitarity representations of similitude group of space-time - explicit construction of Wigner spin matrixes and new formulation of Bargmann-Wigner analysis
[IC/67/7] 11 p1936 N67-22481
New formulation of Bargmann-Wigner analysis, and explicit construction of Wigner spin matrixes 11 p1936 N67-22483
Separable non-local nucleon-nucleon potential for odd-parity spin triplet states
[IC/66/121] 11 p1936 N67-22484
Fitting experimentally determined barycenters of crystalline Stark components to free ion calculation of energy levels in terms of Slater integrals and spin orbit parameters 12 p2164 N67-23788
Approximation of antisymmetric wave function describing state of n identical fermion system by single Slater determinant 17 p3127 N67-30395
Natural spin orbitals for some lithium wave functions containing explicitly interelectronic coordinates 17 p3136 N67-31228
Alternate molecular orbital method for benzene molecule functions 17 p3019 N67-31327
Spectral line strengths in intermediate coupling for iron II 18 p3334 N67-31798
Dipole-dipole interactions of nuclear spins with quadrupole-coupled nucleus - metal-hydrogen bonds
[TR-11] 23 p4310 N67-38960
SPIN REDUCTION
SA DESPINNING
Extracting reduced widths in deuteron stripping reactions 06 p0922 N67-15573
SPIN RESONANCE
SA ELECTRON SPIN RESONANCE
Influence of absorption corrections on peripheral photoproduction of pions and vector mesons, and joint photoproduction of vector mesons and first pi-N resonance on nucleons 01 p0125 N67-10675
[ER-19]
Ternary fission of plutonium 239 in spin resonance region 03 p0432 N67-12544
S equals O fermion resonance classification as Regge recurrences on three trajectories
[COO-881-77] 03 p0445 N67-13303
Resonant scattering method for spin measurement of 5.5 eV neutron resonance in uranium 235 06 p1340 N67-18841
Spin resonances and thermal neutron cross sections for samarium 149, neodymium 146 reaction
[INR-755/IA/PL] 10 p1717 N67-21411
Nondestructive inspection of reinforced plastic structures by nuclear quadrupole resonance method
[ARA-77] 11 p1905 N67-23378
Spin-echo nuclear magnetic resonance studies of internal rotation in 1,1-difluoro-1,2-dibromodichloroethane
[TR-7] 17 p3014 N67-30400
Holmium 165 neutron spin resonances measured by time of flight method using neutron spectrometry
[JINR-P3-3208] 19 p3510 N67-33856
Spins, moments, and hyperfine structures of antimony 117 and antimony 118 determined by beam magnetic resonance
[PUC-937-250] 19 p3510 N67-33860
Proton spin relaxation times of sodium-ammonia solutions measured by nuclear spin resonance 21 p3784 N67-36149
Neutron resonances in platinum, silver, and thulium nuclei of spin 1/2 determined by capture and transmission experiments
[CEA-R-3077] 23 p4299 N67-38288
Computer program for calculating resonance absorption integral of resonant isotope in multi-region lattice
[JAERI-1134] 23 p4385 N67-38340
Spin generator and applications in magnetometry, constant magnetic field stabilizers, and nuclear magnetic resonance spectrometry
[FTD-HT-66-470] 24 p4454 N67-40368
SPIN-SPIN COUPLING
Signs of phosphorus-fluorine nuclear resonance spin-spin coupling constants 04 p0618 N67-15735

Structural inconsistency of higher spin field quantum electrodynamics
[UCRL-17139] 09 p1490 N67-20178
SPIN STABILIZATION
Spin-stabilized spacecraft design and functional requirements for Jupiter flyby mission in 1972 with 50-lb scientific payload
[NASA-CR-79503] 02 p0313 N67-12945
Dynamic behavior of spinning solar pressure stabilized satellite with precession damping
[NASA-CR-80062] 02 p0305 N67-12964
Radial acceleration spin effects on internal ballistics of rocket motor and combustion mechanism of solid propellant
[NASA-CR-66218] 03 p0475 N67-13189
Attitude perturbations and magnetic control of spin stabilized satellite
[ESRO-TR-2] 04 p0614 N67-14282
Nonlinear Magnus moment, and yaw cameras and sondes for studying stability of spinning projectiles 06 p0784 N67-15378
Attitude stability of spinning passive orbiting satellite
[NASA-CR-665] 06 p0973 N67-16665
Satellite attitude control by spin stabilization 12 p2143 N67-23810
Attitude control of communication satellites, including maintenance of full earth-pointing and spin stabilization 12 p2142 N67-23816
Digital system for accurate time sector division of spin stabilized vehicle as used on Pioneer space probes
[NASA-CR-83950] 13 p3409 N67-25967
Nutational stability of multibody spin stabilized satellites
[RAE-TR-67009] 15 p2795 N67-28363
Optical method for determining orientation of rotation axis of spin stabilized satellite
[RAE-LIB-TRANS-1212] 15 p2795 N67-28714
Breadboard model of spaceborne synchronous clock pulse generator for spinning spacecraft 18 p3346 N67-31596
Attitude control subsystem for spin stabilized spacecraft for mapping earths infrared horizon radiance profiles in 15 micron carbon dioxide absorption band
[NASA-CR-66382] 18 p3292 N67-33090
Simulation of deployment dynamics of spinning spacecraft
[NASA-TN-D-4074] 19 p3539 N67-33047
Despin control system for orienting devices to earth from spin stabilized satellite
[TN67-40] 19 p3369 N67-33365
Spin stabilization compared to three axis stabilization for solar probe - Icarus and Isos concepts
[NASA-TT-F-11199] 19 p3541 N67-33649
Cylindrical antenna configurations spinning around axes examined for effects on received or transmitted CW signal spectrum
[NASA-CR-73130] 21 p3902 N67-36606
Averaged equations for slow oscillatory motion of spin-stabilized shell
[NOTS-TP-4355] 22 p4007 N67-36795
Spin stabilization performance of DME-A satellite
[TG-929] 22 p4148 N67-37290
Spin stabilization and automatic attitude control for spinning communications satellite
[RAE-TR-66368] 22 p4089 N67-38039
Attitude perturbations of spin-stabilized satellite on a highly eccentric orbit
[ESRO-TN-14] 23 p4351 N67-38440
Attitude control system for removing stabilizing spin developed during rocket launch
[SC-DC-67-1819] 23 p4351 N67-38626
Spin stability of single-boom configuration, precession damping, infrared aspect sensor, and perigee attitude selection for multiple satellite system
[NASA-CR-73144] 23 p4345 N67-38985
Fortran II program for attitude perturbations and magnetic control of spin-stabilized satellite
[ESRO-SN-2] 24 p4414 N67-39839
SPIN TEST
Spin tests on delta wing aircraft model in vertical wind tunnel
[NASA-TT-F-10992] 14 p2443 N67-26637
SPIN WAVE
Significance of dimensionality in magnetic properties of single domain ferromagnetic system determined by modified spin wave theory
[NBS-TN-327] 01 p0139 N67-10450
Exact eigenfunctions for linear chain of localized spin wave
[NBS-TN-338] 01 p0130 N67-10451
Ground state of antiferromagnetically-coupled spin impurity in ferromagnet, and comparison with spin wave theory
[TR-33] 10 p1752 N67-21375
Theorem and proof of spin-eigenfunctions
[ESD-TR-67-377] 19 p3490 N67-32754
Self consistent treatment of interacting spin waves at finite temperatures - ferromagnetism
[CEA-R-3231] 19 p3505 N67-32231
Dispersion relations for zero sound and spin waves in low temperature liquid helium 3
[SR-529] 19 p3499 N67-32954
Spin wave spectra and surface effects in nickel thin films deposited in ultrahigh vacuum
[ORO-3435-39] 23 p4338 N67-38364
Spin wave resonance in ferromagnetic gadolinium thin films
[AFOSR-67-1961] 24 p4514 N67-39581
SPINAL CORD
Spinal reflexes of cats and monkeys exposed to repeated stimulation of increased gravity 05 p0656 N67-15123
Multiple exposure to vibration and functional state of spinal reflex arc in guinea pigs 10 p2338 N67-22345
SPINE
Estimated strength of human spine to withstand spacecraft landing impact 02 p0304 N67-11620
SPINEL
Spinel additives for nickel hydroxide electrodes to improve reversibility on charge and discharge
[NASA-CR-59885] 07 p1033 N67-18194
Sound velocity measurements on specimens of polycrystalline forsterite, single crystal spinel, and obsidian
[AD-646783] 12 p2696 N67-24821
Effects of fluxing agents and cooling rates on recrystallization of chrome spinel
[BM-RI-6923] 13 p2341 N67-26316
Structure and magnetic properties determined for manganese yttarbium sulfide spinel
[ESD-TR-67-340] 23 p4331 N67-38667
Tetrahedral-site copper in chalcogenide spinels - crystal structure
[ESD-TR-67-481] 24 p4514 N67-39558
SPIRAL
Germination, growth, and properties of screw dislocations
[CEA-R-2916] 19 p3523 N67-33161
Programming improvements and performance data for spiral reader system 21 p3810 N67-36270
SPIRAL ANTENNA
Efficiency and performance characteristics of very short conical spiral antenna
[TP-373/1966/] 02 p0235 N67-11918
Indirect high impact test of cavity-backed spiral antenna 06 p0834 N67-15752
SPIRAL GALAXY
Spiral patterns in disk galaxies
[NASA-CR-80837] 04 p0613 N67-14306
SPLEEN
SA BLOOD
Spleen oxygen tension and radiation protection in mice
[AD-626373] 01 p0015 N67-10417
Modification of radiation-induced increase in adenosine triphosphatase activity of spleen by various chemical agents
[AD-637575] 01 p0018 N67-10944
Growth and development of erythroid spleen colonies in irradiated polycythemic mice hosts 06 p0801 N67-15945
Proliferation and differentiation of stem cells of mouse blood forming system 07 p1006 N67-16788
Labelled amino acid incorporation into protein by rabbit spleen and lymph node microsomes
[NASA-TT-F-10254] 07 p1011 N67-17514
Histone effect on synthesis of antibodies and other proteins in rabbit spleen cell culture
[NASA-TT-F-10727] 08 p1237 N67-18941
Erythropoietin effect on growth and development of spleen colony forming cells 14 p2458 N67-26745
SPLINE FUNCTION
Role of spline functions in numerical analysis and variation diminishing approximation methods
[MRC-TSR-625] 01 p0094 N67-10469
Fortran program for determining neutron scattering angular distribution data from differential cross section values 08 p1236 N67-18995
Variation diminishing spline approximation methods
[MRC-694] 10 p1695 N67-20645
Optimal properties of extended spline functions for unicity of generalized interpolation problem
[MRC-TSR-716] 15 p2732 N67-28181
Differential equation method used to derive results for interpolation at extremal points for polynomials, linear combinations of Chebyshev system, splines, and monosplines
[MRC-TSR-731] 17 p3089 N67-30215
Spline function approximations for solutions of ordinary differential equations
[MRC-TSR-732] 17 p3089 N67-30276
Applicability of spline functions for approximation of solutions of ordinary differential equations
[MRC-TSR-723] 17 p3089 N67-30815
Smoothing by means of functions analogous to Spline functions
[ONERA-TP-462/1967/] 19 p3482 N67-33834
SPOILER
SA FLAP
SA LEADING-EDGE FLAP
SA Q-SPOILING
Developed theory of spoilers on airfoils
[ARC-CP-967] 10 p1559 N67-21189
Aerodynamic characteristics of wings with gated spoilers and handling quality problem in tilt-wing V/STOL aircraft
[NSRDC-2466] 22 p3965 N67-36940
SPOILER-SLOT AILERON
Aerodynamics of slotted spoilers in supersonic flow
[DLR-FB 67-66] 14 p2444 N67-27199
SPONTANEOUS EMISSION
Values for spontaneous and neutron induced fission of fissile isotopes
[NP-18440] 13 p2185 N67-25989
Spontaneously fissioning isomer produced in carbon 12 reactions with uranium 236
[UCRL-TRANS-1239] 16 p2941 N67-29271
SPONTANEOUS IGNITION TEMPERATURE
Two-stage combustion of explosive mixtures - kinetic zones of spontaneous ignition of iso-octane in mixtures with air at high pressures
[TIL/OT-6381] 15 p2807 N67-28961
SPORADIC E LAYER
Preliminary results of Skylark sounding rocket payload to measure density and temperature profile of electrons during sporadic E layer
[ESRO-SN-58] 13 p2468 N67-25698
Spatial distribution of sporadic E layer in polar cap 16 p2907 N67-29071
Morphology, distribution, frequencies, and seasonal regularities of sporadic ionospheric E layers obtained from IGY data 19 p3439 N67-33231
SPORADIC METEOR
Luminosity function of sporadic meteors and data extrapolation of influx rate to micrometeorite region 18 p3231 N67-33954
SPORE
Ultrasonic vibrator for producing stable, low concentration, bacterial spore aerosol
[NASA-CR-61147] 05 p0539 N67-13207
Cell interactions in slime mold, from spore germination to aggregate formation 07 p1007 N67-16780
Trace elements detected in sporulation of bacteria and germination of bacterial spores
[NASA-CR-81756] 07 p1017 N67-18129
Incorporating and recovering spores in epoxy resin, and dry heat resistance of spores encapsulated in Lucite
[NASA-CR-82514] 08 p1230 N67-19086
Quantitative spore recoveries from diatomaceous earth pellets used to simulate electronic components in dry heat sterilization studies
[NASA-CR-83122] 10 p1562 N67-21177
Dry heat resistance of Bacillus subtilis spores in and on various materials and effect of water activity on dry heat resistance of encapsulated spores
[NASA-CR-83238] 15 p2830 N67-28065
Dry heat resistance of spores at controlled water activities
[NASA-CR-86616] 18 p3211 N67-32694
SPOT WELDING
SA ARC WELDING
Plutonium Recycle Test Reactor fuel element performance and fabrication, on mash-spot resistance welding for Transient

Reactor Test capsules 08 p1324 N67-19323
Ultrasonic in-process inspection of resistance spot welds
[R-1811] 12 p2109 N67-34766
Fatigue loading properties of resistance spot weld lap joint in steel sheet
[COA-MAT-1] 14 p2543 N67-37127
SPRAY
SA DROP
SA FUEL SPRAY
SA PROPELLANT SPRAY
Statistical description of spray formation in terms of drop velocity, size and position
[NASA-TM-X-52355] 24 p4433 N67-40007
SPRAY CHARACTERISTICS
Laboratory apparatus for studying spray reactions with aid of radioactive tracer
[IA-1078] 12 p2074 N67-33759
SPRAYING
SA FLAME SPRAYING
SA PLASMA ARC METAL SPRAYING
Sprayed metal coatings for protection of aluminum alloy aircraft parts
[M-66-441] 01 p0078 N67-10543
Charged protein molecule production by electrostatic spraying 22 p4122 N67-36949
SPRAYING APPARATUS
Electrospraying device for producing thin films from rod dissolver and plutonium solutions
[AECL-2866] 22 p4058 N67-37904
SPREAD-F
Spread-F effects on radio propagation and communication, ionospheric irregularities, and scintillation and radio propagation
[AGARDOGRAPH-95] 16 p2856 N67-29281
Spread-F irregularities, and diurnal, seasonal, and sunspot cycle variations in relation to other ionospheric parameters 16 p2856 N67-29282
Vertical and oblique incidence ionospheric sounder observations of spread-F in Pacific Ocean 16 p2856 N67-29283
Spread-F characteristics near magnetic equator studied from hourly and seasonal variations in echo displays from zenith probes of F region 16 p2856 N67-29284
Spread echoes in middle and high latitudes of northern hemisphere from measurements by Topside sounder aboard Alouette satellite 16 p2856 N67-29285
Topside and fast-sweeping ground-based ionograms for studying field-aligned structure of spread-F boundaries 16 p2857 N67-29286
Angular spread of backscattered signals of spread-F echoes 16 p2857 N67-29287
Focusing and spread-F influence on apparent reflection coefficient of F region 16 p2857 N67-29288
Fading characteristics of spread-F reflections 16 p2857 N67-29289
Diurnal, annual, latitudinal, and through-sunspot cycle variations in F-plots described by measure of spread-F intensity 16 p2857 N67-29290
Frequency of spread-F occurrence over Antarctica 16 p2857 N67-29291
Partial correlation coefficients between various ionospheric, solar, and geomagnetic parameters and spread-F occurrence probability 16 p2857 N67-29292
Statistical analyses on spread-F and radio signal scintillation data in middle latitude 16 p2857 N67-29293
Night luminescence, sporadic E layer, and spread F effect on radio signal transmission 16 p2858 N67-29294
Radio star scintillation and spread-F in auroral zone 16 p2858 N67-29295
Spread-F effect on radio propagation near equator in Africa 16 p2859 N67-29307
Properties of ionospheric irregularities responsible for spread-F 16 p2860 N67-29315
Charged particle production mechanism for spread-F irregularities 16 p2860 N67-29316
Characteristics of spread-F ionograms from Antarctic region
[AVSSD-0023-66-CR] 23 p4344 N67-36875
SPRING
Compression spring mechanisms for spacecraft and shroud separation 07 p1199 N67-16913
Relaxation loss and rigidity modulus change in compression springs subjected to high temperature environment 07 p1199 N67-16920
Logarithmic damping factor of helical springs
[MTB-010055] 13 p2415 N67-25446
Mathematical model for representing restoring force in hereditary springs showing hysteretic damping
[NASA-CR-83905] 13 p2418 N67-26005
Nonlinear vacuum spring in suspension system for shock and vibration protection 18 p3349 N67-31697
SPUTTERING
Sputter ion source mass spectrometer for analysis of solid materials
[NASA-CR-683] 05 p0742 N67-14927
Resistors formed by reactively sputtered tantalum in oxygen
[TI-03-66-98] 06 p0852 N67-15972
Intermediate layers of chromium, nickel, and iron sputtered on titanium substrates to improve adhesion of electrodeposited chromium
[SA-TR18-1097] 09 p1461 N67-19811
Surface damage effects in sputtering, low energy sputtering yields, alloy and multitarget sputtering, and quadrupole mass filter for analyzing sputtered material
[REPT.-3047] 10 p1637 N67-20641
Ion range determination in solids by sputtering and method for conducting gas-surface experiments on satellites
[GD/C-DBE-66-016] 10 p1698 N67-20676
Interactions of ions and protons with material surfaces - surface density, velocity spectrum, mercury ion sputtering, aluminum-aluminum oxide sputtering, and ion implantation
[NASA-CR-72013,SER.NO.8,ISSUE 6] 11 p1931 N67-22864
Sputtering system to develop high performance thin films for microcircuits
[ECOM-01259-6] 12 p2364 N67-34498
Sputtering effects from solar wind on lunar surface investigated by ion bombardment of metal powder
[NASA-CR-83823] 13 p2401 N67-35608
Reactive sputtering and electron beam evaporation techniques for depositing glass coverslips on silicon solar cells
[NASA-CR-84005] 13 p2344 N67-36177
Angular distribution of sputtered heavy particles from tantalum or graphite targets and of scattered particle from gadolinium 156 ion beam
[SGAE-PH-56/1966] 13 p2381 N67-36315
Dual cathode sputtering technique for thin cermet films
[RADC-TR-66-783] 14 p2506 N67-37006
Thin film production by sputtering and ultrahigh vacuum deposition
[UCRL-TRANS-10063] 15 p2718 N67-38463
Rapid thermal cycling of integral coverslipped solar cells, and tests on high vacuum sputtered silicon dioxide cells
[NASA-CR-84839] 15 p2546 N67-38877
Yield, energy, and angular distributions of sputtered atoms elected from metal surfaces under ion bombardment 17 p3132 N67-30870
Sputtering procedure for yielding Alfenol thin magnetic coating materials - mechanical, electric, and magnetic properties of Alfenol
[NASA-CR-86904] 18 p3281 N67-32520
System components for measuring yield and angular distribution of gold sputtered by protons
[ORO-3557-1] 19 p3500 N67-32703
Radioactive isotope method for cathode sputtering of polycrystalline tungsten target
[FTD-HT-66-558] 21 p3914 N67-35492
Vacuum evaporation and inert gas sputtering techniques and high current density tests for aluminum, chromium-gold, and molybdenum-gold metallization systems
[NASA-CR-85011] 22 p4000 N67-36771
Solar wind bombardment effects on lunar surface - sputtering
[NASA-CR-86736] 23 p4141 N67-37577
Low current density sputtering ion source and its application to isotopic and quantitative analysis of nanogram samples
[KAPL-P-3339] 23 p4303 N67-38575
Molecular beam apparatus using cathode sputtering for potassium atom beam production and K-He cross section measurements 23 p4308 N67-38897
Mass spectrometer analysis of solid materials using ion microprobe sputter source
[NASA-CR-89236] 23 p4285 N67-39205
Techniques and evaluation of particle bombardment for crystal growth welding and bonding
[ECOM-00429-F] 24 p4458 N67-39927
SQUIB
Development of radio interference guard squib that is combination attenuator and electroexplosive device
[NWL-TM-W-9/66] 01 p0010 N67-11102
Firing energy distribution of Squib Mark 1 Model 0 electroexplosive devices for estimating accidental firing probabilities
[SU-238/1] 06 p0790 N67-15419
Static electricity and lighting hazards to squibs and detonators 06 p0793 N67-15901
Development work for pile type, nickel-cadmium squib battery
[NASA-CR-83452] 06 p1234 N67-19127
Pile type high discharge rate nickel-cadmium squib batteries - cell sealing using rubber to metal adhesive bonding
[NASA-CR-84479] 14 p2449 N67-27614
Hot-wire ignition of secondary explosives in squibs
[LA-3668] 18 p3354 N67-31710
Radio frequency sensitivity of squib electroexplosive devices used in Delta test vehicles
[NASA-CR-83623] 22 p3963 N67-36868
Pile type high discharge rate nickel-cadmium squib battery
[NASA-CR-83697] 22 p3963 N67-37011
Design and development of heat and shock resistant quibs for deep space probe vehicles
[NASA-CR-83881] 22 p3966 N67-37778
Pile type, high discharge rate, nickel-cadmium squib battery development
[NASA-CR-83927] 23 p4184 N67-37936
Small-sample evaluation of squib time-current firing characteristics
[NASA-CR-83958] 24 p4378 N67-39050
SR
S SATURABLE-CORE REACTOR /SR/
STABILITY
SA ACOUSTIC STABILITY
SA AERODYNAMIC STABILITY
SA AIRCRAFT STABILITY
SA BOUNDARY LAYER STABILITY
SA COMBUSTION STABILITY
SA CONTROL STABILITY
SA CONTROLLED STABILITY
SA DIMENSIONAL STABILITY
SA DIRECTIONAL STABILITY
SA DYNAMIC STABILITY
SA ELASTIC STABILITY
SA FLAME STABILITY
SA FLIGHT STABILITY TEST
SA FLOW STABILITY
SA FREQUENCY STABILITY
SA GUIDANCE STABILITY
SA GYROSCOPIC STABILITY
SA HOVERING STABILITY
SA HYDRODYNAMIC STABILITY
SA INSTABILITY
SA INTERFACE STABILITY
SA LATERAL STABILITY
SA LONGITUDINAL STABILITY
SA LOW SPEED STABILITY
SA MAGNETOHYDRODYNAMIC STABILITY
SA MOTION STABILITY
SA PLASMA STABILITY
SA ROTARY STABILITY
SA SHELL STABILITY
SA SPACECRAFT STABILITY
SA STABLE OSCILLATION
SA STATIC STABILITY
SA STORAGE STABILITY
SA STRUCTURAL STABILITY
SA SURFACE STABILITY
SA THERMOSTABILITY
Multicable configuration analyses and computer programs on aerodynamic characteristics and stability of captive balloons for airborne instrumentation
[NASA-CR-79508] 02 p0173 N67-11729
Attitude stability of spinning passive satellite in circular orbit
[NASA-CR-79282] 02 p0204 N67-11961
Stability of periodic solutions of nonlinear differential equations arising in servomechanism theory
[COA-AERO-191] 02 p0231 N67-11970
Imposition of conditions on nonlinear function of scalar so that system will be stable or asymptotically stable
[NASA-CR-79765] 02 p0231 N67-12075
Periodic solution stability investigated for nonlinear systems having coefficients of harmonically linearized characteristic equation 02 p0277 N67-12525
Stability of cylindrical shells under creep 02 p0470 N67-12943
Stability behavior of solutions of Hamiltonian systems in canonical form 02 p0417 N67-13140
Equilibrium and stability of toroidal

plasma screw pinch
[REPT.-66-33] 04 p0596 N67-14004
Relative and absolute stability regions determined for numerical solutions of ordinary differential equations
[NASA-TN-D-3760] 04 p0569 N67-14102
Stability theorem based on Liapunov function, and using invariance property of limit sets of solutions to differential equations
[NASA-CR-81060] 05 p0730 N67-15013
Stability of elastic body of revolution subjected to following force in gas flow 06 p0786 N67-15648
Small vacancy cluster stability as function of stacking fault energy, dislocation core energy, and surface energy 07 p1170 N67-16740
Nonlinear study of reactor systems with linear feedback 07 p1122 N67-17043
Second Method of Liapunov for studying asymptotic stability of coupled core reactors 07 p1122 N67-17046
Search through nuclear reaction for trineutron stable particle
[ORNL-P-2413] 07 p1153 N67-17554
Very high frequency Omni Range /VOR/ system radial stability and propagation error analysis 07 p1040 N67-17952
[EKR-11-1] Bibliographical survey of research on stability theory of solutions to partial differential equations
[NASA-CR-83663] 08 p1302 N67-19109
Equilibrium stability of orthotropic rectangular plates
[NASA-CR-82505] 08 p1379 N67-19204
Construction of Lyapunov function for case of stability with constantly acting disturbances in nonlinear spaces
[NASA-CR-83589] 08 p1302 N67-19218
Stability of rhenium-graphite thermocouple 09 p1448 N67-19648
Numerical stability of iterative procedures for solving linear systems of equations
[MRC-TSR-663] 09 p1467 N67-19694
Stability of nonlinear circuits with periodic inputs
[R-339] 09 p1428 N67-19831
Stability of periodic orbits of restricted three-body problem
[NASA-CR-83921] 09 p1512 N67-19999
Approximation methods for determining stability of structurally orthotropic cylindrical panels subjected to shearing stresses and internal pressures 09 p1524 N67-20045
Stability constants of rare earths with formate, acetate, chloro-acetate, and iodoacetate ligands
[IS-1450] 10 p1572 N67-20807
Stability coefficients of complexes, and indirect measurement of free metal concentration applied to beryllium acetate complexes
[CNEA-191] 10 p1575 N67-21145
Stability of uranium /IV/ nitrate studied in aqueous nitric acid phase, in organic phase, and in emulsion of aqueous phase with organic phase
[NP-16528] 10 p1582 N67-21784
Achieving stability in rigid body modes for flexibly supported wind tunnel model
[RAE-TN-STRUCT-348] 11 p1836 N67-22783
Stiffness matrixes for analysis of large deflection and stability problems 11 p1990 N67-23824
Foreign gas injection effects on laminar boundary layer stability at low Mach numbers
[NOLTR-66-155] 12 p2000 N67-24899
Flutter of towed rigid decelerators, and relationships between geometric and aerodynamic parameters defining unconditional stability boundary
[NASA-CR-766] 12 p2233 N67-25052
Photomultiplier tube problems of dark pulses and gain shift with count rate or short term stability
[NYO-3421-8] 13 p2293 N67-25620
Numerical solution of differential equations using predictor-corrector multistep methods for stability theory
[NASA-TN-D-3976] 13 p2349 N67-25797
Stability of wedge shaped plate in supersonic flow 13 p2244 N67-26428
Phase stability of intermediate frequency carrier in radar site, and approximate solution to nonlinear differential equation of oscillators
[JPRS-40723] 14 p2489 N67-27203
Preparation and stability of uranium carbide for determination of oxygen, hydrogen, and nitrogen by fusion under high vacuum
[JEN-170-DQ/I-66] 14 p2490 N67-27226
Effect of radial clearance on journal stability in gas lubricated bearings
[FTD-TT-65-1404] 15 p2718 N67-28584
Interaction of matter and radiation, and radiation stability and damage 16 p2846 N67-29485
Substructure effect on irradiation stability of steel
[GA-7618] 16 p2908 N67-29728
Stability of modulated beam in disk-loaded waveguide
[REPT.-255/T-041] 16 p2874 N67-29780
Calculations for stability of E layer
[UCID-15067] 16 p2886 N67-29923
Q machine studies of equilibrium and stability of potassium plasma with internal electric fields perpendicular to confining magnetic field
[UCRL-70115] 16 p2956 N67-29933
Invariance principle in Liapunovs stability theory
[NASA-CR-74165] 16 p2922 N67-29913
Stability of processes defined by stochastic difference and differential equations
[NASA-CR-85256] 16 p2923 N67-30074
Current stability criteria in combined normal and superconducting conductors
[IAE-1298] 17 p3146 N67-30239
Iteration method for solution of differential equations and numerical treatment of cyclotron stability
[NASA-CR-85761] 17 p3138 N67-31292
Extended dynamical system to describe operators in study of stability
[NASA-CR-85629] 17 p3096 N67-31487
Stability of rod compressed by following force 18 p3251 N67-31966
Class of wave equations for describing wave phenomena in physics, and methods for analyzing stability of Cauchy and mixed problems 18 p3305 N67-32471
Equations for electrostatic stability of plasmas of finite length
[CEA-R-3186] 19 p3517 N67-32468
Stochastic epsilon-stability of solution to quadratic programming problem 21 p3879 N67-35607
Stability effect of beta alloys in titanium chromium molybdenum iron aluminum system 22 p4043 N67-37130
Stability techniques for continuous linear systems
[NASA-CR-80496] 22 p4016 N67-37288
Parameter plane interpretation of Popov inequality appearing in stability analysis of nonlinear systems
[NASA-CR-80940] 23 p4230 N67-38716
Stability of linear time-varying networks
[RADC-TR-67-326] 24 p4434 N67-39735

STABILITY AND CONTROL
SA LATERAL STABILITY AND CONTROL
SA LONGITUDINAL STABILITY AND CONTROL
SA STATIC STABILITY AND CONTROL
Stability and control data from wind tunnel testing of scale model target missile
[NASA-TM-X-1304] 01 p0002 N67-10234
Articles presented in conference on VTOL aircraft stability and control, flight control systems, and system reliability
[DLR-MITT.-65-02] 01 p0006 N67-10571
Flight test results for XV-5A aircraft on thermodynamics, stability and control, and systems performance
[REPT.-168, VOL. II] 03 p0333 N67-13021
Stability, control, and response characteristics of large winged hull airborne vehicle flying close to water surface
[LR-17910] 05 p0632 N67-14943
Interaction of sloshing propellant in tank with launch vehicle stability and control 06 p0672 N67-15892
Hypersonic glider configurations evaluated for aerodynamic heating, stability, control, lift, and drag characteristics
[NASA-TT-F-9326] 07 p0999 N67-17872
Nonlinear effects of liquid motion in fixed and moving containers on stability and control of liquid rocket powered missiles and spacecraft
[NASA-CR-82807] 08 p1378 N67-19104
Manned Orbital Research Laboratory system improvement study on stabilization and control subsystems
[NASA-CR-86298] 09 p1514 N67-19650
Satellite control and stabilization conference
[ESRO-SP-16] 12 p2141 N67-23901
Attitude stabilization and control system for Applications Technology Satellite /ATS/
[NASA-CR-81563] 12 p2317 N67-24698
Liapunov functions for determining asymptotic stability of linear system with nonlinear control devices
[RAE-LIB-TRANS-1210] 15 p2736 N67-29707
Aerodynamic stability and control of winged vehicles
[FTD-HT-66-382] 15 p2643 N67-29888
Requirements for jet engine used for VTOL aircraft stability and control 16 p2963 N67-29191
Optimum rotor system for hot cycle heavy lift helicopter - system integration and stability and control characteristics
[HTC-AD-66-17] 16 p2970 N67-29481
Perturbation techniques used to analyse short period dynamics in space launch vehicle
[NASA-CR-830] 16 p2974 N67-29985
Method for stability analysis of distributed parameter feedback systems incorporating both spatial and temporal sampling
[NASA-CR-85237] 16 p2963 N67-30000
Determining stability and control and dynamic characteristics from flight test data
[AGARD-549, PT. I] 16 p2990 N67-30125
Digital computer simulation for control moment gyro stability and control systems
[NASA-CR-86274] 16 p2966 N67-30127
Stability and control mechanisms of French ESR booster stage for sounding rockets analyzed to improve dispersion in impact zone
[TP-443] 17 p3154 N67-31434
Stability, control, structure, cockpit, and subsystem design studies for V/STOL turbojet operations research aircraft
[NASA-CR-66422] 19 p3508 N67-33826
Load relief autopilot for space vehicle control and stability
[NASA-CR-823] 20 p3722 N67-34452
Survey on stability and control of ground effect wings including longitudinal and lateral stability derivatives
[COA-AERO-196] 20 p3561 N67-34804
Attitude and stability control system with high accuracy for astronomical research satellites 20 p3677 N67-35092
Integral and differential equations of motion for determining role of flutter derivatives in aircraft stability and control 20 p3567 N67-35128
Digital and analog studies on xenon spatial stability in large seeding reactor
[WAPD-TM-606] 21 p3867 N67-35788
Modified Shinbrot modulator functions for determining aerodynamic response in flight mechanics - stability and control derivatives
[AGARD-549, PT. II] 22 p3961 N67-36041
Modulator functions modified for determining aerodynamic responses in flight mechanics 22 p3962 N67-36042
Shinbrot method of transient response analysis for extraction of stability and control derivatives 22 p3962 N67-36043

STABILITY AUGMENTATION
Stability augmentation system evaluation by hovering XV-5 aircraft flight simulation
[REPT.-187, VOL. II] 05 p0629 N67-13634
Helicopter inherent stability characteristics and use and limitations of stability augmentation systems 05 p0625 N67-15694
Automatic control and stability problems of supersonic transport aircraft with sweptback wing configuration
[DLR-MITT.-66-10] 18 p3138 N67-31966
Automatic control and stability problems of supersonic transport aircraft 18 p3138 N67-31988
Compact and lightweight stability augmentation system known as Dynagyro for helicopters
[DCR-321] 20 p3564 N67-34200

STABILITY DERIVATIVE
Theoretical stability derivatives for symmetrically tapered wing of aspect ratio 3 at supersonic speeds
[ARC-CP-835] 07 p0699 N67-17880
Stability derivatives evaluated from free flight yawing motion of statically stable test models
[AEDC-TR-67-156] 24 p4372 N67-39681

STABILITY TEST
SA FLIGHT STABILITY TEST

SA WIND TUNNEL STABILITY TEST
High temperature stability and feasibility of hydrated titanium and tantalum oxides as ion exchangers in water cooled reactors
[AERE-R-5230] 08 p1241 N67-19309
Molten Salt Reactor /MSRE/ kinetic behavior studied to determine inherent stability characteristics 09 p1475 N67-19443
Thermoelectric stability of thermocouple materials in helium and graphite environment 09 p1460 N67-19632
High temperature, high vacuum thermocouple drift tests 09 p1446 N67-19639
Stability of modified Pirani gauge measurements in presence of corrosive gases
[CEA-R-3055] 10 p1634 N67-21541
Stability tests of liquid-liquid and liquid-vapor interfaces in test rig simulation of dynamic seal for SNAP-8 turbine alternator assembly
[NASA-CR-72222] 11 p1890 N67-22979
Operation of hydrodynamic journal bearings in liquid sodium at high temperatures and high speeds
[NASA-TN-D-3929] 11 p1891 N67-23301
Low Reynolds number hypersonic force tests of SNAP-19 capsule and Nimbus B satellite solar panel
[MND-3607-89] 12 p2145 N67-33735
Wind tunnel tests and analyses for ground mounted air supported structures
[TR-67-36-ME] 17 p3170 N67-30352
Stability tests of colloidal gold-198 tracer used for labelling oil
[SGAE-IB/IA-16/1967] 17 p3074 N67-31295
Subscale tests of M-1 rocket engine injector performance and chugging stability characteristics
[NASA-TN-D-4053] 17 p3154 N67-31442
Uniform execution standards of Abel heat test to check stability of nitroglycerin
[TIL/T-5727] 20 p3597 N67-35005
Experimental verification of double dead time model describing chugging in liquid bipropellant rocket engines
[NASA-TM-X-52362] 24 p4523 N67-40156
STABILIZATION
SA GYRO-STABILIZED
SA MISSILE STABILIZATION
SA SIGNAL STABILIZATION
SA SPIN STABILIZATION
Spectrometer stabilization systems for precise measurements of pulse-height spectra
[JINR-P-2707] 01 p0073 N67-10722
Stabilization of polytrifluorochloroethylene during processing
[FTD-TT-65-1821] 01 p0091 N67-11082
Field stabilization of nuclear magnetic resonance spectrometers by means of samples coaxial and external to receiver coil 06 p0679 N67-15737
Spacecraft gravity-stabilization boom combined with solar cell array 07 p0997 N67-16911
Gravity gradient stabilization systems for Application Technology Satellites
[NASA-CR-82465] 08 p1373 N67-18982
Vibration stability of bearings with gas lubricant
[FTD-MT-64-298] 09 p1452 N67-19538
Behavior of first gimbal stabilization loop for reliability analysis of inertial guidance system
[NASA-CR-82979] 09 p1475 N67-19982
Rapid rotation of gas for argon arc stabilization in high pressure chamber 11 p1950 N67-21005
Effects of extreme structural flexibility on flight vehicles with feedback control system stabilization 11 p1848 N67-22941
Plasma stability in magnetic mirror machine with stabilizing rods 12 p2100 N67-24163
Bright field grain structure etch for delta phase stabilized plutonium alloys 12 p2119 N67-24264
Frequency modulation stabilization system evaluation, FM laser for stabilized single frequency light, and techniques for super-mode oscillation
[IER-6] 12 p2112 N67-24379
Stabilization of magnetic field based on sensors of nuclear magnetic resonance
[FTD-TT-65-1045] 12 p2072 N67-24765
Capsular adhesive system for use in development of stabilization device for astronaut attachment to extravehicular work site
[AFAPL-TR-66-59] 13 p2345 N67-25429
Gravity gradient stabilization system for applications technology satellite
[NASA-CR-84029] 13 p2410 N67-26338
Long term laser frequency stabilization using molecular beam 14 p2547 N67-26537
Flywheel for equilibrium position stabilization of rotating solid body
[NASA-TT-F-10739] 14 p2583 N67-27569
Carbon and nitrogen stabilization in stainless steel and its effect on mass transfer in stainless steel niobium one percent zirconium potassium systems
[NASA-CR-906] 16 p2905 N67-29031
Instrument for use in semiconductor detector spectroscopy to stabilize gain of conventional amplification chain and pulse-height to digital converter during long term measurements
[UJV-1729] 17 p3063 N67-30903
Stabilization systems of spectrometric channels
[JINR-P13-3225] 19 p3454 N67-33517
Method for stabilization of focal spot in electron beam welding equipment
[FTD-HT-66-708] 19 p3495 N67-33712
High voltage generator stabilization of electron microscope beam 19 p3427 N67-33784
Applications technology satellite gravity gradient stabilization system
[NASA-CR-88130] 21 p3936 N67-36032
Conference papers on attitude control and stabilization of spacecraft
[ESRO-SP-18] 21 p3936 N67-36669
Reaction wheels used as control system actuators in attitude stabilization 21 p3854 N67-36677
Stabilization system analysis and performance of GEOS-A gravity gradient satellite
[NASA-CR-903] 23 p4349 N67-38185
Time of flight spectrometer stabilization system
[JINR-P13-3342] 23 p4253 N67-38906
STABILIZED PLATFORM
Open-loop performance of stabilized platform servo electronics system
[NASA-CR-81709] 07 p1054 N67-18047
Aircraft mount for portable inertial navigation system
[NADC-AM-6668] 12 p2144 N67-24928
Gyro and accelerometer test platform 14 p2530 N67-26538
Inertial coordinate system for determining deflections of three-axis gyro-stabilized platform 15 p2706 N67-27844
Optimum use of star tracker data to monitor and correct for drift of gyro stabilized orientational reference platform using minimum variation estimation theory
[NASA-CR-85562] 17 p3101 N67-30682
Preparation of machined preforms of beryllium gyro and stabilized platform components by gas pressure bonding
[NASA-CR-86675] 18 p3273 N67-31535
Digital simulation of Saturn guidance system stabilized platform dynamics
[NASA-TM-X-53638] 22 p4007 N67-37774
Gas composition effect on aerodynamics of flare stabilized bodies
[NASA-TN-D-4196] 23 p4236 N67-38612
STABILIZER
SA CURRENT STABILIZER
SA FIN
SA FLAP
Performance characteristics of zero gradient synchrotron linac automatic gradient stabilizer 12 p2076 N67-24071
Voltage stabilizers for high temperature furnace
[CEA-R-3050] 19 p3552 N67-33379
Magnetic spectrometer as voltage stabilizer and energy analyzer 19 p3457 N67-33382
Superconducting magnetic spectrometer used to determine energy spectrum of electron beam and to stabilize high voltage power supply 19 p3457 N67-33383
STABLE OSCILLATION
Oscillation stability for synchronization of finite set of weakly coupled oscillators to small external signal - frequency entrainment
[R-318] 23 p4373 N67-12678
Differential equation for resistive instabilities of self-pinched cylinderically symmetric charged particle beam in ohmic plasma channel
[IDA/HQ-66-4968] 06 p0944 N67-16581
Flute oscillation stability of hot ion plasma in nonuniform magnetic field 09 p1492 N67-19631
Application of ultrastable oscillators to one-way ranging systems - Measurement technique for determining phase fluctuation spectrum of highly stable oscillators
[NASA-CR-84444] 14 p2494 N67-27427
STACKING FAULT
Recovery kinetics in nickel aluminum system line shifts due to stacking faults
[TR-2] 14 p2552 N67-26985
X-ray diffraction analysis of equilibrium stacking fault energy in tensile test on polycrystalline brass
[OR-8744] 24 p4485 N67-39698
STACKING FAULT ENERGY
Small vacancy cluster stability as function of stacking fault energy, dislocation core energy, and surface energy 07 p1170 N67-16740
Energy calculations for clusters of point defects in metals 07 p1170 N67-16741
Friction of copper-aluminum alloys related to decreasing stacking-fault energy
[NASA-TN-D-3864] 09 p1293 N67-19653
Stacking fault energy and frequency of annealing twins in iron nickel chromium alloy system
[COO-1219-47] 13 p2339 N67-25940
Stacking efficiency measurements with CERN electron storage and accumulating ring /CESAR/
[CERN-67-11] 20 p3695 N67-34522
STADAN
S SATELLITE TRACKING AND DATA ACQUISITION NETWORK
STAGE
S SECOND STAGE
S SINGLE-STAGE ROCKET
S THIRD STAGE
STAGE SEPARATION
Design of LOX hydrogen rocket motor stages for use as upper stages of ELDO-C launch vehicle
[DTA/10/4205/] 04 p0606 N67-14185
Simplified passive system for separating launch vehicle from spacecraft
[APL-TG-870] 13 p2407 N67-25322
Stage separation dynamics and system related to staging of Atlas Centaur launch vehicle - full scale model tests
[NASA-TM-X-52292] 16 p2963 N67-29438
Program, facility, and equipment for vacuum chamber simulation of ELDO A second and third stage separation 19 p3542 N67-33870
Centaur AC-6 nose fairing separation tests
[NASA-TM-X-52290] 21 p3934 N67-35375
STAGNATION FLOW
Mixing of two flows with different stagnation enthalpies in supersonic ejectors
[TP-411] 04 p0533 N67-14371
STAGNATION POINT
Effect of transport property uncertainties on stagnation point heat transfer prediction 02 p0326 N67-12106
Laminar incompressible leading and trailing edge flows and near wake rear stagnation point
[AGARD-526] 04 p0532 N67-14109
Laminar incompressible leading and trailing edge flows and near wake rear stagnation point
[R66SD25] 05 p0696 N67-14702
Unsteady heating and destruction of glass plastic in region of stagnation point
[FTD-HT-66-279] 07 p1106 N67-17715
Stagnation point boundary layer with suction and injection in equilibrium dissociating air
[NASA-TN-D-3889] 09 p1435 N67-19892
Density flow field in stagnation region of blunt body in high speed rarefied flow
[BD-339-101] 12 p2011 N67-24843
Radiant heat transfer computations for vicinity of stagnation point of blunt body
[APL-TG-290-T503] 13 p2423 N67-25236
Research on plasma sheaths and boundary layers around stagnation point electrodes
[NASA-CR-83977] 13 p2386 N67-26169
Qualitative analysis on differential equations describing three-dimensional magnetohydrodynamic flow near stagnation point in prescence of high magnetic fields - pitot and Prandtl tube
[TR-41] 13 p2387 N67-26329
Stagnation line between leading and trailing edges on outer surface of shroud of shrouded propeller in static condition in rearward and in forward motions
[RR-65] 16 p2811 N67-28982
Simultaneous effects of heat and mass transfer on boundary layer properties at three-dimensional stagnation point flows

[NASA-CR-817] 16 p2881 N67-30133
Nongray radiative transfer effects on radiating stagnation region shock layer and stagnation point heat transfer
[NOLTR-67-104] 24 p4549 N67-39427
Numerical analysis of radiation effect on hypersonic flow near stagnation point
[NASA-TT-F-11274] 24 p4429 N67-39566
STAGNATION REGION
Generalized method, including computer program, to solve problem of heat transfer and material response for stagnation region of blunt bodies experiencing ablation
[NASA-TN-D-3758] 03 p0472 N67-12799
Gas dynamics analysis of counterflow diffusion flame in forward stagnation region of porous cylinder
[ISAS-404] 06 p0980 N67-15439
Geometric effects on deposition of radioactive molecules from stagnant gas to vessel walls
[TID-23351] 10 p1707 N67-30908
Temperature and density profiles in stagnation region of hemisphere cylinder body in hypersonic low density nitrogen flow
[USCAE-105] 11 p1778 N67-32723
Stagnation region gas injection in low Reynolds number hypersonic flow
[RM-5273-PR] 12 p2010 N67-34414
Equilibrium air radiation from stagnation region of high velocity spheres
[NOLTR-65-199] 16 p2965 N67-29550
Nonequilibrium air dissociation and ionization in stagnation region of blunt body
[TR-1001/83240-16/-1] 24 p4430 N67-39597
STAGNATION TEMPERATURE
Short time response stagnation temperature probe for measuring mainstream and boundary layer maximum temperatures and temperature-time histories in hypersonic gun tunnel
[ARC-CP-969] 13 p2304 N67-26150
Generation of high stagnation temperatures by precombustion of hydrogen
[DLR-FB-67-05] 15 p2865 N67-28665
Stagnation temperatures in hypersonic gun tunnel from streak camera measurements of flow velocity
[ARC-CP-929] 21 p3827 N67-36152
STAINING
Acridine orange luminescence for studying secondary structure of nucleic acids
[TRANS-1483] 06 p0804 N67-16348
Color staining metallographic technique for phase identification in sigma-bearing type 304 stainless steel 12 p2118 N67-34290
Vital staining of rat diaphragm muscle tissue during excitation
[JPRS-41935] 19 p3379 N67-33852
Histochemistry of Weil stain on rat liver - effects of chlorinated hydrocarbon insecticides and cold adaptation
[AM-66-26] 19 p3379 N67-33890
Luminescent microscopy of fixed and vital preparations of denervated frog muscle fibers stained with acridine orange
[JPRS-41904] 19 p3379 N67-33908
Staining and morphological, cultural, and physiological characteristics of organisms isolated from Hilgard soils - charts
[NASA-CR-88114] 21 p3769 N67-36813
Positional relation of spermium point of entry to median plane and to primitive groove after local vital staining tests with axoloti ovum
[NASA-TT-F-11356] 24 p4385 N67-40010
STAINLESS STEEL
Corrosion of chromium-nickel stainless steel in lithium 01 p0062 N67-10093
Dislocations in transgranular stress corrosion cracking of austenitic stainless steels
[DP-1006] 01 p0064 N67-10628
Mechanism of failure in uranium oxide/stainless steel cermets
[TRG-1272/S/] 03 p0289 N67-11751
Nitrogen content relationship to high-purity 20-20 austenitic stainless steel to stress corrosion
[AROD-4999-3] 03 p0496 N67-12937
Electron microscope study of high temperature embrittlement of irradiated stainless steels
[TRG-1283/C/] 03 p0419 N67-12709
Low endurance fatigue behaviour of low-carbon austenitic stainless steel at 25, 650, and 750 degrees Centigrade
[TRG-1247/S/] 03 p0411 N67-12631
Chemical reaction kinetics and flame study of radioisotope containment materials in launch abort environments - superalloys, stainless steels, and coated and uncoated refractory metal
[SC-CR-66-3044] 03 p0389 N67-12349
Automatic welding of stainless steel with consumable electrode in vertical plane and influence of hydrogen, nitrogen, oxygen, and air on formation of pores in titanium alloy welds
[FTD-MT-65-151] 04 p0554 N67-12392
Automatic welding of stainless steel with consumable electrode on vertical plane 04 p0554 N67-13393
Examination and analysis of bimetallic - stainless steel and Nb-1 per cent Zr - liquid metal systems to define design limits for long life system applications
[EDR-4719] 04 p0558 N67-13621
Wear rates in water of 1/4-in dia flat-ended riders and 3/4 in journal bearings on stainless steel and other materials
[AECL-2662] 04 p0558 N67-13952
Stainless steel corrosion resistance and failure modes
[QPR-4] 04 p0560 N67-13971
Prestraining effect on tensile properties of stainless steel En58b at 20 deg and -196 deg C
[RPE-TR-66/3] 04 p0561 N67-14126
Transport of carbon and nitrogen from stainless steel containing flowing potassium, and reliability evaluation of transmission gears 06 p0867 N67-16174
Kinetic analyses to predict quantative loss or gain of interstitial elements from stainless steel materials used to transport liquid metals in nuclear power systems 06 p0894 N67-16175
Effects of irradiation, cold work, and annealing on deformation induced martensitic transformation of austenitic stainless steel
[BNWL-238] 06 p0894 N67-16384
Electron microscopic studies of influence of irradiation temperature on defect structures in stainless steel 07 p1121 N67-16782
Stress strain characteristics of austenitic chromium-nickel stainless steel
[ZZL-66-013] 07 p1099 N67-17098
Stainless steel used in testing irradiation effects on high temperature mechanical properties of structural materials
[ORNL-TM-1544] 07 p1100 N67-17422
Stainless steel cladding of heavy gauge steels, and welding effects
[EURAEC-1685] 07 p1101 N67-17531
Mechanical properties of chromium-molybdenum steel and stainless steel exposed to air, helium, and high temperature sodium
[MSAR-66-174] 07 p1104 N67-17623
Crack propagation, delayed failure, and residual static strength of titanium, aluminum, and stainless steel alloys in air, three percent salt solution, and sea water
[NASA-TN-D-3825] 07 p1105 N67-18147
ELDO second stage stainless steel structures and third stage structure and development, varactor performances for parametric amplifiers, and orbiting satellite attitude stability 08 p1370 N67-19421
Extra thin stainless steel structures used in second stage of ELDO launch vehicle 08 p1370 N67-19422
Corrosion and oxidation defects on stainless steel surfaces
[EURAEC-1701] 08 p1389 N67-18523
Preparation method for stainless steel containing controlled quantities of carbon
[EURAEC-1642] 08 p1389 N67-18524
Cold - welding evaluation techniques studied by using beryllium-copper pellets and 321 stainless steel wear plates
[NASA-CR-65593] 08 p1385 N67-18942
Fission fragment damage to type-304 stainless steel fuel cladding
[GEAP-5008] 10 p1675 N67-30775
Compatibility of two types of stainless steel in model liquid sodium heated steam generator system
[BAW-1280-37] 10 p1651 N67-30831
Permeation and diffusion coefficients of hydrogen isotopes through stainless steels - diffusion of tritium through S110 and EN58E steels at 80 deg C
[AWRE-O-58/66] 10 p1572 N67-30837
Recrystallization conditions of rolled stainless steels in hot water and steam
[EURAEC-1659] 10 p1652 N67-30943
Surface state influence on various types of corrosion in stainless steels
[EUR-2991.E] 10 p1656 N67-31055
Significance of discontinuity in stress cycle fatigue curves in mild and stainless steels
[ISAV-MEMO-118] 10 p1654 N67-31058
Correlations between sensitization and stress corrosion cracking of 300 series stainless steel
[CEND-3236-304] 10 p1656 N67-31567
Polybenzimidazole structural adhesives for bonding stainless steel, beryllium alloys, and titanium alloys
[AFML-TR-65-436] 10 p1664 N67-31848
Trapping efficiency measurements for positive hydrogen ions in stainless steel target 11 p1957 N67-31949
Equipment and techniques for low-cycle fatigue tests of stainless steels 11 p1935 N67-32000
Mass transfer effects in some refractory metal alkali metal stainless steel systems
[ORNL-4026] 11 p1896 N67-32283
Welding parameters and elevated temperature aging and strength characteristics of transition joints between chromium molybdenum alloy steel and stainless steel
[NASA-CR-72305] 11 p1897 N67-32841
Corrosion of stainless steels in high temperature water and steam
[EUR-2857.E] 11 p1898 N67-32908
Austenitic stainless steel nitrogen content relationship to stress corrosion cracking susceptibility
[EURAEC-1755] 11 p1899 N67-33182
Stainless steel corrosion in high temperature water and steam
[EUR-3364] 11 p1900 N67-33186
Thin film replica technique for obtaining high quality electron micrographs of craters in metal substrates formed by microscopic hypervelocity particle impact
[NASA-CR-788] 11 p1904 N67-33307
Effect of yttrium addition on physical properties of stainless steels
[TRG-1245] 12 p2116 N67-33884
Cesium deposition on stainless steel
[GA-7423] 12 p2153 N67-33887
Stainless steel cladding of heavy gauge steels
[QPR-8] 12 p2116 N67-33888
Color staining metallographic technique for phase identification in sigma-bearing type 304 stainless steel 12 p2118 N67-34290
Simplified metallographic techniques for uranium alloys, beryllium, and stainless steel
[RFP-982] 12 p2129 N67-34551
Hydrogen reaction kinetics for evaluating surface treatment effects on corrosion of carbon steel and stainless steel in high temperature water and steam
[EURAEC-1764] 12 p2130 N67-34591
Void fraction, permeability, and capillary rise for stainless steel bead sizes for stainless steel heat pipe
[QPR-5] 13 p2423 N67-35558
Fatigue life, dilation, and tensile strength tests on stainless steel hydraulic tubing
[S+T-MEMO-16/67] 13 p2290 N67-36316
Physical parameters of stainless steel capillary tubing used to construct working equations for absolute gas viscometer
[BM-RI-6949] 13 p2234 N67-36348
Physical and chemical studies of clad uranium dioxide in potential meltdown environments 14 p2575 N67-36691
Additives, heat treatment, oil quenching, and tempering processes of pack carburizing stainless steels 14 p2383 N67-37023
Tooling requirements and cost estimates of electron beam welding, and electron beam welding of aluminum, titanium, stainless steel, and Inconel alloys
[GDC-ERR-AN-905] 14 p2543 N67-37209
TIG fusion welding methods for joining stainless steel tubing in confined areas
[GDC-ERR-AN-956] 14 p2544 N67-37216
Stretch forming of precipitation hardened, very long stainless steel skins subjected to heat treatments after forming
[S+T-MEMO-1/67] 14 p2544 N67-37257
Cavitation damage resistance of refractory and stainless steel alloys in liquid potassium at high temperatures
[NASA-CR-72323] 14 p2587 N67-37365
Pool boiling of water on stainless steel etched with hydrochloric acid
[NASA-CR-84467] 14 p2633 N67-37515
Materials data handbook on austenitic stainless steel

[NASA-CR-84466] 14 p2558 N67-27516
Stainless steels for surgical instruments
[JPRS-39976] 14 p2559 N67-27760
Strength of single lap joints of aluminum alloys and stainless steel bonded with epoxy-phenol adhesive subjected to fatigue loading at 20 deg and 100 deg C
[RAE-LIB-TRANS-1207] 15 p2707 N67-27793
Nickel and chromium ratio effect on behavior of stainless steels in sodium over 600 to 900 deg temperature range
[SM-85/51] 15 p2723 N67-28175
Relation of nitrogen content of austenitic stainless steels to stress corrosion
[EURAEC-1806] 15 p2726 N67-28600
Organic and inorganic adhesive bonding of stainless steels
[NASA-TM-X-53574] 15 p2719 N67-28756
Carbon and nitrogen stabilization in stainless steel and its effect on mass transfer in stainless steel niobium one percent zirconium potassium systems
[NASA-CR-886] 16 p2905 N67-29031
Nitrogen tetroxide-stainless steel cryopanel corrosion and coating degradation
[AEDC-TR-66-226] 16 p2906 N67-29070
Mechanical and heat treatments for precipitation hardenable stainless steels and effects on mechanical properties
[NASA-TM-X-53578] 16 p2906 N67-29173
Welding precipitation-hardening stainless steels
[NASA-TM-X-53583] 16 p2899 N67-29176
Surface treatments for precipitation hardenable stainless steels
[NASA-TM-X-53603] 16 p2906 N67-29177
Welding preparations and processes for stainless steels and joint quality
[NASA-TM-X-53576] 16 p2899 N67-29179
Casting, powder metallurgy, chemical vapor deposition, and electroforming techniques for making stainless steel shapes
[NASA-TM-X-53577] 16 p2907 N67-29427
High temperature vacuum fatigue tests of 316 stainless steel and Inconel X with resonance-type machine
[NRL-6489] 16 p2979 N67-29490
Surface preparation effects in stress corrosion cracking of stainless steel
[COO-1219-46] 16 p2906 N67-29713
Effect of uranium on transverse ductility of resulfurized chromium stainless steel rolled plate
[R-179] 16 p2909 N67-29754
Welding methods for cladding of steel plates and shells with stainless steel tape
[EURAEC-1692] 16 p2910 N67-29835
Source of chloride stress corrosion cracking in threaded stainless steel components
[AECL-2678] 16 p2911 N67-29853
Experimental confirmation of pressurized water reactor core 2 seed 1 poison wafer space design 17 p3104 N67-30204
Heat transfer and pressure drop effects on stainless steel inner passage of single tube heat exchanger from water boiling
[NASA-TN-D-4057] 17 p3179 N67-31214
Addition of yttrium to stainless steels for improved high-temperature corrosion resistance
[TRG-1345/S/] 17 p3082 N67-31373
Manufacturing processes for seamless stainless steel tubing
[NASA-CR-85910] 17 p3083 N67-31377
Cold molecular welding characteristics of metal pellets on stainless steel wear plates
[NASA-CR-85661] 18 p3273 N67-31501
Change in mechanical properties of stainless steel initially water quenched and cold-rolled influenced by time and aging temperature
[INR-770/XIV/PS] 18 p3279 N67-31877
Irradiation effects in reactor cladding materials and long-term thermal stability of stainless steel 18 p3293 N67-31903
Deformation processing of stainless steels using metal working techniques
[NASA-TM-X-53569] 18 p3274 N67-32091
Radiation effects on mechanical properties of reactor cladding materials and stainless steel thermostability 18 p3295 N67-32356
Hydrogen embrittlement of stainless steel, nickel maraging steel and Ti-6Al-4V alloy
[NASA-CR-83675] 18 p3280 N67-32390
Biaxial stress corrosion resistance of aluminum and stainless steel alloys
[NASA-CR-85648] 18 p3282 N67-32634
Creep characteristics of austenitic stainless steels at high temperatures
[QR-7] 20 p3655 N67-34140
Performance of stainless steel 304, 316, and 348 in sodium-potassium alloy at high temperatures
[IN-1089] 20 p3659 N67-34786
Improved ultrasonic cavitation methods for removing microorganisms from stainless steel strip surfaces
[NASA-CR-87429] 20 p3578 N67-34933
Stabilized hypostoichiometric uranium-plutonium monocarbide fuel pellets and stainless steel pellets comparison
[WCAP-3791-3] 20 p3684 N67-35117
Joining of refractory-austenitic bimetal tubing of niobium and stainless steel using electron beam, gas tungsten arc, and plasma arc welding techniques
[NASA-CR-72375] 21 p3860 N67-36029
Stress rupture tests on titanium bearing stainless steel rods at high temperatures
[ORNL-TM-1907] 21 p3870 N67-36293
High temperature sodium effects on mechanical properties of liquid metal cooled reactor structural materials
[MSAR-67-79] 21 p3870 N67-36296
Nitrogen solid solubility in stainless steel as function of temperature and stress corrosion
[EURAEC-1838] 21 p3872 N67-36629
Emittance testing of calcium titanate and iron titanate coated stainless steel tubes and thermal cycling tests of iron titanate coated niobium-zirconium tubes
[NASA-CR-72294] 22 p4162 N67-37318
Irradiation with mixed thermal and fast neutrons effect on stainless steel 316 susceptibility to stress corrosion cracking in magnesium chloride solution
[AERE-M-1899] 22 p4072 N67-37631
Surface roughness and surface oxidation affecting radiant properties of platinum and stainless steel
[REPT.-6-77-67-27] 22 p4073 N67-37706
Operating characteristics of stainless steel heat pipe, and analytical model for predicting operating limits of capillarity limited heat pipes
[TID-23809] 22 p4167 N67-37896
Irradiation behavior of europium oxide stainless steel dispersions - reactor control rod assembly
[ORNL-4164] 22 p4095 N67-37902
Failure mechanisms of high-purity stainless steels based on corrosion testing
[GEAP-5231] 23 p4263 N67-38574
Ultrasonic testing to determine thickness of stainless steel cylinders
[REPT.-4611.274] 23 p4258 N67-38705
Neutron irradiation effect on mechanical properties of nickel chromium iron alloy 600, nickel chromium iron weld metal, and Type 347 stainless steel
[KAPL-3161] 23 p4266 N67-39025
Optical emission and X-ray spectroscopy for rapid analysis of stainless and maraging steels
[RIA-67-1593] 24 p4464 N67-39525
Environmental testing - corrosion behavior of stainless steels in sea water
[NRL-MEMO-1795] 24 p4464 N67-39544
Dynamic mass transfer of stainless steel in sodium under high heat flux conditions
[NAA-SR-12447] 24 p4491 N67-39622
Intermediate conditioning in carbon and stainless steel fatigue - effects on steel durability
[FTD-HT-67-138] 24 p4466 N67-39760
Hot press diffusion bonding of sintered aluminum powder to stainless steel to form pressure tube transition joint for heavy water organic cooled reactor
[A1-CE-46] 24 p4492 N67-39899
Convective heat transfer between high parameter steam and solid wall of nickel or steel tubing in supercritical region
[NASA-TT-F-11283] 24 p4551 N67-40181
Testing of stainless steels and stainless steel wire
[EURAEC-1865] 24 p4470 N67-40501
STALL
S ROTATING STALL
S WING STALL
STALLING
Stall warning device for aircraft accident prevention
[AM-66-31] 02 p0173 N67-11837
Ducted propeller blade loading, duct stall, and interference
[VIDYA-229] 11 p1777 N67-23671
Piloted simulator study to investigate stalling characteristics of transport-type airplanes with localized instabilities associated with pitching-moment variations
[NASA-TN-D-4071] 17 p2995 N67-31449
Deep stall effects of rear-mounted turbojet T tail aircraft
[TP-587/1967/] 22 p3960 N67-37312
STAND
S TEST STAND
STANDARD
SA FREQUENCY STANDARD
Photometer designed as transfer standard for light emission measurements in star tracking systems
[NASA-CR-79782] 01 p0074 N67-10699
Calibration of photoelectric standard
[NASA-CR-79393] 03 p0454 N67-13001
Primary standard mercury barometers at U.S.S.R. observatory 11 p1877 N67-22030
Thermocouple instrument standards for use in fluid flow measurement
[AD-644371] 12 p2100 N67-23640
Calibration standards and procedures for RF field intensity measuring apparatus
[RADC-TR-66-687] 15 p2712 N67-28400
Standard for accurate phase angle measurements at audio frequencies
[NBS-TN-347] 20 p3613 N67-34191
NASA specifications and standards
[NASA-SP-9000] 20 p3751 N67-34727
STANDARD ATMOSPHERE
Variations of standard atmospheres at upper atmospheres 17 p3053 N67-30576
Extension tables for U. S. standard atmosphere, 1962 and calculation of geopotential
[GCA-TR-67-1-A] 22 p4039 N67-37442
U.S. Standard Atmosphere Supplements, 1966, containing tables and models depicting conditions other than mid-latitude mean
[NASA-CR-66870] 22 p4041 N67-37900
STANDARD DEVIATION
Mean square deviation distribution of mean-monthly altitude at 500 millibars on Eurasian continent and application to long range forecasting 11 p1915 N67-22604
Procedures for obtaining precision and accuracy in measurements, and detection of outliers that deviate substantially from other members of statistical sample
[AD-634626] 15 p2709 N67-27964
Diurnal average and standard deviation of phases in modulated very low frequency signals 18 p3292 N67-32216
Satellites, and astrophysical data to determine positions for geodetic parameters 21 p3844 N67-36465
Seasonal variation of standard deviation of hourly values of F-2 layer 23 p4242 N67-38234
STANDARDIZATION
SA CALIBRATION
Radio standards and frequency measurements - radio waves, atomic time standards, international time unit, and optical radio frequency measurement techniques 06 p0916 N67-16003
Test equipment for determining composition and properties of Dutch black gunpowder for purpose of standardization
[TDCK-46449] 07 p1181 N67-18073
Physical and mechanical properties of Dutch black gunpowder evaluated to establish military specifications
[TDCK-46450] 07 p1181 N67-18180
Standards and quality control in chemical analysis 08 p1361 N67-18393
Standardization of electromagnetic fields in short and ultrashort wave ranges
[ATD-66-126] 09 p1399 N67-19674
Feasibility of standard satellite system to accommodate variety of missions in magnetosphere
[NASA-TM-X-55698] 09 p1517 N67-20170
Standardization of symbols and units for biological variables used in environmental research
[AMRL-TR-66-118] 10 p1561 N67-20650
Design and construction of water moderator for neutron standardization
[JUL-179-RX] 10 p1634 N67-21089
Codes, specifications, and acceptance standards for weldments
[ORNL-P-2615] 12 p2106 N67-23728
Improved methods of standard and sample preparation for neutron activation analysis 16 p2845 N67-29892
Cost of modernization, compatibility, and standardization of language programming for computer systems
[RADC-TR-67-165] 17 p3031 N67-30719
International cooperative program on standardizing composite materials, and general and specific research

recommendations
[AGARD-524] 18 p3283 N67-23006
Standardization of irradiation rigs - rig design and fabrication techniques 18 p3296 N67-23406
Three plane concept for precise and standardized mechanical drawings
[SC-DC-67-1745] 20 p3646 N67-34436
Standardization attempts on industry documents used by government 20 p3750 N67-34479
Studies and tests to standardize light-duty PVC pressurized suits, blouses, air hoses, and connecting fittings
[AHSB/RP/-R-76] 22 p3976 N67-36780
Recalculation of heat of combustion of high purity methane sample for use as reference sample
[NBS-TN-299] 22 p4164 N67-37434
High temperature thermal conductivity and diffusivity standards
[AFML-TR-66-415] 23 p4363 N67-38507
Standardized list of definitions associated with Vertical and Short Takeoff and Landing /V/STOL/ aircraft terminology
[AFFTC-SP-67-1001] 24 p4374 N67-39741
STANDING WAVE
Development of standing neutron waves through interference in nearly perfect single crystals and influence on interaction of neutrons with nuclei
[ZFK-RN-33] 01 p0140 N67-10737
Spatial variations of electron temperature in standing wave from changes in afterglow light intensity during microwave pulse and temperature dependence of recombination coefficient 07 p1159 N67-16826
Standing wave structure for accelerating protons, and detuning effects in linear accelerator cavity
[BNL-10664] 09 p1431 N67-20153
Fabrication and testing of full power cloverleaf standing wave accelerator tank
[LA-DC-9349] 10 p1599 N67-20753
Radio frequency perturbation measurements in long linear accelerator standing wave cavities
[MURA-723] 10 p1605 N67-21828
Standing wave structure, and measurement on drift tube structure 12 p2076 N67-24073
Beam loading effects in standing wave linear accelerator 12 p2078 N67-24109
Optimization criteria for standing wave transverse magnetic deflection cavities 12 p2079 N67-24110
Standing, electromagnetic, acoustic-gravity, and quasi-harmonic wave propagation and diffraction in nonuniform media, and calculating methods 13 p2365 N67-25218
Radial electric field patterns of standing helicon waves in indium cylinders at 4.2 deg K
[CLM-R-66] 13 p2378 N67-25983
STANDING WAVE RATIO
Current preamplifier for high performance tape recorder, cavity-type coaxial frequency meters, and measuring techniques and devices for diodes, and standing wave ratios in coaxial systems 16 p2346 N67-31906
Slotted line method for swept-frequency standing wave ratio measurements in coaxial systems 18 p2349 N67-32001
STANNIDE
Thermal conductivity of magnesium stannide
[IS-T-149] 17 p3175 N67-30242
STAPHYLOCOCCUS
Simulated Martian environment growth experiments conducted with Staphylococcus aureus
[NASA-CR-92484] 06 p1230 N67-19134
STAR
SA A STAR
SA B STAR
SA BINARY STAR
SA CEPHEID
SA GALAXY
SA GIANT STAR
SA MAIN SEQUENCE STAR
SA NEUTRON STAR
SA O STAR
SA QUASI-STELLAR RADIO SOURCE /QSO/
SA RADIO STAR SIGNAL
SA STELLAR MASS
SA T-TAURI STAR
SA TAU STAR
SA VARIABLE STAR
SA WHITE DWARF STAR
Homographical coordinates for astrometric reduction of photographs of artificial satellites 04 p0569 N67-13548
Analytic method for determination of position of optical center using four reper stars 04 p0569 N67-13549
Density of interstellar material near star
[D1-82-0563] 05 p0758 N67-14745
Photographic measurements on trail density variations of moving stars 06 p0961 N67-15484
Neutron capture cross sections for nucleosyntheses in stars and in thermonuclear explosions 06 p1237 N67-19815
Rotational behavior of stars and formation of planetary systems
[NASA-CR-82356] 06 p1308 N67-19114
Angle of turbulence and solar activity effects on stellar image quality 11 p1975 N67-22507
Three-dimensional, temperature, luminosity, and metal deficiency spectral classification scheme applicable to late type stars 13 p2403 N67-26160
Measurement of radial velocity of stars in the direction of the large Magellanic cloud 13 p2405 N67-26406
New H-alpha emission stars in eta carinae nebula region - tables and charts 14 p2610 N67-26483
Radio telescope for recording radio frequency emission in universe from stars, quasars, and other sources
[JPRS-40433] 14 p2614 N67-27364
Star positions determined by combining micrometric observations with observed known star in vertical plane close to meridian
[RN-30] 16 p2969 N67-29594
Lunar occultations of radio sources, and emission from flare star Ross
[PR-4] 16 p2969 N67-29942
Declination analysis of Talcott pairs observed by International Latitude Service from 1925 to 1940 19 p3533 N67-33186
Systematic and local corrections of differential catalogs using observations of observed stars 19 p3534 N67-33187
Coordinates of Polarissima BD+89 deg 3 from observations with vertical circle at Geloseyevo from 1954 to 1962 19 p3534 N67-33188
Catalog of declination of KSZ sub 2 stars in zone from -12 deg to -20 deg 19 p3534 N67-33189
Tables of annual variations of star constants a and a prime 19 p3534 N67-33194
Telescopic spectroscopic, and photometric observations of galaxies, various types of stars, night sky, and zodiacal light 20 p3726 N67-34971
Stationary rotation of stars based on law of solar rotation 20 p3729 N67-35053
Photovisual magnitudes of 3449 stars 20 p3729 N67-35056
Model atmospheres for cool stars and late-type stars and models simulating water vapor absorption
[SAO SPECIAL REPT.-340] 21 p3900 N67-35369
System of photometric standards and data for three hundred stars on UBV system
[PUBL.-1] 21 p3902 N67-36504
Fast deuteron emission in large stars induced by protons in nuclear emulsion
[INR-775/VI/PH] 21 p3906 N67-36641
Eight color narrow band photometry of 985 stars north of minus twenty degrees declination
[NASA-CR-88750] 23 p4142 N67-37586
STAR CLUSTER
Relative rectilinear motion of companion star of visual double star 01 p0149 N67-10004
Three color photometry of southern galactic clusters 02 p0204 N67-11863
Many-body problem, continuum, and statistical methods applied to dynamics of star clusters, with bibliography 05 p0759 N67-14419
Computer programming research involving stellar clusters, internuclear cascades, and nonlinear operators
[COO-614-45] 07 p1212 N67-17261
Factors affecting relaxation times in star cluster 07 p1190 N67-17269
Dissipation rate of stars from galactic star clusters determined and used in theory of galaxy evolution - Pleiades
[NASA-CR-84884] 13 p2404 N67-26362
Relative and absolute proper motions of three open galactic clusters and their environs
[REPT.-74] 13 p2788 N67-27615
Photometric and astrometric determination of stellar structure and dynamics for globular cluster Omega Centauri 18 p2972 N67-29687
Star survey in region of association I Lacerta
[NASA-TM-X-55718] 19 p3526 N67-32980
OB stars, classical cepheids, galactic clusters, galaxy field motion, and model of galactic expansion for determining environs of sun
[AFCRL-64-940] 20 p3725 N67-34573
Astrophysics reports on galaxy, star cluster, and solar radiation observations
[NASA-TT-F-455] 20 p3729 N67-35042
Photographic magnitudes of variable stars in globular cluster M92 20 p3729 N67-35054
Variable stars in globular cluster M92, and evaluation of six RR-Lyrae stars 20 p3729 N67-35055
Many-body gravitational problem and galactic star cluster simulation 23 p4142 N67-37755
Collective motions in spherical star cluster evolution 23 p4142 N67-37758
STAR DUST PROJECT
Sampling, analyses, and mathematical model of stratosphere contamination and radioactive fallout from nuclear explosions - Star Dust project
[DASA-1821] 06 p0976 N67-16598
Flight data and results of radiochemical analyses of radioactive debris air filter samples from stratosphere and troposphere
[HASL-176] 11 p1966 N67-22306
STAR FIELD
Numerical analysis on stellar view field size in relation to star brightness
[NASA-TR-R-257] 14 p2572 N67-27281
Intrinsic colors and absolute magnitude of stars as function of spectrophotometric criteria used to determine galactic structure of Cassiopeia 14 p2617 N67-27700
Spectra of fixed and nonstationary stars, interstellar matter, and celestial bodies in far ultraviolet
[NASA-TT-F-457] 17 p3169 N67-31016
Automatic reduction procedure for photographic meteor data - star identification
[NASA-CR-863] 20 p3725 N67-34851
STAR TRACKER
IBM 7090 computer determinations of electrostatic charge densities on axial symmetric electrodes of electro-optical star tracker 08 p1245 N67-18086
Scientific programming of transformations of direction fields and autonomous systems of ordinary differential equations - Optimization of electron-optical potential for star tracker 12 p2126 N67-23643
Technical details reviewed on NASA sponsored research at Experimental Astronomy Laboratory
[NASA-CR-84291] 14 p2569 N67-26521
Gyrocompass and star tracker attitude reference techniques compared 14 p2570 N67-26532
Optimum use of star tracker data to monitor and correct for drift of gyro stabilized orientational reference platform using minimum variation estimation theory
[NASA-CR-85863] 17 p3161 N67-30092
Spacecraft attitude sensors design and operational features - horizon scanners, solar sensors, star trackers, space sextants, and map matchers
[NASA-SP-145] 17 p3166 N67-31296
STAR TRACKING
Photometer designed as transfer standard for light emission measurements in star tracking systems
[NASA-CR-79708] 01 p0074 N67-10899
Different atmospheric perturbations causing optical image instabilities in astronomical star observations, and climatic evaluation of some observatory sites in U.S.S.R.
[NASA-TT-F-427] 06 p0971 N67-15481
Astronomical microphotometer systems for image pulsation measurements on star trails 08 p0978 N67-15481
Volume effect cadmium sulfide position sensitive photodetectors for space star tracking applications
[NASA-CR-86319] 09 p1502 N67-19915
Observations of galactic and extragalactic emission, accurate positions of radio sources by lunar occultation technique, and observations of emission from flare stars
[PR-1] 14 p2609 N67-27012

Group corrections and optimization of stellar tracking data reduction 14 p2616 N67-37700
Spectral transmission of two optical systems for application to calibrations of star tracking systems [RAE-TR-67016] 15 p2707 N67-37800
Systematic corrections to reduce certain satellite positions to FK4 system [NASA-CR-84823] 15 p2791 N67-38760
Corrected star positions tabulated in 5000 and 10,000-year star catalogs 18 p3223 N67-31552
Mechanical design and properties of Surveyor star tracking guidance system and Scanner project dual radiometer 21 p3652 N67-36213
Comparison of star trackers used to derive misaligned error signals in closed-loop feedback system stabilizing satellite attitude 21 p3854 N67-36672
STARFIGHTER AIRCRAFT
S F-104 AIRCRAFT
STARK EFFECT
Stark broadening of AI and AII at high electron concentration [TR-3] 05 p0750 N67-15316
Emission spectrum and Stark splitting analyzed in europium dibenzoylmethide using first order perturbation theory [NASA-TM-X-57104] 08 p1236 N67-18443
Fitting experimentally determined barycenters of crystalline Stark components to free ion calculation of energy levels in terms of Slater integrals and spin orbit parameters 12 p2164 N67-33786
Index of refraction in neighborhood of stark broadened spectral line calculated by using relation between absorption coefficient and refractive index [NASA-CR-89568] 24 p4586 N67-39587
Debye shielding in stark broadening of isolated helium I lines [NASA-TM-X-90563] 24 p4512 N67-40490
STARLIFTER AIRCRAFT
S C-141 AIRCRAFT
STARLINER AIRCRAFT
S LOCKHEED 1649 AIRCRAFT
STARTER
SA ENGINE STARTER
SA IGNITION SYSTEM
Multiple start-stop solid propellant rocket motor using highly aluminized ammonium perchlorate annular propellant grains [NASA-CR-72313] 23 p4135 N67-37790
STARTING
Steady flow duration in hypersonic reflected shock tunnel - unsteady wave starting process in nozzle [ARC-CP-863] 16 p2999 N67-39915
Reactor kinetics calculations program to compute reactor startup transients [KAPL-M-SR-1, REV. A] 17 p3113 N67-31185
STARVATION
Enzymatic and cardiovascular effects of starvation-refeeding stress 03 p0340 N67-12450
Influence of chronic heat exposure and prolonged starvation on excretion of magnesium, calcium, phosphorus, hydrogen ion, and ketones in rats [SAM-TR-67-26] 17 p3000 N67-30183
STATE
S ELECTRON STATE
S EXCITED STATE
S GROUND STATE
S SOLID STATE
S STEADY STATE
S TRIPLET STATE
STATE EQUATION
SA HUGONIOT EQUATION OF STATE
Specific heat of solid helium 3, and thermal equations of state determinations [IS-T-94] 04 p0634 N67-14089
Conference on glaciology - equations of state for unstable glacier, dynamics of glaciers and epochs of macrocirculation, and glacier variation 04 p0648 N67-14237
Multiple glass transitions, heat capacities, and equation of state properties of polymer systems [NASA-CR-81240] 06 p0896 N67-15681
Analysis of equation for conditional probability distribution of state of nonlinear system and application to nonlinear filtering 08 p1245 N67-18508
Composite equations of state for determining effects of nuclear forces on neutron star models [NASA-TM-X-57347] 08 p1329 N67-18354
Compressibility factors of He, N, and He-N mixtures in three-dimensional space of pressure, temperature, and gas composition related to Leiden form of virial equation of state - table [BM-RI-6896] 11 p1810 N67-22474
Critical constants of uranium dioxide assessed from low temperature vapor pressure and specific heat measurements to derive limits for equation of state [TRG-1344/R/] 13 p2357 N67-25429
Equations for calculating thermodynamic properties of fluids including properties in two-phase region from empirical state equation [BM-RI-6924] 13 p2426 N67-26230
Dissipation of instantaneously heated material and determination of its equation of state by pressure and impulse 13 p2427 N67-26389
Earths gravitational constant used as additional state variable in model for obtaining orbit determination schemes [NASA-CR-84483] 14 p2610 N67-27641
Gaseous state law used in pneumatic computer computation of pressure capacitance 15 p2675 N67-28157
Intermolecular interaction and equation of state for highly excited gas [NASA-TT-F-10936] 16 p2946 N67-29006
Statistical mechanics theory pertaining to state of gases at high temperature and density [AEDC-TR-67-67] 17 p3127 N67-30486
Gas equations of state for water, sodium chloride, and silicate rocks [UCRL-14729] 17 p3055 N67-30951
Computation of arcs for optimal flight paths with state variable inequality constraints [NASA-CR-87510] 20 p3726 N67-34715
Ultrasonic state equation for tantalum crystal [TR-10] 22 p4126 N67-37050
Analysis of heat resistant epoxy resin laminate from standpoint of mechanical-chemical state equation [REPT.-1901] 22 p4077 N67-37321
Literature survey on interaction of solids at high velocities, collision experiments, and state equations of solids [JPRS-42562] 22 p4157 N67-37711
General variational equations for ground and time dependent nuclear excited states [UR-875-217] 23 p4314 N67-38234
Thermochemistry of water at high temperatures and pressures [RM-4969-PR] 24 p4396 N67-39739
STATE VECTOR
Solutions for optimal control problems by variation method in space of states 08 p0976 N67-12386
Sensitivity indexes for active circuits based on state vector differential equation for circuit analysis and design 04 p0622 N67-13351
Minimum variance method for estimating state vector with acceptable accuracy constraints in orbit calculation [NASA-CR-84795] 15 p2736 N67-28763
Continuous nonlinear recursive filtering theory applied to optimum analog demodulation, using Markov processes and state variable concepts 16 p2883 N67-29963
Maximum a posteriori estimate of random process state vector in interval 16 p2943 N67-29964
Cluster expansions in calculating expectation values of many-fermion system observables with respect to dynamically correlated state vectors [NASA-CR-85591] 17 p3122 N67-30685
Vector model for wave functions of atomic energy levels 17 p3123 N67-31018
STATIC AERODYNAMIC CHARACTERISTICS
Static longitudinal stability and control at angles of attack above those for wing stall in large-scale subsonic transport model [NASA-TN-D-3797] 03 p0631 N67-14936
Static aerodynamic characteristics of planetary entry configurations at Mach 4.54 [NASA-CR-81647] 07 p0990 N67-16001
Static aerodynamic characteristics of model of subsonic jet transport aircraft at Mach numbers from 0.40 to 1.20 [NASA-TM-X-1345] 08 p1220 N67-18480
Static longitudinal aerodynamic characteristics of decelerator vehicle scale model [NASA-TN-D-3563] 08 p1216 N67-18480
Static longitudinal aerodynamic characteristics of high drag planetary entry bodies [NASA-TN-D-3915] 11 p1780 N67-23295
Static aerodynamic characteristics of aborted Apollo-Saturn V vehicle [NASA-TM-X-53887] 11 p1963 N67-23344
Method for predicting static aerodynamic characteristics of low aspect ratio guided missile configurations [DTMB-2216] 13 p2244 N67-26247
Drag and static longitudinal and lateral stability characteristics of supersonic horizontal attitude VTOL aircraft model in wind tunnel [NASA-TM-X-213] 18 p3192 N67-31732
Static longitudinal and lateral stability and control characteristics of right triangular pyramidal lifting reentry configuration at Mach numbers from 2.36 to 4.65 [NASA-TM-X-631] 18 p3186 N67-32135
Static longitudinal aerodynamic characteristics at transonic speeds and angles of attack to 99 deg of reentry glider with folding wing-tip panels [NASA-TM-X-610] 18 p3188 N67-32139
Static aerodynamic characteristics of scale model of escape and exit configurations of Mercury spacecraft [NASA-TM-X-701] 18 p3243 N67-32146
Full-scale wind tunnel determination of effect of corrugated canister surface on static aerodynamic characteristics of reentry capsule [NASA-TM-X-220] 18 p3189 N67-32155
Low speed static aerodynamic characteristics of three ram-air inflated low aspect ratio fabric wings [NASA-TN-D-4182] 22 p3958 N67-36725
Static aerodynamic characteristics of variable sweep wing aircraft model studied in wind tunnel [DTMB-AL-38] 24 p4372 N67-40208
STATIC DEFORMATION
Literature survey and experiments on stress deformation characteristics of soils under static loading [NASA-CR-571] 02 p0256 N67-11947
Basic equations developed for small motions superposed on large static deformations in porous media [AM-66-18] 12 p2250 N67-24792
STATIC ELECTRICITY
SA ATMOSPHERIC ELECTRICITY
SA ELECTROSTATICS
SA LIGHTNING
Propellant and explosive safety activities - management planning, static electricity and lightning hazards, and sensitivity measurement [NASA-CR-81250] 06 p0984 N67-15901
Static electricity and lighting hazards to squibs and detonators 06 p0782 N67-15991
Biochemical effects of static electricity during astronaut extravehicular operation [NASA-TT-F-10725] 08 p1227 N67-18940
Static electricity build-up on helicopter, and means of discharging [RAE-TR-66152] 20 p3568 N67-35174
STATIC FIRING
Storage and static firing for solid propellant apogee motor for Applications Technology Satellite /ATS/ 02 p0296 N67-12119
Static test firing of 260 inch diameter solid rocket motors for demonstrating feasibility [NASA-CR-72127] 05 p0755 N67-14907
Environmental testing and static firing of pitch control motor for Apollo spacecraft launch escape system [NASA-TN-D-4068] 20 p3731 N67-34212
Normal motor and nozzle performance reported for static test firing of 44-SS-4 motor [NASA-CR-72287] 22 p4134 N67-37694
STATIC INVERTER
Flip-flop arrays, power transistors, epitaxial stress, and other technological developments in integrated static inverter program [NASA-CR-89068] 01 p0246 N67-12258
Static electric power inverter techniques using semiconductor devices [ITRI-CR-67.009] 07 p0997 N67-16938
Timing channel circuit reliability in static inverter [NASA-CR-81978] 09 p1428 N67-19985
Component reliability analysis for 250 volt-ampere static inverter [NASA-CR-84922] 13 p2351 N67-26273
Circuitry, fabrication details, and

performance characteristics of 75-VA static inverter for use as gyro platform power supply
[NASA-CR-84906] 15 p2646 N67-28779
Power circuits for optimum stepped wave output in three phase single way static inverters
[NRL-6497] 16 p2871 N67-29541
Saturn launch vehicle power integrated circuits and static inverter 18 p3246 N67-31597
Circuitry, fabrication, and performance characteristics of 75-VA integrated static inverter for gyro platform power supply
[NASA-CR-87988] 21 p3813 N67-35371
100-VA direct-coupled inverter with standard transistors
[NASA-CR-88274] 21 p3764 N67-36500
Harmonic commutation of static inverter and application to brushless direct current motor
[RAE-TR-67048] 22 p3965 N67-37449
Static dc to dc regulated converter using two-core output transformer
[NASA-CR-89560] 24 p4377 N67-39799
STATIC LOADING
Static and dynamic loading of steel arches
[R-474] 01 p0159 N67-10351
Differential equations describing fabric shell behavior under static loading 09 p1586 N67-30060
Steady state and dynamic properties of tilting pad journal bearings in laminar and turbulent flows
[NASA-CR-732] 11 p1892 N67-32305
Probability of fatigue breakdown during random stationary loading 12 p2219 N67-33526
Methods and equipment for fatigue tests of random loading 12 p2219 N67-33527
Materials efficiency in tension structures under static loading and fatigue, and for compression structures
[ARA-904-7] 12 p2230 N67-34619
Cylindrical shell panel flutter, and effects of static and dynamic loading
[R67SD1] 15 p2411 N67-35899
Laminated thin cylindrical shell under axisymmetric static loading
[TR-39] 18 p3353 N67-33876
Ultrasound effects on physical properties of solids and metals 21 p3858 N67-35579
Load settlement behavior of geometric shapes in silty clay
[NASA-CR-86488] 23 p4359 N67-39060
STATIC PRESSURE
SA HYDROSTATIC PRESSURE
Viscous flow in rectangular cut-out and static hole errors 01 p0069 N67-10136
Static pressure calibration systems for altitude control and collision avoidance in North Atlantic jet aircraft traffic
[RAE-TR-66156] 04 p0673 N67-14119
Approximate equations relating Mach number to ratio of dynamic pressure to static pressure
[RAE-LIB-TRANS-1184] 07 p1065 N67-17320
Static pressure measurements made at subsonic speed to examine compressibility effects on two-dimensional circular cylinder with two tangential blowing slots
[ARC-CP-980] 12 p2010 N67-34031
Local heat transfer and static pressure data for steam condensation in vertical downflow tube
[NASA-TN-D-3983] 12 p2236 N67-34480
Theoretical and experimental analyses of static pressure in plane turbulent jet at low Mach numbers
[DLR-FB-67-94] 13 p2987 N67-34583
Local heat-transfer data and static-pressure distributions for Freon-113 condensing inside vertical tube
[NASA-TN-D-3958] 13 p3237 N67-34618
Shock wave static pressures measured aboard frigate during firing of 4.5-inch cannon
[TL-1967-3] 13 p3222 N67-36021
Local heat transfer and static pressure data for mercury condensing single tube heat exchangers cooled by sodium potassium
[NASA-TN-D-3998] 14 p3315 N67-36552
Tangential velocity profile in Ranque-Hilsch vortex tube by static pressure measurements at wall
[RISO-116] 15 p3689 N67-37034
Errors from rotating total and static pressure measurements of circumferential variation of discharge pressure produced by axial flow inducer
[NASA-CR-85961] 17 p3848 N67-31128
Test apparatus to measure mass discharge rate and internal static pressure along axis of 2-micron porous tube 19 p3552 N67-33371
Buckling of truncated conical shells under uniform static pressure analyzed by simplified Donnell equations
[TAE-64] 20 p3743 N67-35110
Static pressure gauge for use in high temperature, high pressure plasma flows of short duration
[TR-1001/2340-10/-3] 21 p3910 N67-35699
Nitrogen condensation effects on pitot and static pressures in hypersonic gun tunnel
[ARC-CP-956] 22 p4052 N67-36823
Static longitudinal aerodynamic characteristics of 0.03 scale model of hammerhead-shaped Little Joe II /lunar module suborbital space vehicle/ over Mach number 0.80 to 1.20 range
[NASA-TN-D-4129] 22 p4353 N67-39547
STATIC STABILITY
Effects of jet pluming on static stability of ballistic bodies at Mach number of 6.00
[NASA-TN-D-3690] 01 p0062 N67-10748
Cross section distribution effect on static stability characteristics of axisymmetric bodies at Mach numbers 5.35 and 6.71
[VKI-TN-33] 04 p0480 N67-14164
Low subsonic static and dynamic stability characteristics of blunt 120 deg conical configuration
[NASA-TN-D-3853] 07 p0991 N67-18151
Wind tunnel tests of Apollo command module static and dynamic stability characteristics
[NASA-TN-D-3890] 09 p1514 N67-19693
Analysis of flight characteristics and static stability of Tomahawk vehicle for use with 100-kilometer sounding rocket
[NASA-TM-X-55736] 11 p1980 N67-22975
Calibration methods for accurately assessing static and dynamic performance of flight test instruments
[ARC-CP-700] 11 p1984 N67-22792
Hypersonic wind tunnel tests on effects of cross section distribution on static stability characteristics on axisymmetric bodies
[VKI-TN-32] 13 p2241 N67-35366
Static stability of sounding rocket at Mach numbers 1.50 to 4.63 to determine effect of body length and fin cant
[NASA-TN-D-4014] 16 p2972 N67-29280
Static stability of single-stage meteorological sounding rocket at Mach numbers from 6.0 to 12.0
[NASA-TN-D-4013] 16 p2973 N67-29279
Divergence speed of multistage rocket for static stability criteria
[ISAS-411, VOL. 22, NO. 4] 16 p2983 N67-30691
Static stability characteristics of reentry spacecraft model in free flight for Mach numbers from 2.62 to 1.11 launched at 180 deg angle of attack
[NASA-TM-X-615] 18 p3241 N67-31949
Jet pluming effect on static stability of five cone cylinder-flare finned rocket models at Mach numbers of 4, 5, and 6 and static pressure ratios up to 24,000
[NASA-TN-D-4064] 18 p3187 N67-31989
Effects of wing planform on static longitudinal aerodynamic characteristics at hypersonic speeds for several low-aspect-ratio wing body reentry configurations
[NASA-TM-X-733] 18 p3188 N67-32015
Static aerodynamic characteristics of modified Mercury exit and escape capsule configurations at Mach numbers 2.0 to 6.8
[NASA-TM-X-334] 18 p3343 N67-32016
Static aerodynamic characteristics of experimental nonlifting reentry capsule in combination with rocket booster at Mach numbers from 0.60 to 1.20
[NASA-TM-X-318] 18 p3342 N67-32018
Horizontal-tail height, wing height, and dihedral effects on longitudinal and lateral stability characteristics of 76 deg swept arrow wing aircraft model
[NASA-TN-D-4076] 19 p3360 N67-32875
Static and dynamic instabilities of elastic propellant lines with flowing fluid
[ASRL-TR-134-3] 22 p4154 N67-37553
Stability and axial force testing of hypervelocity ballistic models
[SC-RR-67-176] 22 p3950 N67-37783
STATIC STABILITY AND CONTROL
Controllable deformations of incompressible simple materials
[AM-66-17] 13 p2415 N67-35445
STATIC TESTING
Flight and static testing of parachute-suspended flare systems
[RDTR-75] 01 p0057 N67-10049
Structural and geometric requirements, design problems, and testing of optimum inflated sphere impact limiter landing vehicle
[NASA-CR-81020] 05 p0772 N67-14098
Static and thermal convection loop tests for refractory alloy corrosion in lithium 09 p1456 N67-19013
Static and cyclic fatigue tests of fusion-sealed Pyrex spheres for deep submergence system
[DTMB-2348] 09 p1519 N67-19018
Static testing in Santowax-OM of zirconium alloys in alpha-annealed state to determine compatibility
[AEET-200] 10 p1655 N67-21504
Applicability of applied load ratio static test to full scale aircraft structural components
[NAEC-ASL-1094, VOL. IV] 14 p3439 N67-37197
Sound measurement in application to excessive noise propagation from static test firing of large space booster power plants 17 p3130 N67-30369
Static testing program on cryogenic fuel density measurement, mass flow meters, damped accelerometers, and digital transducer 17 p3000 N67-30570
Application of applied-load-ratio static-test simulation techniques to full-scale structures
[NAEC-ASL-1094, VOL. III] 19 p3547 N67-33321
Static test rig for measuring thrust efficiency and discharge coefficient of propelling nozzle systems
[ARA-WTN-63] 20 p3642 N67-34520
Residual static strength of bolted joint cracked in fatigue
[RAE-TR-66111] 20 p3749 N67-34699
Reactions of metal-metal couples during thermal cycling and static testing
[BNWL-421] 22 p4071 N67-37472
STATION
S BASE
S GROUND STATION
S METEOROLOGICAL STATION
S SPACE STATION
S TRACKING STATION
STATIONARY ORBIT
Stationary rotation of stars based on law of solar rotation 20 p3720 N67-35053
Fuel consumption of satellite with thrust to maintain stationary orbit at various latitudes
[ELDO-TM-104] 24 p4530 N67-40021
STATIONKEEPING
Applications Technology Satellite /ATS/ mission study - experiment design, spacecraft description, ascent and stationkeeping, ground system, and schedules and cost
[NASA-CR-81799] 12 p2217 N67-34611
Design and transient performance of resistance jet thruster for space vehicle attitude control and stationkeeping
[NASA-CR-84923] 15 p2766 N67-29783
Ion propulsion system evaluation for attitude control and stationkeeping of synchronous satellites
[NASA-TM-X-55574] 20 p3710 N67-34242
Electric propulsion application to synchronous satellite orbit adjustment, stationkeeping, and attitude control
[NASA-TM-X-53000] 20 p3710 N67-34260
STATISTICAL ANALYSIS
SA REGRESSION ANALYSIS
Climatological statistics of parameters affecting tethered balloon flights
[AFCRL-66-490] 01 p0101 N67-10466
Critical instant sampling of speech parameters for automatic recognition of spoken words
[FSC-T-1/141] 01 p0097 N67-10490
Property of log-likelihood-ratio process for Gaussian processes - Statistical analysis
[RM-160] 01 p0094 N67-10620
Collection and statistical analysis of operating data on life expectancy of nuclear reactor loop components
[EUR-3764.E] 01 p0110 N67-10999
Concept of information in experiment used to study alternate hypothesis statistical tests - sequential analysis
[P-3441] 01 p0040 N67-10999
Statistical and metallographic analysis of ferritic magnesium cast iron
[FTD-TT-65-1525] 01 p0097 N67-11003
Implementation, test, and evaluation of selective dissemination system for NASA

scientific and technical information
[NASA-CR-63020] 02 p0227 N67-11241
Transistor quality statistics in pulsed ionizing radiation environment
[FR-66-17-158] 02 p0242 N67-11250
Estimating procedure using electronic digital computers applicable to experiments in which mixed Weibull distribution is statistical model
[NASA-TM-X-53422] 02 p0280 N67-11352
Fundamentals of statistical energy analysis of vibrating systems
[BBN-1356] 02 p0288 N67-11703
Comparison of results obtained for frequency response functions of DO 27 aircraft by statistical and classical methods
[DLR-FB-66-50] 02 p0174 N67-11876
Statistical analysis using bivariate confidence regions for mean measurements of human chromosomes
[MRC-TSR-656] 02 p0212 N67-11899
Power of F-test for nonnormal distributions and unequal error variance
[RM-5073-PR] 02 p0281 N67-12188
Methods for nonparametric estimates of smooth regression functions
[TR-91] 02 p0281 N67-12194
Statistical inference in classical occupancy problem
[MRC-639] 02 p0416 N67-12438
Statistical analysis of precipitation data from cloud seeding Whitetop project for Missouri and Chicago plume rainfall and Chicago plume echo cover 02 p0416 N67-12483
Statistical analysis of Pegasus satellite measurements of meteoroid penetration
[NASA-TM-X-1316] 03 p0388 N67-12906
Statistical magnifications of sonic booms due to atmospheric wind and temperature effects calculated for steady state cruise
[FFA-104] 04 p0482 N67-14118
Statistical variability of rupture stress and rupture strain studied by breaking ring specimens of peroxide cured styrene butadiene rubber - tensile failure envelope 05 p0723 N67-14512
Statistical analysis of landing contact conditions and slideout distances of X-15 research airplane
[NASA-TN-D-3001] 05 p0831 N67-14935
Prior distributions in design of experiments for parameter estimation of multiresponse case of nonlinear situations
[TR-75] 05 p0729 N67-14946
Statistical procedure for testing hypothesis of independence, and application to reliability and maintenance of stochastically failing equipment and neurophysiological experiments
[RM-5124-PR] 06 p0901 N67-15856
Accuracy of evaporation model to represent reactions induced by 14 MeV neutrons and for nuclei with atomic number between 10 and 40 06 p0927 N67-15611
Statistical and nondeterministic aspects of nonlinear control theory
[AD-641261] 06 p0859 N67-16332
Multivarite statistics used to study data relationships shown by mean and colorimeter matrix
[RADC-TR-66-514] 06 p0849 N67-16590
Multivariable analysis of mechanics of penetration of high speed particles
[NASA-CR-664] 06 p0978 N67-16664
Fixed-X linear multiple regression model used in conjunction with electronic computer to determine weighting of relevant variables in policy implementation problems 07 p1019 N67-16975
Statistical analysis of job preferences of government and nongovernment personnel based on questionnaire survey 07 p1211 N67-16976
Optimal burn-in testing of repairable equipment based on decreasing failure rate models
[TR-23] 07 p1089 N67-17158
Experiments and test results on thin film resistors and cross over networks, and statistics of thin film production methods
[NAFI-TR-835] 07 p1060 N67-17183
Significance level in statistical hypothesis testing of production method 07 p1050 N67-17184
Statistical optimization of guided missile systems
[ARC-R+M-3418] 07 p1037 N67-17346
Literature survey of problems on information theory, statistical analysis, and probability theory
[FTD-HT-66-309] 07 p1113 N67-17718
Midcourse navigation using statistical filter theory, manual theodolite, and symbolic computer control applied to manned spacecraft
[NASA-TN-D-3875] 07 p1129 N67-17860
Selection from multivariate normal populations
[NASA-CR-81722] 07 p1115 N67-18011
Statistical energy analysis for predicting sound and vibration transmission in shroud-enclosed spacecraft
[NASA-CR-81698] 07 p1205 N67-18035
Statistical analysis of hypotheses concerning roles of technological gatekeeper and primary groups in flow of information in small research and development laboratory
[NASA-CR-81753] 07 p1213 N67-18062
Absorption and spectral transmittance expressions derived for clarifying statistical basis of gas band models - Recirculation of gas flow field in space vehicle
[NASA-CR-81748] 07 p1140 N67-18092
Statistical analysis of moment invariant variations in pattern recognition 08 p1253 N67-18449
Statistical analysis of cross section ratios in two-particle excitation functions induced by 14 MeV neutrons 08 p1239 N67-18836
Statistical methods for weapon system maintenance analysis
[RM-4443-PR] 09 p1545 N67-19869
Fixed-width confidence interval for common mean of two distributions having unequal variances with one known variance
[TR-58] 09 p1469 N67-19791
Statistical technique for prediction and analysis of dynamic response of vehicles traversing rough yielding and non-yielding surfaces
[NASA-CR-659] 09 p1431 N67-19898
Predicting statistical performance indexes for high frequency ionospheric telecommunications systems
[IER-1-ITSA-1] 09 p1419 N67-20186
Two-dimensional statistical hydrodynamics for expanding finite box to infinite plane
[UCRL-50186] 10 p1606 N67-21012
Computing schemes for factorial and regression analysis and underlying theory using linear methods
[NAVWEPS-9001] 10 p1666 N67-21322
Selector-analyzer unit for automatic evaluation of reflected weather radar signal 11 p1817 N67-22007
Statistical analysis of corona loss measurements on high voltage transmission lines with various conductors 11 p1835 N67-22193
Distribution of waiting times in bivariate Poisson exponential process
[D1-82-0572] 11 p1906 N67-22393
Statistical phase and amplitude characteristics of scattered radio star signals observed interferometrically
[D1-82-0575] 11 p1818 N67-22394
Kinematic interpretation and statistical analysis of cloud cover in mesosphere 11 p1914 N67-22505
Quantum statistical communication theory for optical communications
[AFOSR-67-0152] 11 p1821 N67-22695
Statistical approach and two curve fitting approaches to analysis of 15 mu infrared horizon radiance profile variations over range of meteorological, and geographical conditions
[NASA-CR-725] 11 p1916 N67-22776
Statistical analysis of arctic and subarctic temperature inversions
[CRREL-TR-161] 11 p1871 N67-23128
Machine recognition system using statistical nature of human language redundancy 11 p1833 N67-23430
Statistical and dynamical analyses of severe storms
[ARL-1523-2] 11 p1917 N67-23444
Fatigue strength of aluminum alloys during asymmetric stress cycle 12 p2114 N67-23534
Statistical turbulence properties of fluid phase in gas solid suspension
[TR-112-ME-F] 13 p2003 N67-23694
Partially balanced association scheme useful in application of multivariate statistical analysis
[ARL-66-0165] 13 p2129 N67-23823
Statistical analysis of inertial navigation system error
[NADC-AM-6603] 12 p2143 N67-24629
Statistical analysis techniques compatible with individual organism methodology
[USAMRL-718] 12 p2029 N67-24956
Statistical theory of electronic energies, formal theory of chemical kinetics, metal-ammonia solutions, and ionic solvation in polar solvents
[AD-647062] 12 p2048 N67-24964
Cost effectiveness of high frequency fleet broadcast link analyzed by statistical method
[NEL-1422] 13 p2276 N67-25321
Comparison of average and maximum likelihood ratio tests for detecting radar targets of unknown Doppler frequency
[RM-5198-PR] 13 p2276 N67-25413
Statistical analysis of speech pattern recognition with unequal covariance matrices, and normal distribution of random vector representing audio image 13 p2349 N67-25787
Test program and statistical analysis of setup parameter transferability for inert gas welding
[NASA-CR-83948] 13 p2327 N67-25969
Statistical models of high energy multiparticle production and elastic scattering processes
[DESY-66/25] 13 p2378 N67-25986
Statistical model of lunar surface roughness, shadow, and thermal emission
[NASA-CR-84117] 13 p2405 N67-26450
Statistical analysis of clear air turbulence
[SRDS-RD-66-79] 14 p2530 N67-26490
Statistical evaluation of simplified midcourse guidance laws 14 p2570 N67-26534
Three-dimensional statistical analysis of complex perception mechanisms, recognition of phonemes, and estimation of amount of information received 14 p2467 N67-26681
Statistical models for determining human reactions to signals received by visual system 14 p2468 N67-26688
Statistical model for topographic representation of aircraft penetration maneuvers in tactical warfare on digital computer
[RM-5061-PR] 14 p2562 N67-26702
Repeated measurements on experimental units in two way classification
[SAM-TR-66-86] 14 p2458 N67-26891
Linear relations fitted by method of least squares
[TR-3] 14 p2564 N67-26964
Basic statistical estimation methods and Weibull distribution theory applied to fatigue life experiments
[DLR-FB-67-10] 14 p2564 N67-27226
Statistical determination of landing contact conditions for XB-70 aircraft - frequency histograms and cumulative frequency probability distributions
[NASA-TN-D-4007] 14 p2447 N67-27617
Statistical properties of helium emission data 15 p2696 N67-27696
Procedures for obtaining precision and accuracy in measurements, and detection of outliers that deviate substantially from other members of statistical sample
[AD-634686] 15 p2709 N67-27964
Statistical determination of optimum devices for detecting radar signals in presence of Gaussian interference
[FTD-HT-66-256] 15 p2668 N67-28583
Intrinsic analysis, error propagation and control, and eigenproblem algorithms
[AFCRL-67-0153] 15 p2735 N67-28618
Statistical determination of parameters influencing effectiveness of automatic data processing information retrieval system
[ESD-TR-67-202, VOL. I] 15 p2675 N67-28719
Statistical analysis of errors of multiple link data transmission circuit
[MTP-40] 16 p2854 N67-28998
Statistical analysis of output of detection system consisting of band pass filter and envelope detector
[TR-523] 16 p2867 N67-29076
Statistical analyses on spread-F and radio signal scintillation data in middle latitude 16 p2857 N67-29098
Statistical analysis of interferometer data on scintillating radio source in Cassiopeia constellation 16 p2867 N67-29120
Statistical properties of radio signal scintillation pattern and ionospheric diffracting layer 16 p2858 N67-29091
Improved methods of standard and sample preparation for neutron activation analysis 16 p2845 N67-29283
Speech intelligibility - statistical determination of sensitivity of diagnostic rhyme test to characteristics of speaker,

speech transmission channel, and listener
[BBRC-CR-67-6] 16 p2861 N67-29628
Table of exact critical values of information for case of equiprobable alternatives
[REPT.-689] 16 p2922 N67-29787
Statistical theory for deriving expression for dynamic model for spectral density of noise for power and stationary reactors
[ANL-TRANS-415] 16 p2934 N67-29828
Regression method using Fortran IV program for statistical treatment of intermetallic diffusion data
[EUR-3458.E] 16 p2911 N67-29841
Statistical error analysis of navigation and guidance systems for Earth-Mars mission, and computer simulation and onboard measurement techniques
[NASA-CR-61129] 16 p2927 N67-29919
Navigation and guidance requirement analyses during midcourse and orbital phases of 1975 round-trip Mars mission
[NASA-CR-61130] 16 p2927 N67-29920
Effects of atmospheric wind profile disturbances on dynamic response of space vehicle using statistical methods
[NASA-TM-X-53565] 16 p2975 N67-29921
Analysis of variance, data interpretation, and consequences of sampling and randomization
[ARL-66-0240] 17 p3008 N67-30181
Estimation of location parameters of Pearson type III and Weibull distributions in nonregular case and other results in nonregular estimation
[ARL-66-0233] 17 p3069 N67-30217
Characteristics of Atlantic trade wind system significant for radio propagation
[IER-29] 17 p3023 N67-30350
Clinical laboratory profiles for healthy male adults
[SAM-TR-66-74] 17 p3001 N67-30357
Statistical determination using mathematical models of underwater reverberant sound power frequencies
[FR-67-11-148] 17 p3119 N67-30463
Statistical point count method for determining microvoids in glass filament wound structures - microvoid minimization and correlation with interlaminar shear strength
[NRL-6498] 17 p3065 N67-30497
Comparison of two methods for obtaining confidence intervals for system reliability
[D1-82-0837] 17 p3063 N67-31055
Statistical analysis of simulated upper sideband static Doppler tracking data to determine probability characteristics of error distribution
[NASA-CR-85646] 17 p3027 N67-31122
Coupling between mesospheric electron density and collision frequency, and stratospheric temperature or constant pressure heights
[SR-297] 17 p3056 N67-31131
Markovian decision model for joint replacement and stocking problem
[TR-93] 17 p3094 N67-31301
Random number generators and their statistical properties for Sandia CDC 3600 computer
[SC-RR-67-65] 17 p3095 N67-31345
Statistical model of lunar surface roughness for shadow and infrared emission characteristics
[NASA-CR-85830] 17 p3164 N67-31378
Statistical method for determining neutron transport in absorbing media and thereby obtaining neutron energy spectrum for given monoenergetic source as function of space
[AECD/EP-13] 17 p3138 N67-31385
Theory and solutions for ranking problems in multivariate normal statistical populations
[NASA-CR-85804] 18 p3283 N67-31744
Method for determining absolute bolometric magnitude and number of evolved stars of upper main sequence
[NASA-CR-85830] 18 p3235 N67-31806
Projection to 1990 of passenger demand for air travel by supersonic transport and effects on U.S. balance of payments
[R-118, VOL. I] 18 p3258 N67-32214
Learning behavior and ergodic property of finite state Markov chains
[REPT.-3] 18 p3218 N67-32496
Mathematical literature survey on curve crossing by stochastic processes
[D1-82-0612] 18 p3288 N67-32546
Interrelationship of several parameters of decompression sickness
[RR-7-65] 18 p3215 N67-32649
Statistical questions related to analysis of digital computer simulation experiments
[P-3006] 18 p3289 N67-32696
Statistical analysis of renewal and Markov processes - probability distribution
[AD-653492] 19 p3476 N67-32759
Central limit effect for samples from 24 populations and correlation with population moments
[AMRL-TR-66-242] 19 p3380 N67-32970
Generalization and definition of robustness of test in terms of metric on space of power functions and Kolmogorov metric on space of location parameter distributions
[AD-653491] 19 p3381 N67-33069
Scale parameter case and selection procedures based on rank
[AD-652613] 19 p3481 N67-33178
Nonparametric selection procedure efficiency under various parametric alternatives
[TR-17] 19 p3481 N67-33180
Statistical estimation techniques applied to ground-based passive probing of tropospheric temperature structure
[IER-27-ITSA-37] 19 p3442 N67-33242
Air pressure dependence of cosmic ray intensity - statistical analysis of neutron monitor data
[SN-2] 19 p3530 N67-33291
Statistical tracer theory for analysis of whole system retention data
[ORAU-164] 19 p3376 N67-33394
Statistical methods for analyzing stochastic effects influencing design of space vehicle control systems
[NASA-CR-825] 19 p3546 N67-33461
Statistical analysis applied to theory of signal-to-noise enhancement
[UCRL-50171] 19 p3466 N67-33505
Data handling and analysis, statistical analysis, modeling, and field spectroscopy for application to agriculture
[NASA-CR-85811] 19 p3411 N67-33620
Hyperplanes and selection of variables for pattern classification
[TR-11] 19 p3482 N67-33623
Inequalities and tolerance limits derived for S-ordered distributions
[ORC-66-37] 19 p3482 N67-33731
Bayesian method for increasing reliability of components
[TR/RP-75] 20 p3668 N67-34019
Random altitude deviations of commercial aircraft during cruise
[SRDS-RD-67-8] 20 p3564 N67-34025
Bounds on efficiency of sums for character recognition
[TR-56] 20 p3668 N67-34083
Construction and comparison of nonorthogonal incomplete factorial designs, nonorthogonal designs of even resolution, and saturated sequential factorial designs
[ARL-67-0021] 20 p3668 N67-34085
Nonstationary adjoint algorithm for determining launch vehicle flight loads due to winds and turbulence
[NASA-CR-846] 20 p3732 N67-34401
Expenditures of resources, funds, and manpower for research and development programs
[NSF-67-7] 20 p3739 N67-34500
Efficient choice of information source, communication system, and decision rule in economic theory of information
[AD-654163] 20 p3691 N67-34521
Statistical analysis of electrostatic precipitator efficiency 20 p3630 N67-35103
Dust separation efficiency prediction for wet scrubbers derived by statistical method 20 p3630 N67-35105
Reference notes on basic statistics and probability for supplementing course lectures at General Electric Company
[REPT.-67-C-040] 20 p3671 N67-35200
Probability of sample distribution function lying between two parallel straight lines
[TR-48] 21 p3976 N67-35345
Statistical nonparametric tests used to determine nature of time series - wind speed and direction
[ECOM-5123] 21 p3977 N67-35647
Optimum tests with grouped data from exponential distribution
[REPT.-66-C-326] 21 p3979 N67-35676
Distributions determined by cutting simplex with hyperplanes
[TR-17] 21 p3979 N67-35680
Information in rank order and termination of some associated sequential probability ratio tests
[FSU-M123] 21 p3979 N67-35699
Quantum statistical analysis of frequency modulated laser communication system
[AROD-5658-3-E] 21 p3966 N67-35927
Assessment of zero rate of climb speed as low speed limitation for stall-free aircraft
[ARC-CP-921] 22 p3989 N67-36561
Statistical properties of random transient noise signals
[NOLTR-67-25] 22 p3966 N67-36689
Coefficients of Wetner canonical expansion for likelihood function of continuous Martingale
[AFOSR-67-1555] 22 p4062 N67-36973
Statistical evaluation of temperature, current density, and composition effects in preparation of boron by fused-salt electrolysis
[BM-RI-7099] 22 p3969 N67-36985
Asymptotic expansion for posterior distribution with observations drawn from member of one parameter exponential family
[TR-114] 22 p4062 N67-37004
Schlieren photographs analyses to determine statistical properties of turbulent wakes of hypervelocity spheres 22 p4039 N67-37534
Solar radiation analysis using radio astronomy observations
[NASA-CR-86809] 22 p4128 N67-37656
Dichroism and birefringence of polymers containing polyene segments
[ONR-TR-91] 23 p4269 N67-38112
Explicit formulas for data smoothing and trend estimation focusing on measures of random error effects, their interdependency, and consequences of systematic errors
[P-334] 23 p4274 N67-38454
Concepts of dimensional analysis used for examination of reliability physics, mathematical models, and statistics on failure 23 p4274 N67-38462
Estimation of parameters from large samples arbitrarily censored or truncated
[AFML-TR-67-197] 23 p4274 N67-38469
Survey of frozen precipitation in urban areas as related to climatic conditions
[CRREL-TR-163] 23 p4276 N67-38509
Conservation laws in equation for vanishing coefficient in nonlinear partial differentiation 23 p4232 N67-38750
Asymptotic limit of finite amplitude solutions of equation for vanishing coefficient 23 p4233 N67-38760
Derivation of equation for vanishing coefficient in nonlinear dispersive plasma problems 23 p4233 N67-38761
Statistical analysis of crew performance data in ground base simulated mission in Apollo command module
[NASA-CR-85757] 23 p4158 N67-38808
Heisenberg statistical theory of turbulence and motion equations for turbulent flow
[NASA-CR-89136] 23 p4239 N67-38948
Statistically designed parametric study to evaluate factors affecting chemical vapor deposition of tungsten
[ORNL-TM-1880] 23 p4309 N67-38988
Statistical analysis and physical interpretation of scattering from surfaces with different roughness scales
[NASA-CR-85820] 23 p4215 N67-39001
Order preserving functions application to majorization and order statistics
[D1-82-0083] 23 p4276 N67-39264
System bandwidth maintenance in presence of parameter changes
[SRL-67-0007] 24 p4232 N67-39436
Statistical analysis of yaw steering law required to optimize propellant combustion for space missions
[TR-1001/2121-10/-1] 24 p4237 N67-39866
Likelihood ratio tests for restricted families
[ORC-67-16] 24 p4478 N67-39912
Functions of processes with Markovian states - stochastic processes, theorems, statistical processes
[RM-163] 24 p4478 N67-39927
Pareto probability density distribution used to find the statistical probability of detecting radar target signals of unknown frequency
[RM-5429-PR] 24 p4488 N67-39716
Statistical analyses of mesoscale rawinsonde measurement data to assess low level sounding variability and predictability 24 p4490 N67-39888
Mathematical model constructed to measure recall and relevance in ABC

information storage and retrieval systems
[HDL-TR-1334] 24 p4553 N67-39925
Mechanical testing of brittle materials
[AMRA-CR-67-09/1] 24 p4472 N67-39952
Statistical analysis of cloud seeding operations in Necaxa and Lerma river basins of Mexico 24 p4488 N67-39977
Statistical description of spray formation in terms of drop velocity, size and position
[NASA-TM-X-52355] 24 p4433 N67-40097
Statistical prediction of ground irregularity influence on radio transmission bearing error
[RAE-LIB-TRANS-1227] 24 p4408 N67-40115
Information retrieval system for administrative, engineering, and statistical data and document information
[NASA-CR-89759] 24 p4554 N67-40227
Two types of approximation of linear, unbiased order-statistic estimators
[AFML-TR-67-198] 24 p4483 N67-40488

STATISTICAL COMMUNICATION THEORY
Statistical radar theory - tracking, synthesis, discrimination, smoothing, processing, speed, direction finding, scanning, detection, and resolution
[FTD-MT-65-47] 11 p1830 N67-23636
Control and priority of data in operation of information transmission channel 12 p2051 N67-23949
Gaussian processes with stationary increments possessing discontinuous sample paths
[RM-5226-PR] 12 p2062 N67-24052
Semiclassical quantum formulation of mode mixing in nonlinear media using statistical density operator
[Q-61] 12 p2173 N67-24794
Research and scientific reports on statistical communication theory
[NASA-CR-87998] 21 p3795 N67-35370
Optimum linear interpolation of sampled random processes for minimum mean-square error
[REPT.-7] 24 p4404 N67-39613

STATISTICAL CORRELATION
Short period water temperature fluctuations in coastal zone of Baltic Sea
[JPRS-38405] 01 p0067 N67-10286
Snow survey method
[JPRS-38408] 01 p0100 N67-10291
Analog method for measuring statistical correlations in time applied to turbulent flow and stray signals in electrocardiograms
[TP-361/1966/] 02 p0260 N67-11917
Apparent statistical correlation between Arctic heat budget and zonal circulation
[NASA-CR-81689] 07 p1118 N67-18894
Use of statistical dependence between binary pulse code modulation data samples in several optimal and suboptimal demodulators - computer simulation
[NASA-CR-81763] 07 p1043 N67-18103
Statistical correlation between clear air turbulence and high level wind and temperature patterns 08 p1304 N67-18237
Evolution of wave correlations in uniformly turbulent, weakly nonlinear systems
[NASA-CR-83471] 08 p1349 N67-19040
Burnout correlations for forced convection in reactor ducts or rod cluster
[EUR-3300.E] 10 p1606 N67-21018
Computer code for construction of statistical resonances in unresolved resonance region
[GA-7136] 10 p1588 N67-21553
Optimal filtering for correlated noise
[RM-5197-PR] 11 p1825 N67-23144
Statistical correlation techniques and parallel plate filter arrangement for determination of particle deposition in turbulent slot flow
[AD-634671] 15 p2690 N67-27952
Equations, methods, and facilities for space-time correlations of velocity and temperature in boundary layer
[ASR-3] 16 p2876 N67-29942
Road surface texture and change in skidding resistance with speed
[RRL-20] 16 p2939 N67-30016
Minimization of digital computer time needed to obtain specified statistical precision in comparison of simulation experiments
[RM-5268-PR] 17 p3031 N67-30737
Statistical correlation of gravimetric and seismic data applied to examination of diagram of Paleozoic basement structure 19 p3448 N67-33744
Orthogonal filters applied to optimization of statistical properties of errors of self-adjusting systems
[FTD-MT-66-67] 20 p3614 N67-34718
Automatic analog and digital correlators, and applications based on autocorrelation function method
[FTD-MT-65-179] 21 p3823 N67-36026
Statistical correlation between infrared heat radiation and weld joint quality, and nondestructive inspection techniques
[NASA-CR-89649] 24 p4460 N67-40315

STATISTICAL DECISION THEORY
Statistical decision theory for automatic classification of multiple spectral image points
[NASA-CR-81735] 07 p1048 N67-18052
Adaptive decomposition of superposed patterns of probability density functions
[RADC-TR-66-540] 08 p1252 N67-19229
Bayesian estimation, decision theory, least squares method, maximum likelihood, and other mathematical techniques of statistical inference theory
[NASA-TR-R-251] 11 p1905 N67-22039
Methods and automation for simulating information processing by human brain and purposeful behavior in decision making 12 p2069 N67-23950
Angular resolution beyond Rayleigh limit in statistical decision theoretic context
[P67-3] 14 p2494 N67-27463
Scatterometry data and algorithm for identifying remote objects, and application to Plagah crater
[NASA-CR-89010] 21 p3847 N67-35533
Optimal control method for industrial production processes based on linear set regression equations and statistical decision theory 21 p3821 N67-35802
Evaluation of attributes obtained in statistical decision rules, and algorithm for approximation 21 p3879 N67-35816
Analysis of information retrieval methods effectiveness using statistical decision theory
[AFCRL-67-0412] 23 p4169 N67-37341

STATISTICAL MECHANICS
SA CONTINUUM MECHANICS
SA FLUCTUATION THEORY /STAT MECH/
SA FUNCTION SPACE
SA WEIGHTING /MATH/
Significance of one-dimensional many-body problem to quantum mechanics - historical survey of existing one-dimensional and two-dimensional models
[AFOSR-66-1574] 01 p0114 N67-10316
Theory of transport coefficients for moderately dense gases
[BN-460] 01 p0060 N67-10378
Steady state, transport operator, and comparison with T-matrix
[USNRDL-TR-1057] 01 p0118 N67-11178
Statistical mechanics of irreversible processes in neutral and ionized gas
[LGI-66-2] 03 p0448 N67-13042
Statistical mechanics of charged particles in presence of magnetic irregularities
[NASA-CR-80483] 03 p0458 N67-13130
Classical statistical mechanics of hard-core potential
[AD-636830] 04 p0582 N67-13999
Coordinate measurement effect on statistical ensemble of quantum mechanical system
[RM-5138-PR] 06 p0918 N67-16326
Statistical averaging procedure in problems of plasma turbulence involving Vlasov equation
[NASA-CR-82524] 08 p1349 N67-19060
Thermodynamic properties of nitrogen-oxygen-argon gas mixture - statistical mechanical theory of calculation
[SC-RR-66-394] 11 p1906 N67-22319
Mathematical models and techniques for solving problems on spectral theory and statistical mechanics
[BNL-903/T-422/] 12 p2130 N67-24221
Concept and behavior of Toeplitz matrix forms, and applications to classical function theory, prediction theory, quantum statistical mechanics, thermodynamics, and random theory 12 p2131 N67-24232
Generalization of orthogonal polynomial concept to obtain refined Szego theorem and analogs 12 p2131 N67-24234
Toeplitz, Hankel, Wiener-Hopf, bounded, and other operators for Hilbert space matrices statistical mechanics and von Neumann spectral theorem 12 p2131 N67-24235
Model equations for class of approximations to linearized Boltzmann equation 12 p2131 N67-24236
Continuum and Boltzmann equation governing sound propagation in rarefied gas - molecular collision frequency, mean free path, and particle number density 12 p2155 N67-24237
Probability and canonical distribution functions for characterizing particle position and velocity in Brownian motion model 12 p2155 N67-24239
Hamiltonian, and contraction and projection operator techniques for describing macroscopic behavior in classical and quantum mechanical systems - statistical mechanics 12 p2155 N67-24240
Wiener integral application to thermodynamic limit problem in quantum statistical mechanics 13 p2367 N67-25569
Statistical mechanics, quantum biochemistry, macromolecule theory, surface and membrane theory, transport phenomena, receptor isolation, and cancer chemotherapy in theoretical biology
[NASA-CR-83965] 13 p2257 N67-25760
Quantum mechanical calculations of second virial coefficients for hydrogen
[NASA-CR-83916] 13 p2379 N67-26072
Differential equation used for solving boundary value problem
[TG-230-T507] 14 p2562 N67-26778
Nonequilibrium statistical physics and kinetic theory
[AFOSR-67-0927] 15 p2772 N67-28942
Statistical density matrix for system of charged particles in uniform magnetic field derived by Feynman path integral method
[WVT-6713] 15 p2777 N67-28946
Statistical mechanics theory pertaining to state of gases at high temperature and density
[AEDC-TR-67-87] 17 p3127 N67-30486
Spectrum of linearized Boltzmann equation for hard sphere case
[TR-11] 21 p3911 N67-36475
Generalized master equations for composite particles - statistical mechanics
[USNRDL-TR-67-78] 22 p4104 N67-37287
Kinetic theory and statistical mechanics of reacting plasma and recombination theory for plasma with inhomogeneous ionization in columns 23 p4317 N67-38382
Space-temperature correlations in quantum statistical mechanics
[NYO-1480-74] 23 p4293 N67-38331
Statistical mechanical interpretation of solubility isotherm of hydrogen in hydride phase for palladium, vanadium, niobium, and tantalum
[LA-TR-67-55] 23 p4365 N67-38674
Statistical mechanics of one-dimensional plasma 23 p4322 N67-38755
Statistical mechanics of one-dimensional plasma exposed to external magnetic fields 23 p4322 N67-38756
Equilibrium statistical mechanics of neutral one-dimensional plasma having positively and negatively charged sheets 23 p4322 N67-38757
Asymptotic evaluation of coupled multiple integrals by diagonalizing of closed integrand 23 p4323 N67-38758
Extension of matrix formulation of nonlinear statistical mechanics to Bogolubov gas - perturbation solutions for plasma electron distribution and correlation functions
[ARL-67-0103] 24 p4506 N67-39944
Statistical mechanics of particle acceleration in turbulent plasma
[NASA-TT-F-10460] 24 p4511 N67-40190
Covariant thermodynamics
[LNF-67/60] 24 p4551 N67-40533
Statistical mechanics of neural networks
[AD-656886] 24 p4392 N67-40370

STATISTICAL PROBABILITY
Feasibility of determining robustness regions of T-test in Pearson system by Monte Carlo technique
[RR-23] 01 p0093 N67-10305
Discrete compound Poisson processes and tables of geometric Poisson distribution
[RM-4831-PR] 01 p0095 N67-10882
Selection procedures, ranking methods, and order statistics from multinomial distribution
[AD-635619] 03 p0416 N67-13422
Sequential analysis methods for recognition of many hypotheses or for partially known distribution

laws 03 p0416 N67-12503
Theoretical basis for prognosis using transient statistics for random processes in form of mean square of Taylor series 03 p0366 N67-12519
Determination of characteristics of nonlinear objects using statistical properties of input and output signals 03 p0378 N67-12773
Maximum likelihood method for fitting sum of expotentials to experimental data [NASA-CR-80355] 03 p0417 N67-12987
Statistical evaluation of proton radiation from solar flares [NASA-CR-80531] 03 p0456 N67-13210
Selection and ranking procedures applied to selection of best subset of population [AD-639719] 04 p0686 N67-13916
Statistical methods for radio detection 04 p0512 N67-13926
Ceiling and visibility contingency probability tables for weather forecasting [AD-640074] 07 p1117 N67-17091
Differential difference equations involving noncentral chi-square density and distribution functions for solving minimization problem in selection from multivariate normal populations [NASA-CR-81773] 07 p1116 N67-18181
Probability solution and statistical thrust vector analysis of engine cluster problem [NASA-CR-82017] 06 p1354 N67-18412
Theorem proofs derived for stationary random process, differentiable with probability one, with zero mean and correlation function 06 p1302 N67-19196
Statistical dislocation model for fatigue failure probability analysis of metallic alloy exhibiting heterogeneity [TRG-1294/S/] 06 p1294 N67-19269
Method for predicting maximum hourly durations of high and low atmospheric temperatures [AD-643361] 09 p1475 N67-19726
Secondary electron emission statistics of nickel and iron determined and compared with Poisson distribution [TIL/T-5706] 09 p1504 N67-20315
Two matrix forms of estimating spacecraft motion parameters 10 p1758 N67-20385
Multivariate notion of association for unrestricted random variables and application in set operations [D1-82-0578] 10 p1665 N67-20602
Statistical probability of failure during fatigue tests on aluminum alloy 12 p2114 N67-23525
Probability of fatigue breakdown during random stationary loading 12 p2219 N67-23526
Statistical properties of Rayleigh wave scattering at random boundary of elastic body 12 p2223 N67-24148
Statistical procedure using random parameters to determine accuracy of nonlinear automatic control systems 12 p2071 N67-24222
Statistical probability of equipment failures for manufacturers [ARC-R+M-3443] 13 p2329 N67-26130
Geometrical approach to special stable distributions [NASA-CR-83999] 13 p2349 N67-26171
Asymptotic variances and covariances of maximum likelihood estimators from censored samples of four-parameter generalized gamma population [ARL-66-0158] 14 p2563 N67-26670
Statistical probability and sampled data method for compressing data from deep space probes 14 p2492 N67-27406
Bibliography on statistical probability and probability distribution functions [ARL-66-0165] 15 p2606 N67-28542
Neyman-Pearson lemma role in theory of discrete search applied to maximize probability and limit costs [AD-649850] 16 p2969 N67-29498
Efficiency of two estimators for Poisson distribution [TR-519] 16 p2944 N67-29667
Uniform theory for optimum array processing [REPT.-4160868] 16 p2862 N67-29679
Probability of locating submarine within stated distance on basis of two-dimensional sensors [SP-2757/000/00] 17 p3058 N67-30256
Sequential estimation method for change statistics of birth and death insurance volume [DISS-3826] 17 p3092 N67-30756
Approximation method for determining maximum response of simple beams to stationary random excitation perfectly correlated in space and time [NASA-CR-816] 17 p3043 N67-31430
Reliability theory for complex technical systems-evaluation tests methods, failure analyses, and statistical control probabilities [JPRS-41634] 18 p3274 N67-32193
Probability statistics for optimal control of increasing random process 18 p3287 N67-32196
Failure probability and operating mode selection for temporarily halted automatic system 18 p3275 N67-32200
Reliability criteria and failure mode analysis for automatic equipment checkout 18 p3275 N67-32203
Statistical reliability and failure estimation for components of complex systems 18 p3275 N67-32205
Mean time estimation and probability of failure free operation for redundant equipment system 18 p3275 N67-32207
Construction of confidence integrals with low failure probability from test results for system engineering 18 p3276 N67-32210
Failure probability of radio equipment components 18 p3230 N67-32211
Reliability control and failure probability in accelerated tests of radio components 18 p3276 N67-32213
Capabilities of evolutionary operations research programs [TR-106] 19 p3430 N67-32037
Formula for expected number of crossings of arbitrary curve by non-stationary Gaussian process [D1-82-0596] 19 p3479 N67-32045
Nonparametric estimation of densities in Markov processes [TR-110] 19 p3479 N67-32046
Asymptotic normality applied to problem of nonparametric estimation in Markov processes [TR-109] 19 p3480 N67-32150
Theory and tables for tests of hypotheses concerning mean and variance of Weibull population [ARL-67-0059] 20 p3668 N67-34089
Tables of joint probabilities useful in evaluating mixed acceptance sampling plans [NASA-CR-87434] 20 p3669 N67-34190
Probability/confidence estimates from variables performance parameters [DOC.-66SD342] 20 p3662 N67-35168
Robust linear estimators for location of symmetric unimodal distributions [TR-74] 21 p3878 N67-35790
Treatment of ties in paired comparisons [FSU-M123] 21 p3879 N67-35918
Statistical measurement of spectral amplitudes and phases for atmospherics in VLF ranges [NASA-TM-X-55903] 21 p3840 N67-35984
Excursions of random function beyond random level of known statistical characteristics for estimation of structural reliability 21 p3881 N67-36498
Estimated first time error probability statistics for hypotheses of same order X quadrature value [JINR-P1-3268] 21 p3891 N67-36645
Computer program for acceptance criteria in sampling for quality control [PA-TR-3594] 23 p4287 N67-36134
Application of non-stationary time series analysis to oceanography [HEL-16-3] 23 p4341 N67-36178
Density functions for some random sums of normal, sinusoidal, and Rayleigh variables [NMC-TM-67-35] 23 p4378 N67-36300
Time factors in opening combination locks, and statistical probabilities and implications 24 p4456 N67-39476
Dynamic models and statistical probability methods of forecasting hurricane movements 24 p4439 N67-39822

STATISTICS
- SA BAYESIAN STATISTICS
- SA BIOMETRICS
- SA BOSE-EINSTEIN STATISTICS
- SA CONFIDENCE LIMIT
- SA FACTOR ANALYSIS
- SA FERMI-DIRAC STATISTICS
- SA FERMI STATISTICS
- SA MATHEMATICAL STATISTICS
- SA NULL HYPOTHESIS
- SA PROBABILITY THEORY
- SA STANDARD DEVIATION

Procedure for ranking means of normal populations extended to arbitrary, finite number of populations [TR-9] 01 p0030 N67-11180
Statistical theories of nuclear collision cross sections 03 p0432 N67-12346
Many-body problem, continuum, and statistical methods applied to dynamics of star clusters, with bibliography 05 p0739 N67-14419
Invariant estimation of statistics of stochastic system parameters [PIBMRI-1234-66] 05 p0738 N67-14750
Identifiability of countable mixture of discrete probability distributions using infinite matrices methods [ARL-66-0146] 05 p0738 N67-15016
Dynamical computation of photon correlations and counting statistics 06 p0917 N67-16019
Family of statistics for stationary stochastic process with given covariance function and spectral distribution function [SU-307] 06 p0962 N67-16027
Particle movement through compact subset of d-dimensional Euclidean space in system of infinitely many particles in statistical equilibrium [RM-4964-PR] 06 p0962 N67-16113
Stochastic and sampling processes for logarithmic series distribution [ARL-66-0147] 06 p0962 N67-16118
Extreme value theory for estimating statistical parameters of spacecraft communication systems [NASA-CR-81821] 07 p1035 N67-17187
Likelihood ratio test criterion for small samples from multinomial distributions [ORNL-3901] 07 p1113 N67-17471
Statistical hypothesis testing procedure examined for statistical robustness - Student procedure [RR-24] 07 p1014 N67-17748
Order statistics of exponential variate used in estimating scale of exponential distribution of know location [NASA-CR-70246] 07 p1114 N67-17873
Finite and infinite sequences of exchangeable events - statistics [TR-64] 09 p1479 N67-20016
Approximation of normal, binomial, F, and related distributions [TR-13] 09 p1471 N67-20174
Approximation method applied to binomial and statistical distributions [TR-12] 10 p1664 N67-20339
Statistical model of multiple particle production in broken unitary symmetry [JINR-P2-3956] 10 p1720 N67-21819
Statistical error absolute measurement by beta gamma coincidence method 11 p1878 N67-22126
Information value and sufficient statistics in relation to observation of random process 11 p1818 N67-22402
Nature and scope of agglomeration effects of city size and advanced scientific training on industrial research laboratories, studied by statistical sampling methods [NASA-CR-82396] 11 p2005 N67-23428
Upper atmosphere wind statistics for Australia 12 p2186 N67-23991
Weather forecasting and statistical meteorology studies [SR-1] 13 p2350 N67-25909
Asymptotically optimal statistics in models with increasing failure rate average [ORC-66-25] 12 p2347 N67-25466
Statistics of electron multiplication in proportional counters 13 p2500 N67-26145
Hybrid computer for processing statistical data of automatic control systems 14 p2492 N67-26944
Uniform and local holder conditions for wide class of separable Gaussian processes with stationary increases [P-3551] 14 p2923 N67-26962
Reverberation and scattered field statistics for waveforms in general geometries [AD-645401] 14 p2497 N67-26965
Renewal theorem for nonnegative random variables - probability distribution functions [AD-645977] 14 p2564 N67-27073
Monte Carlo calculations and computer simulation of statistical model of photomultiplier [NP-16546] 15 p2676 N67-28366
Pulse counter device for accelerated computation of correlation coefficients in statistical samples 16 p2895 N67-29475
Analytical and numerical investigations of appearance of stochasticity in conservative

system of weakly coupled nonlinear oscillators
[NP-16532] 16 p2921 N67-29757
Statistical procedures based on exponential distribution for life testing plans, and properties of distributions with monotone failure rate
[D1-82-0415] 16 p2922 N67-29908
Atmospheric dynamics, and statistical description of turbulence 17 p3053 N67-30575
Estimation in mixed frequency distributions in analysis of atmospheric data
[NASA-TN-D-4033] 17 p3092 N67-30766
Australian upper air statistics - temperature, humidity, and geopotential 17 p3099 N67-30951
Statistical data on climatology of France
[REPT.-50] 17 p3099 N67-31229
Research projects and applications of mathematics, statistics, and computer programming techniques in atomic energy facility
[ORNL-4063] 18 p3285 N67-31719
Computer program for rapid screening of multivariate data from earth sciences and remote sensing
[NASA-CR-87281] 19 p3450 N67-33962
Reference notes on basis statistics and probability for supplementing course lectures at General Electric Company
[REPT.-67-C-040] 20 p3671 N67-35289
Testing distribution on compact homogeneous space for uniformity using invariance principle
[TR-75] 21 p3876 N67-35315
Non-negative continuous functions on product spaces as sum of products of factor functions
[RM-187] 21 p3876 N67-35357
Statistical model for simulating continuous action production process in oil refinery, and simulation algorithm 21 p3921 N67-35603
Statistics of Navy aircraft counting accelerometer loading data
[NAEC-ASL-1106] 22 p3961 N67-37635
Seasonal wind statistical data applied to zonal and meridional wind components over Northern Hemisphere
[REPT.-62] 23 p4242 N67-38247
Derivation of lower bound on noncentrality parameter of chi-square test of goodness of fit
[PRP-36A] 24 p4382 N67-39631
Chronology of work stoppages and statistics on man-days lost by construction contractors at KSC/NASA and AFETR
[NASA-TM-X-60856] 24 p4556 N67-40495
STATOR
Overall performance of stator component of cold air turbine determined for application to high temperature engine design
[NASA-TN-D-3751] 04 p0603 N67-13719
Downstream stator contribution to interaction noise of single-stage axial flow compressor
[NASA-TN-D-3892] 11 p1891 N67-22388
Cascade tunnel tests on slotted stator, and candidate variable geometry inlet guide vane designs
[NASA-CR-54565] 18 p3186 N67-31727
Single stage axial flow compressor consisting of slotted rotor and slotted stator examined for slot effect on blade performance
[NASA-CR-54548] 21 p3753 N67-35337
Flow generating rotor for testing inlet flow to transonic stators
[NASA-CR-54630] 21 p3755 N67-35376
STATOR BLADE
Slot effects on performance of highly loaded compressor rotor and stator blade rows
[NASA-CR-54547] 06 p1216 N67-16402
Analysis and testing of air cooled turbine rotor and stator blades 16 p2963 N67-29197
Performance characteristics of high-weight flow, low pressure ratio, single stage turbine rotor and stator blades
[NASA-TM-X-6] 18 p3220 N67-31918
Evaluation of 65-series airfoil section slotted stator in single-stage axial flow compressor rig
[NASA-CR-54549] 18 p3185 N67-32006
Slot effect on performance of compressor rotor and stator blade rows
[NASA-CR-54550] 22 p4133 N67-37371
Single-stage investigation of slotted stators
[NASA-CR-54551] 23 p4176 N67-39288
STEADY FLOW
Numerical calculation of two-dimensional steady flow of ideal gas in boundary layer 02 p0249 N67-11260
Theoretical model for flow around muzzle brake surfaces and experiments using steady flow techniques with 7.62 mm rifle 06 p0859 N67-15366
Nonlinear problems of supersonic steady and unsteady flow over cones, smooth bodies of arbitrary axisymmetric shape, and bodies with discontinuities in slope
[AFOSR-66-1945] 06 p0866 N67-16366
Axisymmetric steady flow of incompressible inviscid fluid past body of revolution 07 p1063 N67-17022
Computation of steady potential flow around two-dimensional or three-dimensional bodies by finite difference methods combined with variational techniques
[NLR-TN-T.137] 08 p1299 N67-18363
Electrical analog for studying slotted-wall wind tunnel interference in steady and oscillating flow
[ARC-R+M-3453] 09 p1392 N67-20302
Turbulent reattachment fluid amplifier switching times prediction based on turbulent jet entrainment properties and quasi-steady flow
[A1] 10 p1612 N67-21129
Longitudinal surface curvature effects on steady, two-dimensional, incompressible laminar boundary layers
[AE-164-A] 11 p1880 N67-22955
Differential equations for determining reaction zone structure of steady nonideal detonation in perfect gas with constant lateral expansion
[ISL-T-19/65] 11 p2000 N67-23072
Breakdown of steady axisymmetric and spiral vortices
[ARC-CP-915] 13 p2366 N67-25043
Finite difference solution of multicomponent steady influscid streamtube flows using novel stepping technique
[DOC.-67SD241] 14 p2517 N67-27186
Polar vector analysis of wave interactions in steady flow
[AS-66-16] 16 p2876 N67-29073
Steady flow duration in hypersonic reflected shock tunnel - unsteady wave starting process in nozzle
[ARC-CP-963] 16 p2880 N67-29915
Steady heat flow out of solids with temperature dependent conductivity
[NLR-R-497] 21 p3947 N67-35912
STEADY STATE
5A EQUILIBRIUM
Steady state and dynamic behavior of boiling water reactor
[EURAEC-1674] 01 p0100 N67-10723
Equilibrium state for interstellar gas and magnetic field
[NASA-CR-70749] 01 p0157 N67-10068
Steady state, transport operator, and comparison with T-matrix
[USNRDL-TR-1657] 01 p0118 N67-11178
Steady state operating and dynamic response characteristics of simulated three-loop Rankine cycle space power conversion system of SNAP-8 type
[NASA-CR-635] 03 p0234 N67-12757
Transient Analysis Generator /TAG/ program for automatic circuit analysis of transient and steady state behavior of large class of electrical networks
[NASA-CR-80845] 04 p0523 N67-14252
Calculations and experiments to determine ion wave instability in steady state discharge, laser breakdown in plasma, and microwave scattering from standing plasma waves 05 p0743 N67-14628
Steady state theory of cosmology 05 p0760 N67-14851
Steady state plasma accelerators powered by microwave frequency electric fields 05 p0749 N67-15347
Computer program for steady state hydraulics analysis of steam generating reactor systems
[AEEW-M-474] 06 p0909 N67-15460
Parametric analysis for steady state performance of attitude control thrustor 06 p1222 N67-16315
Steady state limitations in fully ionized plasma carrying ion and electron currents
[REPT.-66-10] 06 p1346 N67-16374
Numerical analysis and electrical characteristics of artificial line with load distribution in steady state operation 09 p1423 N67-19975
Steady state and dynamic behavior of boiling water reactor
[EURAEC-1682] 10 p1678 N67-20823
Steady state and dynamic characteristics of wall-attachment elements for application to manufacture of fluidic integrated circuits
[B3] 10 p1557 N67-21126
Soret and concentration diffusion coefficients for thermal diffusion columns, determined by unsteady state method 11 p1907 N67-22048
Steady-state theory of low-pressure discharge column in magnetic field derived in terms of moments of Boltzmann equation
[TID-23490] 11 p1964 N67-22223
Steady stress state and temperature field in thin thermoelastic plate weakened by circular hole 12 p2229 N67-24543
Nonlinear analog simulation of tungsten water moderated reactor to obtain steady state operating maps
[NASA-TN-D-3840] 12 p2151 N67-24624
Steady thermal state of semiconductor thermocooling devices 15 p2903 N67-27852
Green matrix applied to steady state wave propagation in homogeneous anisotropic media
[MRC-TSR-702] 15 p2753 N67-28241
Steady state and dynamic behavior of boiling water reactor
[EURAEC-1745] 15 p2746 N67-28312
Local thermodynamic equilibrium and nonequilibrium values for bound state populations of hydrogenic ions in steady state
[UCRL-50135] 16 p2950 N67-29060
Steady state theory for analyzing separated flows on slender wings in unsteady motion, and computations for heaving and pitching oscillations of slender delta wing
[ARC-R+M-3443] 16 p2814 N67-29090
Steady state thermal stresses in cylindrical fuel pins due to axial variations in internal heat generation rate
[ANL-7283] 17 p3171 N67-30632
Fundamental mechanisms and parameters affecting steady state and transient performance of Rankine cycle liquid metal systems
[SAN-677-6] 17 p3177 N67-30641
Steady state and dynamic characteristic variations in wall attachment fluidic devices - histograms
[B3] 18 p3247 N67-31655
Steady state and finite difference solutions to climatic variables and atmospheric motions
[REPT.-7045-249] 18 p3290 N67-31829
Stimulated Raman scattering inside resonator of primary laser in steady state 19 p3466 N67-32813
Steady state induction of electromagnetic field by fluid motion in spherical conductor with concentric spherical core
[MF-54] 19 p3517 N67-32349
Sinusoidal steady state characteristics of multi-electroded three-dimensional piezoelectric ceramic devices
[SC-DC-67-1731] 20 p3612 N67-34090
Analytical evaluation of aerodynamic load growth or steady state aeroelastic effect for Saturn configurations
[NASA-TM-X-53634] 20 p3735 N67-35035
Steady state equations for hydrogen excitation in prominence surges 20 p3722 N67-35046
Conditioning and steady state performance of SNAP-8 tube-in-shell mercury boiler
[NASA-TM-X-1441] 21 p3761 N67-35615
Nonlinear steady state solutions to moving load problems
[AFOSR-67-1439] 22 p4133 N67-36933
Numerical solutions to steady state plasma sheath problems 22 p4119 N67-37744
Computer simulation of longitudinal plasma density gradient effects on steady state nonlinear electron beam-plasma interaction 22 p4120 N67-37750
Steady and unsteady state problems and shock wave structure using Krook model of Boltzmann equation 22 p4120 N67-37759
Steady state sound scattering by elastic cylinders
[REPT.-1-67] 24 p4496 N67-39901
Steady state performance of multitube, centrally finned, potassium condensing radiator
[NASA-TN-D-4227] 24 p4551 N67-40146
STEADY STATE CREEP
Effect of creep properties of material on stress concentration around circular hole in plate determined by successive

approximation for nonlinear flow theory of steady creep 13 p2228 N67-34540
STEADY STATE FLOW
Extension of computer program solution capabilities by finite differences method to large class of steady state flow problems 04 p0542 N67-13747
Steady state and dynamic performance of proportional fluidic diverter valve [NASA-TM-X-1393] 06 p0869 N67-16876
Method for computing steady state motion of pneumatic pistons 07 p0905 N67-16879
Steady state fluid models of ion-exosphere [NASA-CR-82486] 08 p1279 N67-19100
Analytical solutions of natural convection flows in closed-end cylindrical vessels to obtain exact temperature and velocity distributions in laminar flow region under steady state condition [NASA-CR-83536] 11 p2001 N67-33254
Vertical quasi-steady state force data on rocket sleds compared to wind tunnel data [MDC-TR-67-12] 13 p2094 N67-34743
Steady state problem of laminar flow of radiating absorbing gas in boundary layer near flat plate [NASA-TT-F-11,161] 16 p2354 N67-31856
Steady-state laminar flow boundary conditions for stainless steel coiled-capillary gas viscometer [BM-RI-6995] 19 p2435 N67-33990
STEAM
Oxygen traces in lead determined by water-steam transformation technique [EUR-3072.I] 03 p0237 N67-11907
Steady state and transient measurements on forced recirculation boiler steam drum [AEEW-M-631] 04 p0633 N67-14018
Condensation heat transfer at low pressure subsurface jet-agitated steam-water interface [CONF-661102-1] 07 p1206 N67-17443
Physical properties of steam and water above 1000 psia [NAA-SR-MEMO-12006] 07 p1136 N67-17448
Steam bubble content and frequency range output at different positions along boiling zone of boiling water reactor [EUR-3831] 07 p1135 N67-17694
Physical model for steam bubble formation in boiling process [NASA-TM-X-53208] 08 p1267 N67-18659
Recrystallization conditions of milled stainless steels in hot water and steam [EURAEC-1699] 10 p1632 N67-30663
Corrosion of stainless steels in high temperature water and steam [EUR-2857.E] 11 p1898 N67-22906
Cyclone research for steam separation in boiling water reactors [EURAEC-1690] 12 p2147 N67-33896
Local heat transfer and static pressure data for steam condensation in vertical downflow tube [NASA-TN-D-3953] 13 p2236 N67-34460
Effects of vapor quality, droplet size and velocity, and turbine geometry on turbine blade erosion with steam [NASA-CR-84490] 14 p2450 N67-37606
Computer program for calculating steam condenser design data [DTMB-2255] 16 p2320 N67-29105
Steady burnout of reactor fuels, and computer program to determine steam and water physical parameters [EURAEC-1618] 17 p3112 N67-31157
Corrosion of steels and alloys by high temperature water and steam [EURAEC-1796] 17 p3063 N67-31467
Subcooled boiling analysis by calculation of steam volume fraction considering heat removal mechanisms [AE-398] 19 p3554 N67-33537
Design geometry of mixture-inflow axially fed steam separators located in boiling water reactor [EURAEC-1787] 22 p4094 N67-37673
Studies of cyclones for steam separation in boiling water reactors [EUR-3388] 23 p4291 N67-39139
Mechanical steam condensation film removal from condensing surface [MEL-R+D-565/66] 24 p4550 N67-39683
Convective heat transfer between high parameter steam and solid wall of nickel or steel tubing in supercritical region [NASA-TT-F-11263] 24 p4551 N67-40181
STEAM GENERATOR
Analysis for digital computer program to predict steady state recirculation ratio and presence of hydrodynamic instabilities in steam generator [WAPD-TM-530] 01 p0044 N67-10726
Computer program for steady state hydraulics analysis of steam generating reactor systems [AEEW-M-474] 06 p0899 N67-15460
Mathematical models for pressure variation effects on space dependent dynamics of boiling water reactors and steam generators 07 p1126 N67-17072
Design and fabrication of sodium heated steam generator [BAW-1280-39] 07 p0899 N67-17598
Solubility of calcium sulfate in high temperature and supercritical stream [AERE-TRANS-1058] 07 p1081 N67-17942
Compatibility of two types of stainless steel in model liquid sodium heated steam generator system [BAW-1280-37] 10 p1651 N67-30621
Sodium components development program - shell-side heat transfer, once-through steam generator, mechanical properties, carbon analysis, Na mass transfer, and impurity analysis for Na [ORNL-3953, VOL. II] 16 p2309 N67-29746
Design, performance, and economics evaluation of sodium-heated modular supercritical steam generator [NAA-SR-8506] 19 p3491 N67-33507
Sodium heated steam generator [BAW-1280-44] 22 p3966 N67-37955
Sodium heated steam generator [BAW-1280-43] 22 p3967 N67-37957
STEAM TURBINE
Analysis of steam vapor vortex flow in submarine surface condenser [MEL-461/66] 21 p3330 N67-35710
STEEL
SA AUSTENITIC STEEL
SA BAINITIC STEEL
SA CARBIDE
SA CHROMIUM STEEL
SA FERRITE
SA HIGH STRENGTH STEEL
SA IRON ALLOY
SA MARAGING STEEL
SA MARTENSITIC STEEL
SA NOTCHED STEEL
SA STAINLESS STEEL
Temperature dependence of internal friction, elastic modulus, and shear modulus in powdered beryllium alloy, hardened steel alloy, boron, and polycrystalline structures [JPRS-37900] 01 p0021 N67-10061
Temperature dependence of internal friction in hardened iron and steel alloy 01 p0021 N67-10062
Corrosion mechanism of carbon steels in lithium 01 p0062 N67-10092
Fatigue crack propagation in low carbon steels [TID-23136] 01 p0065 N67-10712
Stress corrosion cracking of carbon steel in simulated radioactive waste solutions [DP-1023] 01 p0065 N67-10775
Delayed failures and crack formations during welding of titanium alloys and steels 02 p0275 N67-11789
Annealing, hot working, and cooling of three titanium alloys, commercially pure titanium, and steel 02 p0276 N67-11806
Effect of metallic additives on mechanical properties and chemical composition of steel 03 p0410 N67-12811
Fatigue properties of neutron-irradiated pressure vessel steels [WAPD-T-1864] 04 p0538 N67-13579
Stress relaxation tests with elastic follow-up on bolt steels [NEL-213] 04 p0556 N67-13597
Determination of embrittlement of pressure vessel steels after increasing neutron radiation doses [EUR-2830] 04 p0560 N67-13972
Brittle fracture and tensile strengths of steels [EURAEC-1669] 04 p0562 N67-14004
Plastic fatigue embrittlement of reactor vessel steels [EURAEC-1634] 04 p0562 N67-14005
Fracture toughness of reactor pressure vessel steels [COO-1477-5] 04 p0562 N67-14006
Harmonic analysis method for nondestructive determination of case depth of carburized steel [SA-TR18-1320] 05 p0711 N67-14707
Hydrogen embrittlement of notched steel in black oxide and zinc phosphatine finishing processes [RIA-66-2008] 05 p0716 N67-14711
Physical metallurgy of iron and steel 05 p0717 N67-14808
Analysis of steel industry development in Latin America 05 p0780 N67-14810
Steel weldability criteria 05 p0716 N67-14812
Hardenability of constructional steel 05 p0718 N67-14815
Radiation measurements of some industrial brass, steel, and aluminum alloys in infrared spectrum [FTD-TT-65-1796] 05 p0719 N67-15295
Steel and aluminum alloys tested for fatigue resistance 06 p0891 N67-15519
Effects of various heat input rates on steel welds [NASA-TM-X-53537] 06 p0888 N67-16541
Strain gauges used to compare theoretical and experimental results from steel models having single nozzles radially and nonradially attached to spherical shell [JAERI-1106] 07 p1122 N67-17829
Embrittlement of steels by neutron radiation [EURAEC-1691] 07 p1101 N67-17544
Corrosion and service life of carbon and alloy steels in sea water [ORNL-TM-1618] 07 p1102 N67-17695
Water radiolysis effects on electrochemical potential of steel and plutonium [EURAEC-1702] 09 p1311 N67-19661
ONERA thermochemistry techniques of protection and assembly of steel and refractory metals 09 p1305 N67-19678
Neutron activation methods applied to determining oxygen content in steel, and cost comparison for use of nuclear and conventional equipments by industry [EUR-3161.F, VOL. III] 09 p1239 N67-19067
Neutron activation determination of oxygen in steel on industrial scale with similar possibilities for determining nitrogen and hydrogen in steel [EUR-3161.F, VOL. I] 09 p1240 N67-19186
Apparatus, conditions, and results of tests designed to determine industrial application possibilities of neutron activation analysis for determining oxygen content in steel [EUR-3161.F, VOL. II] 09 p1241 N67-19189
Thermal conditions, operating methods, and temperature safety margins for welding of very thick steel vessels [EUR-2650.F] 09 p1294 N67-19182
Microstructure, refining and heat treatment history, and nickel content influences on radiation embrittlement sensitivity of structural steels [NRL-6430] 09 p1461 N67-19755
Effect of oxygen and water vapor on fatigue properties of titanium alloy and 4340 steel [NASA-CR-82971] 09 p1462 N67-19962
Phase composition, structure, and properties of steel and high temperature nickel alloys [FTD-MT-66-16] 10 p1648 N67-29474
Tensile flow and fracture properties of thermally embrittled steel [AMRA-TR-66-28] 10 p1650 N67-30629
Transformation in steel during fast heating tests for brittle fracture research on large weldments [QR-9] 10 p1652 N67-30687
Fretting fatigue of pin joints in steel lugs, and effect of various jointing compounds [S+T-MEMO-12/65] 10 p1829 N67-21209
Selecting optimum heat treatment conditions and improving wear resistance capabilities of case-hardened steel 10 p1645 N67-21241
Radioactive methods used to automate, control, and inspect blast furnace operations and steel production 10 p1644 N67-21251
Radiometric transducers used for automatic control of level of molten metal for continuous steel casting machine 10 p1644 N67-21254
Radioisotope methods to determine amount and effect of slag on quality of smelted steel 10 p1643 N67-21262
Radiometric control of fritting and wear of hearths in open hearth furnaces used in steel production 10 p1645 N67-21269
Radioisotopes to study contamination from nonmetallic inclusions in rail steel production processes 10 p1643 N67-21269
Phosphorus 32 used to study nature of deformation in steel rolled into rails 10 p1646 N67-21272
Electron microscope examination of cold

worked and heat treated A302-B steel and effect of substructure on irradiation stability
[GA-7282] 10 p1655 N67-21522
Fracture toughness testing of reactor pressure vessel steels
[COO-1477-6] 10 p1766 N67-21688
Effects of notches and saltwater corrosion on flexural fatigue properties of steels for hydrospace vehicles
[MEL-420/66] 10 p1658 N67-21738
Cold work, heat treatment, and substructure effects on irradiation stability of steel
[GA-7161] 10 p1658 N67-21901
Preliminary research on breaking strength of weldments on heavy gauge tensile steels
[EURAEC-1612] 10 p1648 N67-21982
Temperature change effects during fatigue tests on endurance of aluminum alloy and carbon manganese steel
[NEL-321] 11 p1895 N67-22139
Optimum ratio of aluminum to steel in steel reinforced aluminum cables used in high voltage transmission line conductors 11 p1836 N67-22300
Basic principles of heat treatment of iron and steels
[NBS-MONOGRAPH-88] 11 p1896 N67-22463
Steel alloy pump tested in mercury corrosion loop to establish feasibility of design
[NASA-CR-72201] 11 p1890 N67-22842
Tensile test data and stress strain curves of hot forged bar specimens of chromium molybdenum alloy steel at several temperatures
[NASA-CR-72203] 11 p1897 N67-22848
Cycle ratio influence on finite life and fatigue strength of drilled flat steel bars
[FB-58, PT. B] 11 p1898 N67-22961
Nondestructive boron distribution analysis in steel by neutron flux depression
[SGAE-IB/IA-11/1966] 11 p1813 N67-23036
Magnetic analysis of transformations in AMMO steel during heat cycles simulating welding cycle
[EUR-3311] 11 p1900 N67-23219
Mechanized nondestructive testing for steel quality control 11 p1893 N67-23424
Effect of calcite structure in oxygen-blowing steelmaking process
[BM-RI-6901] 11 p1893 N67-23441
Effects of rare earth metal and oxide additions on tensile ductility and impact strength of carbon steel
[BM-RI-6907] 11 p1900 N67-23446
Structural strength of aluminum and steel alloys
[FTD-MT-65-92] 12 p2113 N67-23521
Regularity of crack formation and fracture of hull steel with cyclic loading 12 p2220 N67-23531
Effect of loading conditions of failure of low alloy hull steel 12 p2220 N67-23532
Nitrogen effect in iron and steel under fast neutron irradiation
[EURAEC-1726] 12 p2116 N67-23681
Solid state diffusion of powdered molybdenum onto carbon steel - protective coating 12 p2117 N67-23975
Effect of charged particle slowing down on nuclear cascade in steel initiated by protons
[ORNL-3854] 12 p2168 N67-24157
Axial fatigue properties of irradiated steels
[IN-1068] 13 p2330 N67-25437
Rolling recrystallization texture of commercial grades of low carbon steels
[COA-NOTE-MAT-8] 13 p2337 N67-25582
Embrittlement in pressure vessel steels after neutron irradiation
[M-66-975-50965] 13 p2337 N67-25602
Influence of nitrogen in iron and steel under fast neutron irradiation on magnetic properties
[SORIN-M/442] 13 p2340 N67-25904
Charpy V notch impact data for steel bars obtained as function of temperature according to NATO method
[M67-66-VDBU/VDK] 13 p2340 N67-26024
Steel aircraft exhaust tail pipe examined after 500 flight hours to determine need for heat treatment
[M67-133] 13 p2328 N67-26036
Cleaning methods and primer paint systems for steel sheet treatment evaluated for mechanical and corrosive properties
[V-67-21] 13 p2328 N67-26040
Radiometric methods for determining boron distribution in steel during irradiation with thermal neutrons
[SGAE-IB/IA-13/1966] 13 p2372 N67-26118
Thermal and strain cycling effects on fracture toughness of welded steel plates
[AD-647906] 14 p2552 N67-26890
Susceptibility of low carbon steel to magnetic aging 14 p2554 N67-27025
Standard identification symbols adopted by metallurgical industry of Chinese Peoples Republic for iron and steel, nonferrous metals, and alloy products
[JPRS-40131] 14 p2557 N67-27382
Fracture mechanics evaluation of reactor vessel steels
[WCAP-3677-1] 15 p2721 N67-27904
Research program on effect of substructure on irradiation stability of ASTM A302 steel
[GA-7463] 15 p2725 N67-28311
Substructure effect on irradiation stability of steel
[GA-7618] 16 p2908 N67-29728
Embrittlement in pressure vessel steels determined with respect to neutron irradiation by stress wave attenuation tests
[EUR-3334] 16 p2908 N67-29735
Neutron irradiation effect on mechanical properties of iron and steel
[SORIN-99] 16 p2911 N67-29928
Stress-grain size and temperature dependence analyzed to determine effects on brittle fracture transition of steel
[ARPA-E38] 17 p3078 N67-30434
Corrosion of steels and alloys by high temperature water and steam
[EURAEC-1796] 17 p3083 N67-31467
Irradiation embrittlement of steel using gamma thermometer to measure gamma heating in periphery of Saxton reactor core 18 p3362 N67-32444
Cavitation-erosion characteristics of niobium, tantalum, and steel in mercury at 500 deg F
[NASA-CR-67000] 18 p3281 N67-32578
Warm working to improve toughness of armor plate
[MRL-568-F1] 18 p3277 N67-32679
Eddy current tests used for measuring hardness of steels after heat treatment
[FA-M67-24-1] 19 p3468 N67-32844
Fracture toughness measurements of reactor pressure vessel steels
[COO-1477-7] 19 p3469 N67-32999
Radiolysis of water effect on electrochemical corrosion of platinum and steel
[EURAEC-1784] 19 p3468 N67-33014
Steel, iron, and niobium samples examined for effects of radiation on mechanical properties and crystal structure
[ORNL-4007] 19 p3470 N67-33202
Lubrication of bearing steels with electroplated gold under heavy loads
[AFML-TR-67-61] 19 p3464 N67-33572
Embrittlement of reactor vessel steels through plastic fatigue
[EURAEC-1799] 19 p3473 N67-33838
Austenitization, expansion, and stress relief properties of steel
[EURAEC-1798] 19 p3473 N67-33839
Isotope dilution technique for determination of yttrium in alloy steels
[AERE-AM-104] 20 p3568 N67-34068
Optimum conditions for blast cleaning of steel plate
[REPT.-94C] 20 p3645 N67-34091
Structural energy theory of metal fatigue, and magnetic hysteresis and eddy current losses in high carbon and alloy steels
[FTD-MT-65-431] 20 p3655 N67-34232
Magnetic hysteresis and eddy current losses used to determine fatigue of high carbon and alloy steels 20 p3655 N67-34234
Room and high temperature tensile properties of Vascojet 90 steel sheet and recrystallization temperature and tensile properties of titanium zirconium molybdenum alloy sheet
[MGRT-294] 20 p3659 N67-34713
High speed forming machines, and semihot pressing of steels and other alloys
[FTD-HT-66-375] 20 p3651 N67-35144
High speed pressing of semihot steels 20 p3652 N67-35146
Crack toughness variation of mild steel with temperature and strain rate 20 p3661 N67-35149
Mean stress and hardness effect on magnetization induced from cyclic deformation in Quenched and tempered steel 20 p3661 N67-35151
Construction and testing of calibration capsule for fracture mechanics evaluation of reactor vessel steels
[WCAP-3677-3] 21 p3870 N67-36139
Test equipment development for research on substructure effects on irradiation stability of ASTM A302 grade B steel
[GA-7895] 21 p3870 N67-36239
Effect of mold-steel interface reactions on casting surface and properties
[AMRA-CR-66-02/3] 22 p4060 N67-36745
Irradiation effects in Fortiweld steel containing different boron isotopes
[AE-288] 22 p4060 N67-36750
Radiation damage in iron and steel with medium and high carbon content 22 p4061 N67-36955
Control of grain size in steel castings - effect of structure and nonmetallics on properties
[AMRA-CR-66-04/3] 22 p4070 N67-37239
Ultrasonic testing method for steel plate inspection
[REPT.-6606.284] 22 p4057 N67-37777
Ultrasonic inspection of steel plates
[REPT.-6612.277] 23 p4250 N67-38810
Mechanical testing procedures and specifications for iron and steel products
[NEL-348] 23 p4266 N67-39031
Materials in electromagnets and their properties
[SLAC-PUB-330] 23 p4268 N67-39235
Vibration transmission characteristics of flexible pipe connections for Dacron and steel lined hoses
[NSRDC-2441] 24 p4456 N67-39986
Mechanics of fuming of iron-carbon melts during top-blowing with oxygen
[BM-RI-7047] 24 p4457 N67-39744
Yield strength studies of steel to determine degrees of hydrogen absorption in neutral electrolytes
[NASA-TT-F-11280] 24 p4467 N67-40088
Stress relaxation in steel, nickel alloys, and iron alloys - thermomagnetic effects on metal friction, heat treatment and work hardening, and loading curves for steel joints
[FTD-MT-65-262] 24 p4468 N67-40111
Experimental and calculated relaxation curves for steel and corresponding loading diagram for steam turbine joints 24 p4468 N67-40114
Irradiation effects at 160 to 240 deg C in six pressure vessel steels
[AE-298] 24 p4468 N67-40143
Effects of metallurgical changes and geometrical discontinuities on fatigue strength of base metal and heat affected zone of mild steel welded joint
[MTB-010051] 24 p4469 N67-40375
STEEL STRUCTURE
Acoustic measurements on ship models having continuously welded, and spot welded steel sections
[TDCK-46297] 01 p0115 N67-10464
Buckling strength of fabricated HY-80 steel spherical shells
[DTMB-1721] 02 p0318 N67-12106
Buckling of stiffened steel conical shells under torsion and axial compression 07 p1198 N67-16858
Extra thin stainless steel structures used in second stage of ELDO launch vehicle 08 p1370 N67-18422
Gas tungsten arc method for optimal weldments in steel plates for large rocket motor case
[NASA-CR-72155] 09 p1520 N67-19872
Ultrasonic flaw detection in welded steel joints
[V-218-66-OE] 10 p1638 N67-20676
Irradiation effects on reactor structural materials
[NRL-MR-1731] 12 p2151 N67-24894
Literature review of arc welding processes for nickel steel construction
[AECL-2630] 13 p2330 N67-26211
Ultrasonic pulse-echo spectroscopic methods for nondestructive determination of defect characteristics and to distinguish microstructures of steel specimens
[AMRA-TR-66-30] 14 p2551 N67-26743
Fast neutron generators and gamma spectrometers for direct activation analysis of steel structures
[MG/D-239/65] 17 p3081 N67-31141
Design, fabrication and testing of steel irradiation capsule and rig 18 p3276 N67-32468
Mechanical properties of high-manganese

low-carbon steel for welded heavy-section ship plate
[SSC-175] 19 p3469 N67-33035
Mechanical properties and bonding efficiency of steel composites
[AMRA-TR-67-12] 19 p3475 N67-33979
Hydrogen embrittlement in irradiated steels
[ANL-7266] 20 p3660 N67-34900
Stress analysis for development of multilayer large steel vessels
[EUR-3460.D] 20 p3741 N67-35003
Inelastic buckling strength of fabricated HY-80 steel hemispherical shells
[DTMB-2304] 22 p4154 N67-37188
Ultrasonic inspection method for steel plate sets
[REPT.-6701.381] 22 p4057 N67-37770
Ultrasonic inspection of steel plant trunnions
[REPT.-6609.272] 23 p4258 N67-38490
Ultrasonic investigation of steel plates and bodies
[REPT.-6702.233] 23 p4357 N67-38496
Ultrasonic testing to determine thickness of stainless steel cylinders
[REPT.-6611.374] 23 p4358 N67-38705
STEEP GRADIENT AIRCRAFT
S HELICOPTER
S STOL AIRCRAFT
S VTOL AIRCRAFT
STEEPEST ASCENT METHOD
IBM 7094 digital program using steepest ascent technique for optimizing flight path of supersonic transport aircraft
[NASA-CR-793] 14 p2573 N67-27299
Steepest ascent method for trajectory optimization based on minimum time and maximum velocity of fuel flow rate
19 p3535 N67-33383
STEEPEST DESCENT METHOD
Method of steepest descent applied to solution of nonlinear equation systems
[TG-230-T483] 01 p0096 N67-10941
Numerical solution of Fredholm integral equation of first kind
[NASA-CR-85609] 17 p3092 N67-30778
Steepest descent method used to solve linear operator equations in Hilbert space and to determine eigenvalue and characteristic element
[JUL-443-MA] 20 p3689 N67-34131
Steepest descent method examined and tested using example of zero positions of complex polynomials
[JUL-445-MA] 20 p3686 N67-34163
Minimum fuel ascent computation for lunar launch trajectory
[NASA-TN-D-4159] 21 p3931 N67-35796
Minimum fuel control of spacecraft in orbit using extended method of steepest descent
[NASA-CR-79112] 21 p3933 N67-36602
Steepest descent method and applications to systems of linear equations
[TR-12] 22 p4086 N67-38056
STEERABLE ANTENNA
Antenna, mirror, and reflector design and construction for spacecraft systems
02 p0311 N67-11289
Operations, characteristics, and performance of Telstar satellite tracking facilities in Italy, France, and England
[NASA-SP-32, VOL. 4] 03 p0363 N67-12301
Design, construction, and test results for 85 feet high steerable dish antenna for satellite communications
03 p0364 N67-12306
Computation and data transmission for prediction steering of communications satellite ground station antenna
03 p0364 N67-12307
Logic design for digital control positioning of steerable antenna for satellite ground tracking station
03 p0364 N67-12308
Beam-swinging mechanism for communications satellite ground station antenna
03 p0379 N67-12309
Primary feed radiation patterns for communications satellite ground station antenna
03 p0364 N67-12311
Waveguide feeder system for communications satellite ground station antenna
03 p0364 N67-12312
Design and construction of wideband digital delay line for steering array antennas
[RADC-TR-66-123] 05 p0677 N67-15337
Wideband array antenna using intermediate frequency time delay steering
[RADC-TR-66-389] 06 p0843 N67-16466
Electronically steerable antenna systems suitable for satellite guidance
[NASA-CR-88569] 20 p3694 N67-34998
Self-adaptive and self-steering antenna arrays for Mars probe
[NASA-CR-72118] 21 p3930 N67-36102
Pointing error measurements for antenna automatic steering system at Scandinavian satellite tracking station
24 p4419 N67-40476
STEERING
SA ROCKET STEERING MOTOR
Haystack pointing system for superposition of one-dimensional, and area covering scans
[ESD-TR-66-585] 06 p0844 N67-16457
Derivation of linear-tangent law
[TR-1001/9908/-1] 07 p1186 N67-16798
Improving steering or handling characteristics in man-driven vehicle, and role of human driver in man-machine system
20 p3652 N67-35176
Optical steering device for changing direction of laser beam
[NASA-CR-88869] 22 p4059 N67-37903
Statistical analysis of yaw steering law required to optimize propellant combustion for space missions
[TR-1001/2121-10/-1] 24 p4527 N67-39505
STELLAR ATMOSPHERE
Stars of T-Tauri and uv Ceti types, and phenomenon of continuous emission
04 p0609 N67-12611
Hypothesis dealing with Wolf-Rayet stellar atmospheres
04 p0609 N67-12412
Stellar and planetary atmosphere light scattering theory based on probability
[NASA-TT-F-10325] 04 p0581 N67-13795
Spectrophotometric data on atmosphere of Nova Herculis 1963
06 p0867 N67-16162
Graphite grain formation in cool stars examined on basis of molecular equilibrium data for stellar atmospheres
[NASA-TM-X-55677] 06 p1262 N67-18578
Electron temperature in stellar shells containing high energy electrons
[NASA-CR-83930] 13 p2398 N67-25888
Spectroscopic analysis of stellar atmosphere chemical composition
[NASA-CR-84882] 15 p2793 N67-28928
Stellar atmosphere models that assume interior energy sources, thermodynamic and mechanical equilibrium, and absorption of radiant energy only in continuous spectrum
17 p3161 N67-31622
Chemical composition of stellar atmosphere related to galactic evolution
17 p3161 N67-31628
Model atmospheres for cool stars and late-type stars and models simulating water vapor absorption
[SAO SPECIAL REPT.-340] 21 p3930 N67-35369
History of theoretical research on stellar atmospheres, with bibliography
[NASA-CR-88799] 22 p4141 N67-37383
Theoretical investigation of atmosphere of binary stars based on analogy between gas dynamics and shallow water flow
[NASA-TM-X-55939] 23 p4346 N67-38955
STELLAR EVOLUTION
SA GALACTIC EVOLUTION
SA HERTZSPRUNG-RUSSELL DIAGRAM
Neutron capture reactions and stellar nucleosynthesis - heavy element buildup
[NASA-TM-X-53527] 02 p0369 N67-11365
Stellar and biological evolution related to requirements for life on planets
03 p0342 N67-12729
Stellar evolution processes involving instability in binary systems, variable stars, and novae outbursts
04 p0609 N67-12410
Stellar evolution and instability in close binary star
04 p0610 N67-12414
Variable stars and problems of stellar formation
04 p0610 N67-12415
Theory on probability of capture in three-body problem and binary stellar evolution
04 p0611 N67-12642
Galactic and stellar evolution, radio sources, and cosmology - conference
05 p0760 N67-14648
Neutrino and antineutrino emission during stellar evolution, and cosmological implications
05 p0761 N67-14660
Nuclear reactions of light and middle-weight elements in stellar evolution
07 p1143 N67-17135
Stellar nucleosynthesis by neutron capture on rapid time scale
[LA-DC-7985] 07 p1151 N67-17535
Quantitative explanation of observed distribution of rotational velocities for stars of different spectral types - stellar evolution
[UCRL-TRANS-10645, PT. III] 07 p1191 N67-17887
Model for formation of stellar systems
[UCRL-TRANS-10941, PT. V] 07 p1192 N67-17538
Gravity, relativity theory, celestial mechanics, and stellar evolution - conference review
[ACIC-TC-1115] 07 p1193 N67-17919
Compilation of research reports in astronomy, geophysics, nucleosynthesis, stellar structure and evolution, solar system origin, and atmospheric dynamics and turbulence
[NASA-TM-X-53345] 07 p1193 N67-17920
Bibliography on stellar interiors
[NASA-CR-81654] 07 p1193 N67-17937
Astrophysical evidence for direct electron-neutrino weak interaction - theoretical models of superluminous white dwarfs with and without neutrino emission process
[NASA-TM-X-57356] 08 p1360 N67-18355
Gravitational collapse and electron-type neutrino interactions in massive star during final catastrophic stages of evolution
[NASA-TM-X-57354] 08 p1361 N67-18356
Solar evolution
[NASA-TM-X-57357] 08 p1361 N67-18360
Dissipation rate of stars from galactic star clusters determined and used in theory of galaxy evolution - Pleiades
[NASA-CR-84094] 13 p2494 N67-26362
Measuring oscillator strengths in arc spectrum of iron, line strengths in intermediate coupling for iron, inhomogeneous vector couplings in atomic spectra, and stellar evolution
[SAO-611-48] 18 p3334 N67-31796
Method for determining absolute bolometric magnitude and number of evolved stars of upper main sequence
18 p3335 N67-31800
Stability of stationary distribution function, and gravitational effects on galactic structure
22 p4143 N67-37758
Collective motions in spherical star cluster evolution
22 p4143 N67-37759
STELLAR FIELD
Equipment for generating empirical atlas of infrared stellar backgrounds
[AFCRL-66-710] 09 p1511 N67-19796
Device for extraction of heavy ion beams accelerated in stellar field cyclotron by stripping
[ORNL-TR-1469] 12 p2172 N67-24696
Celestial photometer developed for geodetic stellar photography
[AFCRL-67-0021] 12 p2194 N67-24962
STELLAR LUMINOSITY
Anisotropic and luminosity function effects on velocity-distance relation for bright galaxies, and general red shift law
05 p0760 N67-14652
Different atmospheric perturbations causing optical image instabilities in astronomical star observations, and climatic evaluation of some observatory sites in U.S.S.R.
[NASA-TT-F-427] 06 p0871 N67-15461
Observational results on star scintillation during 1956 to 1960 obtained by Pulkovo expeditions
06 p0861 N67-15472
Stellar image pulsation photography during 1960 from Tadzhikistan astronomical observatory
06 p0862 N67-15476
Photoelectric recording of star image pulsations
06 p0862 N67-15478
Variability of degree of polarization correlated with stellar brightness variations
06 p0867 N67-16164
Digital transformation method for photometric measurement of stellar brightness distribution
09 p0966 N67-16168
Colors, luminosities, and motions of 1000 giants of types K and M - Tables
12 p2369 N67-24826
Comparison of photometric profiles of meteors and stars using images of stars on unguided negatives
[NASA-TT-F-10366] 15 p2789 N67-28239
Feasibility of electronic fringe detector for operation in conjunction with Michelson stellar interferometer
[AFCRL-67-0117] 16 p2886 N67-29617
Quasi-stellar radio source analysis by correlating space-time distribution of luminosities
[MPI-PAE/ASTRO-2/67] 20 p3736 N67-33974
STELLAR MAGNETIC FIELD
Solar activity data tables including sunspot group daily total areas, heliographic positions, classification, longitudinal sunspot

magnetic fields, and sudden cosmic noise absorption 01 p0148 N67-10557
STELLAR MASS
Effect of neutrino processes in delaying or stopping helium burning in red giants [NASA-TM-X-59255] 05 p0742 N67-15211
STELLAR MASS EJECTION
Rapid neutron capture in supernova explosions [NASA-TM-X-60443] 23 p4340 N67-39075
STELLAR MOTION
RR Lyrae variable star radial velocity observations 01 p0149 N67-10001
Radial velocity observations of 18 RR Lyrae variable stars 01 p0149 N67-10002
Photometric observations of RR Lyrae variable stars for radial velocity studies 01 p0149 N67-10003
Photoelectronic method of studying erratic motion of stellar images 07 p1079 N67-17164
Displacement and polarization in stellar dynamical systems 07 p1190 N67-17288
Tables for calculating plane galactic orbits of stars [NASA-TM-X-59344] 07 p1193 N67-17976
Colors, luminosities, and motions of 1000 giants of types K and M - Tables 12 p2309 N67-24026
Radial velocity of delta Ceti derived from spectrograms [PUBL.-187] 12 p2309 N67-24040
Systematic corrections to reduce certain satellite positions to FK4 system [NASA-CR-84823] 15 p2791 N67-28760
Construction of reliable inertial coordinate system - star catalogs from Ukrainian observatories, ILS materials analysis and increasing accuracy of astrometric observations [NASA-TT-F-454] 19 p3523 N67-33184
Reduction of declinations and proper motions of star pairs observed by International Latitude Service from 1900 to 1935 to common system 19 p3523 N67-33185
Proper motions in declination of 125 circumpolar stars 19 p3524 N67-33190
Mean absolute magnitude and space motions of classical cepheids of galactic population I 19 p3524 N67-33191
One-dimensional model describing stellar motion for studying relaxation of self-gravitating gas 22 p4142 N67-37753
STELLAR OCCULTATION
Photoelectric device for recording occultations of stars by moon 19 p3453 N67-33197
STELLAR RADIATION
Stellar X-ray radiation source observation from rockets, and rocket instrumentation [ESRO-SM-59] 03 p0464 N67-12051
Efficient signal processing techniques for celestial scanning optical systems - models of energy received by sensors from star and stellar background radiation - photodectors [NASA-CR-672] 06 p0908 N67-16667
Stellar and solar flares [NASA-TM-X-55697] 06 p1357 N67-18634
Attitude control system design of astronomical satellite for stellar ultraviolet observation [ESRO-TM-39] 09 p1517 N67-20297
Aerobee rocket experiment for detecting X-ray sources in Cygnus constellation - stellar radiation [NASA-CR-752] 11 p1884 N67-22780
Strong X-ray source in vicinity of constellation Crux 19 p3538 N67-33720
Absorption and refraction changes in radiation from Jupiter and radio stars [LTIRF-363/IP] 21 p3928 N67-35701
Astronomical television system to reduce exposure time for obtaining images of weak stars using average-size instruments [NASA-CR-86279] 21 p3853 N67-36490
Astronomical photometric data, lunar crater and Leonid meteor shower observations, polarization of stellar light by interstellar gas, and solid organic filter development [NASA-CR-86749] 22 p4140 N67-37062
Ultraviolet radiation from late-type stars 22 p4137 N67-37824
STELLAR SPECTROPHOTOMETRY
Three-color photometry of components in wide double and multiple stellar systems [BULL.-120] 02 p0364 N67-11062
Slitless absolute spectral photometry method for atmospheric entry and astronomical radiation measurements [NASA-TN-D-3765] 04 p0653 N67-14163
Photoelectric observations of magnitudes and colors of southern stars 06 p0964 N67-15766
Exposure predictions for geodetic satellite photography by stellar photometry [B-3456] 12 p2104 N67-24853
Eight color narrow band photometry of bright stars [NASA-CR-86383] 22 p4138 N67-36711
Properties of intermediate bandpass photometric system with filters located in stellar spectral sensitive regions [REPT.-66-42] 23 p4343 N67-38190
STELLAR SPECTRUM
Balloon telescopic measurements of strongest X-ray source in Scorpius [NASA-CR-79717] 01 p0148 N67-10673
Line blocking prediction in ultraviolet spectrum of B star 03 p0464 N67-13052
Quasi-stellar radio source spectra and cosmology 05 p0761 N67-14855
Reduction of stellar spectra from nova outburst [AD-639747] 05 p0763 N67-15061
Wavelengths of absorption lines in quasi-stellar objects [NASA-CR-81797] 08 p1360 N67-18239
Cool halo subdwarf HD 25329 analysed to determine abundance of elements 12 p2309 N67-24025
Computer programs for determination of equivalent widths from photographed stellar spectra 13 p2483 N67-26304
Spectra of fixed and nonstationary stars, interstellar matter, and celestial bodies in far ultraviolet [NASA-TT-F-457] 17 p3160 N67-31016
Radiation diffusion without redistribution by frequencies, equations for radiative transfer, and stellar spectrum 17 p3143 N67-31023
Continuous spectra of hot white dwarfs, and color indexes of such stars with hydrogen and helium atmospheres 17 p3161 N67-31026
Emission spectra of nonstationary stars 17 p3161 N67-31030
Free-free continuous absorption coefficients of nonhydrogenic atoms and positive ions for stellar spectra interpretation 18 p3235 N67-31836
Lithium content in spectra of T Taurus type stars and in cosmic rays [NASA-CR-89641] 24 p4529 N67-39050
Statistical and astrophysical studies of emission-line stars and planetary nebula in southern Milky Way [AD-656513] 24 p4531 N67-40309
STELLAR STRUCTURE
Photometric and astrometric determination of stellar structure and dynamics for globular cluster Omega Centauri 16 p2972 N67-30067
Dust and stellar components distribution data to determine Milky Way structure between arms in Carina-Cygnus and Sagittarius 20 p3729 N67-35056
STELLAR WIND
S SOLAR WIND
STELLARATOR
External injection of plasma streams into closed magnetic container in stellarator experiments [MATT-TRANS-86] 07 p1167 N67-17585
Nonadiabatic injection of plasma into L-2 stellarator using programmed magnetic field method [CTO-513] 10 p1735 N67-20757
Magnetic field production in modified stellarator having solenoidal coil wound onto triangular base frame 11 p1957 N67-21947
Injection and confinement of plasma in stellarator with multipolar helical field 12 p2184 N67-24190
Thermonuclear plasma and accelerator technology - limitation on injection, topology of phase space, and stellarator construction problems [COO-1233-44] 15 p2775 N67-28591
Stochastic destruction of stellarator magnetic field [NP-19634] 16 p2965 N67-29752
Construction and magnetic properties of stellarator for studying cesium, potassium, or lithium confinement [MATT-550] 20 p3618 N67-34381
Adjustment of stellarator magnetic system [MATT-TRANS-39] 22 p4101 N67-37976
Theoretical and experimental studies on plasma generation and confinement - stellarator design, power electronics and instrumentation systems, and magnetic field induction methods [MATT-Q-24] 23 p4318 N67-38725
Contact ionization of potassium and cesium to form plasma in stellarator 23 p4318 N67-38726
Ion saturation current frequency for stabilization of stellarator plasma 23 p4319 N67-38730
Fast discharge condenser for lithium plasma injection into stellarator 23 p4321 N67-38743
Guiding center drift equation for analysis of helical structure effect on stellerator loss 23 p4322 N67-38751
Sound waves for pressure stabilization in stellarator 23 p4322 N67-38752
Computer evaluation of helical stabilizing winding geometries for magnetic surfaces in stellarator 23 p4295 N67-38763
Design parameters for superimposed helical windings for negative field configuration in stellarator 23 p4296 N67-38764
Production engineering measures for electrical stabilizing windings of stellarator 23 p4258 N67-38768
Limitation of ion cyclotron heating in local mirrors of C stellarator [MATT-411] 23 p4324 N67-39057
STEP FUNCTION
Stepwise multiple regression statistical theory and computer program description [BRL-R-1330] 07 p1109 N67-16928
Maximum temperature reached by reactor core in step excursions with different Doppler reaction feedbacks calculated and compared with point kinetics equation results 07 p1124 N67-17060
Step response prediction for third-order nonlinear control systems [TM-638.2141-02] 08 p1259 N67-18288
Step function, and application of quadrature formulas to estimation using moments 14 p2562 N67-26533
Digital computer programs for determining response of pressure measurement systems to step and ramp forcing functions [AEDC-TR-66-225] 14 p2531 N67-26754
Step function used for best harmonic approximation to cosine n theta [BNL-11397] 21 p3879 N67-35844
Interaction between crack front and cleavage steps in magnesium oxide [AERE-R-5498] 24 p4473 N67-40147
STEREOCHEMISTRY
Stereochemistry of organic phosphorus compounds [JPRS-38534] 02 p0228 N67-11836
Models for asymmetric induction in synthetic and natural polymers [AFOSR-66-2571] 06 p0838 N67-16355
Conformational distinction between equatorial and axial amino groups in derivatives of 3-isopropylcyclobutane system [AFOSR-66-2602] 06 p0830 N67-16490
Chemical reduction, stereochemistry, and other reactions of various type hydrides [AROD-1287-18] 11 p1811 N67-22637
Physico-chemical elution of structure and stereochemistry of cyclohexane carboxylic acids, cyclohexyl amines, and related compounds [PROM.-3763] 11 p1813 N67-23014
Conformation isomerization of hexahydro-1,3,5 trimethyl-1,3,5 triazine [TR-3] 13 p2048 N67-24871
Resolution of some O-alkyl hydrogen methylphosphonothioates with dextrorotatory and levoratory alpha phenylethylamine [REPT.-1066-23] 13 p2273 N67-26362
Step-wise stability constants of chelate compounds related to number of organic ligands [FTD-HT-66-569] 15 p2661 N67-29632
Stereochemical considerations of formation coefficents of some compounds [CNEA-190] 16 p2858 N67-29943
Structure analysis on stereo-regular isomers of polymethyl methacrylate in solution to determine molecular shape and conformation 18 p3221 N67-31859
Asymmetric synthesis during reaction of 3-trifluormethyl pseudooxazolones-5 or oxazolones-5 with L-amino acid esters 20 p3592 N67-34468
STEREOSCOPIC PHOTOGRAPHY
Methods of stereoscopic camera adjustment for bubble chamber [JINR-P-2727] 01 p0073 N67-10763
Classification technique for photogrammetric stereo restitution

systems 03 p0396 N67-12841
Parallax sensing dependency on density patterns in stereoscopic measurements 03 p0397 N67-12842
Accuracy requirements for optical units of stereoscopic camera in bubble chamber [JINR-P-2726] 03 p0400 N67-12891
Three-dimensional holography [NEL-1408] 06 p0919 N67-16644
Formulas for space coordinate reconstruction of points by two stereoprojections using least squares method [JINR-P-2889] 19 p1631 N67-30069
Terrain profile recorder image point transfer instrumeat [AD-649830] 16 p2894 N67-29444
Aerial stereoscopic photography of cumulus clouds 17 p3007 N67-30413
Design principles and simulation studies of stereoscopic analog track recognition machine for analyzing bubble chamber film 21 p3811 N67-36376
Air shower experiments - testing of apparatus, and studies of angular distribution of air shower particles recorded on stereoscopic cloud chamber photographs [BMWF-FBK-67-45] 23 p4255 N67-39142
STEREOSCOPIC VISION
SA DEPTH PERCEPTION
Stereoscopic angle and its relationship to tests for depth perception [SAM-TR-66-70] 07 p1010 N67-17243
Affective factors in stereoscopic perception of persons and objects [TR-28] 11 p1899 N67-23130
Saccadic suppression explanation of Pulfrich phenomenon [USAMRL-718] 16 p2832 N67-29402
Observations and measurements of Panum phenomenon [REPT.-722] 16 p2835 N67-29668
STERILIZATION
SA CHEMICAL STERILIZATION
SA PURIFICATION
SA SPACECRAFT STERILIZATION
Planetary quarantine mission [NASA-CR-80201] 03 p0345 N67-12902
Log-normal model for microbial survival in heat sterilization [NASA-CR-80273] 03 p0346 N67-12907
Effects of thermal sterilization on polymeric products used on Ranger and Mariner spacecraft [NASA-CR-80434] 03 p0415 N67-13099
Decontamination, sterilization, and preconditioning effects on energy dissipating properties of balsa wood [NASA-CR-80518] 03 p0415 N67-13196
Nickel-cadmium cell heat sterilization test program [NASA-CR-80629] 04 p0484 N67-14214
Heat sterilization program for spacecraft electronic parts 05 p0652 N67-14783
Test program to evaluate polymers for use in sterilized Voyager landing capsule 05 p0735 N67-14784
Sterilization effects on soldered and welded joints, electronic equipment processes and materials, electric connectors, and wiring and cabling accessories 05 p0623 N67-14785
Heat sterilizable batteries and separator materials for planetary landing capsules 05 p0637 N67-14786
Alternate approaches to sterilizable planetary landing spacecraft power supplies 05 p0637 N67-14787
Sterilization of guidance and control systems and components 05 p0734 N67-14788
Sterilization of spacecraft telecommunications system - pressure transducers, magnetic tape recorders, and magnetic core memories 05 p0674 N67-14789
Heat sterilization of pyrotechnics and spacecraft onboard liquid and solid propulsion subsystems 05 p0754 N67-14790
Sterilization effect on separation, entry, descent, and landing phases of Mars module 05 p0760 N67-14791
Design criteria for planetary spacecraft subject to heat sterilization 05 p0765 N67-14792
Sterilizability of scientific payloads for planetary exploration 05 p0765 N67-14793
Manufacturing, assembly, and handling procedures for planetary spacecraft to be heat sterilized 05 p0711 N67-14794
Clean room assembly and sterilization laboratories for experiments on Voyager capsule, components and modules 05 p0690 N67-14795
Potential separator materials for heat sterilizable silver-zinc battery [NASA-CR-81161] 06 p0817 N67-15690
Large-scale application of radioactive isotopes to medical product sterilization 06 p0911 N67-15543
Survey on microbial populations present within environmentally controlled areas 06 p0799 N67-15703
Development of membrane separators for sterilizable silver-zinc battery 06 p0791 N67-15785
Dynamic-mechanical properties of sterilizable polybutadiene elastomer after high temperature exposure 06 p0697 N67-15723
Polymer sterilization research 06 p0800 N67-15725
Heat sterilizability of liquid hydrazine propulsion system 06 p0843 N67-15731
Thermal sterilization effects on components used in construction of Mariner IV endless loop magnetic tape transport 06 p0870 N67-15748
System design and materials testing in development of sterilizable liquid propulsion system [NASA-CR-81642] 07 p1183 N67-17970
Composite separator production for heat sterilizable silver-zinc batteries [NASA-CR-81611] 07 p1001 N67-17972
Experiments, evaluation, and monitoring of microbiological contamination of plastics, metal surfaces, spacecraft, and facilities [NASA-CR-81776] 07 p1018 N67-18139
Development program for separator and modified polyethylene separator material for silver-zinc battery, and program for development of sealed heat sterilizable batteries 08 p1222 N67-18312
Bladder and expulsion devices for spacecraft liquid propulsion systems - pinhole leak test fixture, heat sterilization of ethylene propylene with hydrazine, and metal diaphragms 08 p1358 N67-18339
Quantitative spore recoveries from diatomaceous earth pellets used to simulate electronic components in dry heat sterilization studies [NASA-CR-83122] 10 p1583 N67-21177
Sterilizable ruggedized vidicon for lunar and planetary photography [NASA-CR-83885] 13 p2294 N67-25975
Biological indicator for dry heat sterilization [NASA-CR-83907] 13 p2358 N67-25977
Sterilization of liquids by hydrosol filtration [NASA-CR-84036] 13 p2369 N67-26298
Feasibility of heat sterilization of silver-zinc cell by use of inorganic separator [NASA-CR-85564] 17 p2997 N67-30002
Heat sterilizable, impact resistant cell development, and electrochemical system [NASA-CR-84066] 17 p2998 N67-31136
Ethylene oxide sterilization of planetary spacecraft electronic equipment [NASA-CR-85831] 17 p3057 N67-31149
One ampere hour heat sterilizable sealed silver zinc cell - component design and environmental testing [NASA-CR-85785] 17 p2999 N67-31250
Bibliography on planetary quarantine 18 p3212 N67-32254
Sterilizable polymer compounds for embedment or conformal coating [NASA-TM-X-55710] 19 p3477 N67-33969
Ultrasound used in combination with propylene oxide for sterilization of bacterial spores [NASA-CR-87494] 20 p3573 N67-34412
Electric performance of heat sterilized nickel-cadmium cell [NASA-CR-87615] 20 p3569 N67-34737
Inorganic fillers and pressure effects on films for separators for heat sterilizable silver zinc battery [NASA-CR-88014] 21 p3760 N67-35834
Basic design, component selection, and materials compatibility tests for sterilizable liquid bipropellant propulsion system [NASA-CR-88039] 21 p3925 N67-35908
Effects of temperature sterilization on accelerometer bias stability [NASA-CR-88117] 21 p3830 N67-36116
Thermal sterilization effects and application parameters determined for connector cup joints soldered with tin and antimony [NASA-CR-88063] 21 p3861 N67-36194
Heat sterilized nickel-cadmium cell failure analysis [NASA-CR-88128] 21 p3764 N67-36411
Heat sterilizable, impact resistant cell development, and storage battery research [NASA-CR-88123] 21 p3764 N67-36448
Thermal sterilization of nickel-cadmium batteries [NASA-CR-86458] 22 p3967 N67-37394
Rebuilt accelerometer resistant to temperature sterilization environment [NASA-CR-89585] 24 p4452 N67-40860
Decision theory biological search strategies and planetary quarantine aspects of Mars exploratory missions [NASA-CR-89772] 24 p4532 N67-40462
STEROID
SA CHOLESTEROL
SA CORTICOSTEROID
Influence of steroid hormones on afferent and efferent impulsation in conductors of sympathetic nerves and electrical activity of sympathetic ganglion in dogs under stress 03 p0382 N67-11604
Synthesis of steroid labeled radioisotopes, automation of steroid analysis, steroid biogenesis and metabolism, and radiation effects on steroid metabolism [NYO-918-15] 06 p0949 N67-18239
Nucleophilic displacement reactions of steroid compounds - organic chemistry 11 p1813 N67-22397
Renal elimination of steroids during manned space flight stress 12 p2025 N67-24424
STIELTJES INTEGRAL
Characteristic functions uniformly approximable by Fourier-Stieltjes coefficients [REPT.-1] 17 p3000 N67-30254
STIFF STRUCTURE
Dynamic response of buckled stiffened panels under compressive loads [NASA-CR-79622] 02 p0214 N67-11685
Dynamic response of buckled stiffened panels typical of S-II stage forward skirt under acoustic loads [NASA-CR-79626] 02 p0215 N67-11686
Plastic buckling of axially compressed eccentrically stiffened cylinders [NASA-TN-D-3769] 05 p0676 N67-15662
General instability of stiffened cylindrical shells under combined axial compression and external or internal pressure studied by using Donnell equations 07 p1180 N67-18080
Buckling of stiffened steel conical shells under torsion and axial compression 07 p1180 N67-18282
Load distribution and transfer from edge stiffener to elastic sheet - reconsideration of Meijs problem [TR-7] 07 p1203 N67-17700
Stiffener eccentricity and location influence on minimum weight design aspects of stiffened cylinders under compression [NASA-CR-81698] 07 p1204 N67-18000
Stresses in stiffened cylinder with cutout and loaded in axial compression [NASA-TM-X-1354] 08 p1377 N67-18082
Buckling and vibration of eccentrically stiffened shallow shells of double curvature [NASA-TN-D-3628] 08 p1377 N67-17707
State of stress and strain in thin walled stiffened cylindrical shells 09 p1527 N67-20068
Mathematical scheme for free vibrations of cylindrical shell reinforced by stringers 09 p1528 N67-20074
Method for determining buckling loads of circular stiffening rings [AEDC-TR-66-169] 10 p1768 N67-20720
Approximate method for analyzing vibrations of stiffened plates and shells [U-326-165] 11 p1888 N67-22616
Analysis techniques for orthogonally stiffened flat rectangular plates under various loading and support condition combinations [REPT.-67-1] 11 p1886 N67-23020
Generation of interelement compatible stiffness and mass matrices by use of interpolation formulas 11 p1888 N67-23012
Element stiffness matrices for boundary compatibility and for prescribed boundary stresses 11 p1889 N67-23014
Dynamic stiffness matrix formulation by means of Hermitian polynomials 11 p1889 N67-23015
Flat triangular shell element stiffness matrix 11 p1889 N67-23016
Finite element stiffness matrices for analysis of plate bending 11 p1889 N67-23017

Stiffness characteristics of triangular plate elements in bending, and solutions 11 p1989 N67-22818
Stiffness matrixes for analysis of large deflection and stability problems 11 p1990 N67-22824
Axial load on stiffness of rigid jointed frames 11 p1990 N67-22825
Mathematical stiffness model for conical and hemispherical cap filament wound structures
[AFOSR-66-1944] 12 p2230 N67-24505
Finite element method extended for dynamic analysis of complex continuum bodies - direct stiffness technique 14 p2625 N67-27065
Fatigue and crack propagation of large scale uniformly loaded tee-fillet loaded welded rectangular rib-stiffened plates
[TM-7] 14 p2626 N67-27180
Buckling equations used to determine structural efficiency of ring stiffened corrugated cylinders in axial compression
[NASA-TN-D-4073] 18 p3332 N67-32382
Shear lag effect on stress distribution in stiffened shells, and stress analysis of cone frustums and segments
[NASA-CR-87445] 20 p3737 N67-34217
Finite element dynamic stiffness matrix for two-dimensional panel flutter calculations
[LR-476] 20 p3738 N67-34429
Ultimate axial forces of longitudinally stiffened plate panels
[NAL-TR-132] 21 p3941 N67-35756
Triangular finite sandwich element for direct stiffness matrix determination of bending in plates and shells
[NASA-CR-66357] 23 p4358 N67-38853

STILBENE
Performance and packaging of stilbene spectrometer for simultaneous detection of neutron and gamma rays in mixed radiation field
[BRL-R-1335] 10 p1634 N67-21423
Estimate of relative contribution from different components in organic scintillation counters 23 p4312 N67-38981

STIMULANT
S CENTRAL NERVOUS SYSTEM STIMULANT

STIMULATED EMISSION
Current and light storage effects in lithium and sodium doped zinc oxide single crystals following optical or thermal stimulation 07 p1175 N67-16971
Stimulated emission and nonlinear absorption spectrometers for upper atmosphere measurements
[CARDE-TR-457/63] 10 p1594 N67-21416
Characteristics of Stokes emission in stimulated Brillouin scattering of intense laser light in non-focusing media
[AFCRL-67-0051] 18 p3377 N67-32922
Experimental and theoretical developments in stimulated Raman scattering of light
[TR-525] 21 p3965 N67-35311
Stimulated current emission from upper hybrid resonance in magnetoplasma
[TR-11] 23 p4123 N67-38007

STIMULATION
SA PHOTIC STIMULATION
SA SENSORY STIMULATION
Latent period duration in conditioned reflex action of man exposed to consecutive light and sound stimuli 02 p0180 N67-11414
Excitation and stimulation deficiency 02 p0307 N67-11644

STIMULUS
SA AUDITORY STIMULUS
SA CALORIC STIMULUS
SA ELECTRIC STIMULUS
SA VISUAL STIMULUS
Computer predictions of stimuli actions under space flight conditions 02 p0230 N67-11618
Methodological study of behavioral and semantic differential scales relevant to intercultural negotiations
[TR-32] 10 p1545 N67-21715
Signal patterning effects on human alertness and physiological responses during performance of monotonous tasks
[NAVTRADEVCEN-IH-82] 14 p2455 N67-26737
Effects of different coding schemes and amount of stimulus on continuous information transmission rate
[U417-66-035] 18 p3217 N67-32466
Choice reaction time evaluated with respect to stimuli or responses - psychology and human performance
[AFOSR-67-1864] 22 p3978 N67-37045
Acoustic and mechanical stimuli effects on Pacinian skin sensory receptor corpuscle
[AFOSR-67-1523] 22 p3972 N67-37556

STIRLING CYCLE
Comparison of dynamic energy conversion systems for long duration space missions - Rankine cycle using mercury, water, and organic working fluids - Brayton cycle and Stirling cycle 07 p0998 N67-16948

STOCHASTIC PROCESS
Reduction of matrix with positive elements to doubly stochastic matrix
[MRC-TSR-689] 01 p0094 N67-10403
Optimization of stochastic finite state systems
[TR-469] 01 p0096 N67-10955
Stochastic differential games using missile and radar with controllable statistical parameters
[TR-581] 01 p0097 N67-11007
Lower bound for asymptotic behavior of epsilon entropy of Gaussian stochastic process on unit interval under square-error fidelity criterion - data compression 02 p0238 N67-12147
Stochastic nonlinear system with correlation in nuclear reactor theory
[EUR-3674.E] 03 p0427 N67-12892
Optimal equipment maintenance theory for stochastic and deterministic problems
[R-437-PR] 04 p0555 N67-13812
Exchangeability preserved by weaking type of invariance usually assumed for exchangeable random variables - Stochastic processes
[TR-11] 05 p0718 N67-14708
Invariant estimation of statistics of stochastic system parameters
[PIBMRI-1334-66] 05 p0725 N67-14750
Two-dimensional surveillance problems with continuous surveillance
[M113] 05 p0714 N67-15311
Statistical procedure for testing hypothesis of independence, and application to reliability and maintenance of stochastically failing equipment and neurophysiological experiments
[RM-5124-PR] 06 p0901 N67-15358
Central limit theorem generalization for stochastic process involving weakly stationary sequences of random variables
[TR-1] 06 p0902 N67-16036
Family of statistics for stationary stochastic process with given covariance function and spectral distribution function
[SU-207] 06 p0902 N67-16037
Stochastic and sampling processes for logarithmic series distribution
[ARL-66-0147] 06 p0903 N67-16118
State increment dynamic programming for stochastic and adaptive optimization problems
[GGC/EE/66-12] 06 p0649 N67-16495
Stochastic nature of theoretical processes occurring in gases exhibiting gas-dynamical phenomena 07 p1062 N67-16832
Sequential stochastic convergence algorithm for teaching machines to classify input signal
[TR-121] 07 p1100 N67-17023
Queue theory with Poisson input and general service times, treated as branching process
[AD-640483] 08 p1301 N67-18004
Digital simulation of Hermite-Laguerre /Wiener-Canonical/ expansion of likelihood function for stochastic process
[TR-7] 09 p1468 N67-19742
Covered space, Riemann geometry extension, and partition function research on stochastic models for multivalued, multidimensional relations
[NASA-CR-82984] 09 p1470 N67-19827
Some problems in curve fitting
[RCOM-5078] 09 p1471 N67-20045
Practical applications of stochastic analysis of counting rate measurements
[UCRL-50146] 10 p1730 N67-21684
PERT model constructed with stochastic structure 11 p1942 N67-22464
Deterministic solutions for class of chance-constrained programming problems
[ORC-66-24] 11 p1910 N67-23416
New method for defining stochastic integrals and differential equations 12 p2128 N67-23702
Mathematical techniques for control of distributed parameter systems - optimal and stochastic control, and stability of partial differential equations 12 p2069 N67-23990
Stochastic differential equations used to describe behavior of inertial metering device used in prediction of trajectories of stochastic systems 12 p2071 N67-24223
Analog probability simulation of stochastic control systems made of unreliable binary elements - communication network 12 p2071 N67-24225
First-passage probability used as measure of performance in stochastic control problem - dynamic programming
[NASA-CR-66349] 12 p2073 N67-25000
Derivatives and integrals - derivatives and double differences, Stieltjes integrals without bounded variation, and stochastic integrals
[MRC-TSR-677] 13 p2348 N67-25219
Algorithm for constructing finite automata for stochastic matrix 13 p2298 N67-25735
Nonlinear filtering - exact dynamical equations satisfied by conditional mode
[NASA-CR-83911] 13 p2299 N67-25963
Stochastic control of diffusion processes, optimal linear filtering and prediction, and optimization of control for Markov chains
[NASA-CR-84074] 13 p2300 N67-26371
Performance of control systems with random parameters - optimal stochastic control
[AFFDL-TR-66-83] 14 p2509 N67-27388
Identification of linear time invariance stochastic dynamical systems by nonlinear weighting of noisy measurements
[NASA-CR-84509] 14 p2566 N67-27877
Nonhomogeneous random diffusion equation solved by eigenfunction method
[FA-TN-1117] 15 p2734 N67-28278
Equivalent gain and stochastic analysis for nonlinear sampled-data control systems
[AFIT-TR-67-1] 15 p2685 N67-28972
Abstracted technical reports on time series statistical tests, spectral characterization of nonstationary processes, and time-varying spectral estimates
[R-6904] 16 p2918 N67-29031
Stochastic destruction of stellarator magnetic field
[NP-16834] 16 p2955 N67-29782
Analytical and numerical investigations of appearance of stochasticity in conservative system of weakly coupled nonlinear oscillators
[NP-16522] 16 p2921 N67-29787
Stability of processes defined by stochastic difference and differential equations
[NASA-CR-85258] 16 p2923 N67-30074
Spectral characterization of stochastic matrices
[MRC-TSR-734] 17 p3088 N67-30184
Graphical evaluation and review technique to analyse networks with stochastic and logical properties
[NASA-CR-74140] 17 p3042 N67-31354
Optimal control in relation to antenna pointing direction and in bounded phase-coordinate processes, and stochastic control studies with incomplete state-variable information
[NASA-CR-85701] 17 p3169 N67-31446
Signal and noise problem as solution to nonlinear stochastic differential equations
[NASA-CR-85853] 17 p3042 N67-31463
Chance-constrained equivalents shown to exist for several stochastic programming problems
[ORC-67-18] 18 p3284 N67-31554
Discontinuous Markov processes and stochastic population processes applied to transport theory problems
[AML-7131] 18 p3306 N67-31823
Stochastic approximation method for controlling industrial objects 18 p3285 N67-31869
Mathematical literature survey on curve crossing by stochastic processes
[D1-82-0613] 18 p3286 N67-32348
Distribution of time between successive axis-crossings obtained by stochastic process
[AD-652264] 18 p3289 N67-32685
Stochastic regime process analysis
[TR-1] 19 p3478 N67-32790
Topics related to effectiveness of distribution functions, transformations, and stochastic processes in mathematical and applied statistics
[ARL-66-0331] 19 p3479 N67-32999
Two theorems on solutions of differential difference equations and applications to

epidemic theory 19 p3489 N67-33090
Stochastic models for forecasting seasonal time series
[TR-104] 19 p3484 N67-33094
Sample characteristics and limit theorems of its stochastic integral
[FTD-HT-66-607] 19 p3481 N67-33268
Statistical methods for analyzing stochastic effects influencing design of space vehicle control systems
[NASA-CR-625] 19 p3540 N67-33461
Optimum smoothing of aerial gravity measurements
[SR-13] 19 p3445 N67-33635
Markov process used in formulations and theory of stochastic neutron transport
[LA-DC-8706] 19 p3507 N67-33644
Linear stochastic model for representing time series
[TR-103] 19 p3485 N67-33942
Stochastic models of air-ocean interaction and climatic fluctuation 20 p3573 N67-34844
Stochastic models of operation of asynchronous digital computers 20 p3609 N67-35253
Stochastic epsilon-stability of solution to quadratic programming problem 21 p3579 N67-35607
Treatment of ties in paired comparisons
[FSU-M123] 21 p3879 N67-35918
Representations for likelihood functions of separable stochastic processes to aid in signal detection, classification, waveform recognition, and parameter extraction
[TR-9] 21 p3923 N67-35943
Fortran IV computer programs for Markov chain experiments in geology
[TR-6] 22 p4034 N67-36775
Multi-dimensional stochastic dynamical system for optimal control
[PIBMRI-1364-67] 22 p4015 N67-36781
Recursive algorithms for pattern recognition
[TR-529] 22 p4000 N67-36827
Coefficients of Weiner canonical expansion for likelihood function of continuous Martingale
[AFOSR-67-1555] 22 p4062 N67-36973
Cutting hyperplane algorithm for L-shaped linear programs associated with optimal control problems with state constraints and stochastic linear programs
[QRC-66-17] 22 p4015 N67-36979
Optimum maintenance of systems with randomly decreasing performance levels assessible only by costly imperfect inspection
[RM-5399-PR] 23 p4257 N67-38117
Application of non-stationary time series analysis to oceanography
[HEL-16-3] 23 p4241 N67-38178
Generalized stochastic programming formulation by approximate cutting-plane method
[ORC-67-27] 23 p4276 N67-39149
Stochastic process of linking rows to columns in matrices
[MRC-TSR-651] 24 p4477 N67-39488
Functions of processes with Markovian states - stochastic processes, theorems, statistical processes
[RM-193] 24 p4478 N67-39557
Magnetic core data storage for IBM 360 computer system
[AFOSR-67-1965] 24 p4413 N67-39582
Multidimensional iteration theory applied to calculate distribution probability of points on rectangular lattices
[DISS-2995] 24 p4479 N67-39687
Modified Fokker-Planck equation describing particle distribution in random field for plasma heating applications
[NASA-CR-89623] 24 p4507 N67-39757
Stochastic processes applied to discrete linear programming
[RR-111] 24 p4482 N67-40056
Optimal attitude control systems for antenna direction, stochastic problems, and bounded phase-coordinate processes
[NASA-CR-89565] 24 p4434 N67-40279
STOERMER METHOD
Motion of charged particles in field of magnetic dipole in external magnetic field by Stoermer method 05 p0756 N67-14865
STOICHIOMETRY
Chain stoichiometry and chain carriers during reaction of unscavenged hydrogen atoms with ozone 01 p0229 N67-12131
Melting points of hypostoichiometric uranium dioxide
[BNWL-224] 04 p0558 N67-13822
Ceramic fuel researches dealing with thermal diffusivity of fuel plates, stoichiometric gradients in oxide fuels, thermal expansion of Pu fuels, phase studies, and induction heating 06 p1234 N67-19231
Post-irradiation metallographic examination of arc-cast hypostoichiometric uranium monocarbides 12 p2196 N67-34248
Phase relations, production, and characteristics of substoichiometric oxide fuels - uranium oxide and uranium plutonium oxide
[KFK-543] 21 p3892 N67-36894
Growth of large single titanium oxide crystals from melts - crystal stoichiometry, impurity segregation and electric properties
[ESD-TR-67-343] 24 p4392 N67-39284
STOKES-BELTRAMI EQUATION
S VELOCITY POTENTIAL
STOKES LAW
Stokes problem solution with proportional error of order of square of earth flattening
[ACIC-TC-1104] 05 p0706 N67-15318
Stokes problem solution with proportional error of order of square of earth flattening - Molodyenskiy formula
[ACIC-TC-1102] 05 p0707 N67-15319
STOKES PARAMETER
Effect of reflecting surfaces on polarization state of light beam 07 p1096 N67-17275
Stokes approximation for base flow at very low Reynolds numbers 06 p1270 N67-19822
Elimination of instrumental polarization influence in measurement of astronomical source polarization 11 p1920 N67-32040
Radiance and polarization of multiple scattered light from haze and clouds calculated from Stokes vectors by Monte Carlo method
[NASA-CR-89294] 23 p4296 N67-38969
STOL AIRCRAFT
Potential airline use of STOL-VTOL aircraft for intercity short-haul transportation
[FAA-ADS-74, VOL. II] 01 p0088 N67-10555
Technical and economic evaluation of STOL/VTOL aircraft as intercity short-haul transportation method
[FAA-ADS-74, VOL. I] 01 p0084 N67-10599
Beach testing of experimental jet pump using high energy compressed air and capable of boundary control in short takeoff and landing aircraft
[NASA-CR-73046] 05 p0713 N67-15159
Flight and simulator study of directional augmentation criteria for four-propellered STOL aircraft for low approach speeds
[NASA-TN-D-2969] 12 p2015 N67-34619
Static, longitudinal stability, and lateral aerodynamic characteristics of variable wing sweep STOL configuration at Mach number 2.36
[NASA-TM-X-829] 18 p3192 N67-33017
Flight tests of coin-type STOL aircraft
[NASA-TN-D-4141] 20 p3587 N67-35029
XV-11A description and preliminary flight test
[USAAVLABS-TR-67-31] 21 p3756 N67-35233
Evaluation of advanced VTOL, STOL, and conventional takeoff and landing aircraft for short haul transportation systems
[NASA-CR-73129] 23 p4177 N67-38523
Evaluation of advanced VTOL, STOL, and conventional takeoff and landing aircraft for short haul transportation systems
[NASA-CR-73130] 23 p4177 N67-38523
Standardized list of definitions associated with Vertical and Short Takeoff and Landing /V/STOL/ aircraft terminology
[AFFTC-SP-67-1001] 24 p4374 N67-39741
STOMACH
SA ABDOMEN
SA ANATOMY
Direct innervation of capillary endothelial cells in lamina propria of ferret stomach
[NASA-CR-73139] 23 p4189 N67-38812
Effect of acceleration and hypokinesia on functional state of stomach 23 p4192 N67-39830
STONY METEORITE
S ACHONDRITE
S CHONDRITE
STOPPING POWER
Stopping power and range tables for protons, mesons, and electrons in lithium fluoride, silicon, germanium, liquid hydrogen, propane, and freon
[NASA-SP-3058] 24 p4502 N67-14899
Bremsstrahlung information marks for frame location in detectors for automatic film stop devices
[CERN-66-24] 13 p2322 N67-36169
Stopping power of sodium iodide/thallium/ crystal for gamma photons at energies between 0.01 and 10 MeV
[NP-16500] 15 p2780 N67-36381
Mean excitation energies calculated from stopping power and range data
[ORNL-TM-1777] 20 p3592 N67-34440
Computer assisted calculation of stopping power and range-energy values for any heavy ion in nongaseous media
[UCRL-17314] 20 p3593 N67-34703
Stopping power formulas and L-shell correction tabulations
[USC-136-150] 20 p3703 N67-35017
Capture of stopped negative pion mesons in mixture of helium 3 and nitrogen
[JINR-P1-3255] 21 p3902 N67-35340
Multiple start-stop solid propellant rocket motor using highly aluminized ammonium perchlorate annular propellant grains
[NASA-CR-73313] 22 p4135 N67-37789
Atomic penetration in solids and crystal lattice influence on penetration behavior
[AECL-2757] 23 p4297 N67-38974
STORABLE PROPELLANT
High purity silica reinforced ablative composite materials evaluated as nozzle sections of throat storable propellant rocket engine - erosion rates and charring
[NASA-TM-X-1291] 14 p2832 N67-37288
Test firing evaluation of six ablative-material thrust chambers as components of storable propellant rocket engines
[NASA-TN-D-3945] 21 p3827 N67-35774
STORAGE
SA AGING
SA BUFFER STORAGE
SA CRYOGENIC STORAGE
SA DATA STORAGE
SA ENERGY STORAGE
SA HANDLING EQUIPMENT
SA MISSILE STORAGE
SA MOMENTUM STORAGE
SA PROPELLANT STORAGE
SA SPACE STORAGE
SA UNDERGROUND STORAGE
High temperature storage, thermal cycling, and mechanical environmental stress testing of high reliability microcircuit modules
[HSER-2149] 01 p0051 N67-10227
Procedures for safe storage and handling of explosive substances
[JPRS-39457] 01 p0091 N67-11122
Fortran IV program for constructing cross section data from multigroup cross section data and addition to ROC nuclear data library tapes
[WAPD-TM-598] 10 p1722 N67-21557
Mixing and sampling enriched uranium 235 fluids in cylindrical storage containers
[Y-1561] 11 p1854 N67-32252
Feasibility study of long term storing of Scout and other solid propellant launch vehicles in assembled, flightworthy configuration and facility requirements
[NASA-CR-66321] 11 p1903 N67-32687
Prolonged storage of biological samples taken during Apollo-type orbital flights
[NASA-CR-781] 12 p2000 N67-33047
Thermostability of JP-4 jet fuels after one-year storage
[AFAPL-TR-66-61] 13 p2285 N67-35186
Corrosion test results of spacecraft construction materials stored with nitrogen tetroxide in sealed ampules
[NASA-CR-88131] 21 p3970 N67-35235
Prediction of shelf-storage life in rubbers from accelerated heat aging tests - oven aging experiments with nitrile, neoprene, and hypalon
[RAE-TR-67119] 22 p4160 N67-36444
STORAGE BATTERY
SA DRY CELL BATTERY
SA WET CELL BATTERY
Magnesium-magnesium chloride organic depolarized primary battery performance studies
[ECOM-3723] 01 p0083 N67-10082
Zinc/air high energy density rechargeable energy storage system as power source for vehicle propulsion
[AD-662809] 01 p0089 N67-10624
Hydrofoil electric equipment and wiring system modifications for replacing lead-acid storage battery with alkaline cell
[FTD-TT-65-1879] 01 p0090 N67-11091
Automatic charging and discharging

monitoring device for storage battery maintenance
[FTD-TT-65-1896] 01 p0009 N67-11095
Alkali and lead storage batteries used as chemical current sources
[FTD-TT-65-7] 01 p0010 N67-11159
Heat sterilizable batteries and separator materials for planetary landing capsules 05 p0637 N67-14736
Alternate approaches to sterilizable planetary landing spacecraft power supplies 05 p0637 N67-14737
Lithium chloride electrochemical storage battery for vehicle propulsion system
[EDR-4669] 05 p0638 N67-14907
Chemoelectric energy conversion for nonaqueous reserve batteries
[NOLC-699] 06 p0792 N67-15966
Feasibility of anode, cathode, and electrolyte for lithium moist air battery system
[SAR-1] 06 p0793 N67-15992
Electroformation and discharge of lithium and copper chloride in lithium aluminum chloride in propylene carbonate for evaluating lithium, copper chloride battery system
[TR-1] 06 p0794 N67-16469
Performance characteristics and operational parameters for high rate metal-air depolarized batteries
[ECOM-01614-4] 09 p1394 N67-19829
Electrochemical behavior of several organic and inorganic cathodes when discharged in nonaqueous electrolytes for application to high energy batteries
[ECOM-02304-1] 09 p1396 N67-20015
Anodic oxidation of lead-acid cell compounds in dilute sulfuric acid
[NRL-6450] 10 p1556 N67-20678
Micrography of tubular-type battery plates
[NRL-6428] 10 p1556 N67-20710
Discharge capacity of silver oxide electrodes changed by charging with periodically interrupted current
[NRL-6460] 11 p1785 N67-21397
Cathode materials and inorganic and organic solvents for use in high energy organic electrolyte system to increase storage life and current density
[QR-2] 14 p2475 N67-26659
Gaseous electrolytes for batteries and fuel cells
[NASA-CR-84409] 14 p2449 N67-27361
Magnesium flat cell battery development
[REPT.-3] 17 p2995 N67-30639
Lithium-moist air battery research with emphasis on mechanism of operation of oxygen electrode on smooth bright platinum in nonaqueous electrolytes
[SAR-3] 19 p3370 N67-33539
Twelve-volt fourteen-ampere hour nickel-cadmium vented battery housed in glass fiber case
[ECOM-01580-F] 19 p3371 N67-33711
Electric performance of heat sterilized nickel-cadmium cell
[NASA-CR-87815] 20 p3569 N67-34737
High energy density organic electrolyte batteries
[AD-654613] 21 p3761 N67-35633
Carbon zinc battery with capacity for prolonged storage at high temperatures developmental progress
[ECOM-02391-F] 21 p3763 N67-35662
Heat sterilizable, impact resistant cell development, and storage battery research
[NASA-CR-86122] 21 p3764 N67-36448
Launch time effect on performance of solar cell array/battery electric power system
[NASA-CR-84494] 23 p3963 N67-36706
Improving high temperature storability of zinc-manganese dioxide battery
[ECOM-02534-1] 23 p3963 N67-36744
Long life stable zinc electrodes for alkaline secondary batteries
[ECOM-0185-1] 23 p3963 N67-37064
Secondary rechargeable zinc-oxygen battery for spacecraft
[NASA-CR-89311] 23 p4183 N67-38070
Pile type, high discharge rate, nickel-cadmium equib battery development
[NASA-CR-89337] 23 p4184 N67-38236
Refractometer for automatic monitoring of electrolyte specific gravity in lead-acid cells
[NRL-6563] 24 p4379 N67-40311

STORAGE DEVICE
SA ENERGY STORAGE DEVICE
Linear accelerator improvements, and research on nuclear and pion physics, nuclear spectroscopy, and storage rings
[LAL-1150] 01 p0121 N67-10610
Gasifier for prolonged maintenance of liquid oxygen under pressure
[FTD-TT-65-1740] 01 p0056 N67-11078
Image storage tube 03 p0374 N67-13967
General shift-register sequence generators
[P-3473] 05 p0681 N67-15117
Secondary storage in nuclear codes for computing systems
[LA-3566-MS] 07 p1046 N67-17466
Design and application of magnetic memory device
[FTD-HT-66-99] 09 p1421 N67-19645
Automatic system for preparation and storage of synthetic media for long-term continuous flow studies with mass cultures of algae
[DP-1061] 11 p1854 N67-22306
International Symposium on Electron and Positron Storage Rings
[LNF-66/55] 11 p1856 N67-22896
Monochromatic gamma ray beam production in electron storage ring for calibration of total absorption counter
[SLAC-TRANS-55] 13 p2372 N67-25518
Low beta insertion design for accelerator storage rings
[SLAC-PUB-246] 14 p2513 N67-27495
Thermionic converter with self-contained self-regulating high temperature adsorption reservoir for automatic cesium pressure control
[NYO-3642-3] 14 p2450 N67-27727
Nonlinearity error analysis of storing circuits containing detectors and storing capacitors 15 p2683 N67-27841
Floating-point number representations for digital computer storage devices
[CS-64] 15 p2675 N67-28909
Design and construction techniques for self repairing digital systems
[ECOM-02343-3] 18 p3340 N67-32488
High-packing-density binary information storage mosaics consisting of regular array of elements of about micron size
[SRI-5444] 19 p3466 N67-33726
Diffusion model for radio frequency noise effects of particle motion in storage ring of synchronous particle accelerator
[CERN-67-1] 20 p3696 N67-34582
Transverse coherent motion of two particle beams in strong focusing storage ring
[CERN-67-19] 20 p3706 N67-34615
Pulse signal detection by digital storage devices
[FTD-MT-65-198] 21 p3796 N67-35638
Ultrahigh vacuum techniques for accelerators and storage rings
[UCRL-17296] 21 p3829 N67-36617
Multiple revolution injection system with walled magnetic inflector for collision rings
[LAL-1170] 21 p3829 N67-36649
Measuring apparatus for signal phase displacement and coherent loss in colliding storage rings
[NP-16696] 21 p3829 N67-36653
Ceramic piezoelectric computer storage device
[HDL-TR-1353] 22 p4007 N67-37437

STORAGE STABILITY
Quality control program for chemical analysis - bias and precision data, training and testing, standards and reagents, and variables of liquid storage stability 08 p1235 N67-18394
Hydrogenation of petroleum distillate fuels, and effects on storage stability and composition of fuels
[BM-RI-6961] 15 p2784 N67-28795
Moisture equilibrium in relation to chemical stability of dehydrated foods - annotated bibliography
[AD-656927] 23 p4185 N67-38071
Storage of chemicals, hazards and toxic properties of certain metals and organic compounds, and general safety measures
[ORNL-TM-1864] 23 p4202 N67-38407

STORAGE TANK
SA CONTAINER
SA FUEL TANK
SA PROPELLANT TANK
Stress corrosion cracking of carbon steel in simulated radioactive waste solutions
[DP-1023] 01 p0085 N67-10775
Computer analysis of thermal characteristics of liquid hydrogen storage vessel on moon - thermal conductivity of insulation, solar absorptance and emittance ratio, and vessel characteristics
[NASA-TN-D-3765] 05 p0774 N67-14937
Nitrogen tetroxide and hydrazine compatibility with aluminum alloy storage tanks
[NASA-CR-81294] 08 p0963 N67-16559
Qualification testing of gaseous nitrogen storage bottles
[NASA-CR-82964] 09 p1454 N67-19926
Cryogenic stretch form helium bottles for Saturn V S-IC vehicle
[NASA-CR-84635] 13 p2331 N67-26332
Digital computer solution of thermodynamic behavior of storable or cryogenic fluid tankage systems
[NASA-CR-85583] 16 p2967 N67-30164
Prototype laminated uranium metal shipping cask for large shipments of cobalt 60
[KY-521] 18 p3255 N67-31883
Nondestructive detection of defects in M149, 400 gallon water tanks 20 p3647 N67-34470
Cryogenic technology applications in storage tank designs, miniature liquefaction systems and solid cryogen coolers, and cryosorption for space simulators
[TR-1001/2710-01/-1] 21 p3940 N67-35561
Storage and transport of liquified hydrogen and helium, and coverings for liquified gas storage containers
[JPRS-42287] 21 p3803 N67-36449

STORAGE UNIT
Integrating storage display monitor with dark trace tube for nuclear two-parameter spectra
[EUR-3117.E] 01 p0043 N67-10551
Neutron multiplication values for plutonium 238 dioxide storage capsule submerged in water, and in air medium
[MLM-1340] 06 p0628 N67-16393
Design study for muon and antiproton facility at Stanford linear accelerator
[UR-875-161] 10 p1599 N67-20736
Storage unit, omnidirectional antenna, and thrust vector control tests for ATS, and propellant combustion in ballistic system 16 p2961 N67-29151
Pattern recognition, computer storage unit, control systems, network analyses, and communication theory 18 p3254 N67-32506
Aluminum coils for ac injector synchrotron and dc storage ring magnet systems
[UCRL-17256] 19 p3425 N67-33334
Electron beam addressable data storage elements and high-density regular arrays of micron-size elements
[ECOM-01261-8] 21 p3802 N67-35328

STORE
SA EXTERNAL STORE
SA WING-FUSELAGE-STORE
Controlled-fall technique for wind tunnel simulation of store release at high speeds
[ARC-CP-856] 08 p1261 N67-18441

STORM
SA CYCLONE
SA GEOMAGNETIC STORM
SA GUST
SA HURRICANE
SA IONOSPHERIC STORM
SA MAGNETIC STORM
SA NATIONAL SEVERE STORMS PROJECT
SA RAINSTORM
SA SOLAR STORM
SA THUNDERSTORM
SA TROPICAL STORM
SA WIND
Mathematical model of boundary layers and convective system structures and dynamics in severe storms
[ARL-1823-1] 11 p1917 N67-23447
Meteorological satellite photographic and radiation data use in severe storm studies 12 p2137 N67-24289
Doppler radar applications to storm dynamics and effect of wind shear and water vapor on measurements
[AFCRL-67-0100] 15 p2741 N67-28389
Synoptic climatology of Hawaii - frontal passages and number of cyclonic storms 21 p3863 N67-36523
Meteorological fluctuations in clouds, cirrus cloud seeding as trigger for storms, raindrop evaporation, natural ice crystals, and convective clouds - papers on cloud physics
[TN-36] 23 p4067 N67-37344
Radar observations of Hurricane Inez, October 1966
[ML-67291] 23 p4381 N67-39151

Dust devils in relation to Martian yellow clouds
[NASA-CR-89578] 24 p4530 N67-40004
STRAIN
SA BUCKLING
SA CENTRIFUGAL STRAIN
SA CRACK
SA FAILURE
SA FATIGUE
SA INTERFACIAL STRAIN
SA PRESSURE
SA SHEAR STRAIN
SA STRESS-STRAIN DIAGRAM
SA STRESS-STRAIN DISTRIBUTION
SA STRESS-STRAIN-TIME RELATION
SA STRUCTURAL STRAIN
SA UNIAXIAL STRAIN
SA VOLUMETRIC STRAIN
Crack propagation and critical strain in swollen rubber
[NASA-CR-89195] 02 p0279 N67-12276
Weak locally homogeneous turbulence and heat transfer with uniform normal strain
[NASA-TN-D-3779] 04 p0532 N67-14104
Prestraining effect on tensile properties of stainless steel En58b at 20 deg and -196 deg C
[RPE-TR-66/3] 04 p0562 N67-14126
Finite expansion of spherical cavity in locking medium using finite strain theory 05 p0768 N67-14486
Temperature effects on strain in gels under constant stress 05 p0784 N67-14553
Central impact of external forces of axisymmetrical body on circular plate of uniform thickness 09 p1530 N67-20086
Axisymmetric strain of rib-reinforced cylindrical shell 09 p1539 N67-20259
Transient strain and temperature distributions in long circular cylinders cooled by emission of thermal radiation
[SC-DC-66-1517] 10 p1770 N67-20842
Polybutene-1 spherulite deformation, and changes in local strain, thickness, and birefringence
[ONR-TR-67] 10 p1861 N67-21242
Metallographic and Laue X-ray diffraction studies of strain in large grains of alpha plutonium 12 p2110 N67-24265
Strain response of simply supported structural beams to point and acoustic loading 14 p2825 N67-27907
Strain wave propagation in 6-constant centrosymmetric cubic crystal
[AD-650562] 16 p2959 N67-29818
Ductile failure mechanisms, metal forming limits, and mechanical property changes by plastic strain cycling
[MAB-206-M/5/] 17 p3071 N67-30467
Second-order strain accumulation at ultrasonic frequency
[TR-50] 19 p3543 N67-32733
Path independent integral and approximate analysis of strain concentration by notches and cracks
[E39] 20 p3737 N67-34347
Internal position-like variables derived for phonons and electrons in crystalline lattice for finite strain problem
[NOLTR-67-61] 21 p3913 N67-35239
Plane strain equations in asymmetric theory of elasticity - boundary condition separation for half-plane 21 p3943 N67-35440
Strain and deformation calculations for perforated plates in heat exchangers and reactors
[WAPD-TRANS-55] 22 p4158 N67-37969
STRAIN AGING
Response of quenched and tempered high strength steel to strain aging at varying temperatures
[UCRL-16761] 07 p1102 N67-17696
Influence of strain rate and strain aging on flow stress of commercially pure aluminum
[MML-3] 14 p2550 N67-26976
Stress aging effects on tensile properties of stainless steels and ultrahigh strength steels
[AD-634687] 15 p2722 N67-27965
STRAIN ENERGY
Effect of explosive charge diameter on generation and propagation of strain waves
[BM-RI-6806] 03 p0430 N67-12956
Anisotropic strain energy function describing mechanical behavior of rubber 05 p0720 N67-14484
Strain energies and thermal properties of globular and polynuclear aromatic molecules
[COO-1149-92] 23 p4307 N67-38907
STRAIN FATIGUE
Stress concentrations in thin plates weakened by elastic-plastic strains due to infinite number of holes on X-axis 09 p1527 N67-20126
Applied mechanics research on cyclic plastic strain effects on metal fatigue, and thermodynamic principles of rheology
[FTD-TT-65-1375] 12 p2221 N67-23790
Plane strain dynamic response of cylindrical shell under nonaxisymmetric, time-dependent lateral loads
[REPT.-23] 16 p2976 N67-29123
Tensile and strain cycling fatigue properties of test materials for predicting life of turbine blade specimens 21 p3867 N67-35288
Second gradient of strain in linear elasticity - Mindlin theory
[AROD-5642-1-MC] 21 p3940 N67-35548
Thermal strain fatigue damage of nickel under two strain-block cycling history
[AROD-4116-1-E] 22 p4152 N67-36911
Method of estimating high temperature, low-cycle strain fatigue behavior of materials from tensile and stress-rupture properties
[NASA-TM-X-52257] 24 p4585 N67-39658
STRAIN GAUGE
Friction tests of aluminum specimens in ultrahigh vacuum chamber to check operational performance of equipment and instrumentation
[MD-66-2] 01 p0073 N67-10825
Behavior of foil resistance strain gauges, and temperature coefficients of resistance
[ARL/SM-NOTE-299] 02 p0260 N67-11010
Microstrain apparatus for work in compression at helium temperatures in determining effect of structural variables
[AD-641259] 06 p0677 N67-16436
Strain gauges used to compare theoretical and experimental results from steel models having single nozzles radially and nonradially attached to spherical shell
[JAERI-1108] 07 p1123 N67-17529
Comparative analysis of strain and pressure gauge methods for evaluating relative performance of explosives in rock
[BM-RI-6888] 08 p1275 N67-18213
Miniature semiconductor pressure sensor containing strain-gauge elements
[FTD-HT-66-314] 10 p1629 N67-20711
High temperature strain gages for use in sodium environments
[BAW-1298-41] 11 p1887 N67-23181
Tailplane flight loads measured on Hunter F.3 aircraft by means of two strain gauge methods
[ARC-CP-754] 15 p2540 N67-26160
Evaluation of constantan foil strain gauge at elevated temperatures for fatigue test program
[AFFDL-TR-66-198] 15 p2712 N67-26298
Stress analyses of radial flow impeller wheels 15 p2839 N67-28004
On significance of supports when calibrating strain gauge installations for measuring loads on aircraft
[RAE-TR-66293] 15 p2902 N67-28958
Measurement of early stages of plastic deformation using capacitance gauge techniques
[AD-651906] 17 p3170 N67-30641
Photographic recording and strain gauge transducer techniques for observing RAE satellite extendible antenna boom motions during damping tests 19 p3402 N67-33138
Strain gauge measurements of bending moments in mid-span section of turbine blade specimens 21 p3959 N67-35354
Nonrotating strain gauge type verticity meter for measuring flow field behind delta wings
[NASA-CR-907] 23 p4048 N67-37453
STRAIN GAUGE ACCELEROMETER
Piezojunction effect and silicon needle considered as sensory devices in accelerometers and transducers
[NASA-CR-89548] 03 p0296 N67-12982
Piezoresistive strain gauge accelerometer
[PA-TR-3374] 07 p1082 N67-17669
STRAIN GAUGE BALANCE
Six-component balance equipped with semiconductor strain gauges and inertia-compensated for wind tunnels
[TP-977/1966] 14 p2540 N67-27188
STRAIN HARDENING
Shock hardening, strain effects, and ductility examined during studies of explosive forming of metals - bibliography
[AMRA-CR-66-05/5] 06 p0665 N67-16599
Relationships between temperature and yield point, strain hardening coefficient, and grain size of polycrystalline zirconium
[IITRI-S78P27-20] 07 p1102 N67-17573
High strain hardening of SAP/aluminum oxide alloy, and plastic deformation mechanism
[AEC-TR-6866] 08 p1289 N67-18477
Prestress to laminate one-directional framework during polymerization for increased strength
[NASA-TT-F-10000] 14 p2851 N67-27822
Time hardening, strain hardening, and life fraction hypotheses for describing uniaxial creep deformation of metals
[ARC-CP-919] 16 p2912 N67-29083
Variational principles of elastoplastic media 19 p3549 N67-32943
Strain hardening and strain-rate sensitivity effects on permanent deformation of impulsively loaded rigid-plastic beams
[ARPA-E49] 23 p4355 N67-38181
STRAIN RATE
Constant load and strain amplitude fatigue behavior of 11 percent chromium steel at room temperature
[ARC-CP-944] 02 p0277 N67-12900
Superplasticity in pellet and ingot extrusions of magnesium alloy - strain rate relation to temperature, tensile elongation, and sensitivity index 03 p0410 N67-12677
Strain rate effects on mechanical properties of structural aluminum alloys
[R-478] 05 p0717 N67-14755
Dynamic plastic response of pressure pulse loaded rate sensitive ring structure
[REPT.-3] 06 p0975 N67-15771
Effect of rhenium on strain rate sensitivity of chromium at room temperature 06 p0696 N67-15888
Relationship between Peierls friction stress and thermal activation rate equations used to describe temperature and strain rate dependence of yield stress of iron
[AD-640835] 06 p0894 N67-16070
Information retrieval system for high energy rate forming - Shock hardening of metals, and strain rate effects
[CR-65-77, ISSUE 3] 08 p1458 N67-19816
Representation of creep strain data for problems involving time varying stresses and temperatures
[NGTE-R-264] 09 p1668 N67-19976
Tensile and creep properties of niobium-vanadium alloys as influenced by strain rate
[KAPL-3145] 10 p1682 N67-20020
Relation of flow stress of aluminum to strain, strain rate, and temperature for solving metal forming problems
[LA-3544] 11 p1896 N67-22330
High energy rate metal forming processes
[CR-66-05/7] 11 p1891 N67-22169
Computer program for one-dimensional stress wave propagation in strain-rate sensitive materials
[SC-RR-65-298] 12 p2230 N67-23541
Welded connection made from thick high-strength steel - tests using fracture criteria based on new concepts and influence of strain rate
[EURAEC-1712] 12 p2186 N67-23389
Plastic straining effects on growth kinetics of irradiated sodium chloride crystals
[JEN-178-DF/L-64] 13 p2396 N67-25912
Influence of strain rate and strain aging on flow stress of commercially pure aluminum
[MML-3] 14 p2550 N67-26976
High energy forming - strain in deformed blank, blank stabilization, strain gage measurements, shock hardening, strain rate experiments, high strain rate ductility, and explosive welding
[AMRA-CR-66-05/6] 17 p3071 N67-30470
Crack toughness variation of mild steel with temperature and strain rate 20 p3661 N67-35149
Wave propagation and strain rates in three dimensional elastoplastic bodies 22 p4151 N67-36737
STRATEGY
Behavioral strategies of inducing cooperation from uncooperative person
[TR-5] 12 p2096 N67-24025
STRATIFICATION
SA ATMOSPHERIC STRATIFICATION
Closed-form solution for stratification of subcooled fluids in containers subjected to heating, and for liquid-ullage vapor coupling
[NASA-CR-89673] 03 p0476 N67-12109
Velocity and temperature distributions in

thermally stratified boundary layer
[AD-645531] 11 p1915 N67-22640
Two-dimensional flow of body moving with constant speed through linearly stratified fluid
[TR-23] 19 p3432 N67-33276
Stratification of complex analytic sets 20 p3668 N67-34104
STRATIFIED FLOW
Flow phenomena caused by collapse of mixed region in density-stratified medium of model ocean
[TR-231-11] 06 p0868 N67-16327
Regression velocity of lithergolic propellant 08 p1355 N67-18671
Growth of turbulent wake in density-stratified fluid
[TR-231-12] 13 p2306 N67-25415
STRATIGRAPHY
Stratigraphy of uppermost part of basalt sequence beneath Hanford, Washington region 04 p0541 N67-13742
Stratigraphy and absolute age determined on cores of deep-sea sediments in western Pacific
[REPT.-14] 14 p2528 N67-27631
Astrogeologic studies - lunar and planetary research
[NASA-CR-86649] 18 p3326 N67-31934
Stratigraphy and structure of Pitatus region of moon 18 p3326 N67-31935
Stratigraphy and structure of Mare Serenitatis region of moon 18 p3327 N67-31936
Stratigraphy, structure, and geologic history of Hevelius region of moon 18 p3327 N67-31938
Geology of Copernicus quadrangle of moon 18 p3327 N67-31939
Time-stratigraphic units of Seleucus quadrangle of moon 18 p3327 N67-31940
Stratigraphy and structure of Julius Caesar and Mare Vaporum quadrangles 18 p3327 N67-31941
Morphological rock units, structure, and geologic history of Plato quadrangle 18 p3327 N67-31944
Stratigraphy and structure of Cassini quadrangle of moon 18 p3327 N67-31945
Summary of telescopic lunar stratigraphy program 18 p3329 N67-31955
Mapping, lithology, and stratiography of Sierra Madera structure, Texas 19 p3441 N67-33165
Recovery of magnetic spherules in sedimentary rock
[AFCRL-67-0315] 22 p4035 N67-36898
Graphic method of interpreting magnetic and gravitational anomalies above stratified bodies
[ACIC-TC-1345] 24 p4438 N67-39600
STRATO TANKER AIRCRAFT
5 KC-135 AIRCRAFT
STRATOSCOPE II TELESCOPE
Stratoscope II telescope shock sensitivity, payload, and launching site problems 23 p4256 N67-39276
STRATOSPHERE
Atlas of stratospheric mean isotherms derived from Tiros VII observations
[NASA-TM-X-55567] 02 p0283 N67-11365
Sounding rocket measurements of temperature in stratosphere and mesosphere
[ECOM-5056] 02 p0283 N67-11934
Lower stratospheric circulation and seasonal variations in troposphere 03 p0419 N67-12802
Temperature and wind profiles in stratosphere and mesosphere from acoustic grenade soundings
[NASA-TM-X-55621] 03 p0391 N67-13165
Astronomical photography from stratosphere - Stratoscope project
[NASA-CR-80743] 04 p0612 N67-13737
Long range weather forecasting, stratospheric processes, and atmospheric turbulence 06 p0996 N67-15423
Vertical influence of dynamic disturbances between stratosphere and troposphere
[EMM-66-66] 09 p1471 N67-19480
Stratospheric and mesospheric wind and temperature measurements at Sardinia, autumn 1963 and spring 1964 - tables
[DLR-FB-66-90] 09 p1474 N67-20313
Stratospheric circulation response to solar eclipses
[ECOM-5062] 10 p1619 N67-20540
Midlatitude clouds in upper atmosphere
[ECOM-5060] 10 p1626 N67-21335
Derivation of stratospheric density statistics from rocket soundings in polar region 12 p2133 N67-23486
Accelerated spring warming in Antarctic stratosphere
[TR-3] 12 p2136 N67-23990
Problems relating to use of satellite observations on aerosol layers and cirrus clouds in upper troposphere and lower stratosphere, and radiative transfer theory 12 p2139 N67-24305
Optical radar measurements of stratospheric aerosol layer during 1964 and 1965
[NASA-CR-83953] 13 p2314 N67-25964
Physics from stratosphere to lower thermosphere - reaction between ozone and oxygen
[A-37-1965] 13 p2317 N67-26469
Temperature, pressure, density, and wind measurements in upper stratosphere and mesosphere - tables
[NASA-TM-X-55780] 14 p2530 N67-26594
Prediction of wind and virtual temperature profiles for periods up to 72 hours from surface through stratosphere
[NASA-CR-61170] 14 p2568 N67-27317
Meteorological rocket data for stratospheric tidal circulation mapping over Northern Hemisphere
[AD-634650] 15 p2698 N67-27994
Soviet articles on hydrology, stratospheric warming, and atmospheric turbulence
[JPRS-39087] 15 p2739 N67-28133
Aircraft buffeting due to clear air turbulence in upper troposphere and stratosphere 15 p2740 N67-28136
Topographic peculiarities over Soviet territory of transition layer separating stratospheric anticyclonic circulation from lower cyclonic circumpolar circulation 15 p2740 N67-28137
Vertical air motion effects on temperature changes during stratospheric warming 15 p2740 N67-28138
Extraterrestrial dust in stratospheric sampling collected by balloon-borne probe
[NASA-CR-84811] 15 p2791 N67-28774
Tropopause role in stratospheric-tropospheric mass exchange processes
[COO-1240-9] 15 p2796 N67-28812
Particle size distribution, concentration, and composition in aerosol samples from troposphere and stratosphere
[NYO-3615-1] 16 p2884 N67-29323
Atlas of aerosol attenuation and extinction profiles for troposphere and stratosphere
[AFCRL-66-828] 16 p2888 N67-29774
Coupling between mesospheric electron density and collision frequency, and stratospheric temperature or constant pressure heights
[SR-297] 17 p3056 N67-31131
Balloonborne sampling technique for stratospheric collection of cosmic dust
[NASA-CR-86634] 18 p3325 N67-31811
Vertical distribution of stratospheric dust to determine total meteoric dust influx over earth surface 18 p3334 N67-32975
Size distribution, concentration, and influx rate of meteoric particles in stratosphere determined by light scattering techniques 18 p3334 N67-32976
Magnetic dust concentration in stratosphere 18 p3365 N67-32978
Operation manual for stratosphere temperature sonde
[ECOM-5114] 18 p3344 N67-32328
Stratospheric concentration of radioactive debris from nuclear weapon tests - Stardust project
[DASA-1985] 19 p3487 N67-32734
Ozone measurement in stratosphere and lower mesosphere by rocket sonde
[NASA-TM-X-55732] 19 p3447 N67-32732
Approximation of single line for radiant energy transfer in mesosphere and upper stratosphere
[P-35958] 20 p3630 N67-34331
Mesoscale structure of atmosphere in regions of clear air turbulence determined by aircraft observations of wind, temperature, and ozone in upper troposphere and lower stratosphere
[AFCRL-67-0115] 21 p3836 N67-35480
Rocket sounding data from upper stratosphere and mesosphere
[NASA-TR-R-263] 21 p3838 N67-35777
Synoptic analyses of upper stratospheric circulation over northern hemisphere during late winter storm of 1966
[ECOM-5126] 21 p3883 N67-35781
Measurements of profiles of charged particle concentration below 80 km to help determine causes of stratospheric ion concentration
[NASA-CR-88280] 21 p3842 N67-36223
Statistical model of temperature field at supersonic aircraft altitudes
[AFCRL-67-0274] 22 p4086 N67-36748
Heat transfer characteristics of spherical bead thermistors in stratospheric and mesospheric environments
[ECOM-5125] 22 p4036 N67-37007
Stratospheric warming in Northern Hemisphere during January 18 to February 10, 1966
[REPT.-67-2] 22 p4023 N67-37411
Biennial oscillation in zonal wind and temperature in tropical stratosphere - planetary transport processes in upper atmosphere
[MIT-2241-31] 22 p4041 N67-37874
System for large volume aerosol sampling in stratosphere using electrostatic precipitation
[TID-23960] 22 p4050 N67-37993
Upper stratosphere study by photometric observations of twilight
[NASA-CR-80335] 23 p4247 N67-39077
Three-level numerical model of stratosphere for yielding predictions based on thermodynamic and ozone equations - diabatic heating and photochemistry
[AFCRL-67-0344] 23 p4281 N67-39145
Midlatitude stratospheric humidity regime from balloon soundings 23 p4281 N67-39278
Stratospheric circulation and typhoon formation and motion
[JPRS-42845] 24 p4484 N67-39403
Stratospheric circulation and composition 24 p4484 N67-39404
Tidal experiment based on 24 meteorological rocket soundings in equatorial stratosphere over Ascension Island
[ECOM-5123] 24 p4436 N67-39520
Literature review on energetics of middle atmosphere
[P-3679] 24 p4445 N67-40070
STRATOSPHERE RADIATION
Sampling, analyses, and mathematical model of stratosphere contamination and radioactive fallout from nuclear explosions - Star Dust project
[DASA-1821] 06 p0876 N67-16598
Large scale transport processes carrying radioactive debris from stratosphere to troposphere
[COO-1240-8] 10 p1621 N67-20839
Methods used in deriving stratospheric temperatures from Tiros VII measurements of carbon dioxide emission bands 12 p2138 N67-24299
Potentiality of satellite radiometric measurements in carbon dioxide emission band for synoptic representation of stratosphere temperature patterns 12 p2139 N67-24300
Comparison of Tiros VII 15-micron band radiometer temperature measurements with data from radiosonde measurements 12 p2139 N67-24302
Circulation features of stratosphere derived from radiometric temperature measurements with Tiros VII satellite
[NASA-TM-X-55859] 19 p3443 N67-32469
Major pulse history of tritium in stratosphere 19 p3444 N67-32472
Stratospheric temperature patterns derived from Nimbus II measurements
[NASA-TM-X-55921] 22 p4067 N67-37554
Nimbus II satellite remote sensing of temperature in stratosphere
[NASA-TM-X-55958] 23 p4282 N67-39366
STRATUS CLOUD
Light and heat radiation in stratus clouds
[TT-66-51614] 11 p1873 N67-23418
Project Cold Fog I - ground-based techniques for dry-ice seeding of supercooled fog and stratus 12 p2134 N67-23488
Forecasting summer occurrence of low stratus cloud cover in McChord-Seattle area
[AD-654383] 21 p3883 N67-35713
STREAK PHOTOGRAPHY
Streak shutter and image intensifier for photographic recording of electron avalanche to streamer transition
[DMWF-FBK-66-31] 13 p2321 N67-25823
Stagnation temperatures in hypersonic gun tunnel from streak camera measurements of flow velocity
[ARC-CP-929] 21 p3827 N67-36153

STREAM
SA ACOUSTIC STREAMING
SA FREE STREAM
SA GAS STREAM
SA JET STREAM
SA SLIPSTREAM
SA SOLAR STREAM
Rheology of cytoplasmic streaming 05 p0641 N67-14468
Excitation of waves in limited plasma by modulated stream 10 p1734 N67-30457
Streamer chamber with gamma quantum converters
[JINR-P13-3068] 12 p2074 N67-23699
Streak shutter and image intensifier for photographic recording of electron avalanche to streamer transition
[BMWF-FBK-66-31] 13 p2331 N67-25023
Discharge oscillograms from helium filled streamer chamber discharge 17 p3065 N67-30967
STREAM FUNCTION
Atmospheric research on precipitation scavenging, raindrop evaporation, stream functions and trajectories, observation networks, sampling, exposure prediction, and turbulence spectra
[BNWL-235-1] 07 p1070 N67-17312
MIDAS computer program to calculate stream functions needed for long range trajectory construction on constant entropy surface 07 p1071 N67-17315
Computerized tropical wind analysis and stream function calculation 12 p2133 N67-23484
Wavelength, frequency, and growth rate dependence on density, stream velocity, and magnetic field strength 19 p3517 N67-33388
Asymptotic form of stream function for flow of Oseen-like fluid past parabolic cylinder
[AFOSR-SR-67-1346] 22 p4031 N67-37725
STREAMLINE BODY
Electrothermal analogy for study of heat transfer in streamlined bodies of arbitrary shape 08 p1362 N67-18498
Wind tunnel measurements on streamlined fan lift nacelle
[ARC-R+M-3470] 22 p3956 N67-37301
STREAMLINE FLOW
Photographs of classical source sink and circulatory flow situation visualized with dye streams in flow visualization apparatus
[GAM/AE/66B-10] 06 p0868 N67-16463
Discontinuous flows and free streamline solutions for axisymmetric bodies at zero and small angles of attack 09 p1392 N67-20262
Pressure approximation based on Runge Kutta integration for deriving theoretical yawed sphere streamline cone paths used in comparison of cone theoretical and experimental streamline paths
[MEMO-66-18] 20 p3559 N67-34070
Lift coefficient of wing section calculated from streamline flow measurement in two-dimensional smoke wind tunnel for studying high lift device
[RAE-LIB-TRANS-1230] 20 p3560 N67-34342
Visualization technique for streamline separating massively blown gas from streamline of oncoming gas stream
[TR-1001/2240-20/-13] 21 p3758 N67-35381
STRENGTH
S ELASTIC STRENGTH
S FIBER STRENGTH
S FIELD STRENGTH
S MUSCULAR STRENGTH
S NOTCH STRENGTH
S SHEAR STRENGTH
S WELD STRENGTH
S YIELD STRENGTH
STRESS
SA ACCELERATION STRESS
SA AXIAL STRESS
SA BUCKLING
SA COUPLED STRESS
SA CRACK
SA CRITICAL STRESS
SA FAILURE
SA FATIGUE
SA FLIGHT STRESS
SA INTERNAL STRESS
SA MENTAL STRESS
SA PHOTOSTRESS
SA PRESTRESSING
SA RESIDUAL STRESS
SA SHEAR STRAIN
SA SHEARING STRESS
SA STRAIN
SA TENSILE STRESS
SA THERMAL STRESS
SA TORSIONAL STRESS
SA VIBRATIONAL STRESS
SA YIELD STRENGTH
Life predictions of diffused germanium transistors by power stress 01 p0047 N67-10106
Limitations for step stress testing of integrated circuits 01 p0048 N67-10114
Long term exposure effects under stress on supersonic transport structural materials
[NASA-CR-80489] 03 p0412 N67-13125
Second-order stresses in flow of gases 05 p0678 N67-14476
Stress craze development into cracks and fractures of polymethyl methacrylate bars 08 p0770 N67-14586
Stress intensity factor for crackline loaded, edge crack flat plate specimens
[NASA-TN-D-3820] 07 p1301 N67-17173
Plasticity and stress relationships in structural resistance tests 08 p1376 N67-18679
Determining velocities, mass flows, temperatures, and viscous stresses in turbulent, compressible isobar mixing layer, and application to reattachment problems 08 p1372 N67-19291
Reliability demonstration based on accelerated testing of overstressed components
[NASA-CR-82934] 09 p1454 N67-19905
Calculation of forces, moments, strains, and displacements occurring in deformation of conic shell under action of force load and nonuniform heating - hypergeometrical functions 09 p1539 N67-20681
Comparative study of stress, wind, and wave development at different distances from lee shore 11 p1913 N67-22297
Element stiffness matrices for boundary compatibility and for prescribed boundary stresses 11 p1989 N67-22814
Empirical equation relating fatigue limit of axially loaded metals and mean stress
[NASA-TN-D-3883] 11 p1994 N67-23286
Cyclic loading effects on metal fatigue in homogeneous and inhomogeneous state of stress 12 p2116 N67-23791
Epoxy resin and pelletized aluminum oxide for absorbing curing stresses and preventing cracks 12 p2125 N67-24257
Integral equation method for solving first fundamental boundary value problem of plane elasticity
[NASA-CR-779] 12 p2233 N67-25051
Fortran IV computer program for stresses and deflections in reactor subassembly under thermal, hydraulic, and fuel expansion loads
[WAPD-TM-312, ADDEND. 1] 15 p2747 N67-32356
Core stress, fission gas pressure, reactivity coefficient, fuel pellet thermal expansion, and temperature distribution data for low enriched PM replacement core
[HIT-3563-43, VOL. II] 16 p2929 N67-29331
Long term mechanical properties of metals subjected to mechanical stress at high temperature and neutron irradiation
[EURAEC-1993] 16 p2960 N67-29736
Stress field near tip of central longitudinal crack in plate strip
[NASA-TR-R-265] 19 p3543 N67-33815
Thermoluminescence of halite samples exposed to unusual shock load or stress histories 19 p3443 N67-33173
Stress in conical shell weakened by conical hole
[NAL-TT-1] 20 p3726 N67-34948
Borehole deformation gage for determining stresses in rocks
[BM-RI-7015] 20 p3541 N67-34578
Balloon shapes and stresses under off-design conditions of payload and altitude 23 p4179 N67-39279
Stress induced in aircraft structures subjected to random acoustic loading from jet noise at takeoff
[AFML-TR-67-199] 24 p4548 N67-40883
STRESS /BIOL/
SA FATIGUE /BIOL/
SA FLIGHT STRESS
SA PATHOLOGICAL EFFECT
Effect of vestibular apparatus under stress on organisms response reaction to radiation effects 02 p0181 N67-11423
Adrenal cortex and nervous system reactions to stress effects 02 p0183 N67-11436
Stress agent influence on conversion of lipids in rat liver given protein deficient diet 02 p0186 N67-11459
Physiological responses of athletes to stress of sports events
[NASA-CR-85528] 03 p0213 N67-11988
Enzymatic and cardiovascular effects of starvation-refeeding stress 03 p0340 N67-13430
Hyperbaric environment effects on chimpanzee
[ARL-TR-66-17] 06 p0862 N67-15978
Resonance frequency and damping of internal visceral body structures determined from whole body vibration
[AMRL-TR-66-102] 06 p0869 N67-16187
Drug effects on cognitive abilities and behavioral characteristics of humans under task-induced stress
[ONR-H-66-3] 08 p1236 N67-18572
Psychophysiologic variables as indications of emotional stress
[RADC-TR-65-296] 10 p1560 N67-20499
Corticoid blood levels during physical stress and acclimatization to oxygen deficient atmosphere 12 p2025 N67-24480
Effects of hyperthermia and hypothermia on aerobic and anaerobic work capacities of man
[NASA-CR-83929] 13 p2256 N67-25899
General and comparative biology of terrestrial organisms under experimental stress conditions
[NASA-CR-84902] 13 p2300 N67-26325
Effects of 24-hour restraint on physiological values of normal immature chimpanzees
[SAM-TR-66-100] 14 p2450 N67-26870
Cost-reward analysis of human reactions to extreme stress based on data from Sealab project
[TR-1] 15 p2651 N67-28669
Persuasive communication effects under high and low stress conditions - interaction between fear and birth order
[TR-3] 16 p2894 N67-29834
Pathological response of eight species of mammals to air blast waves
[DASA-1854] 18 p3218 N67-32512
Individual and group reaction to extreme conditions of psychological stress in field situation - project Sealab II
[TR-1] 19 p3371 N67-32729
Human performance and physiological mechanisms of heat loss and gain during thermal stress
[TR-11] 19 p3373 N67-32817
Human perception in anticipatory physical threat stress 19 p3389 N67-33213
Perceived stress, performance personality and biochemical factors in humans
[ARL-TR-67-11] 19 p3377 N67-33571
Human factors in aerial reconnaissance and surveillance, helicopter training devices, and pilot performance under stress
[AD-655126] 21 p3772 N67-35748
Human tolerance to acceleration
[NADC-MR-6711] 22 p3966 N67-36815
Subjective estimation of effort, reserve and ischemic pain
[REPT.-730] 22 p3968 N67-36819
Effect of vibration and noise on mental faculty of man under time stress 23 p4198 N67-39822
STRESS ANALYSIS
Stress determination in crystalline rocks from Georgia
[BM-RI-6869] 01 p0067 N67-10423
Exact solution for stresses produced by screw dislocation pileup at circular inclusion of finite rigidity
[NASA-CR-79742] 01 p0100 N67-10807
Photoelastic stress patterns from simplified model of skull and brain under dynamic loads
[A66-9] 01 p0025 N67-10027
Stress state of rotating conical shell with linearly changing thick wall
[FTD-TT-65-1459] 01 p0161 N67-11069
Digital computer program to determine stress and strain in concentric cylinders undergoing thermal strains and irradiation growth
[WAPD-TM-514, ADDEND. 1] 04 p0573 N67-12309
Viscoelastic compressibility effect in stress analysis 05 p0760 N67-14488
Mathematical model for viscoelastic stress analysis 05 p0759 N67-14489
Stress analysis of anisotropic viscoelastic cylindrical shell 05 p0760 N67-14501
Elastic stresses in adhesives and plastic deformation in metal strips during peeling 05 p0760 N67-14508

Activation volume analysis for Cr and Cr-35Re 06 p0892 N67-15627
Stress analysis of 100 kilogauss quasi-continuous cryogenic solenoid [TR-9] 06 p0918 N67-16427
Vacuum, electron, proton, and ultraviolet radiation stress results for space vehicle materials [NASA-CR-81708] 07 p1094 N67-18546
Materials, machining, joining techniques, allowable stresses, quality control, heat transfer, and evacuation system provision in linear accelerator fabrication [CONF-661021-11] 06 p1285 N67-18608
Stresses in stiffened cylinder with cutout and loaded in axial compression [NASA-TM-X-1354] 06 p1377 N67-18892
Stress analysis of discontinuity stress problem in ESSOR reactor vessel wall [EUR-3159.E] 06 p1321 N67-19063
Digital computer computation for problems involving smooth and ribbed plates and shells, either stressed or not stressed by holes 09 p1527 N67-20067
Accuracy of mathematical models in determining stresses and strains in limiting states of thin walled structures 09 p1529 N67-20062
Effects of second phase size and rigidity on stresses associated with blocked screw and edge dislocation arrays [NASA-CR-83048] 10 p1763 N67-20411
U.S.S.R. textbook on aircraft design, structural mechanics, and fundamentals of aeronautical engineering [FTD-MT-66-33] 10 p1554 N67-20630
Theoretical and experimental stresses determined on steel spherical shell models with single radially attached nozzle [ORNL-TM-1634] 10 p1765 N67-20758
Stress analysis model for calculating reactor primary coolant system reliability [GEAP-5147] 10 p1679 N67-20947
Concentration of stresses near rough boundary of elastic body [FTD-TT-66-66] 10 p1767 N67-21851
Reliability prediction techniques - ballpark and stress analysis methods [RADC-SP-66-8] 11 p1889 N67-23612
Elastic stress analysis for ring stiffened circular cylindrical shells with linearly varying tapered inset, and under external hydrostatic pressure [DTMB-2387] 11 p1985 N67-23639
Axisymmetric deformations and stresses in thin shells of revolution used in submarine pressure hulls [DTMB-2364] 11 p1986 N67-22735
Automated stress analysis using substructures 11 p1987 N67-23806
Effective crack length of edge slot in semi-infinite sheet under tension [AMRA-TR-66-35] 11 p1993 N67-23118
Dislocation velocity measurements on molybdenum single crystals by etch-pitting method in study of microstrain region in high purity refractory metals [Q-B2193-3] 11 p1890 N67-23134
Plane stress analysis of elastic-plastic states in vicinity of straight crack tip in thin plate [NASA-CR-773] 11 p1995 N67-23308
Engineering methods for design and selection of materials against fracture [REPT.-66-994-315-R1] 11 p1892 N67-23306
Resistance of chromium nickel vanadium steel in elastic plastic range to cyclic loads 12 p2114 N67-23529
Stress analysis of two intersecting cylindrical shells [AD-646389] 12 p2322 N67-23937
Experimental determination of plastic constraint ahead of sharp crack under plane strain conditions [SSC-180] 12 p2322 N67-24007
Sonar transducer analysis to determine hydraulic and mechanical shock stresses induced in ceramic drive element by underwater explosion 13 p2412 N67-25166
Experimental stress analyses and fatigue tests on pressure vessels [SWRI-1238-1-39] 13 p2415 N67-25580
Stress-notch tests of effects of prestresses on fatigue strength of notched and unnotched steel bars [FB-53] 13 p2340 N67-26192
Pitch diameter and pressure angle effects on bending stress endurance of spur gears [EDR-4763] 13 p2330 N67-26259
Parametric analysis of stress concentration near concentrated load on shallow shell of elliptic paraboloid [JPRS-39648] 13 p2442 N67-26381
Influence of strain rate and strain aging on flow stress of commercially pure aluminum [MML-3] 14 p2550 N67-26676
Stress analysis of load transfer between two overlapping continuously bonded elastic sheets [TR-10] 15 p2796 N67-28252
Corrective function method for calculating bending deflections and stresses for cantilever plates [FTD-MT-64-565] 15 p2801 N67-28697
Stress analyses of radial flow impeller wheels 15 p2659 N67-28804
Stress analysis of anisotropic inhomogeneous cylinder with elastic modulus defined by piecewise smooth function of radius 15 p2802 N67-28817
Stress-grain size and temperature dependence analyzed to determine effects on brittle fracture transition of steel [ARPA-E36] 17 p3078 N67-30424
Advanced vehicle technology and juncture stress fields peculiar to multicellular pressure vessels 17 p3171 N67-30684
Axial load fatigue endurance distributions of annealed oxygen free high conductivity copper specimens with cold worked surface layer tested at four stress levels [NASA-CR-66434] 17 p3173 N67-30683
Reinforcing rings effects on stressed state of spherical shell weakened by two equal circular openings [NAVSHIPS-TRANS-1034] 17 p3173 N67-30678
Structural stress and deflection and electrical performance analyses of boom antenna configurations for spinning navigation satellite [NASA-CR-85001] 17 p3103 N67-31479
Theoretical dynamic analysis of landing loads on vehicle with tricycle landing gear compared with X-15 aircraft data [NASA-TN-D-4075] 18 p3195 N67-32394
Stresses around elliptic hole in cylindrical shell [NAL-TN-3] 20 p3735 N67-34017
Constitutive equations for linear elastic materials, comparison of quadrilaterals composed of triangular elements, and computer programs for elastic and elastoplastic stress analysis [SESM-66-23A] 20 p3735 N67-34030
Photoelastic stress analysis of composite fiber reinforced matrices with inserts [REPT.-12] 20 p3736 N67-34036
Temperature effects and thermoelastic stress in spherically symmetric fuel elements with varying material properties [AAEC/TM371] 20 p3661 N67-34232
Stress analyses on radial flow impeller wheels 20 p3740 N67-34973
Energy method based on continuum mechanics for stress and deflection determination of submarine hull and foundation structures under hydrostatic loading [MEL-TM-4/67] 21 p3936 N67-35313
Turbine airfoil stress analysis computer program 21 p3939 N67-35352
Plane stress analysis of edge stiffened rectangular plate subjected to boundary loads, boundary displacements, and temperature gradients [NASA-CR-864] 21 p3941 N67-35744
Failure criteria for viscoelastic materials - material characterization, crack geometry stress analysis, and sheet geometry crack propagation [NASA-CR-86528] 22 p4076 N67-37061
Inelastic redundant force method for stress and strength analysis of mechanically fastened joints [NAEC-ASL-1103] 22 p4154 N67-37101
Point matching technique for stress and deflection analysis on fibrous composite material under external load [AFML-TR-67-151] 22 p4156 N67-37594
Relation between surface tension and surface stress of gold [ORO-3166-36] 22 p4129 N67-37766
X-ray diffraction analysis of stress in thin gold films [ORO-3436-36] 23 p4238 N67-38406
Two forms of progressive failure mechanisms of commercial silicon signal transistor - failure from reverse bias at high temperature and from prolonged stressing with high forward current 23 p4232 N67-38463
Stress analysis to determine reliability of Cr-SiO cermet thin films used in fabrication of microminiature resistors 23 p4233 N67-38468
Tensor analysis derivation of equations for plane problem of elasticity theory in oblique angle coordinates and for conversion of stress and deformation components 23 p4361 N67-39191
Influence of adjoint volumes on characteristics of axial flow compressor and vibration stresses of blades 23 p4236 N67-39192
Stress response to inertial loadings and vibration modes of blunt conical glass fiber sandwich planetary entry capsule shell in launch configuration [NASA-CR-66465] 24 p4545 N67-40124
Extended finite element inelastic stress analysis for predicting failure load of aeronautical structures [NASA-CR-903] 24 p4545 N67-40204
Computer program for determining redundant reactions of closed circular rings to imposed planar loadings and resulting stresses [DPSO-IR-11] 24 p4547 N67-40322
Boundary collocation method for determining distribution of elastic stresses and displacements in perforated and notched strips [GEMP-539] 24 p4548 N67-40562
Reactor primary coolant system rupture study, including computer code development for elastic analysis of piping, experimental stress work, and fatigue and crack propagation testing [GEAP-5474] 24 p4494 N67-40503

STRESS AND LOAD

Literature survey and experiments on stress deformation characteristics of soils under static loading [NASA-CR-571] 02 p0256 N67-11947
Photostress analysis of wood structure under external load 03 p0469 N67-12888
Stress reorientation of hydride precipitates in cold drawn zirconium-niobium pressure tubes [AECL-2624] 03 p0412 N67-12895
IBM 7094 digital computer program in Fortran IV language for bending analysis of elastic plastic circular plates with arbitrary axisymmetric loading and support condition [NASA-CR-81741] 07 p1205 N67-18097
Complex loading machine with automatic programming of stress state for use in testing of thin walled tubular samples under simultaneous effect of tensile force and torque 06 p1286 N67-19166
Load acceleration method for fatigue strength analysis of overlapped metal bonded joints [DLR-FB-66-67] 06 p1294 N67-19268
Displacements and stresses of thick pipe under bending load 09 p1521 N67-20023
Model of structural anisotropy for determining basic stresses in circumference and external fibers of symmetrically loaded ribbed toroidal shell 09 p1536 N67-20129
Shells of revolution with small holes at apex, and determining stresses and moments under both symmetrical and asymmetrical loading 12 p2236 N67-24521
Dynamic stresses in unbound elastic space with cylindrical cavity 12 p2227 N67-24551
Parametric analysis of stress concentration near concentrated load on shallow shell of elliptic paraboloid [JPRS-39648] 13 p2442 N67-26381
Discontinuous yielding of commercially pure aluminum under slowly applied deadweight loading [MML-4] 14 p2551 N67-26815
Stresses, curvature, and bending line analysis for rectangular structural beams under loading [NASA-TT-F-10999] 14 p2628 N67-27564
Effect of aluminum alloy test specimen size on fracture toughness at high stress ratios [NASA-TN-D-4017] 15 p2734 N67-28197
Behavior of cement treated clays under repeated compressive stress and flexure, load duration and frequency effects, and fatigue failure analyses [AEWES-CR-3-145] 17 p3055 N67-30624
Mechanical breakdown theory for homogeneous oriented solids subjected to time dependent load [NASA-CR-85754] 17 p3174 N67-31387

X-ray stress analysis of Bauschinger effect in metals
[PA-TR-3564] 20 p3740 N67-34939
Ritz series finite element analysis of axisymmetric solids under thermal, body force, and surface traction load
[SEL-67-6] 22 p4156 N67-37583
Structural analysis of simply supported circular sandwich arch subject to central point loading and symmetrically applied end couple
[DOMIIT-1-36] 24 p4543 N67-39773
STRESS CALCULATION
SA ENERGY METHOD STRESS CALCULATION
SA MATRIX STRESS CALCULATION
Mechanical stress calculation in coils of revolution used for production of intense magnetic fields
[AERE-TRANS-1056] 01 p0160 N67-10590
Numerical solutions to equations representing stresses in elastic-plastic half-space due to supersonic step load
[TR-4] 03 p0469 N67-12680
Stress determination at nonradial openings in spherical pressure vessel
[REPT.-66-9D7-520-R1] 04 p0630 N67-13916
State of stress and strain in thin walled stiffened cylindrical shells 09 p1527 N67-30068
Determination of moments, forces per unit length, and displacements characterizing state of stress and strain in two-dimensional helicoidal shell of uniform thickness 09 p1528 N67-30069
Splitting state of stress in paraboloid or cylindrical shallow shell into membrane and bending stresses 09 p1533 N67-30126
Cyclic stress of bolts and studs for nuclear vessels
[KAPL-M-6561] 10 p1606 N67-31650
Regularization method for calculation of stresses, deformations, and elastic modes 11 p1987 N67-32003
Stress calculation, ion exchange, and increase in strength of glass
[NASA-TT-F-10646] 12 p2127 N67-25014
Two axisymmetric steady-state thermoelasticity problems for analyzing stress in transversely isotropic solids used as fuel element models
[ANL-7277] 19 p3545 N67-33064
Effective stress acting on crystal dislocation in microstrain region determined from hysteresis loops 19 p3472 N67-33424
Integral equations for rate of change of stress fields in elastic work hardening solid solved approximation methods
[TR-10] 21 p3873 N67-35581
STRESS CONCENTRATION
Strength and bearing capacity, heat resistance, thermoelasticity, thermoplasticity, rheology, construction mechanics, and stress concentration of materials
[JPRS-39233] 05 p0773 N67-15168
Stress concentrations for rounded rectangular holes in sheets subjected to biaxial stress or shear
[ARC-R+M-3407] 07 p1204 N67-17864
Nonlinear elastic problems of stress concentration near holes in plates 09 p1521 N67-30026
Stress concentration in bent thin isotropic plate having hole of arbitrary shape 09 p1522 N67-30030
Elastic-plastic deformation theories and elastic solutions method for solving problem of stress concentration around circular hole in spherical shell 09 p1525 N67-30051
Approximate solutions of stress concentration about holes in isotropic and orthotropic shells 09 p1527 N67-30065
Stress concentration about nonreinforced circular hole in thin elastic domelike spherical shell 09 p1528 N67-30071
Post-buckling state and stress concentration in annular plates 09 p1529 N67-30075
Stress concentrations in thin plates weakened by elastic-plastic strains due to infinite number of holes on X-axis 09 p1537 N67-30136
Theoretical analysis of stress concentrations in intersecting circular cylindrical shells
[TR-3-9] 11 p1995 N67-33474
Scale factor and stress concentration effects on fatigue strength of aluminum alloy 12 p2113 N67-33523
Stress concentration and creep flow in aluminum alloy plates 12 p2230 N67-33539
Stress equalization technique used to reduce effective stress concentration factor in tongue and groove compression joint utilizing dissimilar materials
[AMRA-TR-66-37] 12 p2233 N67-34363
Stress concentration in plates, shells, or other structural bodies weakened by holes
[NASA-TT-F-10736] 12 p2223 N67-34501
Stress concentration around curvilinear holes in plates and shell, conformal mapping and other procedures for mathematical problems, and dynamic problems in bodies weakened by holes 12 p2223 N67-34502
Equations for spherical shell used to determine stress state of shallow ellipsoidal shell of revolution weakened by hole 12 p2224 N67-34508
Stress concentration around holes in glass fiber reinforced plastics and other synthetic materials 12 p2224 N67-34507
Photoelastic measurement of stress concentration in hyperboloid shell of revolution weakened by small circular hole 12 p2224 N67-34510
Stress concentration determination by equations of applied theory for plate bending 12 p2225 N67-34511
Stress concentration in shallow spherical shells determined by method with controlled boundary conditions 12 p2225 N67-34515
Concentrated forces applied to edges of two identical holes in elastic isotropic medium 12 p2226 N67-34520
Secondary load producing zero moment stress in spherical shell with hole 12 p2226 N67-34522
Plate theories for study of stress concentration around holes in rectangular plates during bending 12 p2227 N67-34527
Temperature field and stress state for material nonuniformity caused by macroinclusions or cavities in structural elements of elastic bodies 12 p2227 N67-34528
System of differential equations that reflects interrelationships of deformation, diffusion, and thermoconductivity used to study stress concentration around holes in elastic body 12 p2227 N67-34529
Concentration of moments at holes in thin plates whose material follows nonlinear law of elasticity 12 p2227 N67-34532
Stress concentrations near elliptical and rectangular cavities in incompressible material calculated by determining biharmonic functions 12 p2227 N67-34533
Reinforced rings and stress concentration reduction near holes of various type plates 12 p2228 N67-34534
Conformal mapping procedure using interpolation of Lagrange polynomials to determine stress concentration at nodal points in structural elements 12 p2228 N67-34535
Elimination of stress concentration around holes in laminated objects by use of reinforcement rings in design stage 12 p2228 N67-34536
Steady thermal field effect on stress state of infinite elastic plane with circular hole 12 p2228 N67-34539
Effect of creep properties of material on stress concentration around circular hole in plate determined by successive approximation for nonlinear flow theory of steady creep 12 p2230 N67-34540
Linear formulation of stress concentration near holes in various type shells 12 p2229 N67-34542
Steady stress state and temperature field in thin thermoelastic plate weakened by circular hole 12 p2229 N67-34543
Influence of stress concentration on supporting capacity of structural elements made of brittle microscopically nonuniform materials 12 p2229 N67-34545
Stress concentration near elliptical hole in steep spherical shell
[NASA-TT-F-10694] 12 p2232 N67-35036
Elasticity moment theory and stress concentrations for plane weakened by two circular holes
[NASA-TT-F-10789] 14 p2612 N67-36620
Formulae for predicting stress concentration factors applicable to two-dimensional symmetrical T-head configurations
[AMRA-TR-66-36] 16 p2980 N67-38084
Stress concentration effects, fatigue testing, and mechanical properties of aluminum alloys
[FTD-MT-64-91] 17 p3077 N67-38219
Stress concentration and fatigue life of aluminum alloy 17 p3077 N67-38222
Stress concentration and static crack strength of aluminum alloy 17 p3077 N67-38223
Stress concentration near square hole with rounded corners in cylindrical shell
[NAVSHIPS-TRANS-1027] 17 p3172 N67-38727
Stress concentration in spherical shell near square hole
[NAVSHIPS-TRANS-1036] 17 p3172 N67-38728
Photoelasticity used to determine stress concentration factor associated with transverse slot end in finite plate subjected to uniformly distributed load - rocket propellant grain
[REPT.-15] 21 p3939 N67-35431
Stress concentration analysis near crack in infinite elastic sheet under uniform tension
[RAE-TR-67099] 23 p4182 N67-38985
Creep stress concentration of circular hole in thin plate plates
[PIBAL-936] 24 p4543 N67-40509
STRESS CORROSION
Dislocations in transgranular stress corrosion cracking of austenitic stainless steels
[DP-1008] 01 p0084 N67-10525
Stress corrosion cracking of carbon steel in simulated radioactive waste solutions
[DP-1023] 01 p0085 N67-10775
Intercrystalline stress corrosion cracking of Inconel 600 inspection tubes in Agesta reactor
[AE-245] 03 p0686 N67-11954
Nitrogen content relationship to high-purity 20-20 austenitic stainless steel to stress corrosion
[AROD-4999-3] 03 p0488 N67-12287
Heavy water leakage due to cracks in Inconel inspection tubes at Agesta nuclear power station
[AE-245, SUPPL.] 03 p0491 N67-12635
Effects of microstresses on stress-corrosion properties of aluminum alloy
[ARL/MET-30] 05 p0413 N67-13150
Annotated bibliography on ambient temperature aqueous stress corrosion cracking of titanium and titanium alloys
[NRL-BIBL.-29] 05 p0718 N67-14958
Stress corrosion cracking of titanium alloys, and proposed electrochemical mechanism
[D1-82-0554] 05 p0719 N67-15815
Stress corrosion cracking of titanium aluminum vanadium alloy in methyl alcohol
[NASA-TN-D-3068] 07 p1166 N67-18154
Stress corrosion cracking of titanium alloys at ambient temperature in aqueous solutions
[NASA-CR-83796] 09 p1457 N67-19418
Potassium corrosion studies - refluxing K tests of Nb-containing alloys, refluxing K stress corrosion tests with D-43 alloy, and K compatibility tests 09 p1499 N67-19093
Stress corrosion cracking of Fe-Ni-Cr alloy in dilute chloride at 500 deg F and in boiling magnesium chloride
[COO-1219-42] 10 p1632 N67-29890
Correlations between sensitization and stress corrosion cracking of 300 series stainless steel
[CEND-2254-264] 10 p1636 N67-31367
Austenitic stainless steel nitrogen content relationship to stress corrosion cracking susceptibility
[EURAEC-1755] 11 p1899 N67-32102
Titanium stress corrosion in nitrogen tetroxide
[NASA-TM-X-53615] 11 p1900 N67-32277
Stress corrosion resistant titanium alloy as structural material for marine applications
[MEL-506/66] 13 p2110 N67-34842
External loading procedures for stress corrosion tests of aluminum alloys, and ferrous and nickel alloys
[NASA-TM-X-53483] 13 p2120 N67-34898
Stress-corrosion cracking of high strength steels, titanium alloys, and aluminum alloys
[NRL-MR-1739] 13 p2121 N67-34902
Accelerated stress corrosion test for iron and nickel alloys
[NASA-CR-83970] 13 p2249 N67-35161
Accelerated stress corrosion tests for aluminum alloys
[NASA-CR-84441] 14 p2527 N67-37490
Stress corrosion cracking of titanium alloys at ambient temperature in aqueous solution

[NASA-CR-84473] 14 p2556 N67-27906
Stress corrosion cracking of aluminum alloy filter housing assembly
[NASA-CR-84475] 14 p2546 N67-27509
Stress corrosion cracking of thrust ring splice angles used on Saturn S-IC vehicle
[NASA-CR-84479] 14 p2546 N67-27519
Stress corrosion cracking of titanium alloys
[NASA-CR-84653] 15 p2722 N67-28006
High yield strength 6Al-4V titanium alloy fuel tank material analyzed for stress corrosion cracking in methyl alcohol
[NRL-MR-1744] 15 p2724 N67-28245
Relation of nitrogen content of austenitic stainless steels to stress corrosion
[EURAEC-1806] 15 p2726 N67-28600
Stress corrosion test of biaxially stressed niobium-base refractory alloy with refluxing potassium
[NASA-CR-897] 15 p2728 N67-28748
Mechanical properties and nitrogen tetroxide stress corrosion resistance of Ti-6Al-4V alloy with different heat treatments
[NASA-CR-85635] 16 p2905 N67-29174
Saturn vehicle stress corrosion failure analyses and preventive methods 16 p2907 N67-29283
Nondestructive test methods for detecting and measuring stress corrosion and residual stress 16 p2907 N67-29284
Surface preparation effects in stress corrosion cracking of stainless steel
[COO-1319-48] 16 p2908 N67-29713
Source of chloride stress corrosion cracking in threaded stainless steel components
[AECL-2978] 16 p2911 N67-29852
Mechanism of hydrogen embrittlement in steel
[NASA-CR-85771] 17 p3079 N67-30034
Fatigue, crack propagation, and stress corrosion of structural materials for supersonic transports 18 p3278 N67-31626
Biaxial stress corrosion resistance of aluminum and stainless steel alloys
[NASA-CR-85646] 18 p3282 N67-32634
Chemical composition and heat treatment effect on aqueous stress corrosion of titanium
[REPT.-492] 20 p3655 N67-34264
Stress corrosion cracking of titanium alloys at ambient temperature in aqueous solutions
[NASA-CR-87432] 20 p3656 N67-34656
Role of chloride in hot salt stress corrosion cracking of titanium-aluminum alloys
[NASA-CR-87617] 20 p3659 N67-34738
Progress summary on various research programs into problem of stress-corrosion cracking of high strength materials including titanium alloys, aluminum alloys, and high strength steels
[NRL-MEMO-1775] 21 p3886 N67-35622
Test methods for evaluating stress corrosion cracking of high strength aluminum alloys
[NASA-CR-88110] 21 p3889 N67-35986
Cold worked aluminum alloy sensitivity to directional variations of stress-corrosion cracking in sea water
[NSRDC-3436] 23 p4072 N67-37582
Irradiation with mixed thermal and fast neutrons effect on stainless steel 316 susceptibility to stress corrosion cracking in magnesium chloride solution
[AERE-M-1899] 23 p4072 N67-37631
Mechanism of hot salt stress corrosion cracking of titanium base alloys
[NASA-CR-86979] 23 p4283 N67-38350
Detection and prevention of iron nickel cobalt alloy stress corrosion failure in semiconductor device leads 23 p4235 N67-38485
Electrochemical mass transport kinetic model used to study metallurgical and mechanical effects of titanium alloy stress corrosion cracking
[NASA-CR-86315] 23 p4287 N67-38936
Salt water stress-corrosion cracking characteristics of commercial titanium alloys
[NRL-6564] 24 p4486 N67-39694
Design criteria and evaluation of 7001-T75 aluminum alloy to obtain improved strength and corrosion resistance
[TR-161] 24 p4489 N67-40215

STRESS CYCLE
Fatigue properties of titanium aluminum vanadium tin alloy
[KAPL-3156] 09 p1464 N67-20217
Significance of discontinuity in stress cycle fatigue curves in mild and stainless steels
[ISAV-MEMO-118] 10 p1654 N67-21058
Magnetic analysis of transformations in AMMO steel during heat cycles simulating welding cycle
[EUR-3311] 11 p1900 N67-22319
Fatigue strength of aluminum alloys during asymmetric stress cycle 12 p2114 N67-23524
Force cycle of vacuum gasket seals
[IA-1089] 12 p2186 N67-23737
Cyclic pressure tests and fatigue strength of steel pressure vessels
[SWRI-1238P1-37] 21 p3944 N67-38855

STRESS DISTRIBUTION
Stress distribution in orthotropic wood half-plane and wedge subjected to concentrated load
[FPL-54] 02 p0216 N67-12027
Nondestructive methods for determining residual stress and fatigue damage in metals
[NASA-CR-79304] 02 p0218 N67-12227
Shear stress distributions for flow in smooth or partially rough annuli
[AE-342] 03 p0362 N67-13627
Spatial distribution of stresses in shearing motion in polymer fluids 05 p0694 N67-14545
Optical polarization study of stress distribution in billet with axis offset to mill axis 05 p0823 N67-15396
Rigorous analysis using complex eigenfunctions for three-dimensional stress state in infinite plate with hole
[NASA-TT-F-10451] 06 p0975 N67-15492
Stress distribution at vertex of growing crack
[NASA-TT-F-10668] 06 p1377 N67-18930
Reissner-type equations for linear stress distribution determination through plate thickness 09 p1522 N67-20051
Stress distributions in fiber reinforced plastics analysed after process shrinkage and external loading
[USAAVLABS-TR-66-62] 10 p1659 N67-20613
Optical method to determine nature and distribution of stresses in glass and polymer film near polymer-glass interface 13 p2344 N67-26392
Defect structures in ion emission images of metals and stress distributions under imaging conditions studied with field ion microscope
[NASA-CR-84415] 14 p2582 N67-27374
Cylindrical reinforced shell under symmetrical deformation and stress distribution along, reinforcement
[FTD-HT-66-407] 15 p2799 N67-28387
Calculation of stress distributions in pressurized cylinders with external fillets using DUZ-1 computer program
[WAPD-TM-654] 15 p2799 N67-28412
Influence of maximum stress, stress range, and sequence of programmed and random loads on fatigue crack propagation in 2024-T3 aluminum alloy
[D1-82-0553] 16 p2978 N67-29123
Theoretical study of plate thickness effect on bending stress distribution around slotted cracks
[NASA-CR-83751] 17 p3174 N67-31304
Curvature effect on stress distribution near hole in cylindrical shell
[TT-67-61983] 19 p3544 N67-32994
Stress frequency distribution of wing lower surface of model Boeing 727 from flight tests
[RAE-LIB-TRANS-1233] 20 p3565 N67-34380
Relaxation method for computing stresses in built-up structures consisting of flat plates
[RAE-TR-67062] 23 p4152 N67-38853
Shear stress distribution in adhesive layer of Saturn stage bonded joints using photoelastic stress analysis techniques
[NASA-CR-85369] 23 p4357 N67-38822
Three-dimensional analysis of microscopic and macroscopic stress conditions in closely packed granular material
[REPT.-103-A] 24 p4547 N67-40457

STRESS FUNCTION
SA AIRYS STRESS FUNCTION
Shape of mechanical hysteresis loop, its deformation due to stress repetition, and resulting increase in flow stress
[NAL-TR-907T] 01 p0158 N67-10188
Rigorous solution to problem of stressed state of circular thick disk in field of centrifugal forces 09 p1527 N67-20064
Integral stress function for state of membrane stress in shells of revolution formed by second-order surface 09 p1529 N67-20080
Mathematical model for structural analysis using slab analogies and stress functions
[SA-8] 19 p3543 N67-32811
Dual finite element computer system for stretching and bending orthotropic plates
[NASA-CR-80066] 22 p4157 N67-37982

STRESS MEASUREMENT
SA PHOTOELASTIC STRESS MEASUREMENT
Polarization-optical method of investigating stresses and deformation
[FTD-TT-65-1953] 01 p0162 N67-11144
Normal stress measurements on polymer solutions 05 p0692 N67-14472
Measurements of normal stresses exhibited by viscoelastic fluids in simple laminar shearing flow field 05 p0693 N67-14514
Measurement of two normal stress differences and of shearing stress of viscoelastic fluids under steady laminar flow conditions and at high rates of deformation 05 p0722 N67-14515
Measurement of second normal stress difference in polymer solutions based on flow in annulus 05 p0723 N67-14542
Measurement of normal stress in viscoelastic flow using tube viscometer 05 p0694 N67-14544
Dynamic yield point of metals at high impact velocities and comparison of stress measurement methods 08 p0893 N67-15089
Testing and evaluation of acoustic spectrometer for nondestructive measurement of stress and location of flaws in materials
[NASA-CR-81791] 07 p1088 N67-18134
Approximate method for determining allowable stress rates for capsules containing helium producing isotopes
[NASA-CR-83196] 10 p1686 N67-21485
Stress determination during rotational pressing of precision parts
[FTD-MT-66-138] 15 p2716 N67-28197
Creep curves for high purity polycrystalline copper and silver measured in high vacuum at temperatures between 500 and 850 deg C
[NASA-CR-85702] 17 p3079 N67-30929
Stress measurements and wave propagation studies in soils subjected to dynamic loads
[CRREL-RR-126] 19 p3439 N67-32846
Fluctuating turbulent stress measurements for predicting far field acoustic radiation from subsonic jets
[RR-5] 20 p3687 N67-34392
Shock wave stress gauge utilizing capacitance change of solid dielectric disk
[SC-DC-67-1910] 23 p4255 N67-39218

STRESS PROPAGATION
Random and systematic factors in scatter of creep data
[NGTE-R-280] 09 p1462 N67-19971
Stress transmission to thin walled shell over limited contact region
[NASA-TT-F-10742] 14 p2627 N67-27594
Theory and calculations of convection and stress propagation in earth upper mantle
[NASA-CR-85346] 16 p2890 N67-30063

STRESS RELAXATION
Stress relaxation tests with elastic follow-up on bolt steels
[NEL-313] 04 p0588 N67-13597
Rheology studies on polymer chemistry, plastic deformation, stress relaxation, and similar topics
[NASA-CR-80885] 05 p0767 N67-14462
Stress relaxation in high polymers and metals 05 p0767 N67-14477
Austenization, dilatometry, and stress relief studies on various steels
[EURAEC-1684] 05 p0710 N67-14698
Metallurgy of stress-relief annealing for nuclear reactor vessel
[EUR-3217.F] 14 p2576 N67-27138
Tensile properties of aluminum alloy when thermal stress relieved after solution treatment and prior to aging
[NASA-CR-84481] 14 p2568 N67-27513
Stress relaxation properties of polyethyl acrylate and polydimethyl siloxane under minimum oxidative degradation conditions
[RLT-96] 16 p2918 N67-29827
Tensile strength, brittle fracture toughness, structural transformations, and stress relaxation of nickel chromium molybdenum and manganese molybdenum

vanadium steels
[EURAEC-1788] 16 p2908 N67-29734
Research on steel austenitization, superheating, structure and hardness after diag welding, and stress relaxation
[EURAEC-1861] 16 p2869 N67-29737
Stress-relief embrittlement of AX-140 and E-11018 weld metals
[MEL-116/67] 26 p3659 N67-34866
Relaxation stability of titanium alloy at various temperatures and stresses
23 p4667 N67-37151
Creep and stress relaxation tests of iron base, high temperature alloy specimen and bolt and nut combinations
[NBS-9485] 23 p4355 N67-36123
Bending process and calculation of plastic deformations during unloading
23 p4360 N67-39186
Stress relaxation in steel, nickel alloys, and iron alloys - thermomagnetic effects on metal friction, heat treatment and work hardening, and loading curves for steel joints
[FTD-MT-65-362] 24 p4468 N67-40111
Stress relaxation in iron-nickel alloys after work hardening and tempering
24 p4468 N67-40113
Experimental and calculated relaxation curves for steel and corresponding loading diagram for steam turbine joints
24 p4468 N67-40114
Tensile strength of rubbers tested with respect to crosslinkage in relaxation of stress experiments at various elongations at room temperatures
[ONR-TR-RLT-99] 24 p4474 N67-40258

STRESS RUPTURE
Improved postirradiation stress-rupture properties of Hastelloy X-280 by thermomechanical treatment
[BNWL-231] 06 p1291 N67-18915
Load tests to determine tensile strength of aluminum alloy lug tie rods for aircraft landing gear
[FB-59] 13 p2419 N67-36194
Long term mechanical properties of metals subjected to mechanical stress at elevated temperatures and neutron irradiation
[EURAEC-1714] 16 p2916 N67-29823
Stress rupture strength and creep tests on aluminum alloy
17 p3169 N67-30224
Dispersion strengthened, nickel molybdenum, nonoxidation resistant alloys
[NASA-CR-85779] 17 p3661 N67-31230
Low-cycle fatigue testing for reactor primary coolant system rupture study
[GEAP-5427] 19 p3489 N67-33339
Stress rupture tests on titanium bearing stainless steel rods at high temperatures
[ORNL-TM-1907] 21 p3870 N67-36293
Design, operation, and rupture evaluation on Mark III nuclear fuel rod bundle with Inconel cladding
[GEAP-5418] 21 p3893 N67-36653
Stress rupture evaluation of refractory metal fiber nickel alloy composites at high temperatures
[NASA-TM-X-52342] 22 p4060 N67-36793
Stress rupture and creep properties analyzed in tungsten fiber reinforced copper composites
[NASA-TN-D-4173] 22 p4156 N67-37673
Role of diffusion in creep and stress rupture in polycrystalline solids
[SU-DMS-67-35] 23 p4385 N67-38825
Method of estimating high temperature, low-cycle strain fatigue behavior of materials from tensile and stress-rupture properties
[NASA-TM-X-52357] 24 p4465 N67-39853
Investment Co-35W-3Cr-0.1B cast alloy for studying effect of Ti, Zr and C on structure and stress rupture properties at 1800 deg F in air
[NASA-CR-89650] 24 p4465 N67-39857
Dependence of stress rupture and superplasticity on structure in Co-W alloys
[NASA-CR-89651] 24 p4469 N67-40235

STRESS-STRAIN DIAGRAM
Stress strain characteristics of austenitic chromium-nickel stainless steel
[EZL-66-013] 07 p1099 N67-17698
Influence of noncircular geometrical shapes on irradiation induced stresses in graphite columns
[ORNL-TM-1974] 07 p1131 N67-17457
Impact testing machine used to determine dynamic stress-strain diagrams of industrial rubber specimens
08 p1274 N67-18220
Relation of flow stress of aluminum to strain, strain rate, and temperature for solving metal forming problems
[LA-3544] 11 p1898 N67-23330
Influence diagrams for vertical stresses, shear stresses, and surface deflections in three-layer pavement systems for airfields
[TR-3] 13 p2231 N67-24997
Composite fracture diagrams for aluminum alloys
22 p4139 N67-37812

STRESS-STRAIN DISTRIBUTION
Stress-strain relations in laminar anisotropic medium
[NASA-TT-F-10016] 01 p0158 N67-10219
Method and computer program to calculate plastic stress-strain distributions in long, hollow circular composite cylinders
[GEMP-415] 03 p0471 N67-13223
Material relaxation and structural damping
05 p0767 N67-14478
Continuum mechanics, stress-strain distributions, and polymer physics - rheology conference
[NASA-CR-86686] 05 p0778 N67-14482
Rheology conference - continuum theory, stress and strain distribution analysis, polymer fluids and solids, testing techniques, and dispersions
[NASA-CR-86687] 05 p0778 N67-14521
Stress and strain distribution analysis in braking high speed moving bodies by extensible strings using influence between longitudinal and transverse waves
05 p0779 N67-14526
Mechanical properties of styrene-butadiene rubber glass bead composites, and theoretical model on isothermal volume dilatation and stress-strain relationship in filler concentration
06 p0897 N67-15726
Stress-strain relations for materials and load deflection relations for structural elements
[NONR-562/20//49] 06 p0976 N67-16666
Photoelasto-plastic method for studying stress distributions in vicinity of simulated crack
[NASA-CR-655] 06 p0978 N67-16663
Method for studying plastic strain propagation under dynamic loading
06 p1274 N67-18304
Plane stress-strain distribution for elastic medium bonded by linear or plane elastic elements
08 p1277 N67-18908
Stress-strain state of toroidal shell at bending, applicable to calculating bellows
09 p1525 N67-20054
Membrane stresses and equilibrium of orthotropic cylindrical shells with large deformations
09 p1527 N67-20134
Small deformations for stress-strain relationship of axisymmetric nonlinear elastic plate with reinforced hole
09 p1528 N67-20138
Finite element analysis of stress-strain relationship in soils
[NASA-CR-66218] 10 p1766 N67-21441
Tensile test data and stress strain curves of hot forged bar specimens of chromium molybdenum alloy steel at several temperatures
[NASA-CR-72303] 11 p1897 N67-22548
Development of stress-plastic strain increment relation for behavior of granular media
[REPT.-36] 13 p2411 N67-35134
Axisymmetric strain of thick-walled toroidal shell
13 p2421 N67-35396
Energy distributions from strain gradients for generalized couple-stress theory of elasticity
13 p2421 N67-36396
Explosive ring test for determining flow laws of rate sensitive plastic and strain hardened materials
[REPT.-3] 14 p2552 N67-36938
Stress-strain analysis on parallel flow stability of viscoelastic liquid
[REPT.-66305-3-T] 15 p2690 N67-38191
Microyield stress as related to dimensional stability of aluminum, beryllium, molybdenum, and magnesium alloys - spacecraft structural materials
[NASA-CR-85634] 17 p3175 N67-31389
Stress-strain relationships in woven roving glass fiber reinforced plastic laminate
[REPT.-3426] 20 p3730 N67-34641
Stress-strain distribution in elastomers, and chemical and physical properties of prepolymers, rigid urethane foam, and thermoplastic rubbers for composite solid propellant binders
20 p3665 N67-34769
Mechanical testing procedures and specifications for iron and steel products
[NEL-348] 23 p4366 N67-39031
Generalized Hill method for yield stress and plastic strain theory of anisotropic materials
[ORNL-TM-1869] 23 p4361 N67-39196
Solution of problem of antisymmetric deformation of conical shell of linearly variable thickness on IM fast electronic computer
23 p4363 N67-39276
Tensile tester to determine stress-strain responses of coated fabrics used in air supported test construction - Design survey
[TR-67-71-GP] 24 p4449 N67-39648
Stress-strain response of fabrics under two-dimensional loading
[AFML-TR-67-44] 24 p4543 N67-39771

STRESS-STRAIN-TIME RELATION
Stress-strain-time relations in filamentous high polymeric materials - Rheology
05 p0723 N67-14527
Influence of shock or stress events induced by underground nuclear explosions on low temperature thermoluminescence of halite
09 p1429 N67-18899
Representation of creep strain data for problems involving time varying stresses and temperatures
[NGTE-R-284] 09 p1463 N67-19974
Stress aging effects on tensile properties of stainless steels and ultrahigh strength steels
[AD-634687] 15 p2723 N67-27865
Empirical representation of creep strain data for problems involving time varying stresses and temperatures
[ARC-CP-965] 22 p4132 N67-36828
Long duration pressure pulse measurement using short pressure bars
[SC-R-67-1116] 23 p4357 N67-38702

STRESS TENSOR
SA MINKOWSKI THEORY
Stress tensors and octet generalizations as sources of 2 plus particles
[IC/66/115] 11 p1965 N67-23386
Stress equations for motion and kinetic energy analysis of third order fluids
[NASA-CR-83858] 12 p2397 N67-25823
Exchange torque, power and momentum flow, and stress in rigid ferrimagnet
[AFCRL-67-0255] 21 p3915 N67-35649
Equations for inelastic dynamic shells under large strains and rotations
[SC-CR-67-3041] 23 p4356 N67-38363

STRESS WAVE
Armor plate stress waves and penetration mechanics
[AROD-3842-7] 01 p0115 N67-10662
Quasi-static and dynamic response of granular soils
[TR-3] 01 p0162 N67-11194
Dynamic stress waves in viscoelastic plastic bodies
05 p0770 N67-14527
Wave method for calculating impulse loads on turbine blades
[FTD-TT-65-1930] 05 p0712 N67-14969
Theory of propagating surfaces of discontinuity used to study one-dimensional stress waves in viscoelastic media that conduct heat
[TR-66-5] 07 p1260 N67-17615
Stress-wave emission in fatigue crack propagation of nickel maraging steel, and of low alloy steel
[NASA-CR-66208] 09 p1461 N67-19964
Shock waves in water and stress waves in tank walls of water-filled fuel tanks impacted by hypervelocity particles
[NASA-CR-72169] 11 p1964 N67-23068
Computer program for one-dimensional stress wave propagation in strain-rate sensitive materials
[SC-RR-65-298] 12 p2330 N67-25541
Closed form solutions of stress wave propagation in nonhomogeneous elastic viscoplastic cylindrical bar
12 p2323 N67-24144
Propagation of elastoplastic stress waves in one-dimensional medium analyzed by finite difference method
[EM-226] 14 p2629 N67-37756
Embrittlement in pressure vessel steels determined with respect to neutron irradiation by stress wave attenuation tests
[EUR-2324] 16 p2908 N67-29736
Stress waves in viscoplastic medium
18 p2948 N67-31668
SWAP-7 - stress-wave analyzer program
[SC-RR-67-143] 20 p3743 N67-35113
Numerical analysis of crystal pressure transducer recordings of stress wave emerging from impacted samples
[UCRL-50533] 21 p3948 N67-35418

Axisymmetric stress wave propagation across plane interface between cylindrical bounded media
[REPT.-1-67] 22 p4097 N67-36757
Propagation of thermally generated stress waves in dispersive elastic rod
[UCRL-50252] 22 p4155 N67-37448
Electrical generation and sensing of rotational stress waves in metal wire delay lines - Stress magnetic field relations for isotropic ferromagnetic material - Multipath acoustics
[AD-655437] 22 p4100 N67-37490
Thermoelastic stress wave generation by impulsive electromagnetic radiation determined in elastic half-space
[TR-11] 23 p4355 N67-38193
Pulsed electron beam calorimetry using stress wave measurements in solid absorbers
[SC-DC-67-1791] 23 p4295 N67-38958

STRESSED-SKIN CONSTRUCTION
Method to test specimens and panels of airplane skin for vibration resistance in shell with propeller-engine unit
[FTD-TT-65-1743] 06 p0771 N67-14657

STRETCH FORMING
Duality of problems of stretching and of bending plates
[NASA-CR-705] 06 p0975 N67-15671
Cryogenic stretch form helium bottles for Saturn V S-IC vehicle
[NASA-CR-84695] 13 p2331 N67-36322
Stretch forming of precipitation hardened, very long stainless steel skins subjected to heat treatments after forming
[S+T-MEMO-1/67] 14 p2544 N67-37257
Dual finite element computer system for stretching and bending orthotropic plates
[NASA-CR-88866] 22 p4197 N67-37862

STRIP
Nucleon correlation with two-particle stripping reaction 03 p0434 N67-12558
Two-nucleon stripping reaction calcium 40 helium 3-proton scandium 43 03 p0434 N67-12559
Production method for niobium strips having protective layer of niobium stannide
[INR-749/XIV/PS] 11 p1907 N67-23007
Mode conversion methods for strip transmission line nonreciprocal devices
[GE/EE/67A-5] 17 p3039 N67-36252
Stress field near tip of central longitudinal crack in plate strip
[NASA-TR-R-265] 19 p3543 N67-33815
Mathematical correction for double layer charging during stripping of adsorbed layers on electrodes
[ITR-1] 22 p3983 N67-38912
Transient surface temperatures of strips with coatings of temperature indicating materials
[UCRL-70397] 23 p4366 N67-39245
Boundary collocation method for determining distribution of elastic stresses and displacements in perforated and notched strips
[GEMP-539] 24 p4548 N67-40562

STROBOSCOPE
Stroboscopic secondary emission electron microscope for observing successive quasi-instantaneous stages of dynamic process,
[FTD-HT-66-757] 19 p3454 N67-33388

STRONTIUM
Montmorillonite ion exchange equilibria with strontium-sodium-cesium 04 p0561 N67-12750
Dispersion characteristics of strontium in soil columns from mathematical model 04 p0502 N67-12757
Cesium and strontium distribution beneath liquid waste disposal sites 04 p0503 N67-12758
Whole-rock rubidium-strontium age of Silurian Devonian boundary in northeastern North America
[NASA-TM-X-57221] 06 p1275 N67-18244
Diffusion of artificial strontium and barium clouds in upper atmosphere
[MPI-PAE-EXTRATERR.-34/66] 09 p1443 N67-20299
Recovery of rare earths and strontium from acid solutions of fission products by means of organophosphorus derivatives
[EUR-3277.F] 14 p3477 N67-37000
Strontium and cesium diffusion through thin layers of pyrolytic carbon
[GA-7478] 15 p3697 N67-38309
Photoelectric spectrometer to measure absorption line series and autoionization resonance in ultraviolet spectrum of strontium vapor
[NASA-CR-89561] 24 p4496 N67-39725

STRONTIUM COMPOUND
Hydrothermal crystal growth of calcium, strontium, and barium molybdates 02 p0225 N67-11320
Piezoresistance and piezo-Hall effect in semiconducting strontium titanium oxide
[NASA-CR-88494] 22 p4124 N67-36724

STRONTIUM FLUORIDE
Ionic conductivity of single crystals of calcium and strontium fluorides
[NASA-TN-D-3816] 07 p1032 N67-18146

STRONTIUM TITANATE
Frequency tuning and temperature stabilization of dielectric resonators - Band pass filter frequency response with rutile and strontium titanate dielectric crystals 07 p1175 N67-18973
Laser Raman scattering measurements of crystals
[AD-658343] 24 p4513 N67-39425

STRONTIUM ZIRCONATE
Mechanical behavior of strontium zirconate
[AD-646925] 12 p2125 N67-24754

STRONTIUM 90
Radioactive fallout determinations, radiation effects, and concentrations of cesium 137, strontium 90, and plutonium 238 in atmosphere
[HASL-172] 04 p0490 N67-12658
Processing and source preparation of separated fission products 06 p0917 N67-15523
Percent concentration of strontium 90 in human bones in Poland 06 p0894 N67-16275
Ion exchange separation of curie quantities of yttrium-90 from strontium-90 with DTPA and HEPTA
[ORNL-3903] 08 p0830 N67-16525
Isotopic battery using strontium 90 decay for energy source 08 p1306 N67-18230
Beta emitting strontium 90 used as electron source for material testing in space environment simulation chamber
[NASA-CR-72062] 12 p2074 N67-23959
Design and calibration with strontium 90 and yttrium sources of high beta dose rate detector
[AERE-M-1830] 15 p2714 N67-28854
Strontium 90 determination in milk, vegetation, fish, shellfish, meat, rainwater, soil, sand, and effluent by ion exchange technique
[AAEC/TM377] 20 p3567 N67-34061
Deep sea strontium 90 thermoelectric power supply system - SNAP-21 program
[MMM-3691-6] 22 p4091 N67-37232
Radioactive contamination measurements during 1966 at Ispra, Italy, performed on waters, herbage, air, soil, foods, and animal bones
[EUR-3554.E] 23 p4242 N67-38278

STROUHAL NUMBER
Inclination effect on Strouhal number and other wake properties of circular cylinders at subcritical Reynolds numbers
[UTIAS-TN-116] 24 p4371 N67-39787

STRUCTURAL BEAM
SA CANTILEVER BEAM
SA I-BEAM
Transfer matrices and stiffness matrices for uniform beams in steady state vibration
[NASA-CR-79533] 02 p0215 N67-11686
Beam-swinging mechanism for communications satellite ground station antenna 03 p0379 N67-12309
Natural frequencies and damping capabilities of laminated beams
[MEL-295/66] 03 p0468 N67-12399
Determining eigenvalues of free vibration of beams carrying concentrated mass
[NASA-CR-79523] 03 p0469 N67-12928
Natural frequencies of bending and twisting vibrations in variable mass beam under concentrated load 04 p0618 N67-12902
Matrix analysis of longitudinal and torsional vibrations in nonuniform multibranch beams
[NASA-TN-D-3844] 07 p1205 N67-18149
Method for solving eigenvalue problems, based on integral equations, and application to beam and plate problems
[DTMB-TRANS-335] 10 p1764 N67-30637
Longitudinal instability of azimuthally uniform beams in circular vacuum chamber with walls of arbitrary electric properties
[CERN-67-2] 11 p1993 N67-22976
Integral equation for indeterminate elastic workhardening structural beams
[TR-4] 11 p1993 N67-23180
Motion equation for forced transverse vibration of slender beam with viscous damping programmed for computer solution
[PA-TR-3490] 12 p2230 N67-24787
Vibration and viscoelastic damping in joints, beams, multispan structures, and composite materials - Conference
[AD-647645] 13 p2413 N67-25186
Structural beam damping by viscoelastic links 13 p2413 N67-25188
Damping properties of viscoelastic materials from vibration tests on symmetric beam specimens 13 p2414 N67-25189
Numerical methods and computer program for analyzing lateral plane vibration characteristics of simple structure possessing hysteresis damping
[NASA-CR-83996] 13 p2418 N67-26004
Strain response of simply supported structural beams to point and acoustic loading 14 p2625 N67-27097
Stresses, curvature, and bending line analysis for rectangular structural beams under loading
[NASA-TT-F-10990] 14 p2628 N67-27564
Airys stress function analysis of supported beam bending under load
[NASA-TT-F-10989] 14 p2628 N67-27565
Extension of Kantorovitch method proposed and demonstrated on torsion problem of beam of rectangular cross section
[NYU-AA-66-70] 15 p2900 N67-28619
Approximation method for determining maximum response of simple beams to stationary random excitation perfectly correlated in space and time
[NASA-CR-816] 17 p3042 N67-31428
Computer program for determining transverse natural frequencies and mode shapes of uniform beams
[NASA-TM-X-55877] 20 p3737 N67-34329
Error estimation of operator needed for approximate expression for natural vibration frequencies of free beam with variable parameters 20 p3740 N67-34486
Strain hardening and strain-rate sensitivity effects on permanent deformation of impulsively loaded rigid-plastic beams
[ARPA-E46] 23 p4355 N67-38151
Construction of nomograph for calculating forces in reinforced concrete beam 24 p4481 N67-39870
Distribution of inter-laminar shear stress in sandwich beams
[TR-33] 24 p4546 N67-40240

STRUCTURAL DESIGN
Design analysis for twisted pinned blades subject to bending and torsional vibrations
[NASA-TT-F-10273] 01 p0156 N67-10290
Structural design of nuclear-fueled thermionic converter
[BMWF-FBK-66-06] 01 p0110 N67-10626
Structural design and data acquisition systems of Pegasus satellite 02 p0212 N67-11381
Technical aspects and uses of gas lasers
[GUO-2177] 02 p0268 N67-11965
Photomechanics of structure and materials in redesigned AB5-K8 gyroscope components
[NASA-CR-80060] 02 p0215 N67-12049
Design optimization through materials research 06 p0885 N67-15514
Structural design problems of minimum weight rotating diffuser lift system for air cushion vehicle
[USAAVLABS-TR-66-60] 06 p0977 N67-16334
Ariel I satellite - structural design, experimental data, and tracking
[NASA-SP-119] 06 p0973 N67-16514
Structural weight factors in aerospace vehicle and ship performance and design materials
[ARA-304-6, PT.-1] 07 p1200 N67-17037
Structural design concepts involving transformation of polyhedra and columns for lunar application
[NASA-CR-70408] 07 p1203 N67-17777
Supporting data for structural design of folding modular panel solar cell array
[NASA-CR-59386] 07 p1001 N67-17783
Structural design studies and project plan for folding modular panel solar cell array
[NASA-CR-81613] 07 p1001 N67-17784
Stiffener eccentricity and location influence on minimum weight design aspects of stiffened cylinders under compression
[NASA-CR-81698] 07 p1204 N67-19068
Plasticity and stress relationships in structural resistance tests 08 p1376 N67-19879
Design and breadboarding of portable tube flare inspection instrument
[NASA-CR-83442] 08 p1283 N67-19137
Structural model to evaluate evacuated

multiwall structure for hypersonic aircraft
[NASA-CR-66211] 08 p1380 N67-19277
Aeronautical engineering studies dealing with gas flow, shell stability, temperature profiles, and equipment design
[FTD-MT-64-363] 09 p1545 N67-19481
Electromagnetic interference measurements for NASA building sites to obtain shielding design criteria
[NASA-CR-66665] 09 p1417 N67-19869
Design, manufacture, and maintenance of equipment and structures used in construction of high voltage transmission lines 11 p1833 N67-22181
Design data and principles for constructing high voltage transmission lines 11 p1836 N67-22190
Soviet technology in aircraft design and construction
[FTD-TT-65-1573] 11 p1781 N67-22534
Matrix methods in structural mechanics and conference papers relating to design of aerospace vehicles
[AFFDL-TR-66-80] 11 p1987 N67-22901
Michell theory of optimum structural design
[AGARD-543] 12 p2230 N67-23533
Structural design concepts for ballistic and lifting reentry vehicles to avoid thermal stress
[AGARD-547] 12 p2231 N67-23666
Structural design, linear accelerator studies, beam blowup, space charge, ion source and columns, and research facilities reported in conference papers
[LA-3609] 12 p2074 N67-24061
Linear accelerators, and their future design 12 p2075 N67-24062
Accelerating structure research at Los Alamos 12 p2076 N67-24072
Standing wave structure, and measurement on drift tube structure 12 p2076 N67-24073
Structural design of resonant cavities with LALA computer program 12 p2077 N67-24076
Circuit analog techniques for analysis of resonantly coupled linear accelerator structures 12 p2077 N67-24079
Tuning and field measurement techniques in resonantly coupled accelerator tank 12 p2077 N67-24080
Operating characteristics of full power cloverleaf accelerator tank 12 p2077 N67-24081
Mechanical design of drift tubes and quadrupole magnets for Alvarez linear accelerator 12 p2078 N67-24085
Structural design, development, and fabrication of multicavity 805 MHz accelerator tanks 12 p2078 N67-24087
Cavity resonance, structural design, and properties of disk loading cylindrical waveguide propagating TM-02 mode 12 p2049 N67-24091
Structural design equations in Alvarez type proton linear accelerator 12 p2166 N67-24094
Brookhaven recent preaccelerator progress to report proton acceleration 12 p2080 N67-24117
Pierce geometry, and its accelerating column design 12 p2080 N67-24121
Structural design of 20 MeV proton linear accelerator, new injection for SATURNE synchrotron 12 p2080 N67-24122
Performance characteristics of Orsay linac 12 p2080 N67-24123
Performance characteristics and structural design of two European linear accelerators 12 p2080 N67-24127
Elimination of stress concentration around holes in laminated objects by use of reinforcement rings in design stage 12 p2228 N67-24538
Structural design of VARI QUIR III, and inclusion of R theta geometry
[NASA-CR-83906] 13 p2384 N67-25521
Beam communication apparatus, and visual detection of antenna
[EIF-1967-4] 13 p2379 N67-25585
Computer programs for synthesizing structural arrangements for ring-stiffened, honeycomb sandwich, and ring-stringer stiffened methods of construction for Saturn nose fairings
[NASA-CR-83809] 13 p2416 N67-25757
Computer program for near optimum structural designs of ring stiffened honeycomb sandwich nose fairings
[NASA-CR-83910] 13 p2417 N67-25899
Design of side coupled tank for linear accelerator
[LA-DC-8344] 13 p2303 N67-25919
Mechanical design of drift tubes and quadrupole magnets for linear accelerator
[LA-DC-8346] 13 p2303 N67-25921
Design techniques for horizontal driver 14 p2311 N67-26852
Structural design requirements of deep-diving vessel for oceanographic research
[JPRS-40527] 14 p2895 N67-27206
Design concept for solar sail vehicle with thin film blade rotor
[NASA-CR-84460] 14 p2820 N67-27827
Feasibility and design of walking machines with servocontrol for human operator
[AD-634618] 15 p2908 N67-27972
Design criteria for elastic thick-walled cylindrical tube consisting of metallic liner and composite material outer jacket
[AD-634636] 15 p2798 N67-27996
Nonlinear wing theory for aerodynamic design of small aspect ratio wing
[NASA-TT-F-10915] 15 p2838 N67-28193
Feasibility, parametric design, and comparative analysis of unguided solid fuel rocket vehicle with solar orbit, earth probe, and reentry mission capabilities
[NASA-CR-753] 16 p2972 N67-28925
Critical literature survey and bibliography on structural design problems of brittle materials 16 p2915 N67-28477
Exact solutions for minimum volume design of axisymmetric plates
[AROD-4551-7-E] 16 p2989 N67-29649
Current density and structural design of superconduction quadrupole
[BNL-11164] 16 p2990 N67-29708
Bibliography on structural design of power reactors
[BNWL-228] 16 p2931 N67-29711
Marshall Space Flight Center research project, and technological developments on manned space flight, trajectory analysis, structural designs, and related topics
[NASA-TM-X-53630] 17 p3181 N67-30654
Design considerations of central programmer, common address, and data return bus 17 p3090 N67-30687
Primary zinc, silver oxide battery design 17 p3095 N67-30689
Structural design for landing vehicles 17 p3171 N67-30805
Vibration and acoustics effect on vehicle structural design 17 p3171 N67-30806
Computer program for structural design analysis
[DTMB-2362] 17 p3171 N67-30851
Design and operating characteristics of hydrogen bubble chamber 17 p3965 N67-30976
Design and instrumentation of 50 cm liquid helium bubble chamber 17 p3966 N67-30979
Magnetic detector design evaluation for electron positron colliding beams 17 p3966 N67-30992
Design and material evaluation program for fabrication of large ablative motor nozzle and exit cone
[NASA-CR-72125, BK. 1] 17 p3152 N67-31200
Structural design and propulsion configurations for SCAT 4, 5, 16, and 17 18 p3190 N67-31611
Airworthiness requirements for supersonic transports in areas of structural design, performance, and handling qualities 18 p3192 N67-31632
Structural design criteria and vibration induced lateral bending moments for SNAP-10A launching 18 p3293 N67-31694
Structural and thermal characteristics of large rollup solar cell array structure
[NASA-CR-66986] 18 p3196 N67-32691
Structural weight sensitivities to structural design variations for large rocket vehicles
[NASA-CR-73007, VOL. 2] 18 p3344 N67-32904
Systems and structural design concepts for air bus aircraft - propeller turbine and pure jet powered general purpose transport aircraft
[COA-AERO-197] 20 p3565 N67-34457
Conference on use of digital computers in aircraft structural design and analysis
[ARC-CP-926] 20 p3752 N67-34565
Structural, mechanical, and electrical design data on large area solar cell array, ground support equipment designs, and performance analyses
[NASA-CR-87989] 21 p3759 N67-35594
Classification of separable tube connectors in consideration of structural design 21 p3857 N67-35573
Optimal structural design for given stiffness in stationary creep
[TR-9] 21 p3941 N67-35769
Mechanical engineering projects on optimal extremal controller design, aerial forest fire control, and lubrication systems
[DME/NAE-1967/1] 21 p3952 N67-35906
Cost factor and structural design of optimal extremal controller 21 p3822 N67-35909
Synthesis of automatic frequency control system responding to Doppler frequency shift
[JPRS-42560] 22 p4017 N67-37354
Structural design, reinforced and composite materials, and their applications
[NASA-SP-5059] 23 p4357 N67-38491
Effect of structure and material research on weight, performance, and cost of advanced launch vehicle systems
[NASA-CR-89270] 23 p4362 N67-38501
Structural analysis of simply supported circular sandwich arch subject to central point loading and symmetrically applied end couple
[DOMITT-1-36] 24 p4543 N67-39773
Geophysical subsurface structure analyses of tectonically active valley basin in Nevada - seismic and gravity measurements, aerial magnetic and geodetic surveys, and elevations
[AFCRL-66-848] 24 p4443 N67-40021
Geophysical analyses on subsurface structure and origin of valley region in Nevada 24 p4443 N67-40022
Seismic wave refraction analysis on rock formation and fault structures in Nevada valley 24 p4443 N67-40023
Seismic refraction profiles for fault zone and crystalline basement analyses of Nevada valley 24 p4443 N67-40024
Reversed seismic refraction profile analyses for valley structures in Nevada 24 p4444 N67-40025
Reversed seismic refraction profiles of central Nevada rock formations 24 p4444 N67-40026
Doubly-curved shell elements for advanced spacecraft structural design technology
[NASA-CR-89837] 24 p4544 N67-40130
Structural design and analysis of 20 watt/pound roll-up solar array
[NASA-CR-89753] 24 p4379 N67-40347
Configuration, rod tradeoff, and deployment parameter studies for design of solar panel array
[NASA-CR-89795] 24 p4380 N67-40430
Numerical analysis of physically nonlinear structures 24 p4547 N67-40477

STRUCTURAL DYNAMICS

Structural flight load data of commercial transport helicopter
[FAA-ADS-79] 01 p0005 N67-10425
Structural dynamics survey for solid propellant rocket motors
[NASA-CR-658] 02 p0299 N67-11653
Determination of parameters of mechanical analog for axisymmetric vibrations of elastic cylindrical vessel with fluid 07 p1201 N67-17126
Numerical solution for one-dimensional boundary value problems of structural mechanics of shipbuilding 07 p1201 N67-17127
Shell and plate theory conference with emphasis on stability and nonlinear problems, plasticity, thermoelasticity, creep, and structural dynamics and mechanics
[NASA-TT-F-341] 09 p1520 N67-20021
Structural analyses for bending and vibration modes of plate systems 09 p1521 N67-20027
Method for determining response of composite structures subjected to sinusoidal forcing function
[NASA-CR-83877] 09 p1538 N67-20171
Research in fields of aerodynamics, orbit flight mechanics, atmospheric physics, electromagnetic theory, aerothermodynamics, control systems, instrumentation, seismography, and structures
[NASA-TM-X-53563] 09 p1566 N67-20261
Supersonic panel flutter of cylindrical shells, liquid-solid interaction in dynamics of large elastic container, and nonlinear continuum mechanics problems in bioengineering
[AFOSR-66-2734] 09 p1539 N67-20269
Goddard Summer Workshop technical papers on information systems, structural dynamics, magnetic fields, plasma studies, atmospheric research, and radiation

simulation problems
[NASA-TM-X-55743] 11 p2006 N67-22741
Structural dynamics, and results of finite element modelling of thin plates 11 p1986 N67-22753
Plate study associated with reflector dynamics of Rosman I antenna 11 p1822 N67-22754
Dynamic responses of Rosman I antenna 11 p1822 N67-22757
Improvements in structural dynamic analysis methods
[LMSC-L-30-66-2] 12 p2230 N67-23634
Parabolic reflector design and fabrication, and thermal and structural dynamic analyses for Applications Technology Satellite-4
[NASA-CR-81603] 12 p2317 N67-24606
Functions and capabilities of large capacity structural analysis and matrix interpretive system digital computer program to analyze frame and shell structures
[NASA-CR-83742] 12 p2062 N67-25072
Yielding effects on shock spectra 13 p2412 N67-25164
Galerkin method for solutions of structural mechanics problems and theory of elasticity
[NASA-TT-F-10854] 13 p2417 N67-25903
Hysteresis model for analyzing dynamic behavior of complex structures
[NASA-CR-83993] 13 p2418 N67-26003
Mathematical model for representing restoring force in hereditary springs showing hysteretic damping
[NASA-CR-83995] 13 p2418 N67-26005
Axisymmetric strain of thick-walled toroidal shell 13 p2421 N67-26395
Finite element method extended for dynamic analysis of complex continuum bodies - direct stiffness technique 14 p2625 N67-27065
Linear, nonlinear, and dynamic programming techniques used to solve minimum maximum response problems of dynamic systems 14 p2625 N67-27066
Survey of research on behavior of ideal rigid plastic structures under dynamic load 14 p2629 N67-27732
Structural dynamic analysis by computer graphics
[AFFDL-TR-66-187, VOL. II] 16 p2980 N67-29548
Annotated bibliography of literature on soil dynamics and soil structure interaction during dynamic or similar loadings
[DR-179] 16 p2886 N67-29779
Structural dynamics analysis of nuclear exhaust system duct for Nerva engine test stand
[NASA-CR-85223] 16 p2982 N67-29959
Structural dynamics problems in design of launch vehicles for lunar mission
[NASA-TM-X-697] 18 p3243 N67-32138
Methods for solving problems in structural mechanics by digital computers
[FTD-HT-66-370] 19 p3548 N67-33416
Computer program abstracts for numerous technical subject areas
[NASA-CR-89071] 23 p4218 N67-38176
Modal scale effect on structural joint damping
[NASA-TN-D-4192] 23 p4356 N67-38597
FORMAC computer programs for symbolic formulation and solution of engineering and structural mechanics problems
[LMSC-6-77-67-25] 24 p4412 N67-39992
Sensitivity considerations in linear optimal control of flexible launch vehicle
[NASA-CR-80568] 24 p4423 N67-39973

STRUCTURAL ENGINEERING

Structural design, analysis, and testing procedures in construction and evaluation of Mariner I space probe 02 p0010 N67-11286
Structural engineering to control thermal problems in spacecraft design 02 p0310 N67-11397
Environmental controlled areas for fabrication of S-IC space vehicle structures
[NASA-TM-X-53078] 02 p0366 N67-12231
Passive geodetic satellite /PAGEOS/ canister assemblies
[NASA-CR-700] 06 p0976 N67-15049
Atmospheric wave motions and energy transfer, structural aspects of earthquake engineering, and klystron focusing phase study
[JPRS-39173] 07 p1071 N67-17323
Problems of seismic force, vibrational resistance, and hydraulic structures in earthquake engineering 07 p1071 N67-17334
Use of aerodynamics in structural engineering
[RAE-LIB-TRANS-1185] 09 p1539 N67-20336
Safety design criteria for structural engineering of explosive facilities and operations, scale model tests of concrete slabs, and weapon storage tests
[PA-TR-3484] 10 p1602 N67-21357
High speed digital computer program and data handling instructions for problem solving with structural analysis and interpretive system
[NASA-CR-83370] 11 p1984 N67-22062
Development of characteristic equations and error analysis for computer programs contained in structural analysis and matrix interpretive system
[NASA-CR-83369] 11 p1984 N67-22063
Technological developments in field of matrix methods of structural analysis 11 p1987 N67-22802
Matrix structural analysis and application to large order system optimization 11 p1987 N67-22805
Equivalence of force and displacement methods in matrix analysis of elastic structures 11 p1988 N67-22809
Structural influence coefficients for redundant system including beam column effects 11 p1988 N67-22810
Orthogonalization of internal force and strain systems 11 p1988 N67-22811
Nonlinear structural analysis, and tensor formulation 11 p1990 N67-22823
Improved linear axisymmetric shell fluid model for launch vehicle longitudinal response analysis 11 p1991 N67-22831
Bending and stretching of plates, and special models for upper and lower bounds 11 p1992 N67-22833
Matrix error analysis for engineers 11 p1992 N67-22834
Tuned viscoelastic damper effects on frequency response of multispan structures 13 p2414 N67-25191
Generation and interpretation of input and output data for Structural Analysis and Matrix Interpretive System /SAMIS/
[NASA-CR-85705] 17 p3174 N67-31177
Partial response method to solve structural mechanics problems of shipbuilding 18 p3348 N67-31653
Stability of rod compressed by following force 18 p3351 N67-31995
Refined finite element analysis of linear and nonlinear two-dimensional structures using polynomial expansion
[SESM-66-22] 20 p3737 N67-34268
Structural optimization of flat, corrugated core and web core sandwich panels under in-plane shear loads and combined uniaxial compression and in-plane shear loads
[NAEC-ASL-1110] 22 p4153 N67-37080
Computer assisted analysis of vibration of flat rectangular plates with clamped and simply supported boundary conditions, using rectangular finite element technique
[ISVR-161] 23 p4356 N67-38385

STRUCTURAL FAILURE

Failure mechanism studies of micromechanical behavior of fiber reinforced composite materials
[AFML-TR-66-177] 01 p0091 N67-11601
Heavy water leakage due to cracks in Inconel inspection tubes at Agesta nuclear power station
[AE-246, SUPPL.] 03 p0401 N67-12635
Probability of failure constraint concept for optimization of general structural system under simultaneous and alternative load systems - truss example
[NASA-TN-D-3777] 04 p0618 N67-13720
Structural strength of aluminum and steel alloys
[FTD-MT-65-92] 12 p2113 N67-23521
Statistical probability of failure during fatigue tests on aluminum alloy 12 p2114 N67-23525
Probability of fatigue breakdown during random stationary loading 12 p2210 N67-23596
Effect of loading conditions of failure of low alloy hull steel 12 p2230 N67-23532
Air damping effects on structural fatigue failure 13 p2414 N67-25193
Failure analysis of shaft from liquid oxygen interconnect valve
[NASA-CR-84405] 14 p2545 N67-27364
Stress corrosion cracking of thrust ring splice angles used on Saturn S-IC vehicle
[NASA-CR-84479] 14 p2546 N67-27519
Prediction of low cycle fatigue life and terminal failure behavior of pressure vessels
[SWRI-1228-1-36, PT. 2] 15 p2900 N67-28443
Computer programs for calculating failure loads of aerospace structures using discrete element methods
[NASA-CR-66364] 17 p3172 N67-30700
Structural damage in metal-forming processes particularly hydrostatic component of stress during deformation
[AD-653361] 19 p3464 N67-33340
Fatigue life characteristics of aluminum alloy specimens under random load to failure
[NASA-TM-R-268] 21 p3941 N67-35728
X-ray analysis of atomic scattering and structural defects of titanium carbide
[NASA-TT-F-10436] 21 p3870 N67-36330
Extended finite element inelastic stress analysis for predicting failure load of aeronautical structures
[NASA-CR-803] 24 p4545 N67-40204

STRUCTURAL FATIGUE

Fatigue life prediction method for structural elements using data obtained under random loading conditions
[RAE-TR-66023] 07 p1204 N67-17364
Ambient temperature fatigue and fracture, elevated temperature, and physical property research on highly anisotropic binary eutectic alloys
[NASA-CR-81069] 07 p1105 N67-17365
Digital analysis of fatigue damage to multimodal system subjected to logarithmically swept sinusoidal vibration spectra 14 p2625 N67-27063
Dynamic modeling techniques applied to complex structural components in sonic fatigue predictions
[NAA-TFD-64-490-13] 15 p2800 N67-28515
Structural energy theory of metal fatigue, and magnetic hysteresis and eddy current losses in high carbon and alloy steels
[FTD-MT-65-421] 20 p3655 N67-34228
Structural energy theory for metal fatigue - plastic deformation, destruction, and fusion 20 p3655 N67-34231
Rational methods of structural optimization of flat, corrugated core, and web core sandwich panels subjected to uniaxial compression loads
[NAEC-ASL-1109] 21 p3940 N67-35681
Fracture toughness of epoxy adhesive joints of aluminum glass composite under dynamic load and static fatigue
[AD-655138] 21 p3943 N67-36430
Fatigue behavior of fusion welded structural assembly with supersonic transport application
[NASA-CR-881] 22 p4157 N67-37681

STRUCTURAL FOUNDATION

Footing elevation and settlement, lateral and vertical movement, and temperature, density, and accumulation of snow at DEWline ice cap stations
[CRREL-SR-72] 01 p0057 N67-10811
Thickness of permafrost beds as index of region tectonic structure
[T-464-R] 01 p0068 N67-10850
Response expressions for elastic foundation models
[NASA-CR-82375] 06 p1378 N67-19808
Spread footing foundation tests on snow
[CRREL-TR-175] 11 p1871 N67-22681
Engineering geocryology principles for control of thermal and mechanical interactions between structures and ground in permafrost regions
[NRC-TT-1276] 19 p3442 N67-33310
Generalized Chern and Nemat-Nasser method and application to bounds of bending moments and resultant thrusts and shear forces induced in sandwich arch section by anelastic strains
[TR-12] 23 p4355 N67-38315

STRUCTURAL HEATING

Electron-irradiation of solid cycloalkane and formation of cycloalkyls that exhibit structural deformation on heating 11 p1808 N67-22251

STRUCTURAL MATERIAL

SA PANEL
SA SKIN
Computer code for thermal neutron flux induced material buckling in subcritical assembly
[INR-659/IXA/RP] 01 p0105 N67-10870
Structural materials test techniques design
[MAB-225-M] 01 p0079 N67-11000
Iron, nickel, and cobalt based heat resisting alloys for aircraft and power plant structural materials 02 p0268 N67-11300

Mechanical design of spacecraft - engineering problems of spacecraft design, structural materials, and instrument integration
[NASA-CR-79531] 02 p0310 N67-11281
Materials evaluation for design and fabrication of lightweight spacecraft structures 02 p0365 N67-11388
Method for estimating fatigue strength in aircraft primary structures
[SAAB-TN-37] 02 p0315 N67-11754
Nondestructive methods for determining residual stress and fatigue damage in metals
[NASA-CR-79396] 02 p0318 N67-12227
Refurbishable composite thermostructural heat shield panels for manned lifting entry vehicles
[NASA-CR-638] 03 p0472 N67-12750
Structure, material, and design considered in analysis of ideal energy dissipation mechanisms for spacecraft landings
[NASA-CR-88334] 03 p0479 N67-12973
Long term exposure effects under stress on supersonic transport structural materials
[NASA-CR-80489] 03 p0412 N67-13125
Chromium used as a base for high temperature structural alloys
[NASA-CR-80657] 04 p0550 N67-13536
Glass fiber reinforced plastic material for spacecraft structural components
[NASA-CR-80685] 04 p0566 N67-13575
Applications of reinforced plastics as structural composite materials
[AGARD-523] 04 p0630 N67-14106
Radiation effects on reactor structural materials
[NRL-MEMO-1719] 05 p0735 N67-14727
Recent developments in welding and adhesive bonding, and ultrahigh strength materials for structural applications 05 p0711 N67-14802
Application and optimization of structural composites for aircraft wings
[R665D55] 05 p0772 N67-14955
Cellular structures of glass fiber reinforced plastics as load bearing structural elements
[JPRS-39468] 05 p0773 N67-15177
Survey and bibliography concerning use of reinforced plastics in structural systems
[R-491] 06 p0899 N67-16121
Feasibility of glass and ceramic pressure vessels for deep submergence applications
[DTMB-2343] 06 p0977 N67-16402
Vibration analysis of cylindrically curved panels with simply supported or clamped edges
[NASA-TN-D-3791] 06 p0979 N67-16489
Mechanical properties and efficiency parameters of lightweight alloys, high strength steels, and heat resistant structural sheet metals
[ARA-304-6, PT.-2] 07 p1261 N67-17040
Metallurgical characteristics of high strength structural materials
[NRL-6454] 07 p1103 N67-17711
Method for estimating high temperature low cycle fatigue behavior of materials
[NASA-TM-X-52270] 07 p1203 N67-17830
Vacuum, electron, proton, and ultraviolet radiation stress results for space vehicle materials
[NASA-CR-81706] 07 p1094 N67-18046
Plastics in ammunition, plastics development in ships, applications of plastics for aerospace use, and development of low density composites for aerospace application
[PLASTEC-13] 08 p1295 N67-18496
Potential use of reinforced plastics and plastic foams as structural materials for Naval ships 08 p1295 N67-18498
Determining safe life of structural components for distributions classified by failure rate
[D1-82-0548] 09 p1452 N67-19549
Reliability demonstration based on accelerated testing of overstressed components
[NASA-CR-82924] 09 p1454 N67-19993
Multiple group cross-section structural codes for absorption, fission, and n-2n-processes of molten-salt breeder reactor materials
[JUL-314-RG] 10 p1683 N67-21073
Theoretical evaluation of fuel elements, structural materials, and electronics for planned impulse reactor
[JUL-343-RE] 10 p1683 N67-21080
Materials and methods used in constructing high voltage transmission lines 11 p1843 N67-22391
Thermal properties of structural reinforced plastics
[RAE-TN-CPM-49] 11 p1903 N67-22702
Stress corrosion resistant titanium alloy as structural material for marine applications
[MEL-506/66] 12 p2118 N67-24043
Temperature field and stress state for material nonuniformity caused by macroinclusions or cavities in structural elements of elastic bodies 12 p2227 N67-24728
Conformal mapping procedure using interpolation of Lagrange polynomials to determine stress concentration at nodal points in structural elements 12 p2229 N67-24545
Materials efficiency in tension structures under static loading and fatigue, and for compression structures
[ARA-304-7] 12 p2230 N67-24819
Metallurgical characteristics of high strength structural materials
[NRL-6513] 12 p2121 N67-24914
Neutron irradiation effects on mechanical properties on structural alloys 13 p2236 N67-25361
Strength of high alumina ceramics under impact loading
[REPT.-1681-2] 13 p2416 N67-25627
Glass fiber reinforced plastic materials for spacecraft and launch vehicle structural components
[NASA-CR-83889] 13 p2498 N67-25879
Spacecraft materials guidebook
[NASA-CR-83993] 13 p2499 N67-26006
Titanium-deoxidized steel used for support material in high strength skin-to-rib bonding of composite rolled structural metal panels
[AMRA-CR-66-02/3] 14 p2543 N67-26759
Advanced long life reactor fuel cladding and structural materials development 14 p2575 N67-26987
High temperature reactor research on carbides for fuel and structural applications 14 p2575 N67-26993
Polyurethane resins for structural laminate systems possessing simultaneous high thermal and mechanical properties
[NAEC-AML-2593] 15 p2656 N67-28234
Structural cermet materials
[NASA-TT-F-11013] 15 p2727 N67-28741
Algorithm for predicting fracture of brittle materials subjected to transient mechanical and thermal loading
[AFFDL-TR-66-220] 16 p2979 N67-29506
Survey of method of initial parameters
[IITRI-M6157-1] 16 p2979 N67-29511
Comparison of materials for vibrating structures under hysteretic damping
[ISAV-158] 16 p2938 N67-29972
External and internal passive and active methods for spacecraft thermal control - material insulation and structural properties
[NASA-CR-65580] 16 p2976 N67-30163
Report of special committee on characterization of materials 17 p3147 N67-30364
Characterization of polycrystalline materials 17 p3147 N67-30368
Nondestructive inspection of structural materials 17 p3072 N67-30573
Microyield stress as related to dimensional stability of aluminum, beryllium, molybdenum, and magnesium alloys - spacecraft structural materials
[NASA-CR-85634] 17 p3175 N67-31389
Supersonic transport configurations, propulsion systems, structural materials, handling qualities, and sonic boom - conference
[NASA-TM-X-965] 18 p3190 N67-31606
Duplex-annealed titanium alloy as SCAT structural material 18 p3378 N67-31625
Fatigue, crack propagation, and stress corrosion of structural materials for supersonic transports 18 p3378 N67-31626
Manned military aircraft structures and materials 19 p3545 N67-33977
Literature survey on corrosive effects of liquid and vapor cesium on structural materials, and compatibility of cesium as working fluid for Rankine cycle space power plant
[NASA-CR-87504] 20 p3669 N67-34636
Materials for molten salt breeder reactors - graphite and modified Hastelloy N structural materials, and uranium bearing fluoride fuel salt
[ORNL-TM-1854] 21 p3899 N67-36067
High temperature sodium effects on mechanical properties of liquid metal cooled reactor structural materials
[MSAR-67-79] 21 p3970 N67-36236
Radiation effects on reactor structural materials
[NRL-MEMO-1788] 22 p4091 N67-37323
Materials compilation for construction of low frequency telescope structure
[NASA-CR-88861] 22 p4157 N67-37790
Structural applications and physical properties of rigid urethane foam system
[BDX-613-96] 23 p4270 N67-38571
Irradiation effects on reactor structural materials
[BNWL-CC-883] 23 p4296 N67-38810
Soviet encyclopedia of contemporary engineering structural materials - Part II - Corrosion fatigue through Hastelloy
[FTD-TT-66-22, PT. II] 23 p4358 N67-38988
Soviet encyclopedia of contemporary engineering structural materials - Part III - Heat and sound insulating loose fiber materials through nichrom
[FTD-TT-66-22, PT. III] 23 p4359 N67-38997
Soviet encyclopedia of contemporary engineering structural materials - Part IV - Nickel through soft magnetic materials
[FTD-TT-66-22, PT. IV] 23 p4359 N67-39002
Soviet encyclopedia of contemporary engineering structural materials - Part V - Solder through zircon
[FTD-TT-66-22, PT. V] 23 p4359 N67-39003
Chemical vapor deposition of tungsten and tungsten-rhenium alloys for structural applications - process development
[UCRL-70340, PT. I] 23 p4367 N67-39088
Physical metallurgy, fabrication, and mechanical properties of Phoebus 2 rocket nozzle materials
[NASA-CR-83612] 23 p4392 N67-39219
Materials in electromagnets and their properties
[SLAC-PUB-330] 23 p4388 N67-39255
Iterative analysis procedure for tracing load-deflection characteristics of frameworks loaded through elastic range to plastic collapse stage
[AD-658534] 24 p4546 N67-40216

STRUCTURAL RELIABILITY

SA AIRCRAFT RELIABILITY

Structural proof test program for lift fan aircraft
[REPT.-128] 06 p0789 N67-16200
Pitch axis bending moment structural reliability test of Centaur test vehicle
[NASA-CR-81698] 07 p1264 N67-18987
Vibration, shock, and structural reliability and design - conference
[AD-651404] 18 p3348 N67-31688
Structural reliability analysis, and vibration and shock testing 18 p3349 N67-31691
Neumann-Pearson-Wald statistical hypothesis for analysis of reliability and related parameters of structural materials 18 p3388 N67-32176
Excursions of random function beyond random level of known statistical characteristics for estimation of structural reliability 21 p3881 N67-36498
Definitions and mathematical formulations for probabilistic safety analysis of structures and structural systems 22 p4151 N67-38794

STRUCTURAL RIGIDITY

Influence of transverse diaphragm rigidity on temperature stresses in thin walled bars and shells of closed and open profile 09 p1521 N67-20008
Rigidity operators of reinforced plate composed of isotropic homogeneous layers 09 p1535 N67-20122

STRUCTURAL STABILITY

SA REINFORCED SHELL

Structural changes in niobium base alloys induced by exposure to titanium interstitial sink at elevated temperature
[NASA-CR-81140] 06 p0719 N67-15230
Structural optimization of conical shells with nonuniformly spaced rings 07 p1199 N67-16891
Calculations on stability of mixed ionic-molecular lattices of complex salts
[AFCRL-66-677] 07 p1666 N67-17197
Local buckling and column buckling stability of thin walled bars subjected to centrical loading
[DLR-FB-66-64] 08 p1279 N67-18125
Numerical iterative algorithm to analyze structural eigenproblems 08 p1280 N67-18317

Stability statistics in structural mechanics of plates and shells 09 p1521 N67-20013
Differential stability equations for stiffened and unstiffened longitudinally corrugated cylindrical shell 09 p1530 N67-20083
Geometrical parameters, loading, and condition of momentlessness of radial guy net in hanging roof with momentless contour ring 09 p1539 N67-20089
Theory and equations for natural oscillations and stability of continuous triple-layer plates with light filler [FTD-HT-66-285] 10 p1764 N67-20619
Joining techniques and structural stability of beryllium alloys for fabricating aerospace vehicles [NASA-TM-X-53453, VOL. VI] 10 p1647 N67-21520
High temperature stability of sintered aluminum products examined by density measurements [RISO-58] 10 p1658 N67-21776
Stress concentration in plates, shells, or other structural bodies weakened by holes [NASA-TT-F-10736] 12 p2233 N67-24501
Elastic stability and equilibrium of structures in vicinity of theoretical buckling load [NASA-TT-F-10633] 12 p2232 N67-25033
Stress and stability of thin-walled conical shells for axisymmetric loads [NASA-TM-X-53676] 13 p2420 N67-26227
Structural stability of rod, cylindrical panel, and closed cylindrical shell under impact loading 13 p2429 N67-26394
Roller stability using synthetic lubricants with surface active substances [FTD-HT-66-376] 15 p2719 N67-28633
Compliance method for analysis of stiffened orthotropic elastic shells [NASA-CR-85818] 17 p3175 N67-31472
Life test data to determine structural stability of semiconductor materials /cadmium selenide, cadmium sulfide, and tellurium/ used in field effect transistors 23 p4224 N67-38470
Survey on experimental studies of forces exerted on scale model structures by wind and blast waves [AWRE-E-6/67] 24 p4547 N67-40468

STRUCTURAL STRAIN
SA INTERFACIAL STRAIN
Distributed load data used in improved interpretation of strain measurements for flight load determination [ARC-CP-839] 05 p0771 N67-14439
Microstrain apparatus for work in compression at helium temperatures in determining effect of structural variables [AD-641259] 06 p0977 N67-16426
Optimum experimental conditions for obtaining strain contrast images from small defects 07 p1172 N67-16753
Solution to problem of axisymmetric strain of rib-reinforced cylindrical shell by means of Steklov-Fubini method 08 p1379 N67-19171
Accuracy of mathematical models in determining stresses and strains in limiting states of thin walled structures 09 p1529 N67-20082
Strain components on middle surface of thin shells determined by variational principles of linear moment theory 09 p1538 N67-20141
Cold rolling effect on strain ratio hydraulic bulging behavior of annealed aluminum sheet [COA-NOTE-MAT-9] 16 p2913 N67-30088
Strain pattern analysis on geodetic survey data for Nevada earthquake site 24 p4444 N67-40027

STRUCTURAL VIBRATION
Fundamentals of statistical energy analysis of vibrating systems [BBN-1350] 02 p0288 N67-11703
Optimal control of structural vibrations in large flexible aerospace vehicles during flight maneuvers [AFOSR-66-0708] 03 p0467 N67-12654
Vibrations of noncircular cylindrical shells 03 p0471 N67-13065
Vibration control in rotary winged aircraft 05 p0636 N67-15210
Longitudinal structural oscillations at low frequencies of launch vehicles during flight 06 p0973 N67-15897
Southampton university program and research projects in acoustic and structural vibrations 07 p1394 N67-17849
Vertical accelerations due to structural vibrations of slender aircraft flying in continuous turbulence - aeroelastic response [ARC-CP-843] 08 p1375 N67-18379
Far field sound radiation from randomly vibrating structure oscillating in acoustic medium [TR-15] 09 p1519 N67-19768
Structural impedance and vibration measurement [MEL-360/66] 10 p1766 N67-21374
Approximate method for analyzing vibrations of stiffened plates and shells [U-238-165] 11 p1965 N67-23618
Vibrations of elastically restrained thin cylindrical shells subjected to viscous damping [ONERA-TN-101/1966/] 11 p1993 N67-23976
Vibrations of laminated structure under localized flow conditions [TP-12] 12 p2223 N67-24311
Cylindrical shell vibrations analyzed for effects of orthotropicity, boundary conditions, and eccentricity [ASRL-TR-134-2] 13 p2415 N67-25333
Cross correlation method for examining structural noise and vibration transmission in complex structures [MAC-506-02A] 14 p2624 N67-26814
Mathematical prediction and analysis of structural vibrations - shock and vibration symposium [AD-646983] 14 p2624 N67-27061
Vibrational energy distributions in complex structural mode shapes 14 p2625 N67-27064
Response of structural components of launch vehicle to in-flight acoustic and aerodynamic environments 14 p2625 N67-27069
Integral transforms used to calculate dynamic vibrations of thick walled elastic anisotropic cylinders and spheres with internal damping 14 p2626 N67-27070
Maximum acceleration response of asymmetrical trapezoidal pulse on single degree of freedom vibrating system 14 p2626 N67-27071
Free vibration in damped structures, and application of A-P algorithm to matrix eigenvalue problems [REPT.-27] 14 p2628 N67-27547
Application of A-P algorithm to non-proportion damped vibration problems represented by non-selfadjoint matrix differential equation 14 p2628 N67-27711
Vibration of thin anisotropic cylindrical shells [WVT-6717] 16 p2977 N67-28999
Axisymmetric vibrations of partially liquid filled flexible cylindrical shell containers with rigid flat bottoms [NASA-TN-D-4026] 16 p2983 N67-30124
Membrane frequencies for spherical shell vibrations [NLABS-TR-67-74-OSD] 17 p3172 N67-30730
Balancing criteria and acceptable residual specific unbalance of rotating machines as practiced in U.S. [TR-3] 18 p3256 N67-31569
Nonsymmetric vibration of shells of revolution [AMRA-TR-67-09] 18 p3353 N67-32640
Structural vibration problems in designing high voltage electron microscope facility 19 p3436 N67-33797
Oscillation of aeroelastic models of cathedral pinnacles in wind tunnel [NPL-AERO-1190] 20 p3735 N67-34696
Additive property of modal density for composite structures in analysis [NASA-CR-86453] 20 p3739 N67-34690
Estimation of inflight acoustic and fluctuating aerodynamic environments and resulting surface vibration levels [NASA-CR-86311] 21 p3943 N67-36060
Design, fabrication, testing, and operation of microminiature rate of turn vibratory sensor [NASA-CR-86715] 22 p4046 N67-37252
Experimental structural damping with model of Saturn I launch vehicle [NASA-CR-86873] 23 p4156 N67-37978
Calculation methods for natural frequencies of rods with apertures 23 p4161 N67-38192

STRUCTURAL WEIGHT
Mariner IV dampers for vibration protection and structural weight reduction 07 p1198 N67-16904
Weight estimates of thermal protection systems for lifting body reentry vehicle suitable for near earth missions [NASA-CR-73042] 06 p1381 N67-18278
Structural weight sensitivities to structural design variations for large rocket vehicles [NASA-CR-73067, VOL. 2] 19 p3544 N67-32904
Parametric analysis of design, materials, and techniques to minimize structural weight in large launch vehicles [NASA-CR-73067, VOL. 1] 19 p3544 N67-32939
Design of statistically determinate trusses for minimum weight and deflection [NASA-CR-86562] 22 p4155 N67-37425
Weight and cost data for structural and material research on advanced launch systems [NASA-CR-89271] 23 p4358 N67-38794

STRUCTURE
SA AIRCRAFT STRUCTURE
SA AIRFRAME
SA CLOSE PACKED STRUCTURE
SA COMPOSITE STRUCTURE
SA CRYSTAL STRUCTURE
SA ELECTRONIC STRUCTURE
SA EXPANDABLE STRUCTURE
SA FINE STRUCTURE
SA FOLDING STRUCTURE
SA FRAME
SA HYPERFINE STRUCTURE
SA INFLATABLE STRUCTURE
SA INSULATED STRUCTURE
SA MEMBRANE STRUCTURE
SA MICROSTRUCTURE
SA MOLECULAR STRUCTURE
SA MULTILAYER STRUCTURE
SA NUCLEAR STRUCTURE
SA REDUNDANT STRUCTURE
SA RIGID STRUCTURE
SA RING STRUCTURE
SA SPACE ERECTABLE STRUCTURE
SA SPACECRAFT STRUCTURE
SA STEEL STRUCTURE
SA STELLAR STRUCTURE
SA STIFF STRUCTURE
SA SUBSTRUCTURE
SA THERMOSTRUCTURE
SA VARIABLE GEOMETRY STRUCTURE
SA WELDED STRUCTURE
Possible structure of surface layer of moon [NASA-CR-80579] 03 p0466 N67-13234
Atmospheric structure and variability of earth atmosphere [NASA-CR-81529] 07 p1071 N67-17381
Structure of wing surface and significance in aerodynamics of birds [RAE-LIB-TRANS-1143] 08 p1230 N67-19202
Liquid structure effect on contact angle hysteresis [NRL-6436] 10 p1730 N67-21707
Basic structure of infrared glasses [REPT.-7518-8-F] 11 p1904 N67-23150
Structure theorems for convolution algebras [R65SD67] 11 p1910 N67-23438
Investigation of slotted iris structure with drift tubes 12 p2062 N67-24139
Magnetic field influence on structure of sunspot 13 p2397 N67-25590
Observations of heterogeneous structure and kinematics of solar atmosphere, and engineering development of instrument for measuring local displacements on spectrogram [AFCRL-67-0094] 14 p2606 N67-26785
Instrumentation development and observations of heterogeneous structure and kinematics of solar atmosphere 14 p2606 N67-26786
Faraday rotation of satellite signals observations for studying large scale structure of auroral zone F layer 16 p2983 N67-29965
Profile on Laboratory for Research on the Structure of Matter, and materials science projects [AD-648124] 16 p2845 N67-29462
Dielectric properties of structures, electron band structure and transport properties, and resonance phenomena 16 p2846 N67-29464
Bulk material and thin film structures and phase transformations 16 p2846 N67-29466
Structure theory for realization of finite state automata [NASA-CR-85590] 17 p3041 N67-30601
Lunar surface layer structure determination based on effective thermal conductivity coefficient [NASA-TT-F-11971] 18 p3236 N67-31851
Field ion microscopy to study influence of

nonstoichiometry on structure of carbides
[NYO-3716-1] 19 p3474 N67-33926
Instrument for measuring surface slope of underwater hydraulic structures using hermetically enclosed gravitational pendulums 20 p3439 N67-34231
Summaries and abstracts of papers presented at Euromech Colloquium on structure of turbulence 20 p3633 N67-34721
Guiding center drift equation for analysis of helical structure effect on stellerator loss 23 p4322 N67-38751
Structural properties of state transition graphs of autonomous sequential machines
[TR-12] 24 p4412 N67-39490
Investment Co-35W-3Cr-0.1B cast alloy for studying effect of Ti, Zr and C on structure and stress rupture properties at 1850 deg F in air
[NASA-CR-89650] 24 p4465 N67-39657
Dependence of stress rupture and superplasticity on structure in Co-W alloys
[NASA-CR-89651] 24 p4469 N67-40235
STRUT
Nonlinear analysis of two-dimensional, irrotational flow of incompressible, homogeneous fluid past fully cavitating, cambered hydrofoil and strut
[TR-72] 16 p2879 N67-29621
Damping effects on performance characteristics of oleo struts
[ARC-CP-951] 22 p4155 N67-37331
Choking phenomenon in base-vented strut cavities
[TR-685-2] 24 p4433 N67-40275
STURM-LIOUVILLE OPERATOR
Method for solving three-body problem by using Sturm-Liouville functions
[JINR-P-2825] 08 p1333 N67-18599
Spectrum of nonself-adjoint Sturm-Liouville operator 12 p2129 N67-23705
STYRENE
SA POLYSTYRENE
Cross linking in Styrene-Butadiene Rubber /SBR/ glass bead composites 02 p0279 N67-12121
Thermal degradation of styrene and methyl methacrylate copolymers with pure m-divinylbenzene and p-divinylbenzene isomers
[TID-23264] 03 p0362 N67-13321
Oxygen effect on radiation-induced graft copolymerization of styrene on cotton 11 p1903 N67-22231
Radiation-induced ionic polymerization of styrene in solution at low temperature 11 p1904 N67-22232
Polymerization of isobutene and copolymerization of isobutene with styrene at low temperature 11 p1904 N67-22233
Radiation-induced polymerization of styrene in extremely dry system at room temperature 11 p1905 N67-22234
Radiation-induced polymerization of styrene in extremely dry system in methylene chloride and toluene solutions at room temperature 11 p1905 N67-22235
Pulse radiolytic experiments and spectrograms of transient absorption in alpha-methylstyrene 11 p1907 N67-22252
Rheological properties of nonsaturated styrene polyester copolymers, and temperature and reticulation effects
[NT-166/1967/] 16 p2916 N67-29968
SUBCOOLING
Void measurements in regions of subcooled and low quality boiling - effects of heat flux, mass velocity, and pressure
[AE-238] 01 p0109 N67-10135
Void fraction measurements in regions of subcooled and low quality boiling
[AE-239] 01 p0115 N67-10568
Vapor volumetric fraction prediction during forced convection subcooled boiling
[GEAP-5157] 01 p0165 N67-10695
Closed-form solution for stratification of subcooled fluids in containers subjected to heating, and for liquid-ullage vapor coupling
[NASA-CR-80473] 03 p0474 N67-13109
Gravity effects on boiling from flat horizontal surface determined in heat flux range defined as discrete bubble region for various subcoolings, fluid properties, and heat transfer rates
[NASA-TM-X-52364] 06 p0981 N67-18044
Forced convective nonboiling, subcooled boiling, and subcooled burnout heat transfer and pressure drop of polyphenyl reactor coolants
[EUR-3139.E] 07 p1138 N67-17353
Hydrogen slush and hydrogen gel systems optimization and vehicle application
[NASA-CR-85822] 17 p3151 N67-31330
Subcooling and radiation effect on film-boiling heat transfer from flat plate
[NASA-TN-D-3925] 19 p3432 N67-33442
Subcooled boiling analysis by calculation of steam volume fraction considering heat removal mechanisms
[AE-286] 19 p3554 N67-33537
SUBFLUID
S ANISOTROPIC FLUID
SUBHARMONIC OSCILLATOR
Three phase power supply for parametrons
[FTD-HT-66-697] 16 p2822 N67-29547
Subharmonic generation in acoustic Fabry-Perot interferometer
[TR-16] 23 p4350 N67-38092
SUBLATTICE DISTRIBUTION RATIO
Derivation of set of order parameters for crystals of long range order of alloys with more than two types of lattice sites or atomic species - anisotropy
[JUL-421-RW] 20 p3554 N67-34034
SUBLIMATION
SA ABLATION
Mechanism of heat and mass exchange during vibrations of subliming body under free convection conditions in rarefied gas medium 05 p0773 N67-14367
Body vibration rate effect on heat and mass transfer during sublimation under vacuum conditions 05 p0774 N67-14368
Matrix methodology for comparing simplified space mechanisms using subliming solids with conventional aerospace devices 07 p0997 N67-16921
Material and performance tests of water boiler and water sublimator heat sink modules
[NASA-CR-82794] 09 p1540 N67-19418
Subliming solid propellant attitude control rocket
[NASA-CR-711] 09 p1565 N67-19695
Vibration effects on mass and convective heat transfer under vacuum sublimation conditions 11 p1997 N67-22050
Heat and mass transfer rate dependence on vibration velocity of body undergoing vacuum sublimation with steady state free convection conditions 11 p1997 N67-22051
Forced convection and nonisothermal irradiation effects on sublimation and mass transfer from snow surface
[CRREL-SR-90] 11 p1870 N67-22530
Finite difference method of calculating laminar boundary layer on subliming body of revolution
[TG-230-T517] 16 p2876 N67-29695
SUBLIMATION HEAT
Calculation of vapor pressure and heats of vaporization and sublimation for xenon
[TR-3] 11 p2001 N67-23442
Comparison of chlorine or iodine use as feedwater bactericides in lunar excursion module cooling system sublimator
[NASA-CR-65735] 22 p3966 N67-37555
SUBMARINE
SA NUCLEAR SUBMARINE
Experiments on conical plexiglass deep submergence window models in range of small diameter thickness ratio of 0.5 to 2.5
[ARA-315-10] 06 p0977 N67-16375
Salt spray tests conducted to determine corrosion resistance of submarine magnesium signal coated with plastic film
[NOLTR-66-110] 06 p0895 N67-16592
Axisymmetric deformations and stresses in thin shells of revolution used in submarine pressure hulls
[DTMB-2364] 11 p1986 N67-22735
Motor and air noise levels measured on centrifugal ventilator designed for submarines
[REPT.-606.116, VIII] 13 p2307 N67-25740
Sound measurements on hydraulic control valves of submarine to improve noise reduction
[TDCK-47317] 13 p2328 N67-26021
Sound measurements on submarine ventilator and electric motor to reduce noise
[TDCK-47319] 13 p2328 N67-26023
Probability of locating submarine within stated distance on basis of two-dimensional sensors
[SP-2757/000/00] 17 p3056 N67-30256
Chemical research in atmosphere purification and control on nuclear powered submarines
[NRL-6491] 19 p3385 N67-33761
Feasibility studies of new mode of low frequency electromagnetic propagation for submarine detection and underwater communication
[RE-298] 20 p3689 N67-34940
Conversion tables for underwater noise levels of submarines measured on various acoustical ranges
[REPT.-708.108/2] 23 p4295 N67-38595
Electroluminescent display used as position indicator and control system in submarine
[C7-2191/301] 24 p4418 N67-39784
Chemical analysis of gold with chlorine or bromine in molten alkali halides to design air purification system for submarine atmospheres
[NSRDC-2443] 24 p4396 N67-40023
SUBMARINE CABLE
Composite thermoplastic-glass filament reinforcement developed for buoyant submarine cables and antennas
[IR-3] 06 p0890 N67-16128
Design and evaluation of composite thermoplastic and glass filament reinforcement for buoyant submarine antenna cables
[IR-5] 19 p3476 N67-33527
SUBMARINE PROPULSION
Engineering evaluation of hydrodynamic properties in locomotion of fish, cetaceans, and cephalopods 20 p3574 N67-34502
SUBMERGED BODY
Experiments on conical plexiglass deep submergence window models in range of small diameter thickness ratio of 0.5 to 2.5
[ARA-315-10] 06 p0977 N67-16375
Feasibility of glass and ceramic pressure vessels for deep submergence applications
[DTMB-2343] 06 p0977 N67-16402
Random vibration of submerged elastic plate related to Fourier transform and eigenfunction expansion methods 08 p1376 N67-18514
Static and cyclic fatigue tests of fusion-sealed Pyrex spheres for deep submergence system
[DTMB-2346] 09 p1519 N67-19618
Automatic instrumented deep sea diving assembly
[NOLTR-66-165] 10 p1837 N67-21760
Deep sea magnetometer structure design and construction
[NOLTR-66-164] 14 p2529 N67-26493
Structural design requirements of deep-diving vessel for oceanographic research
[JPRS-40527] 14 p2535 N67-27206
Flow characteristics about submerged rocket nozzle model immersed in simulated exhaust gas
[NASA-TM-X-1389] 14 p2518 N67-27265
Overall buckling of submerged vessels composed of spherical and cylindrical shells using theorem of stationary potential energy
[TR-42] 19 p3544 N67-33564
Progressive surface wave motions of small amplitude and time-periodic nature in ideal fluid containing infinite submerged array of parallel and identical circular cylinders
[TR-11] 19 p3432 N67-33572
Morphological considerations in connection with speed, hydrodynamic structure, and adaptation of whales 20 p3574 N67-34502
Transverse supportive and depressive forces analyzed as caused by body shape of submerged nektons 20 p3574 N67-34504
Flow characteristics and streamlining of squids analyzed during various locomotion phases 20 p3574 N67-34505
SUBMERSION
SA IMMERSION
Feasibility of silicone submersion for weightlessness simulation
[NADC-MR-6620] 12 p2021 N67-24054
SUBMILLIMETER WAVE
All solid-state superheterodyne Dicke radiometer for submillimeter wavelengths
[NASA-CR-79739] 02 p0236 N67-12068
Submillimeter wave amplification in periodic structure, and high frequency conductivity, carrier waves, and acoustic amplification in drifted semiconductor plasmas 04 p0608 N67-13043
Millimeter and submillimeter wave receiver techniques and detectors
[NASA-CR-80831] 04 p0615 N67-14511
Interference spectrometer used to measure complex permittivity of dielectric materials in millimeter and submillimeter wave regions
[TR-1] 10 p1782 N67-21438
Half-millimeter backward wave oscillator with power level in half-watt range

[WR-1638] 11 p1839 N67-23140
Absolute frequency measurements of 190 and 194 micron gas laser transitions
[NASA-CR-84566] 14 p2549 N67-37669
SUBROUTINE
SA COMPUTER METHOD
Fortran subroutines for Householders method in complex case and eigensystems of Hermitian matrices
[ANL-7231] 11 p1837 N67-23319
Flowgraph construction, input-output formulation, and subroutines for Network Analysis for Systems Applications Program /NASAP/ 11 p1847 N67-22833
Subroutines for IBM system/360 for visual display and man-machine relationships
[NWL-2074] 14 p2496 N67-36499
Fortran subroutines for unconstrained minimization of function several variables
[K-1685] 14 p2498 N67-36838
Fortran IV program subroutines and A-P algorithms for finding eigenvectors and eigenvalues of complex normalizeable matrices
[REPT.-32] 14 p2566 N67-37776
Non-neutral ionized chemical equilibrium subroutine for use with general viscous shock layer program
[NASA-CR-73091] 15 p2662 N67-38752
Fortran IV program for computing radiation configuration factors in various three-dimensional geometrical shapes - subroutines
[NASA-CR-65584] 16 p2988 N67-30166
LINC computer user-interactive programs and instructions
[NASA-CR-88163] 21 p3804 N67-35783
Subroutines written in Fortran IV for generating printed plots as part of normal output
[NASA-TM-X-1419] 22 p4004 N67-36855
Performance statics for Fortran IV/H/ library for IBM 360 system
[ANL-7321] 22 p4007 N67-37543
Computer program abstracts for numerous technical subject areas
[NASA-CR-89071] 23 p4218 N67-38176
Computer subroutine, written in IBM 360 Fortran G language, for computing certain Bessel functions
[NASA-TM-X-55935] 23 p4275 N67-38563
SUBSONIC AIRCRAFT
Economic aspects of subsonic air transport design 01 p0169 N67-11121
Static longitudinal stability and control at angles of attack above those for wing stall in large-scale subsonic transport model
[NASA-TN-D-3797] 05 p0631 N67-14936
Static aerodynamic characteristics of model of subsonic jet transport aircraft at Mach numbers from 0.40 to 1.20
[NASA-TM-X-1345] 06 p1230 N67-15400
Optimization of aerodynamic characteristics of subsonic airplane 06 p1230 N67-18686
Cost allocation for alleviating subsonic jet aircraft noise
[AD-648748] 14 p2446 N67-37178
Factors determining engine installation drag on subsonic, supersonic, and hypersonic long range aircraft 16 p2817 N67-29183
Design considerations of high by-pass ratio engines in subsonic aircraft 16 p2963 N67-29187
Prediction method for near field noise of subsonic and supersonic jets observing jet-flow structure
[NASA-CR-857] 19 p3499 N67-33460
Fluctuating turbulent stress measurements for predicting far field acoustic radiation from subsonic jets
[RR-5] 20 p3557 N67-34392
Evaluation of effects of large subsonic jet transports on domestic air freight industry 23 p4178 N67-38841
Flight simulation test summary for subsonic transport approach and landing display-control concepts
[SRDS-RD-67-56, VOL. I] 24 p4490 N67-39763
SUBSONIC FLOW
Wing profile design for aerodynamic high lift in subsonic flow
[NOR-66-206, VOL. I] 01 p0004 N67-11050
Load distribution on thin elastic wing in subsonic flow
[FFA-105] 03 p0331 N67-13041
Aerodynamic forces calculated for wings in supersonic and subsonic flows
[AGARD-512] 04 p0480 N67-14197
Generalized aerodynamic forces on T tail oscillating harmonically in subsonic flow
[ARC-R+M-3422] 05 p0629 N67-14699
Deflection calculated for jet subject to drift in uniform unbounded subsonic gas flow
[NASA-TT-F-1063] 06 p0885 N67-15676
Fortran program for analyzing two-dimensional airfoils with subsonic and transonic applications
[ER-6591] 07 p0987 N67-16800
Analysis of subsonic flow past symmetrical blunt trailing edge airfoil sections at zero incidence in absence of vortex street
[ARC-R+M-3436] 07 p0988 N67-17347
Low subsonic static and dynamic stability characteristics of blunt 120 deg conical configuration
[NASA-TN-D-3853] 07 p0991 N67-18151
Wind tunnel studies on unsteady subsonic flow over cavity to determine frequency and intensity of generated sound field 08 p1274 N67-19312
Subsonic aerodynamics studies 09 p1391 N67-19400
Subsonic flow visualization and aerodynamic force measurements on cones in wind tunnel
[GAM/AE/68B-12] 10 p1549 N67-20609
Effect of ground board boundary layer on air cushion vehicle wind tunnel forward speed tests
[UTIAS-TN-100] 11 p1781 N67-22737
Estimating wind tunnel wall interference effects on slowly oscillating slender wings in subsonic flow
[ARC-CP-707] 11 p1859 N67-22797
Camber distribution of spanwise uniformly loaded subsonic wing
[NASA-TT-F-10781] 12 p2010 N67-34319
Two-dimensional panel flutter and panel divergence in subsonic flow - wind tunnel testing of two and three-dimensional panels
[NASA-TM-X-59667] 13 p2344 N67-36380
Macroscale turbulence of subsonic jets
[NASA-CR-84423] 14 p2519 N67-37702
Perturbation velocities in chordwise and spanwise direction for thin rectangular wings of low aspect ratio without lift in compressible subsonic flow
[DLR-FB-67-18] 15 p2639 N67-38668
Aerodynamic research program on space and launch vehicle development 17 p2991 N67-30579
Research in subsonic, supersonic, and hypersonic flow fields, high speed in high pressure atmosphere, and turbomachines 19 p3429 N67-33868
Method for calculating lift, induced drag, and pitching moment of flat rectangular wings of low aspect ratio in subsonic flow
[RAE-LIB-TRANS-1218] 20 p3559 N67-34690
Flight measurements of pressure fluctuations in turbulent subsonic boundary layer and relation with wall shear stress
[RAE-TR-66336] 20 p3560 N67-34389
Normal force characteristics of slender delta wings with rhombic cross sections in subsonic conical flow
[ARC-CP-923] 20 p3560 N67-34566
Positions of leading-edge vortices above slender delta wings with various rhombic cross sections subsonic conical flow
[ARC-CP-925] 20 p3563 N67-35178
Lifting line theory for cascade of blades in subsonic shear flow
[ISAS-415, VOL. 22, NO. 8] 24 p4372 N67-40001
Hydraulic analogy for study of subsonic internal flows
[RG-TR-67-19] 24 p4435 N67-40531
SUBSONIC FLUTTER
Technique for control surface flutter mode analysis based on aircraft accident investigation
[ARC-CP-938] 22 p3956 N67-37040
Subsonic and supersonic flutter analysis of tapered swept wing planform, including effects of density variation and finite wing thickness
[NASA-TN-D-4230] 24 p4372 N67-40150
SUBSONIC SPEED
Transient aerodynamic characteristics of slender cones at low subsonic velocities 01 p0001 N67-10048
Aft-fuselage-mounted nacelles effect on subsonic longitudnal aerodynamic characteristics of twin turbojet aircraft
[NASA-TN-D-3781] 03 p0334 N67-13170
Uniform gas flow calculation for subsonic and transonic part of plane symmetrical Laval nozzle
[NASA-TT-F-10494] 04 p0830 N67-13234
Pressure distribution over plane-nosed cylinder at subsonic and transonic speeds
[ARC-R+M-3425] 07 p0990 N67-17868
Rolling stability derivatives of variable sweep tactical fighter aircraft model at subsonic and transonic speeds
[NASA-TN-D-3845] 07 p0992 N67-18150
Wind tunnel experiments on the flow over rectangular cavities at subsonic and transonic speeds
[ARC-R+M-3438] 10 p1550 N67-21188
Static pressure measurements made at subsonic speed to examine compressibility effects on two-dimensional circular cylinder with two tangential blowing slots
[ARC-CP-889] 12 p2010 N67-34681
Flight test evaluation of splitter plate in base drag reduction at subsonic speeds
[NASA-TM-X-1376] 14 p2443 N67-36558
Flow studies of swept compressor cascades at subsonic Mach numbers
[DLR-FB-67-09] 15 p2639 N67-38666
Aerodynamic characteristics of rectangular wings at subsonic, transonic, and supersonic speeds
[NASA-CR-73097] 16 p2812 N67-29175
Low subsonic flight and force testing of supersonic transport model with highly swept arrow wing
[NASA-TN-D-3687] 16 p2818 N67-29356
Catastrophic yaw and roll lock-in at supersonic and subsonic speeds
[AGARD-551] 16 p2813 N67-29525
Flight tests at subsonic speeds of aileron rolling power and lateral stability of Fairey Delta 2 aircraft
[ARC-CP-739] 16 p2819 N67-29681
Pressure measurements and flow photography tests on two-dimensional base flow at subsonic and transonic speeds
[ARC-R+M-3427] 16 p2814 N67-29662
Velocity distribution of compressible flow past symmetrical circular arc thin airfoil at subsonic speeds
[LGR-ER-8841] 19 p3364 N67-33973
Skin friction law at subsonic and transonic speeds for calculating turbulent boundary layer growth on two-dimensional airfoil
[ARC-CP-948] 21 p3755 N67-36158
SUBSONIC WIND TUNNEL
Subsonic wind tunnel tests of longitudinal characteristics of aspect ratio 10 tandem wing aircraft configuration in ground effect
[DTMB-2259-1] 05 p0630 N67-14989
Subsonic wind tunnel testing of Air Canada Pavilion and calibration of anemometers for water dousing system 09 p1517 N67-19414
Design calculations and gas dynamics for subsonic and supersonic wind tunnels 10 p1662 N67-21584
Error correcting methods applied to subsonic and other wind tunnel tests 10 p1663 N67-21389
Subsonic wind tunnel graphic test data on aerodynamic characteristics of .125 scale model of OV-10A aircraft
[CAL-AA-2313-W-1, VOL. III] 14 p2512 N67-36820
Dampings, flutter speeds, and frequency responses of swept wing model determined in subsonic wind tunnel - displacement vector responses
[RAE-TR-65186] 15 p2637 N67-29159
Time average and unsteady pressures on base of blunt afterbody, containing single jet, measured in subsonic and transonic air streams
[ARC-CP-903] 15 p2638 N67-29160
Lateral aerodynamic characteristics of tandem wing aircraft model in and out of ground effect - subsonic wind tunnel testing
[DTMB-AERO-1111-3] 16 p2818 N67-29623
Subsonic wind tunnel studies of static longitudinal and lateral stability characteristics of variable sweep supersonic transport model
[NASA-TM-X-619] 18 p3196 N67-32558
Wall interference corrections for subsonic wind tunnels
[AGARDOGRAPH-109] 20 p3560 N67-34612
Subsonic wind tunnel design, apparatus, operation, data recording and analysis equipment, management, and operating costs
[AD-656486] 22 p4020 N67-37484
SUBSTRATE
Solar array incorporating silicon solar cells mounted on flexible substrate
[NASA-CR-89017] 05 p0637 N67-14819
Encapsulating resin-substrate bond strength as function of humid and dry room

temperature aging
[SC-DC-66-2226] 10 p1662 N67-21497
Orientation relations in thin film substrate combinations
[TR-6] 22 p4125 N67-36865
SUBSTRUCTURE
Cold work, heat treatment, and substructure effects on irradiation stability of steel
[GA-7101] 10 p1658 N67-21801
Automated stress analysis using substructures 11 p1907 N67-22806
Research program on effect of substructure on irradiation stability of ASTM A302 steel
[GA-7463] 15 p2725 N67-28311
Substructure effect on irradiation stability of steel
[GA-7618] 16 p2908 N67-29728
Relationships between segregation substructures and casting structures
[AD-652288] 18 p3280 N67-32173
SUBSURFACE
Radar sensor tests of effects of vegetation on detection and measurement of subsurface properties
[NASA-CR-79924] 02 p0234 N67-11854
Condensation heat transfer at low pressure subsurface jet-agitated steam-water interface
[CONF-661102-1] 07 p1206 N67-17443
Underground electromagnetic wave propagation 12 p2052 N67-24315
Earth penetration post test soil exploration technique for determining projectile effects on surface and subsurface soil
[SC-RR-66-2617] 16 p2981 N67-29657
SUBSYSTEM
Laser system for determining sky backscattering radiation - subsystem circuit diagrams
[NASA-CR-80441] 03 p0408 N67-13120
Computer program for estimating run-out costs on incompleted spacecraft subsystems 06 p0886 N67-16117
Design and performance of Nimbus satellite mechanisms and subsystems 07 p0996 N67-16902
Performance analysis of characteristic parameters of aircraft generation, transformation, and configuration subsystems 07 p0997 N67-16967
Transmit beam offset and coarse acquisition subsystems for laser/optics technique breadboard and acquisition and track simulation
[NASA-CR-81701] 07 p1097 N67-18023
Technical requirements study for applicability of lunar orbiter subsystems in Venus and Mars orbiters
[NASA-CR-66302] 10 p1763 N67-21426
Telemetry, antenna, command, power, solar array, battery, attitude control, spin-up, de-spin, housekeeping, and thermal control systems for ESRO II satellite - press kit release
[NASA NEWS RELEASE-67-116] 12 p2216 N67-24548
Flight evaluation on Model III /RA-6/ of Ranger television subsystem - failure analysis
[NASA-CR-73783] 13 p2497 N67-25492
Explorer XXXIII subsystem and instrumentation, and design and operation of onboard experiments
[NASA-TM-X-55770] 14 p2618 N67-26592
Systems configurations of Lunar Orbiter E spacecraft - missions, tracking, and launching
[NASA NEWS RELEASE-67-192] 18 p3340 N67-31712
Conceptual mechanization for horizon definition spacecraft communications and data handling subsystem
[NASA-CR-66351] 18 p3335 N67-32625
Lunar Orbiter I subsystem performance during extended mission
[NASA-CR-870] 21 p3935 N67-35740
Airframe, pneumatic, hydraulic, propulsion, flight control, electrical, guidance, telemetry, and range safety command subsystems for Atlas launch vehicle
[GD/C-BGJ67-001] 21 p3936 N67-36061
Design and development of lunar orbiter photo-subsystem mechanisms 21 p3937 N67-36206
Mission objectives and subsystems data to show lunar orbiter adaptability to other missions
[NASA-CR-66449] 22 p4146 N67-36835
Performance of photographic, communications, power, attitude control, and velocity control subsystems of Lunar Orbiter III
[NASA-CR-66461] 22 p4148 N67-37375
Reliability analysis for lunar orbiter subsystem
[NASA-CR-66459] 22 p4150 N67-37811
Major functional systems, schematic diagrams, and telemetry signal data for Surveyor spacecraft
[NASA-CR-83650] 23 p4352 N67-38879
Subsystems requirements, constraints, and configurations for preliminary design of Voyager capsule bus system
[NASA-CR-89722] 24 p4538 N67-40443
SUBTROPICS
Subtropical high in Northern Hemisphere for winter by balance equation of vorticity 11 p1915 N67-22607
Light attenuation under subtropical climatic conditions
[REPT.-8308-2] 14 p2527 N67-27445
Characteristics of subtropical jet stream over Africa for space flight application
[REPT.-58] 17 p3097 N67-30646
Seasonal variations of endocrine-metabolic indices for men in subtropics
[AD-647620] 19 p3373 N67-33633
Human acclimatization to tropical and subtropical regions
[NASA-TT-F-11147] 21 p3767 N67-36181
SUCTION
Stagnation point boundary layer with suction and injection in equilibrium dissociating air
[NASA-TN-D-3809] 09 p1435 N67-18692
Solutions based on boundary layer theory for laminar wall jet with suction and blowing
[DLR-FB-66-87] 15 p2693 N67-28670
Heat transfer and suction as means of tripping boundary layer on airfoil
[DAC-33394] 20 p3747 N67-34805
Effects of vorticity variation on two-dimensional suction flow
[NPL-AERO-1202] 20 p3626 N67-35068
SUDDEN IONOSPHERIC DISTURBANCE /SID/
Hard X-ray emission of solar flares at maximum moment of sudden ionospheric disturbance
[T-37] 01 p0147 N67-10941
Sudden ionospheric disturbances and associated solar flares observed during International Geophysical Year and International Geophysical Cooperation in 1959 01 p0070 N67-11117
Sudden ionospheric disturbances caused by X-ray emission from solar flares behind limb of disk
[T-38] 02 p0290 N67-11680
Sudden ionospheric disturbances at very low frequencies, and waveguide mode propagation 13 p2277 N67-25144
Tabulated data from Indian stations on sunspots, solar flux, ionospheric effects of solar flares, magnetic storms, and sudden ionospheric disturbances for February 1967
[RRC-A141, PT. 2] 20 p3623 N67-34656
SUGAR
S GALACTOSE
S GLUCOSE
SUHL EFFECT
Plasma model for calculating Suhl effect in indium antimonide subjected to strong electric and magnetic fields
[SR-10] 16 p2959 N67-29651
SUIT
SA PRESSURIZED SUIT
SA SPACE SUIT
Bio-isolator suit system for sterile spacecraft assembly facility
[NASA-CR-66441] 20 p3585 N67-34813
Thermal assessment of convective air ventilated suit and water conditioned suit for personal cooling
[ARC-CP-903] 22 p3960 N67-37729
SULFATE
SA AMMONIUM SULFATE
SA LITHIUM SULFATE
Absolute calibration of neutron sources by manganese sulfate method
[ZFK-RN-33] 01 p0128 N67-10810
Condensed phase behavior of Al and Zr chlorides system, pretransition behavior of solid K and Tl sulfates from heat content and thermal expansion, and molten salt-metal solutions 08 p1343 N67-19048
Boiler and gas turbine corrosion due to formation of alkali iron sulfates and other compounds
[SR-1] 12 p2119 N67-24365
Heat capacity of beryllium sulfate dihydrate and tetrahydrate measured over 8 to 350 deg K using adiabatic calorimeter
[BM-RI-6925] 13 p2274 N67-26345
Spontaneous polarization of tartaric acid and triglycerine sulfate by thermal depolarization current method
[NASA-CR-84162] 14 p2601 N67-26502
Chemical analytic methods using glucose and ferrosulfate for dosimetry of nuclear reactor radiation 14 p2486 N67-27729
Beryllium sulfate effects on serum alkaline phosphatase in primates
[AMRL-TR-66-198] 16 p2832 N67-29412
Volatility of antimony during evaporation of chloride and sulfate solutions
[SGAE-CH-43/1967] 16 p2853 N67-29661
High temperature properties and decomposition of inorganic sulfates
[NSRDS-NBS-7] 20 p3587 N67-34627
Effects of impurities on cerium coprecipitated with potassium sulfate crystals 21 p3776 N67-35497
Cesium capture by potassium sulfate crystals growing in nitric acid solutions 21 p3777 N67-35498
Coprecipitation and transition of cerium and lanthanum into potassium sulfate crystals 21 p3777 N67-35499
Complex formation of protactinium with chloride and sulfate ions by sorption on silica gel 21 p3779 N67-35513
Formation of alkali iron sulfates and other compounds causing corrosion in boilers and gas turbines
[AD-656986] 22 p3964 N67-37044
SULFIDE
SA CADMIUM SULFIDE
SA CARBON DISULFIDE
SA COPPER SULFIDE
SA HYDROGEN SULFIDE
SA LEAD SULFIDE
SA MOLYBDENUM SULFIDE
SA ZINC SULFIDE
Reactions of aromatic sulfides and sulfoxides and thermal dissociation of coordination compounds
[AFOSR-66-1923] 05 p0664 N67-14714
High pressure synthesis of new crystalline lead dichalcogenides
[TR-51] 06 p0821 N67-16482
Temperature effect on synthesis of cerium chalcogenides
[AD-646011] 11 p1811 N67-23739
Synthesis and characterization of carbon subsulfide for use in determining properties of carbon telluride
[NASA-TM-X-58068] 13 p2274 N67-26379
Intrinsic photoconductivity and infrared quenching regularity in mercury sulfide crystals with copper and silver impurities within framework of semiconductor model
[NASA-TT-F-10030] 15 p2781 N67-28253
Thermal degradation of polyphenylene and perfluoropolyphenylene sulphides
[RAE-TR-66460] 20 p3584 N67-34628
Heat capacity data analysis and metal thermodynamic properties of C-8 to C-10 hydrocarbons and tetraphosphorus decasulfide
[NASA-CR-87005] 21 p3774 N67-35345
Structures and chemical bondings in hafnium sulfides studied by single crystal and powder X-ray diffraction
[IS-T-151] 21 p3776 N67-35497
Crystal structure of ytterbium sulfide and manganese ytterbium sulfide 21 p3787 N67-36229
SULFITE
Cation exchange method for ammonia recovery from spent sulfite liquor 11 p1803 N67-22154
SULFONE
Crystal and molecular structures of dibenzothiophene sulfone
[NASA-CR-84911] 18 p3236 N67-32480
SULFUR
Sphere-sphere technique for sintering partially vitreous arsenic-sulfur-selenium systems, and viscous flow mechanism relationships
[IS-T-99] 01 p0039 N67-10982
Spectrophotometric and colorimetric determination of chlorine and sulfur in terphenyls
[EUR-2902.f] 01 p0043 N67-10817
Biological selection of sulfur and phosphorus in organic group and energy transfer functions 08 p0944 N67-12744

Analytical method for determining sulfur in solid products from solidification of fission product wastes
[BNWL-265] 03 p0259 N67-12870
Sulfur 32 deuteron-proton direct and compound nucleus reactions
[LA-DC-5962] 08 p0771 N67-14689
Excitation of phosphorous 31 and sulfur 32 by electron scattering
[HEPL-394, REV.] 06 p0936 N67-16110
Neutron activation analysis on arsenic content in semiconducting germanium, sulfur, and mineral acids 06 p0823 N67-16250
Life detection systems based on phosphate and sulfur uptake for automated microbial metabolism laboratory
[NASA-CR-81263] 06 p0806 N67-16503
Nuclear method for detecting sulfur in thin films, atmospheric absorption by oxygen dimer complex, and problem notes in chemistry, metallurgy and ceramics, radio communications, and mechanics
[PB-173468] 09 p1486 N67-19864
Sulfur 35 and phosphorus 32 used to study crystal structure of steel in centrifugally hollow cast hollow tube blanks 10 p1643 N67-21242
Deuteron bombardment of sulfur target and observation of emitted protons to determine existence of level at 1.35 MeV in S-33
[AD-645344] 10 p1734 N67-21863
Preparation of phosphorus-33 by irradiation of enriched sulfur-32 in highly thermalized flux
[ORNL-4051] 11 p1935 N67-23456
Sulfur oxidation in desert soils due to bacterial activity
[NASA-CR-83817] 13 p2256 N67-25673
Oscillator strengths for resonance lines of sulfur and silicon ions
[NASA-TM-X-55803] 15 p2662 N67-28799
Molecular spectroscopy - multiplicities of phosphorescent states of organic molecules, polarization of absorption of uranyl nitrate, and electronic structure of S-S bond
[TID-23756] 17 p3122 N67-30928
Reaction kinetics of sulfur with lead and lead alloyed with bismuth, sodium, or silver 18 p3222 N67-31705
Change of electric conductance of cadmium sulfide single crystals during heat treatments in sulfur vapor between 500 and 700 deg C
[NASA-CR-86915] 18 p3318 N67-32518
Absorption spectra of stable blue sulfur solutions in organic solvents 21 p3784 N67-35975

SULFUR CHLORIDE
Determination of oxygen content of refractory oxides by sulfur monochloride method
[EUR-3077.I] 04 p0501 N67-13736

SULFUR COMPOUND
Low voltage mass spectrometric characterization of sulfur compounds on high-boiling petroleum fractions
[BM-RI-6879] 03 p0369 N67-13158
Glycidic esters and/or organic disulfides and related substances as sources of antiradiation drugs
[AD-630199] 04 p0491 N67-13734
Production of sulfur-containing amino acids under primitive earth conditions 09 p1396 N67-19525
Effect of sulfurous compounds on thermostability and corrosive properties of fuels for turbojet engines
[FTD-TT-65-1276] 09 p1504 N67-19675
Chemical reactions of trifluoromethane sulfenyl compounds
[TR-59] 10 p1578 N67-21372
Effects of mercaptans and disulfides on photochemical and high energy radiation induced reactions
[NYO-2499-20] 12 p2040 N67-23740
Chemical analysis of organosulfur compounds in kerosene-gasoline fractions of petroleum
[FTD-MT-65-283] 12 p2046 N67-24781
Thermodynamic properties for compounds of the elements carbon, hydrogen, nitrogen, oxygen, phosphorus, and sulfur
[NASA-CR-83875] 13 p2270 N67-25884
Infrared vibrations of benzene rings in condensed thiophenes
[BM-RI-6911] 13 p2273 N67-26310
Synthesis of thiacyclopentanes and thiacyclohexanes to provide reference compounds in needed for identification of sulfur compounds in crude oils
[BM-RI-6970] 16 p2853 N67-29975
Synthesis of diethyl dithiocarbamates of quadrivalent actinides
[DP-MS-66-82] 17 p3018 N67-31153
Reactions of sulfur hexafluoride with electrically exploded metals to form sulfur tetrafluoride and metal fluoride
[TR-1001/2210-10/-4] 22 p3987 N67-37377
Desulfurization of liquid hydrocarbon fuel for fuel cells
[PWA-3087] 24 p4376 N67-39447
Experimental measurement of fluorescence lifetime from lowest electronic state in sulfur dioxide vapor
[TR-4] 24 p4399 N67-40257
Sodium thiosulfate pentahydrate crystal structure from neutron diffraction
[CNAEM-44] 24 p4400 N67-40316

SULFUR FLUORIDE
Handling system for liquefaction, evacuation, purification, storage, and pressurization of sulfur hexafluoride gas for potential drop particle accelerator
[NASA-TM-X-52274] 10 p1601 N67-21179

SULFUR OXIDE
Extraction of mineral acids by alkyl sulfoxides 06 p0827 N67-16315
Polymerization of troxane, tetraoxane, and N-vinyl carbazole in chlorine and sulfur dioxide electron acceptors 11 p1806 N67-22342
Molecular orbitals and inner shell chemical shifts for sulfur and chlorine oxy-anions 17 p3020 N67-31437
Combined measurements of hydrogen sulfide and sulfur dioxide in air 20 p3597 N67-35085
Minimum industrial stack heights and sulfur dioxide concentrations in vicinity of stack 20 p3752 N67-35088
Electrostatic dust precipitator efficiency increased using sulfur trioxide conditioning 20 p3650 N67-35104
Desert soil fertilization research to determine ammonifying, nitrifying, and sulfur oxidizing capacities
[NASA-CR-88021] 21 p3766 N67-35989
Physical and chemical properties of sulfur oxides determined with respect to air pollution and associated effects on man and animals
[PHS-PUBL.-1619] 24 p4384 N67-39929

SULFUR TETRAFLUORIDE
Reactions of sulfur hexafluoride with electrically exploded metals to form sulfur tetrafluoride and metal fluoride
[TR-1001/2210-10/-4] 22 p3987 N67-37377

SULFURIC ACID
Anodic polarization behavior of titanium and titanium alloys in sulfuric acid solutions
[GAM/MC-66B-5] 02 p0227 N67-11881
Anodic polarization behavior of cobalt-chromium alloys in sulfuric acid solutions
[GAM/MC-66B-6] 02 p0228 N67-11931
Raw materials, processes, principles, properties, and applications of sulfuric, nitric, phosphoric, and hydrochloric acids, caustic soda, soda ash, and washing soda
[JPRS-39267] 05 p0668 N67-15165
Isobutyl alcohol effects on reduction of ferric ions in solutions of perchloric and sulphuric acids 06 p0822 N67-16239
Molecular hydrogen effects on reduction of ferric ions in perchloric and sulfuric acid solutions 06 p0822 N67-16240
Paper electrophoresis effect on equilibrium of iron /II/-iron /III/ mixture in sulfuric acid solution of pH 2.6
[USNRDL-TRC-84] 09 p1408 N67-19618
Sulfuric acid separation from anthraquinone sulfonation product with ion exchange resin 11 p1803 N67-22155
Chemical properties of sulfocationites with equal ion exchange capacities compared in experiments on different polymer bases 11 p1803 N67-22156
Polarization characteristics of high purity Ni-high Fe-Cr-Ni alloys in sulfuric acid solutions
[COO-1313-46] 12 p2115 N67-23595
Extraction of chromium /VI/ from sulfuric acid solutions with tri-n-octylamine
[REPT.-772/XIII/C] 14 p3484 N67-27694
Human body elimination of sulfuric acid and phosphoric acid during physical exercise
[NASA-TT-F-10487] 15 p3649 N67-28381
Metal erosion of liquid friction bearings in acid and alkaline solutions 20 p3648 N67-34562
Sorption of uranium /VI/ on anion exchange resins from sulfuric acid-hyrogen fluoride solutions 21 p3780 N67-35521
Corrosion stability of sheet, bar, and forged titanium in sulfuric acid solutions 22 p4065 N67-37140
Effect of interstitial elements and iron on corrosion resistance of commercially pure titanium in hydrochloric and sulfuric acids
[NASA-TT-F-11279] 22 p4072 N67-37576
Electrochemical behavior of titanium and titanium alloys studied in sulfuric acid using electronic potentiostatic anodic polarization techniques
[AMRA-TR-67-16] 24 p4393 N67-39439
Refractometer for automatic monitoring of electrolyte specific gravity in lead-acid cells
[NRL-6562] 24 p4379 N67-40211

SUM
Transverse sum rule for electrons scattered inelastically with large momentum transfers from light nuclei
[REPT.-479/PL] 01 p0121 N67-10569
Family of sum rules based on algebra of currents
[IC/66/86] 01 p0116 N67-10730
Combinatorial formula for calculating coding vector sums - weight distribution moments of binary code - communication system 02 p0238 N67-12143
Sum coincidence studies of decay schemes of tantalum 182 and barium 131 03 p0438 N67-12591
Derivation of Adler-Weisberger relation and dispersion sum rules in theory of strong interactions
[JINR-E-2876] 04 p0584 N67-13385
Transverse sum rules for analysis of inelastic electron scattering from light nuclei
[REPT.-485/PL] 08 p1335 N67-16719
Conjecture of Hasse concerning multiplicative relations of Gaussian sums
[MRC-TSR-676] 09 p1469 N67-19783
Sum rule for four pion coupling constant derived from matrix algebra
[NP-496/PL] 10 p1717 N67-21406
Dispersion sum rules method for determining hyperon magnetic moments
[JINR-E2-2931] 10 p1722 N67-21552
Sum rules based on Regge pole model for high energy scattering amplitude problems
[UR-875-178] 13 p2375 N67-25645
Dispersion sum rules in theory of strong and electromagnetic interactions
[JINR-P2-3118] 15 p2768 N67-28528
Coupling constant determination of N33 nucleon electromagnetic current using sum rule for isovector form factor and photoproduction results
[IC/67/11] 15 p2770 N67-28701
Dispersion sum rules compared with equal-time commutator sum rules for photoproduction problem
[JINR-E2-3119] 16 p2945 N67-29686
Derivation of sum rules for isovector nucleon form factor from divergence condition
[DESY-67/2] 16 p2947 N67-29740
Nuclear research on sum rules, symmetry, and quark structure of currents
[JINR-P2-3195] 17 p3125 N67-30291
Decay curves of fission products represented as sum of functions 17 p3114 N67-31256
Energy-weighted M1 transition sum rule for medium and heavy spherical nuclei using shell model jj-couple wave functions
[FOA-4-A-4475-411] 18 p3307 N67-31646
Dispersion sum rules for photodisintegration process for deuteron ground state in lowest approximation
[JINR-E02-3205] 19 p3499 N67-32764
Cabibbo-Radicati sum rule and photodisintegration of three nucleon nuclei
[JINR-P4-3223] 19 p3505 N67-33427
Dispersion sum rules used for mapping relations between high energy cross sections into low energy region
[JINR-P2-3199] 19 p3508 N67-33708
Bounds on efficiency of sums for character recognition
[TR-56] 20 p3668 N67-34053
Sum rules of superconvergent type for gamma N helicity-flip and helicity-nonflip scattering amplitudes 20 p3696 N67-34601
Superconvergent sum rule for pion photoproduction on lambda hyperon derived in framework of SU/3/ symmetry 20 p3697 N67-34747
Nonrelativistic sum rules and binding energy of deuteron
[TH/309] 20 p3703 N67-35134

Perturbation theory analysis of sum rules derived from isotopic spin current algebra [DESY-67/11] 21 p3904 N67-36196
Observations on sum rules for Compton effect amplitudes [JINR-P2-3301] 21 p3904 N67-36200
Fubini sum rules for vertex functions [AFOSR-67-1637] 22 p4102 N67-36916
Estimation of absolute values of Horner sum, using Chebyshev polynomials as maximizing polynomials [NASA-CR-88701] 22 p4063 N67-37385
Flexi-Kludge system of PDP-8 programs for on-line accumulation and summing of multiple parameter nuclear spectra [NASA-CR-88974] 23 p4221 N67-39043
Saturation as an approximation to sum rules [TH/216] 24 p4500 N67-39936
SUN
SA HELIOGRAPHY
SA INTERNATIONAL QUIET SUN YEAR /IQSY/
Balloon flight data on upper limit solar gamma ray spectrum from quiet sun [NASA-CR-79715] 01 p0148 N67-10671
Radius of existence of carbon molecules in field of photon and corpuscular radiation of sun 06 p0960 N67-15444
Observational results of processes occurring on surface of sun 06 p0962 N67-15485
Trojan orbits - restricted three-body problem for Sun-Jupiter system [D1-820564] 07 p1139 N67-17156
Solar evolution [NASA-TM-X-57357] 08 p1361 N67-18380
Aerobee rocket instrumentation, including glancing incidence telescopes for soft X-ray photography of sun [NASA-TM-X-55671] 08 p1383 N67-18919
Transfer of mechanical energy in sun and heating of corona 11 p1972 N67-32906
Orbit trim propulsion requirements for sun synchronous satellites [NASA-TM-X-55835] 16 p2965 N67-30148
Intensity of radiation from aureole under standard conditions studied as function of atmosphere mass and surface albedo of sun [T-R-610] 18 p3369 N67-33892
Theory of interplanetary magnetic field and effects of angular motion of sun 22 p4144 N67-37830
Solar and meteoritic abundances or iron [NASA-TM-X-60444] 23 p4346 N67-39076
SUN TRACKER DEVICE
Preparations, field operations, and instrumentation for suntracker balloon flights [NASA-CR-83960] 13 p2247 N67-26069
SUNBLAZER SPACE PROBE
Decision region receivers for Sunblazer space experiment [NASA-CR-83799] 17 p3027 N67-30950
Signal degradation and reception of dispersed Barker codes due to coronal plasma analyzed for Sunblazer radio propagation experiment [NASA-CR-85561] 17 p3027 N67-31109
Digital communications subsystem for Sunblazer space probe [NASA-CR-87411] 20 p3731 N67-34193
First order analysis to determine optimal heliocentric orbit for Sunblazer space probe [CSR-TR-66-10] 21 p3931 N67-35979
Sunblazer phase modulation communication system performance for noisy dispersive channel with regard to signal detection [NASA-CR-88614] 22 p3997 N67-37023
SUNLIGHT
Calibration and comparative measurements of pyrheliometric instruments using natural sunlight [NASA-CR-83371] 11 p1877 N67-23061
Mixed reflection of sunlight from sphere and circular cone [NASA-TM-X-53617] 16 p2939 N67-30143
Low-thrust orbit raising in continuous sunlight during satellite thrusting in plane perpendicular to earth-sun line [NASA-TN-D-4194] 19 p3536 N67-33552
SUNRISE
Anomalous sunrise effects observed on long transequatorial very low frequency propagation path in South Australia [WRE-TN-APD-7] 17 p3028 N67-30772
Presunrise heating effects due to conjugate region photoelectrons [NASA-CR-89275] 23 p4245 N67-38717
SUNSPOT
SA SOLAR FLARE
Granulation, sunspots, and faculae used in describing structure of photosphere 06 p0956 N67-15427
Solar flares, magnetic field, sunspots, corona, and atmosphere - Conference [PUBL-51] 12 p2201 N67-34221
Solar magnetic field and bipolar sunspot model 12 p2202 N67-34228
Sunspot model construction and temperature distribution assumptions 12 p2202 N67-34230
Variation of penumbra-umbra ratio of sunspot groups with solar cycle 12 p2202 N67-34231
Fine structure of butterfly diagrams, and hydromagnetic model of sunspot periodicity 12 p2202 N67-34232
Sunspot distribution in heliographic latitude for eleven-year cycle 12 p2202 N67-34233
East-west asymmetric distributions of sunspots over solar disk 12 p2202 N67-34234
Strong chromospheric K and H spectral lines of sunspot radiation 12 p2202 N67-34237
Interdependence of sunspot motion and chromosphere flares 12 p2204 N67-34242
Two-aerial east-west interferometers used to observe positions and radiointensity of solar active centers 12 p2205 N67-34253
Magnetic field influence on structure of sunspot 12 p2207 N67-25599
Sunspot size and position, K-line and H-alpha line cinematographic patrol, and longitudinal sunspot magnetic fields - tables for February, 1967 12 p2208 N67-26126
Symposium on sunspot observational techniques and evaluation methods 13 p2246 N67-26209
Identification of forbidden lines OI and SI in sunspot spectrum - excited and ground state diagram [NASA-CR-84696] 13 p2299 N67-26410
Predicted sunspot numbers for 12-month period, and 2800 Mc/s daily average solar flux [RRC-A138, PT. 2] 16 p2966 N67-29935
Sunspot positions, areas, and magnetic fields tabulated and illustrated for May-June 1967 by Observatorio Astronomico di Roma 20 p3722 N67-34980
Physical parameters for sunspot, and graphic method of determining excitation temperature from growth curve 20 p3722 N67-35049
Magnetic axis and rotation axis obtained by observing sunspots and magnetic field of solar corona 21 p3922 N67-36098
Annual and four-year variations in cosmic ray intensities and sunspot number 23 p4329 N67-38221
SUNSPOT CYCLE
Physics of solar corona - temperature variation with sunspot cycle and short time variations in temperature [AD-647075] 13 p2207 N67-34985
Spread-F irregularities, and diurnal, seasonal, and sunspot cycle variations in relation to other ionospheric parameters 16 p2956 N67-29282
Diurnal, annual, latitudinal, and through sunspot cycle variations in F-plots described by measure of spread-F intensity 16 p2957 N67-29290
Classification of solar prominences for sunspot cycle number 19 /1965-1964/ [SR-13] 19 p3531 N67-33570
Review of proceedings from seminar on solar dendroclimatic relationships and discussion of predictions of sunspot activity on basis of tree ring variance [NASA-CR-88973] 23 p4186 N67-38416
SUPER SABRE AIRCRAFT
S F-100 AIRCRAFT
SUPERALLOY
Methods for evaluating coatings for superalloys and refractory metals [AGARD-589] 16 p2979 N67-29640
Corrosion tests with superalloys and refractory metals conducted in high temperature flowing helium [BNWL-SA-1137] 19 p3470 N67-33201
SUPERCAVITATING FLOW
Linear programming for supercavitating flow through two-dimensional hydrofoils [NEL-218] 13 p2268 N67-26594
Application of lifting foil theory solved by rheoelectric analogy to calculation and design of subcavitating and supercavitating propellers [AD-632961] 19 p3363 N67-32791
SUPERCAVITATION
Supercavitating propellers tested in cavitating oblique flow condition to confirm validity of quasi steady calculation method 14 p2630 N67-27775
SUPERCONDUCTING MAGNET
Critical nucleate boiling of liquid helium in simulated wire wound magnet [LA-DC-7601] 01 p0148 N67-10679
Irradiation effects on superconducting magnets - dose rates [RHEL/R-118] 01 p0116 N67-10713
Problem of finding current distributions to obtain magnetic field in superconducting synchrotron magnets [BNL-10297] 01 p0116 N67-10728
Superconductive magnets for use in advanced space and power propulsion systems, and research in solid-state, plasma, and low temperature physics [NASA-TM-X-52889] 07 p1009 N67-17329
Meeting dealing with design of superconducting bubble chamber magnets with very large stored energies [ANL-7192] 08 p1264 N67-18338
Simulation of large, high field, superconducting magnet operation - coil tests, stabilized wire short sample tests, stabilized and conventional superconducting coils, and micro Hall probe 10 p1742 N67-20442
Feasibility of constructing large superconducting solenoids using partial insulation for achieving high current density [UCRL-70831] 10 p1804 N67-21586
Intense magnetic field research and superconducting magnet development [AFOSR-67-0523] 12 p2196 N67-24962
Vibration effects on critical currents of superconducting magnets [NASA-TN-D-3954] 13 p2292 N67-25782
Mathematical models used to determine thermal and electrical behavior of composite superconducting magnets [NASA-CR-84456] 14 p2582 N67-27544
Simulation of large high field superconducting magnet operation [ORNL-TM-1721] 16 p2958 N67-29266
High current density superconducting magnetic coils [MIT-3700-1] 16 p2958 N67-29329
Bubble chamber with superconducting magnet for kaon beam operation 17 p3067 N67-30690
Superconducting magnets used to focus and bend beams of charged particles produced from accelerators while consuming small amounts of power [BNL-11159] 17 p3046 N67-31070
Basic instability of superconducting magnet wires [MIT-3700-3] 17 p3150 N67-31238
Superconducting coil performance and non-linear behavior of liquid helium bath with respect to heat flux [NASA-CR-86615] 18 p3215 N67-31518
Superconducting baseball coil for magnetic confinement of hot plasma in controlled-fusion experiments [UCRL-70390] 19 p3514 N67-33041
Secondary beam magnets for 200-GeV particle accelerator [UCRL-17369] 19 p3425 N67-33238
Lightweight superconducting magnet system for balloon-carried cosmic ray experiments at high altitude [UCRL-70305] 21 p3925 N67-35450
Superconducting magnets for high energy physics applications [SLAC-PUB-274] 21 p3896 N67-36009
Superconducting magnet studies of nonlinear heat transfer effects on terminal characteristics of composite conductor [NASA-CR-86301] 22 p4098 N67-37175
Superconducting magnets for beam handling and accelerators [BNL-11394] 22 p4021 N67-37700
Design and construction of double layer wire superconducting magnet 23 p4333 N67-39767
Experimental test results on operational stability of cryogenic cooled superconductive solenoid during orbital flight [NASA-TT-F-11348] 24 p4519 N67-40423
SUPERCONDUCTIVITY
SA ELECTRIC CONDUCTIVITY
Superconducting transitions in body-centered-cubic thallium-indium alloys [CALT-221-19] 01 p0084 N67-10691
High field superconducting magnets applied to high energy physics problems

[BNL-10380] 01 p0128 N67-10602
High energy physics, instrumentation, nuclear reactions, neutron scattering, fission, solid state physics, superconductivity, mathematics, and biomedicine
[ORNL-3924] 03 p0443 N67-13350
Superconductivity and critical temperature studied in niobium carbonitride solid solutions
[NASA-TT-F-10446] 06 p0945 N67-15629
Metal films in superconductive and normal phases, and thermal conductivity of films
[ECOM-90621-F] 07 p1174 N67-16936
Heat capacity measurements at zero pressure and at 10 kbar of superconductivity in alpha uranium
[UCRL-17626] 07 p1178 N67-17576
Superconductivity and long range ordering in A15 type alloys
[MEL-458/66] 07 p1178 N67-17649
Superconductivity, quantum crystals, helium isotope mixtures, magnetism in metals, and superfluidity in liquid helium
[COO-1569-1] 08 p1350 N67-18469
Superconducting niobium thin film production
[NASA-CR-72174] 08 p1351 N67-18689
Superconductive properties of ceramic mixed titanates
[NASA-CR-82657] 08 p1352 N67-19118
Pair potential and electronic excitations of normal-superconducting boundaries investigated with Bogoliubov equations
[AD-644028] 10 p1746 N67-30630
Superconductivity in one and two dimensions - charged systems
[TR-41] 10 p1747 N67-30716
Superconducting coils for baseball-type minimum-B fields for plasma confinement
[UCRL-70023] 10 p1754 N67-31818
Critical magnetic field theory for nucleation of superconductivity in dilute alloy materials in which coupling between electrons and lattice vibrations is strong
[TR-17] 12 p2192 N67-24362
Electronic specific heat coefficient and superconducting transition temperature with control of alloyed transition metals 12 p2389 N67-25347
Effects of transformation products and morphology, mechanical strain, aging reactions, and heat treatment and fabrication procedures on properties of superconducting materials 13 p2390 N67-25352
Resistance change, thermoelectric force, and superconductivity data for transition metal carbides and nitrides
[NASA-TT-F-10047] 13 p2393 N67-25810
Existence of superconductivity in ferromagnetics having domain structure
[TIL/OT-8363] 13 p2395 N67-26360
Solid state physics research projects including work on titanium and aluminum alloys, nondestructive testing, fatigue, and superconductivity 14 p2605 N67-27757
Microwave systems for superconducting radio frequency separators
[BNL-11081] 15 p3668 N67-32423
Performance prediction and operation theory for superconducting parametric amplifier used in measurement of small direct current voltages
[R-344] 15 p3690 N67-33716
Sound velocity in liquid helium, boundary trapping in unipolar space charge limited current, superconductivity applications, and enhanced electron emission in thermionic converter 16 p3926 N67-29144
Electrical resistance of niobium single crystal at 4.2 deg K from superconducting transition to 80 kDe
[CEA-R-3149] 17 p3147 N67-30234
Bibliography of superconducting devices
[AD-651376] 17 p3696 N67-30535
Microwave system to study effects of structure, processing, and impurities on superconducting behavior of metals
[ORO-2370-11] 17 p3880 N67-31140
Superconducting lens configurations for electron microscopes 19 p3454 N67-33788
Superconducting solenoid lens designs for cryo-electron microscopes 19 p3456 N67-33790
Cylindrical, superconducting cylindrical, and quadrupole lens designs for high voltage electron microscopes 19 p3459 N67-33814
Faraday unipolar induction in nonideal type II niobium superconductor
[TR-1001/9230-01/-5] 20 p3712 N67-34333
Current reducing fluctuations in narrow superconducting channels, and calculation for intrinsic resistive transition
[TR-20] 21 p3913 N67-35409
Bardeen-Cooper-Schrieffer theory of superconductivity and similarity to theory of Bose-Einstein condensation in charged Bose gas
[LA-3600-MS] 22 p4128 N67-37517
Superconducting transition temperature and electronic structure in pseudobinaries of niobium with tin and aluminum or antimony
[ESD-TR-67-299] 23 p4326 N67-38104
Electrically-small, superconducting antennas
[AFCRL-67-0260] 23 p4214 N67-38648
Microwave surface resistance of superconducting lead, trapped magnetic flux, and magnetometer using superconductivity
[HEPL-514] 24 p4515 N67-39026
SUPERCONDUCTOR
Expression for transition temperature of pure Type II superconductor
[TR-3] 01 p0138 N67-10373
High field superconducting split coil magnet with forced liquid helium cooling for use in bubble chamber
[SLAC-PUB-182] 01 p0140 N67-10706
Magnetization of superconductors in aluminum and magnesium alloys
[CEA-R-2966] 01 p0141 N67-10903
Magnetic moment measurements on superconducting toroid
[NRL-6414] 02 p0288 N67-11299
Cryogenic gyroscope with spinning superconducting sphere levitated in vacuum by magnetic field
[NASA-CR-79872] 02 p0286 N67-11324
Tensile stress effect on critical current-carrying capacity of niobium-zirconium wire and niobium-tin ribbon superconductors at liquid helium temperature
[NASA-TN-D-3745] 02 p0294 N67-11815
Properties of high field superconductors at high temperatures - magnetization experiments on niobium and niobium compounds
[NASA-CR-80154] 03 p0453 N67-12913
Superconductive materials and their physical properties
[NBS-TN-400] 03 p0455 N67-13139
Superconductors, magnetic materials, and ionic crystals - solid state physics 05 p0740 N67-14616
Attenuation of ultrasonic waves in superconducting niobium
[NASA-TN-D-3617] 06 p0951 N67-15692
Potential and magnetic moment of superconducting torus in nonaxial uniform magnetic field
[NRL-6429] 09 p1484 N67-19473
Low frequency longitudinal ultrasonic attenuation of strong coupling superconductors
[TR-16] 09 p1500 N67-19713
Experimental simulation of large, high field, superconducting magnet operation, and flux distribution in hard superconductor with adiabatic field change
[NASA-CR-83124] 10 p1743 N67-30441
Field distribution in hard superconductor with adiabatic field change 10 p1742 N67-30443
Electrical properties and temperature dependence of niobium, vanadium, and tantalum in superconducting state investigated by ultrasonic radiation
[TR-26] 10 p1746 N67-30603
Thermal conductivity of La-Gd measured to determine superconductivity changes due to magnetic impurities
[IS-1453] 10 p1748 N67-30748
Temperature dependence of ring current level structure of weakly coupled superconductors
[COO-1569-5] 10 p1748 N67-30785
Thermodynamic origin of hysteresis in superconductors and equivalence to phase equilibria
[BNL-9639] 10 p1752 N67-21539
Properties of superconductors discussed in terms of persistent currents, critical magnetic field, magnetization, critical currents, and mixed states
[CERN-66-32] 10 p1752 N67-21540
Cryostat for superconducting solenoid
[IAE-1178] 10 p1887 N67-21545
Low magnetic field ultrasonic attenuation of impure superconducting niobium
[NASA-CR-83423] 11 p1966 N67-22473
Technique for growing superconducting tunnel diodes using substrate holder in vacuum
[AFCRL-66-750] 11 p1827 N67-22541
Hysteretic phenomena, current enhancement, and degradation of superconductors 12 p2190 N67-23846
Stanford superconducting accelerator program 12 p2062 N67-24135
Superconducting electron linac at University of Illinois 12 p2062 N67-24136
Feasibility study for superconducting linear accelerator for protons 12 p2062 N67-24137
Performance characteristics of superconducting cavities 12 p2062 N67-24138
Critical field of superconducting aluminum as function of pressure and temperature
[AROD-2771-13] 12 p2194 N67-24881
Calculated surface impedance of superconductor at low frequencies and temperatures
[BNL-10979] 13 p2394 N67-25932
Static magnetic field effect on superconducting millimeter cavity resonator
[LNF-67/6] 13 p2394 N67-26303
Critical temperature for usual and anomalous lead, mercury superconductors - Fermion interaction
[RRE-TRANS-148] 13 p2396 N67-26359
Tubular superconducting electromagnet of niobium stannide
[FTD-HT-66-509] 14 p2581 N67-26961
Superconducting RF beam separator to separate particle beams for counter experiments
[BNL-11048] 14 p2582 N67-27481
Superconducting thin film for detection of nuclear particles
[AD-634684] 15 p2709 N67-27982
Thermodynamic fluctuations of equilibrium order parameter in type II superconductors
[TR-19] 16 p2959 N67-29630
Current density and structural design of superconduction quadrupole
[BNL-11164] 16 p2960 N67-29766
Current stability criteria in combined normal and superconducting conductors
[IAE-1268] 17 p3146 N67-30229
Isothermal free energy change on reversible path in superconducting system
[BNL-9779] 17 p3147 N67-30318
Thermodynamic and electromagnetic properties of superconductors with nonmagnetic transition element impurities
[TUEP-67-12] 17 p3148 N67-30548
Superconducting radio frequency devices for use in electron linear accelerators and separators 17 p3045 N67-30995
Parameters of superconducting radio frequency filters for momentum range extension 17 p3133 N67-30997
Niobium stannide current sheet for superconducting quadrupole lens 17 p3149 N67-30998
Supercurrent capacity and instabilities in superconductors
[NASA-CR-86651] 18 p3240 N67-31510
Electric resistance of superconducting strips in magnetic field
[NASA-CR-86981] 18 p3365 N67-32279
Magnetic flux quantization and Josephson effect of superconductivity in superconductors
[UCRL-17380] 19 p3522 N67-32983
Stabilization of niobium 40 percent titanium in high current density 50 kG superconducting solenoid
[AVCO-EVERETT RES. REPT.-270] 19 p3469 N67-32997
Use of superconductors in conventional lenses for electron microscopes 19 p3458 N67-33810
Quasi-particle scattering by s-d exchange interactions due to magnetic impurities in superconductors calculated by perturbation method
[TUEP-67-9] 20 p3712 N67-34137
Faraday unipolar induction in nonideal type II niobium superconductor
[TR-1001/9230-01/-5] 20 p3712 N67-34333
Ground state energy shift in superconductor due to s-d interaction
[AD-654197] 21 p3914 N67-35463
Cryogenic cooling of stabilized superconducting solenoids
[JINR-P8-3306] 21 p3897 N67-36628
Diamagnetic and paramagnetic surface currents in Type II superconductors in static magnetic fields
[TR-1001/9230-01/-3] 22 p4124 N67-36784
Microwave temperature dependent measurements of superconducting tin and lead surface impedance
[HEPL-507] 22 p4127 N67-37256

Josephson tunneling in superconductors
[LA-3414-MS] 23 p4328 N67-38299
Microwave photon interaction with superconducting tunneling currents - plasma physics, semiconductors, and solid state spectroscopy
[NOLC-715] 23 p4330 N67-38560
Decay rate of persistent current in niobium zirconium superconducting solenoid field
23 p4332 N67-38766
Electron tunneling through potential barriers - variation of field current and energy distribution of emitted electrons upon metal transition to superconducting state
[NASA-TT-F-11281] 24 p4517 N67-40160
Magnetic flux flow and superconductor stabilization
[NASA-CR-89971] 24 p4519 N67-40353
Power conversion potential of superconducting transformers
[LNF-67/53] 24 p4520 N67-40548
SUPERCOOLING
Liquid propane dispersal systems for improving visibility during periods of supercooled fog above airport landing approaches
[CRREL-TR-181] 14 p2568 N67-37553
Mathematical model on supercooled water production during Arctic Ocean ice formation
20 p3635 N67-34863
SUPERCRITICAL PRESSURE
Heat transfer for carbon dioxide in supercritical region
02 p0230 N67-11296
Convective heat transfer to carbon dioxide in supercritical region
02 p0230 N67-11307
Supercritical water-cooled loop for pressure tube fuel and collapsed clad element tests in reactor environment
[WCAP-3374-4] 07 p1129 N67-17423
Nucleate boiling heat flux measurements on high temperature supercritical pressure water loop
[WCAP-2056, ADDEND. 1]
10 p1688 N67-31664
Low frequency flow oscillations at near critical and supercritical pressures
[NASA-CR-84801] 15 p2806 N67-38778
Convective heat transfer in stabilized turbulent flow of homogeneous liquid in circular channel under supercritical pressure
[NASA-TT-F-11699] 18 p3258 N67-31736
Design, performance, and economics evaluation of sodium-heated modular supercritical steam generator
[NAA-SR-8508] 19 p3491 N67-33597
Cylindrical shells during axial compression, supercritical pressure, elastic deformation, and torsion
[FTD-MT-65-176] 21 p3943 N67-36027
Experimental study on local heat transfer during turbulent flow of piped carbonic acid and water in supercritical region with state variables
[NASA-TT-F-11335] 24 p4551 N67-40134
Convective heat transfer between high parameter steam and solid wall of nickel or steel tubing in supercritical region
[NASA-TT-F-11283] 24 p4551 N67-40181
SUPERFLUID FLOW
Accuracy of approximate methods in superfluid nuclear model
[JINR-P4-3124] 19 p3512 N67-33951
SUPERFLUIDITY
Superconductivity, quantum crystals, helium isotope mixtures, magnetism in metals, and superfluidity in liquid helium
[COO-1569-1] 08 p1350 N67-18469
Hydrodynamic aspects of superfluid helium - reversible and irreversible hydrodynamic equations and flow with Gorter-Mellink mutual friction
[REPT.-65-36] 09 p1437 N67-30362
Temperature dependent properties of static form factor in helium I and helium II
[DOUGLAS PAPER-4100] 11 p1945 N67-33945
Experiments on charged quantized vortex rings in superfluid helium
[COO-1112-113] 23 p4303 N67-38537
SUPERHEATING
Surface tension and liquid pressure variation effects on growth of vapor bubble in superheated liquid metal
[ORNL-TM-1413] 01 p0085 N67-10710
Thermal conductivity values of uranium dioxide for use in superheater design
[ORNL-TM-1436] 03 p0475 N67-13239
Superheating and cooling of PM-24 austenitic steel
[EURAEC-1686] 07 p1101 N67-17496
Heat transfer in seven-rod clusters - influence of liner and spacer geometry on superheat fuel performance
[GEAP-5289] 14 p2633 N67-27348
Pressure-temperature history examined for effect on incipient boiling superheats in liquid metals
[ANL-7194] 15 p2726 N67-28518
Research on steel austenitization, superheating, structure and hardness after slag welding, and stress relaxation
[EURAEC-1901] 16 p2999 N67-29737
Enrichment requirements for boiler feed fuel and replacement superheater fuel
[CEND-395] 19 p3489 N67-33317
Rebuilding of superheater fuel assembly for Boiling Nuclear Superheat Reactor /BONUS/
[ORNL-4072] 22 p4093 N67-37543
Sodium heated steam generator
[BAW-1280-44] 22 p3966 N67-37955
Sodium heated steam generator
[BAW-1280-43] 22 p3967 N67-37957
SUPERHETERODYNE RECEIVER
All solid-state superheterodyne Dicke radiometer for submillimeter wavelengths
[NASA-CR-79739] 02 p0236 N67-12966
Sky temperature measurements made at 90-Gc with radio telescope system consisting of 60-inch millimeter searchlight antenna and superheterodyne radiometer
02 p0237 N67-12137
Microwave thermal emission properties of materials examined with superheterodyne radiometer
04 p0550 N67-13529
Radio frequency section for three-frequency dispersive Doppler receiver for use in upper atmosphere research
[BRL-MR-1756] 06 p0840 N67-16672
Optical superheterodyne receiver
[NASA-CR-81659] 07 p1041 N67-17962
Transmitter-receiver with increased sensitivity and resolution for electron resonance spectrometer
[REPT.-3574] 10 p1595 N67-21777
Optical and infrared technology developments for guidance, tracking, and communication in aerospace missions
17 p3024 N67-30560
Laser research for communication system, guidance, and tracking applications
17 p3075 N67-30561
SUPERNOVA
Coherent radio emission mechanism in quasars and remains of supernovae
[NASA-CR-80577] 03 p0466 N67-13236
Supernova and radio galaxy formation and implosion
05 p0761 N67-14858
Photoelectric observations of Nova Herculis 1963 in three colors - brightness fluctuations
[REPT.-60] 14 p2615 N67-27560
Rapid neutron capture in supernova explosions
[NASA-TM-X-60443] 23 p4340 N67-38675
SUPEROXIDE
S PEROXIDE
SUPERSATURATION
Hydrogen supersaturation in zirconium and zirconium-2.5wt percent niobium alloy
[AECL-2599] 03 p0411 N67-13236
Supersaturation and condensation shock during flow of potassium vapor
[NASA-TT-F-11182] 22 p4023 N67-36878
SUPERSONIC AIRCRAFT
SA HYPERSONIC AIRCRAFT
Transonic aerodynamic characteristics of supersonic fighter-bomber aircraft model with external fuel tanks and other modifications
[NASA-TN-D-3701] 01 p0003 N67-10748
Human reaction to simulated boom of supersonic aircraft
02 p0197 N67-11566
Handling qualities of aircraft with marginal longitudinal stability
[ARC-CP-837] 02 p0173 N67-11747
Transfer function and excitation study methods of atmospheric turbulence for supersonic aircraft applications
[TP-346/1966/] 02 p0171 N67-11755
International cooperation on meteorological data exchange, and meteorological problems in aviation and supersonic aircraft
[JPRS-35983] 04 p0571 N67-14154
Experiments with convergent primary nozzle housed in afterbody surrounded by shroud
[ARC-R+M-3362] 07 p0969 N67-17762
Physical limitations of supersonic aircraft
[FTD-TT-65-1634] 09 p1404 N67-19768
Soviet supersonic aircraft
[FTD-HT-66-388] 11 p1783 N67-33145
Liquid natural gas as supersonic jet aircraft fuel
[NASA-TM-X-52282] 11 p1989 N67-33315
Control of supersonic aircraft
[FTD-MT-65-89] 12 p2014 N67-33960
Aerodynamic problems considered for improving design and operation of supersonic aircraft
14 p2447 N67-27770
Aerodynamics of airframe-jet engine integration of advanced supersonic aircraft
16 p2817 N67-29182
Factors determining engine installation drag on subsonic, supersonic, and hypersonic long range aircraft
16 p2817 N67-29183
Design of supersonic aircraft with optimal handling qualities
17 p2994 N67-30458
Supersonic aircraft wave drag analysis and correlation
18 p3185 N67-31613
Highly swept warped-wing data from experiments on isolated wings, wing-body configurations, and complete configurations for supersonic aircraft
18 p3185 N67-31614
Automatic control and stability problems of supersonic transport aircraft with sweptback wing configuration
[DLR-MITT.-66-19] 18 p3198 N67-31804
Automatic steering system for supersonic aircraft with sweptback wing
18 p3198 N67-31957
Automatic control and stability problems of supersonic transport aircraft
18 p3198 N67-31958
Financial planning for supersonic aircraft production
[AD-632314] 18 p3195 N67-32540
Aerodynamic problems associated with large supersonic aircraft
19 p3368 N67-33072
Air breathing propulsion systems for supersonic aircraft
19 p3538 N67-33974
Principal noise problems for propeller and jet powered V/STOL aircraft, large high altitude supersonic aircraft, and special mission aircraft for supersonic flight at low altitudes
19 p3368 N67-33978
Prediction method for near field noise of subsonic and supersonic jets observing jet-flow structure
[NASA-CR-857] 19 p3490 N67-33480
Digital computer program for analysis and design of supersonic wing-body combinations, including flow properties in near field
[NASA-CR-73107] 20 p3562 N67-34994
Statistical model of temperature field at supersonic aircraft altitudes
[AFCRL-67-0274] 22 p4006 N67-36748
Subsonic and supersonic aircraft used to test and measure sonic boom effects on human subjects, animals, and structures
[NSBEO-1-67] 22 p3959 N67-36765
Acceleration response of slender supersonic aircraft flying through random turbulence
[ARC-R+M-3454] 22 p3980 N67-37282
SUPERSONIC AIRFOIL
Thin supersonic airfoil in presence of weak moving shock wave
01 p0001 N67-10944
Supersonic airfoil calculation, design, and measurement techniques
08 p1317 N67-18623
Aerodynamic derivatives of oscillating airfoils measured in supersonic flow between Mach 2 to 3
[NALT-TR-67] 21 p3755 N67-35923
SUPERSONIC COMBUSTION
Chemical kinetics of supersonic combustion and heterogeneous turbulent jet mixing related to design and operation of scramjets
[AFOSR-66-1855] 01 p0145 N67-10510
Research summarized on scramjet combustion, including diffusion flames, fuel oxidizer system, mixing process, and chemical reaction
[AFOSR-66-2479] 06 p0981 N67-16446
Air Force scientific and engineering programs in mechanical systems control, nuclear spectrometry, aircraft guidance, fuels and supersonic test facilities, and thermodynamic processes
[AD-641921] 07 p1211 N67-16941
Supersonic combustion simulation method for hypersonic flight conditions
07 p1068 N67-18830
Diffusion flames and supersonic combustion
[AFOSR-67-0908] 12 p2252 N67-23624
Shock tunnel simulation of combustor entrance conditions
[AFAPL-TR-66-82] 12 p2004 N67-24921
Graphic representation of supersonic

combustion with and without shock
[DLR-FB-66-69] 13 p3436 N67-36301
Supersonic combustion of hydrogen in air test program using optical and photographic measuring techniques
[NASA-CR-66393] 20 p3748 N67-34996
External burning in supersonic combustion engines
[TG-912] 21 p3948 N67-38072
Chemical kinetics of combustion processes examined for application in supersonic combustion ramjet engine design studies
[AEDC-TR-67-177] 24 p4522 N67-39905

SUPERSONIC COMMERCIAL AIR TRANSPORT /SCAT/
Supersonic commercial air transport airframes and propulsion systems 18 p3190 N67-31609
Supersonic commercial air transport configuration and propulsion system studies at Mach 3.0 18 p3190 N67-31610
Structural design and propulsion configurations for SCAT 4, 5, 16, and 17 18 p3190 N67-31611
Variable-sweep and fixed-wing SCAT design study 18 p3191 N67-31612
Configuration effects on delta wing SCAT characteristics 18 p3191 N67-31617
Wing planform designs for supersonic commercial air transport stability 18 p3191 N67-31619
Modified SCAT 4, 15, 16, and 17 configurations 18 p3191 N67-31621
Mixed compression inlet model for SCAT program 18 p3320 N67-31623
Exhaust nozzles for SCAT propulsion system 18 p3320 N67-31624
Duplex-annealed titanium alloy as SCAT structural material 18 p3278 N67-31625
Lateral directional stability handling qualities of SCAT configurations in simulated landing approach 18 p3192 N67-31634
Engine design and flight characteristics effects on airport and community jet noise environment of fixed-wing supersonic commercial transport
[NASA-TM-X-1452] 21 p3757 N67-35721

SUPERSONIC COMPRESSOR
Fortran program for numerical analysis of blunt trailing edge supersonic compressor
[ARL-66-0189] 12 p2010 N67-34366
Theoretical analysis of blunt trailing edge supersonic compressor and comparison with experimental results
[ARL-66-0236] 15 p2786 N67-38980
Blunt trailing edge blading applications to supersonic compressor stages
[ARL-67-0120] 20 p3559 N67-34349
Single stage experimental evaluation of high Mach number compressor rotor blading
[NASA-CR-54582] 22 p4133 N67-37107

SUPERSONIC DIFFUSER
Performance estimation for cylindrical supersonic diffuser using semigraphical method
[RPE-TR-65/12] 04 p0606 N67-14128
Fixed-geometry diffusers evaluated in open jet wind tunnel at Mach 14 through 18
[AEDC-TR-67-3] 13 p2300 N67-25323

SUPERSONIC DRAG
Supersonic wave drag increase on circular cylinder due to surface waviness
[RAE-TR-65173] 03 p0331 N67-12473
Stability and drag characteristics of projectiles with spike or pointed noses at supersonic and transonic speeds
[AGARD-542] 11 p1779 N67-23345

SUPERSONIC FLIGHT
Review of base drag with application to supersonic flight and turbulent boundary layers 06 p0783 N67-15372
Monte Carlo transport calculations estimating solar flare proton radiation dose received by travelers during supersonic flight
[NASA-CR-81727] 07 p1185 N67-18016
Hydrodynamic characteristics of six-engine hull-type seaplane model designed for supersonic flight
[NACA-RM-L56E13] 18 p3193 N67-31965
Supersonic flights with non-afterburning turbojet engines
[NACA-RM-55K16] 18 p3321 N67-32034
Compilation of research articles on manned military aircraft - hypersonic and supersonic flight, air breathing propulsion, simulation, noise, and aerodynamics
[NASA-TM-X-430] 19 p3365 N67-33070

SUPERSONIC FLOW
Mechanics, supersonic and hypersonic flows, shell stability, plasma acceleration, and airfoils
[FTD-TT-65-1323] 01 p0112 N67-10041
Flutter of circular cylindrical shell with supersonic gas flow at high temperatures 01 p0157 N67-10045
Stability of circular cylindrical shell with internal liquid under supersonic flow of compressible gas 01 p0158 N67-10047
Plane shock wave method of plotting supersonic flow around solid cones with star-shaped cross sections 01 p0001 N67-10049
Correctives for readings of total head nozzles in supersonic flow of rarefied gas 01 p0058 N67-10052
Performance of centerbody propelling nozzle with parallel shroud in external flow
[ARC-CP-841] 02 p0296 N67-11748
Computation of wing-body combination aerodynamic characteristics in supersonic flow
[TP-363/1966/] 02 p0172 N67-11888
Aerodynamic stability coefficients for aircraft models in transonic or supersonic flow
[TP-390/1966/] 02 p0172 N67-11920
Isobaric thermal mixing layer of supersonic flow
[TP-327/1966/] 02 p0252 N67-11979
Axial supersonic flow influence on buckling of thin cylinders under end compression
[AFOSR-66-1068] 03 p0468 N67-12389
Approximate method of computing pressure distribution around bodies of revolution at angle of attack at supersonic velocities 03 p0384 N67-13067
Supersonic flow past pointed bodies of revolution at small angles of attack - effect on aerodynamic characteristics of circular cone
[ISAS-405, VOL. 31, NO. 6] 04 p0479 N67-13718
Critical review of experimental heat transfer coefficients and temperature distributions in turbulent boundary layers of supersonic and hypersonic flows
[DLR-FB-66-51] 04 p0522 N67-13770
Aerodynamic characteristics of wing-fuselage combination in supersonic flow
[NASA-TT-F-10430] 04 p0479 N67-13792
Modification of supersonic flow fields under near space conditions by cryopumping 04 p0533 N67-13854
Aerodynamic forces calculated for wings in supersonic and subsonic flows
[AGARD-512] 04 p0450 N67-14107
Supersonic flow over flaps with uniform heat transfer
[VKI-TN-30] 04 p0533 N67-14170
Calculating supersonic flow of ideal gas over blunt body
[TG-230-T506] 05 p0697 N67-15115
Effect of tail surfaces and angle of attack on base pressure in supersonic flow 06 p0784 N67-15374
Numerical solution for supersonic flow with angle of attack on arbitrary smooth cones
[NASA-TT-F-10481] 06 p0785 N67-15693
Aerodynamic characteristics of shapes determined from stream surfaces of supersonic conical flow
[NASA-TT-F-10484] 06 p0785 N67-15694
Exact solutions to problem of hypersonic or supersonic gas flow past slipping or delta wing with stall fence
[NASA-TT-F-10485] 06 p0786 N67-15842
Vibrations of supersonic gas flowing in finite channel with oscillating walls 06 p0865 N67-15849
Computer techniques for calculating supersonic nonequilibrium flow of reacting and relaxing ideal gas over wedge and cone
[D1-82-0548] 06 p0867 N67-16134
Laminar boundary layer influence on pressure distribution over generatrices in flow past thin blunted cone at high supersonic velocities
[FTD-TT-65-1118] 06 p0787 N67-16305
Nonlinear problems of supersonic steady and unsteady flow over cones, smooth bodies of arbitrary axisymmetric shape, and bodies with discontinuities in slope
[AFOSR-66-1845] 06 p0868 N67-16306
Pressure distribution on oscillating panels in low supersonic flow with turbulent boundary layer
[NASA-CR-691] 06 p0869 N67-16869
Pressure distributions on windward surfaces of conical lifting bodies at supersonic speeds
[ARC-CP-723] 07 p0987 N67-16777
Tangential slot injection in supersonic flow 07 p1064 N67-17300
Equation for sonic line in nonequilibrium nozzle flows of gas and application in supersonic flow computations
[NASA-CR-70208] 07 p1065 N67-17552
Drag force measurements on two-dimensional v-shaped notches in transonic and supersonic turbulent flows
[NASA-CR-81691] 07 p0990 N67-18031
Pebble bed heater-wind tunnel facility design for combustion studies in supersonic flow
[D1-820577] 07 p1136 N67-18055
Numerical method of Mercury autocode computer programs to find lifting surface theory calculations on wings oscillating harmonically in supersonic flow
[ARC-CP-851] 07 p0991 N67-18118
Flame stability, and propellant combustion in supersonic flow 08 p1362 N67-18672
Straight line characteristics method for analyzing base pressure in supersonic two-dimensional isentropic flow 08 p1267 N67-18901
Supersonic flow around blunt body of revolution with generatrix discontinuity
[NASA-TT-F-10625] 08 p1268 N67-18923
Approximation method for calculating base pressure in two-dimensional supersonic flows
[NASA-TT-F-10659] 08 p1268 N67-18924
Method for determining turbulent transport coefficient in supersonic flow
[NASA-CR-82526] 08 p1268 N67-19055
Characteristics equations for computation of supersonic external gas flow domains in presence of nonequilibrium chemical processes 08 p1269 N67-19170
Supersonic turbulent mixing by ejecting nonreacting light gas from wall slot into Mach 2 airflow
[NASA-CR-83461] 08 p1270 N67-19273
Integral relations method of calculating supersonic separated laminar boundary layers with free interaction, and hot or cold walls 08 p1271 N67-19283
Integral relations method applied to separation of supersonic laminar boundary layer flow path concave corner 08 p1271 N67-19284
Velocity, temperature, and concentration profiles on boundary layer of isobaric turbulent mixture in supersonic flow 08 p1272 N67-19290
Turbulent mixing in supersonic flow past slender bodies with large blowing from surface 08 p1272 N67-19292
Ionization calculations of supersonic low temperature plasma jets including kinetics of elementary processes and distribution laws of parameters in jets
[FTD-MT-65-548] 09 p1491 N67-19456
Flow about simple, blunt and sharp leading-edged, two-dimensional airfoils at transonic and low supersonic speeds
[NPL-AERO-1189] 09 p1391 N67-19751
Handbook of supersonic aerodynamics - viscosity and heat transfer effects
[NAVORD-1488, VOL. 5] 09 p1543 N67-19844
Stability of cylindrical shell of anisotropic homogeneous layers in supersonic gas stream 09 p1523 N67-20026
Vibration mode characteristics of panel flutter in supersonic gas stream flow 09 p1532 N67-20101
Approximate solution using single-frequency vibrations to determine nonstationary flutter of shallow cylindrical panels in supersonic gas stream 09 p1533 N67-20109
Approximate solution for bending of long, narrow anisotropic plate moving in gas at supersonic velocity 09 p1535 N67-20123
Supersonic shock phenomena in two-phase tunnel
[NASA-CR-82960] 09 p1436 N67-20349
Theory and examples of thrust and drag with heat addition to supersonic flow
[RAE-LIB-TRANS-1161] 09 p1393 N67-20514
Local value measurement of surface friction on plane plate washed by supersonic flow in presence of intensive heat transfer between flow and wall
[TIL/T-5634] 09 p1437 N67-20517
Pitot pressure measurements behind cones magnetically suspended in supersonic stream
[AFOSR-66-2510] 09 p1393 N67-20537
Equilibrium radiation effects on flow of supersonic airstream past spherical

body 10 p1605 N67-30599
Pressure plotting experiments of internal airflow through inclined circular tubes at Mach 4
[ARC-CP-884] 10 p1613 N67-31159
Generalized forces on oscillating wings in supersonic flow calculated by lifting surface theory
[ARC-R+M-3453] 10 p1551 N67-31181
Air injection used to prevent separation of turbulent boundary layer in supersonic flow
[ARC-CP-890] 10 p1614 N67-31194
Base pressure prediction in two-dimensional supersonic turbulent flow - jet mixing
[ARC-R+M-3434] 10 p1552 N67-31419
Supersonic flow of inviscid compressible plasmas with finite tensor conductivity in external magnetic field
[UTIAS-123] 10 p1749 N67-31736
Experimental study of turbulent reattachment in supersonic flow
[RAE-LIB-TRANS-1196] 10 p1616 N67-31743
Characteristic equations for supersonic flow problem with magnetohydrodynamic effects
[AEDC-TR-66-206] 11 p1959 N67-32573
Mathematical model to predict performance of two-dimensional reaction control jet exhausting normal to supersonic and hypersonic streams
[OR-8439] 11 p1777 N67-32690
Inviscid supersonic flow past symmetrical wing body combination at zero incidence
[ARC-CP-704] 11 p1778 N67-32780
Fuel injection parameter effects on mixing of gaseous hydrogen with supersonic air stream
[NASA-CR-747] 11 p1999 N67-32859
Tracer gas technique use to measure concentration of gas injected into supersonic air stream
[NASA-TN-D-3660] 11 p1860 N67-32962
Parametric self-induced vibration of finite length plate in plane supersonic flow 12 p2222 N67-34143
Gas dynamics equations and integral relations method for calculating supersonic flow around blunt bodies of revolution with corner
[TR-42] 12 p2086 N67-34196
Integral relations method used to calculate flow over sphere by supersonic stream of perfect gas
[TR-37] 12 p2067 N67-34228
Asymptotic solutions of Navier-Stokes equations for supersonic viscous flow near wall region with large local surface curvature
[TR-40] 12 p2087 N67-34230
Flutter analysis of flat plate in supersonic flow
[FTD-TT-65-2005] 12 p2229 N67-34716
Aeroelastic stability of thin cylindrical shells at low supersonic Mach numbers
[AFOSR-66-2838] 12 p2231 N67-34921
Laminar separation in supersonic and hypersonic flows
[AFOSR-67-0615] 12 p2096 N67-34923
Schlieren and hot wire exploration of wakes in wind tunnel supersonic flows
[NASA-TT-F-10660] 12 p2084 N67-35007
Variational problems of supersonic gas dynamics in determining shape of minimum drag axisymmetric bodies
[NASA-TT-F-10640] 12 p2012 N67-35031
Nonequilibrium shock expansion method as simple wave perturbation
[MIT-DSR-5316] 13 p2305 N67-35091
Supersonic laminar boundary layer on flat plate in fuel ignition region
[FTD-HT-66-472] 13 p2305 N67-35154
Measurement of heat transfer to cone cylinder in highly cooled turbulent boundary layer of supersonic and hypersonic flows
[FFA-AU-126, DEL II] 13 p2434 N67-35580
Internal drag measurement of ducted air breathing installations on slender wing body combinations at supersonic speeds
[ARC-CP-914] 13 p2342 N67-36047
Numerical solution for problem of supersonic airflow around sphere taking into account vibrational relaxation 13 p2360 N67-36391
Supersonic flow around bodies of revolution with break in generatrix 13 p2366 N67-36393
Stability of wedge shaped plate in supersonic flow 13 p2344 N67-36428
Spectrographic analysis of combustion product radiation in supersonic rocket nozzle flow
[TG-877] 14 p2530 N67-36458
Reattachment and critical points for laminar, transitional, and turbulent flow separation regimes on backward facing steps in supersonic wind tunnel
[AS-66-16] 14 p2516 N67-36744
Nonequilibrium supersonic flows past pointed bodies
[ARL-66-0208] 14 p2516 N67-36968
Aerodynamics of slotted spoilers in supersonic flow
[DLR-FB 67-06] 14 p2444 N67-37100
Vibrations and stability of circular cylindrical shell with internal supersonic gas flow 14 p2529 N67-37721
Optimal supersonic flow with oblique shock waves and heat addition
[FTD-HT-67-26] 15 p2690 N67-38198
Base pressure and dynamic pressure isobar plots for transonic hot gas flow and supersonic cold air flow
[NASA-TT-F-10451] 15 p2691 N67-38288
Calculation of load distribution at supersonic speeds on sweptback wing of arbitrary planform
[RAE-TR-66356] 15 p2535 N67-38924
Bypass air control system analysis for supersonic mixed compression inlet
[NASA-TN-D-4022] 16 p2961 N67-39036
Blunt trailing edge blading for use in supersonic axial compressors
[SR-8] 16 p2812 N67-39234
Supersonic gas flow around blunt bodies, and numerical algorithms constructed for calculating two-dimensional and three-dimensional bodies of various shapes
[NASA-TT-F-453] 16 p2677 N67-39355
Wind tunnel studies of supersonic gas flow past cylindrical protuberance of plate
[TG-230-T515] 16 p2813 N67-39697
Panel flutter of circular cylindrical shell in supersonic gas flow 16 p2963 N67-39960
Transonic and supersonic flow patterns about models of aerodynamic bodies in hydraulic analogy tank
[DLR-FB-66-89] 17 p2947 N67-39466
Ionization of supersonic flows by radio electric frequencies, and study of ionized wakes
[REPT.-67-1] 17 p3145 N67-31158
Heat transfer coefficients and temperature distributions in turbulent boundary layers at supersonic and hypersonic flow
[NASA-TT-F-10965] 18 p3256 N67-31557
Mathematical model for supersonic flow of detonation products behind converging detonation front with application to spherical and spheroidal coordinate systems 18 p3513 N67-31681
Base pressure near trailing edge of axisymmetric bodies in supersonic flow 18 p3186 N67-31807
Oscillation amplitudes measured for base pressure behind cones in supersonic flowing gas
[REPT.-67-169] 18 p3259 N67-32169
Wind tunnel determination of supersonic flow properties in vicinity swept, delta, and trapezoidal wing-body combinations
[NASA-TM-X-64] 18 p3189 N67-32300
Heat transfer and equilibrium temperature of sphere in supersonic rarefied gas flow
[TG-230-T522] 18 p3256 N67-32465
Simulators to facilitate experimental studies of two-dimensional interaction of jet with supersonic free stream 19 p3363 N67-33307
Relaxation and radiation behind normal compression shock in supersonic airflow 19 p3432 N67-33581
Experimental determination of heat exchange law for turbulent boundary layer in supersonic flow
[FTD-HT-66-370] 19 p3554 N67-33491
Research in subsonic, supersonic, and hypersonic flow fields, high speed in high pressure atmosphere, and turbomachines 19 p3429 N67-33666
Finite element dynamic stiffness matrix for two-dimensional panel flutter calculations
[LR-476] 20 p3728 N67-34429
Density disturbance ahead of sphere in rarefied nitrogen or argon supersonic flow, and stability of viscous three-dimensional disturbances in laminar compressible boundary layer 20 p3625 N67-34778
Double driver shock tube for shock-on-shock simulation in supersonic flow
[FFA-109] 20 p3630 N67-34809
Numerical method for analysis of supersonic wing-body combinations and related flow fields, and for design of optimum wing camber surface in presence of body
[NASA-CR-73106] 20 p3581 N67-34997
Minimum drag surfaces for given lift coefficient in two-dimensional supersonic flow field
[RAE-TR-66305] 20 p3562 N67-35173
Flow field and heat transfer in supersonic flow
[ARL-67-0036] 22 p4159 N67-36789
Exact calculations of lift and drag produced by wedge in supersonic flow either directly or by interference
[ARC-R+M-3478] 22 p3896 N67-37046
Calculation of warp to produce load and pressures on thin slender wings in supersonic flow
[ARC-R+M-3471] 23 p3957 N67-37637
Manual for inverse computation of supersonic inviscid flow fields with imbedded shocks
[TM-156] 23 p4081 N67-37675
Molecular argon beam production using shock tunnel source and gas expansion to supersonic flow 23 p4268 N67-38050
Shear layer over supersonic flow cavity, and velocity and shear-stress coefficient profiles 24 p4429 N67-39477
Fluid mechanics of magnetically balanced arcs in cross flows, spectroscopic studies of supersonic air arc, and preliminary design of magnetic field coils
[NASA-CR-87436] 24 p4305 N67-39510
Motion equations and analysis of interaction of boundary layer and corner-expansion wave in supersonic flow
[UTIAS-TN-117] 24 p4430 N67-39543
Experimentally determined local flow properties and drag coefficients for family of blunt bodies at Mach numbers from 2.49 to 4.63
[NASA-TR-R-274] 24 p4431 N67-39600
Boundary layer for natural and induced turbulence for case of supersonic flow along smooth plate
[NASA-TT-F-11250] 24 p4433 N67-40265

SUPERSONIC FLUTTER
Flutter analysis of flat rectangular panels based on three-dimensional supersonic unsteady potential flow
[NASA-TR-R-256] 08 p0788 N67-10675
Axisymmetrical flutter of cylindrical shells in supersonic gas stream, allowing for inertia forces of all displacements 09 p1581 N67-30003
Nonlinear flutter of rectangular plate in supersonic gas flow 12 p2231 N67-33700
Aerodynamic flutter vibrations of thermally compressed plate in supersonic gas flow 13 p2430 N67-36365
Supersonic flutter derivatives for swept and cropped delta wings
[ARC-CP-959] 16 p2815 N67-37917
Supersonic wind tunnel tests of flutter characteristics of low aspect ratio thin cantilever plate surfaces
[NAL-TR-129T] 21 p3943 N67-38038
Subsonic and supersonic flutter analysis of tapered swept wing planform, including effects of density variation and finite wing thickness
[NASA-TN-D-4230] 24 p4372 N67-40150

SUPERSONIC INLET
Testing of two-dimensional supersonic inlet with external compression
[ARC-CP-959] 22 p3965 N67-37039
Test results for two-dimensional combined external/internal supersonic compression inlet
[ARC-CP-928] 23 p3966 N67-37165

SUPERSONIC JET
Turbulent reattachment of supersonic jet
[TP-326/1966/] 08 p0823 N67-12856
Shadowgraphs of small cold supersonic jet flow structure and acoustic radiation
[NASA-CR-66063] 08 p0804 N67-12988
Entrained mass of supersonic jet in off-design systems of discharge
[FTD-TT-65-1719] 08 p0836 N67-13045
Turbulent reattachment of supersonic jet, boundary layer thicknesses, and similarity law in wall pressure evolution 08 p1373 N67-19294
Boundary layer separation used in switching element for supersonic jets
[A5] 10 p1611 N67-31121
Transverse supersonic gas jet for

neutralization of intense ion beam
[NP-TR-1422] 10 p1733 N67-31812
Measurements with gas dynamic probes in supersonic plasma jet
[DLR-FB-66-49] 10 p3519 N67-32737
Arc heated supersonic molecular beam performance 12 p4307 N67-36693
SUPERSONIC NOZZLE
Annular supersonic nozzle flow
[PIBAL-966] 01 p0061 N67-10979
Pressure testing of two-dimensional variable ramp external/internal compression intake model for determining terminal supersonic Mach number and free-stream Reynolds number
[ARC-CP-836] 02 p0172 N67-11983
Character of jet flow formation behind shock front during discharge from divergent and supersonic nozzles
[ATD-66-77] 04 p0639 N67-13711
Calculation of viscosity effects, thrust, mass flow rate in supersonic nozzles
[TP-468] 04 p0607 N67-14300
Condensation of supersaturated ammonia and water vapor in supersonic nozzles
[REPT.-86] 06 p0867 N67-16146
Boundary layer separation in supersonic propelling nozzles
[ARC-R+M-3431] 06 p1264 N67-18262
Experimental investigation of formation of gas jet behind front of shock wave in outflow of divergent and supersonic nozzles
[FTD-HT-66-137] 09 p1436 N67-29696
Supersonic rocket nozzle design for optimum thrust with chemically reacting gas flows
[NASA-CR-84159] 14 p2606 N67-25505
Thrust and mass flow rate determination for supersonic nozzle without internal separation
[TP-466/1966/] 17 p3153 N67-31358
Supersonic nozzle design using compressible flow theory
[ARC-R+M-3440] 20 p3630 N67-34665
Supersaturated benzene and chloroform vapor condensation measured in supersonic nozzle
[REPT.-90] 23 p4023 N67-36826
Aluminum colloid formation in supersonic nozzle by homogeneous nucleation 22 p4123 N67-36947
Flow theory and model of chemically reacting and radiating ionized gas through supersonic expansion nozzle
[MIT-DSR-70053] 23 p4114 N67-36968
Molecular beams from supersonic nozzle sources and high energies from expansion of gas mixtures 23 p4237 N67-36694
Jet effect on axisymmetric base pressure of nozzle in transonic or supersonic stream
[FFA-111] 24 p4433 N67-40095
SUPERSONIC PRESSURE DISTRIBUTION
Supersonic wall pressure measurements on rocket sled slipper
[MDC-TR-67-68] 21 p3754 N67-35623
SUPERSONIC SPEED
Dependence of plastic deformaticon in metal on supersonic velocity
[FTD-TT-65-1377] 01 p0086 N67-11069
Supersonic wind tunnel analysis of unguided sounding rocket roll lock-in
[NASA-CR-81143] 05 p0630 N67-15252
Theoretical stability derivatives for symmetrically tapered wing of aspect ratio 3 at supersonic speeds
[ARC-CP-855] 07 p0969 N67-17380
Theoretical investigation on aeroelastic stability of isotropic cylindrical shells at both high and low supersonic Mach numbers
[AFOSR-66-1930] 07 p1363 N67-17713
Static aerodynamic characteristics of planetary entry configurations at Mach 4.54
[NASA-CR-81647] 07 p0990 N67-18001
Aerodynamic characteristics at Mach 2.03 of series of curved leading edge wings employing various degrees of twist and camber
[NASA-TN-D-3827] 07 p0991 N67-18142
Turbulent separated flow around fin-type protuberance at supersonic Mach number
[NASA-TN-D-3804] 08 p1216 N67-18406
Aerodynamic characteristics of cambered gothic wing with reduced design lift coefficient at Mach numbers 0.4 to 2.0
[ARC-R+M-3310] 08 p1216 N67-18429
Computing optimum parameters for supersonic ramjet engine with heat exchanger
[FTD-TT-65-581] 09 p1505 N67-19661
Approximate formulae for lift and drag of wedge airfoil sections at high supersonic speeds
[ARC-CP-864] 09 p1393 N67-20321
Hinge moment data analysis for rectangular and near rectangular trailing edge controls at supersonic and transonic speeds
[ARC-CP-874] 10 p1550 N67-21181
Two-dimensional theory for circular-arc jet flaps at supersonic speeds
[APL/JHU-CR-24] 11 p1777 N67-22454
Axisymmetric flow fields applied to wings designed with lifting upper surfaces at high supersonic speeds
[RAE-TR-65034] 11 p1777 N67-22707
Pressure distribution at zero lift on slender delta wings at supersonic speeds
[ARC-CP-774] 11 p1778 N67-22799
Experiments and calculations to determine interference and wing effects on wing-fuselage combinations at supersonic speeds
[PROM.-3785] 11 p1779 N67-22928
Aerodynamic characteristics of rectangular wings at subsonic, transonic, and supersonic speeds
[NASA-CR-73097] 16 p2812 N67-29175
Catastrophic yaw and roll lock-in at supersonic and subsonic speeds
[AGARD-551] 16 p2813 N67-29535
Installation tests on aircraft engine at rear of uncambered slender gothic wing with different boundary layer bleed heights and mass flow ratios at Mach 1.62
[ARC-CP-884] 16 p2814 N67-29694
Pressure drag of airfoil with different round leading edges at transonic and low supersonic speeds
[ARC-CP-921] 16 p2816 N67-30047
Thermo-gasdynamic characteristics of wedge-shaped supersonic aircraft or missile
[DLR-FB-66-85] 17 p3177 N67-30759
Skin friction and turbulent boundary layer studies at Mach 3 18 p3186 N67-31616
Pressure distribution measurement of interference effects on maximum lift-drag ratio at supersonic speeds produced by wedge shaped bodies located under triangular wing
[NASA-TM-X-76] 18 p3186 N67-31980
Digital computer program incorporating numerical method of optimizing camber surfaces for wing-body combinations at supersonic speeds
[NASA-CR-69181] 18 p3187 N67-31979
Digital computer program for optimizing camber surfaces for wing-body combinations at supersonic speeds
[NASA-CR-69178] 18 p3189 N67-32272
Multiple impact rain erosion of airframe materials studies at speeds up to 450 m/s in test facility
[RAE-TR-67019] 20 p3657 N67-34413
Flight test of disk-gap band parachute deployed at low supersonic speed and low dynamic pressure to obtain performance data on planetary entry parachute configurations
[NASA-TM-X-1451] 21 p3940 N67-35616
Reynolds number effects in near wake behind wedge at supersonic and hypersonic speeds 22 p4030 N67-37808
Shape and intensity decrease of shock waves far from originating body source moving at supersonic speed
[NASA-TT-F-11346] 22 p4032 N67-37736
Turbulent boundary layer characteristics of pointed slender bodies of revolution at supersonic speeds
[NASA-TN-D-4193] 23 p4173 N67-38084
SUPERSONIC TRANSPORT
Flow characteristics at base of supersonic body
[NASA-TT-F-8873] 01 p0059 N67-10191
Long term exposure effects under stress on supersonic transport structural materials
[NASA-CR-80489] 03 p0413 N67-13125
Lateral oscillation of slender wing supersonic transport aircraft
[ARC-CP-845] 05 p0639 N67-14810
Supersonic transport trajectory optimization example solutions
[NASA-CR-66347] 07 p0992 N67-16774
Methods of assessment and reduction of aircraft noise nuisance at airports - supersonic transport noise tolerance problems
[ISAV-142] 08 p1386 N67-18369
Method of comparing inlet performance and weight compromises for supersonic transport
[NASA-TN-D-3881] 09 p1505 N67-19689
Approximate method for estimating effect of aeroelasticity on longitudinal trim and quasisteady maneuverability of slender aircraft
[ARC-R+M-3426] 10 p1549 N67-20732
Supersonic transport, jet, and V/STOL aircraft for future air transportation 11 p2002 N67-22265
Modified jet transport used as inflight dynamic simulator for supersonic transport low speed approach and landing characteristics
[NASA-TM-X-59630] 11 p1783 N67-23243
Piloted simulator study of yaw coupling in turning maneuvers of supersonic transport compared with flight test data on large variable stability jet transport
[NASA-TN-D-3910] 12 p2013 N67-23796
Meteorological considerations for supersonic transport flights 12 p2014 N67-23981
Temperature distribution at altitudes flown by supersonic transports 12 p2014 N67-23982
Supersonic boom effects in relation to flights of supersonic aircraft 12 p2014 N67-23983
Clouds, precipitation, icing, storms, turbulence, and their effects on supersonic transport flights 12 p2014 N67-23984
Thermal conductance tests on cabin wall insulation assemblies for supersonic transport
[ARC-CP-916] 12 p2235 N67-24037
High energy fuels for supersonic transport reserves
[NASA-TN-D-3987] 13 p2246 N67-25843
IBM 7094 digital program using steepest ascent technique for optimizing flight path of supersonic transport aircraft
[NASA-CR-793] 14 p2573 N67-27290
Longitudinal aerodynamic characteristics at Mach numbers 0.50 to 1.19 of supersonic transport model with modified M wing
[NASA-TM-X-1386] 14 p2446 N67-27306
System concepts and operational problems of avionics for all-weather landing of advanced supersonic transports
[NASA-CR-73092] 15 p2641 N67-28753
State of art review of all-weather landing techniques and instrumentation for advanced SST
[NASA-CR-73093] 15 p2653 N67-28754
Handling qualities, electronic flight control system configurations, and integrated digital avionics for SST automated all weather landing
[NASA-CR-73094] 15 p2643 N67-28794
Flight characteristics of supersonic transports during landing approach with large jet transport in flight simulator
[NASA-TN-D-3971] 16 p2816 N67-29023
Low subsonic flight and force testing of supersonic transport model with highly swept arrow wing
[NASA-TN-D-3887] 16 p2818 N67-29856
Health physics aspects of supersonic transport passengers exposed to cosmic radiation
[ORNL-P-2597] 16 p2835 N67-29818
Full mission simulation scenario in support of supersonic transport crew factors research
[NASA-CR-73096] 16 p2841 N67-30022
Simulator study of pictorial navigation display in instrument departure of supersonic transport
[NASA-TN-D-4029] 16 p2837 N67-30027
Liquid methane propulsion system concept for military and commercial supersonic transport applications
[NASA-TM-X-52190] 16 p2861 N67-30037
Economic implications of United States supersonic transport aircraft upon airport and enroute support services - executive summary
[PRC-R-800, VOL. 1] 17 p2993 N67-30257
Supersonic transport configurations, propulsion systems, structural materials, handling qualities, and sonic boom - conference
[NASA-TM-X-965] 18 p3180 N67-31606
Supersonic commercial transport feasibility study 18 p3190 N67-31697
Supersonic commercial transport feasibility study 18 p3190 N67-31698
Turbulent boundary layer and skin friction data for supersonic transports 18 p3185 N67-31615
Stability and high-lift characteristics of variable-sweep supersonic transport configurations 18 p3191 N67-31618

Effects of aircraft configurations on lateral directional stability of supersonic transports 18 p3191 N67-31620
Turbojet and turbofan engines for supersonic transports 18 p3230 N67-31622
Fatigue, crack propagation, and stress corrosion of structural materials for supersonic transports 18 p3278 N67-31626
Aeroelasticity in supersonic transport design 18 p3248 N67-31627
Supersonic transport configuration effects on sonic boom 18 p3191 N67-31628
Ground overpressure exposure effects on sonic boom from supersonic transports and community reaction to sonic boom 18 p3191 N67-31629
Supersonic transport noise during takeoff and landing 18 p3192 N67-31630
Aircraft characteristics and operational environment effects on supersonic transport fuel consumption 18 p3230 N67-31631
Airworthiness requirements for supersonic transports in areas of structural design, performance, and handling qualities 18 p3192 N67-31632
Supersonic transport handling qualities developed through flight simulation 18 p3192 N67-31633
Piloting problems and handling qualities of supersonic transport in simulated flight 18 p3216 N67-31635
Longitudinal and lateral aerodynamic characteristics of tailless fixed-wing supersonic transport configuration in pressure tunnel
[NASA-TM-X-969] 18 p3193 N67-31923
Cost analysis of supersonic transport in airline operation - development of operating cost model
[RAC-R-30, VOL. I] 18 p3194 N67-32095
Demand analysis for air travel by supersonic transport
[R-118, VOL. I] 18 p3194 N67-32138
Low-speed characteristics of variable-sweep supersonic transport model with blended engine fuselage and engine-mounted tails
[NASA-TM-X-1038] 18 p3194 N67-32140
Large scale low speed wind tunnel tests of delta winged supersonic transport model to determine aerodynamic effects of forward and reverse thrust
[NASA-TM-X-1017] 18 p3194 N67-32141
Low speed effects of leading edge and trailing edge flaps on longitudinal stability and trim characteristics of outboard-tail supersonic transport configuration
[NASA-TM-X-895] 18 p3194 N67-32142
Lateral and longitudinal aerodynamic characteristics of tailless supersonic transport model having ogee, delta, and trapezoidal wing planforms in wind tunnel
[NASA-TM-X-992] 18 p3194 N67-32143
Lateral and longitudinal aerodynamic characteristics of three-engine supersonic transport model having low aspect ratio variable sweep warped wing
[NASA-TM-X-1011] 18 p3194 N67-32144
Projection to 1990 of passenger demand for air travel by supersonic transport and effects on U.S. balance of payments
[R-118, VOL. I] 18 p3350 N67-32214
Supersonic transport development and production cost analysis program
[AD-652306] 18 p3196 N67-32490
Aerodynamic characteristics of variable sweep supersonic aircraft with pivoted wind
[NASA-TM-X-745] 18 p3196 N67-32553
Low speed, longitudinal aerodynamic stability characteristics of supersonic aircraft with variable sweep wings and double pivot
[NASA-TM-X-744] 18 p3196 N67-32554
Subsonic wind tunnel studies of static longitudinal and lateral stability characteristics of variable sweep supersonic transport model
[NASA-TM-X-619] 18 p3196 N67-32556
Cost estimates for modifying and expanding existing enroute support services associated with development of United States supersonic transport
[FRC-R-890, VOL. III] 19 p3385 N67-32842
Economic analysis of supersonic transport impact on airports and enroute ground support services
[FRC-R-890, VOL. II] 19 p3367 N67-32319
Economic feasibility studies on supersonic transports to provide for program decision making
[AD-653513] 19 p3368 N67-32914
Abstracts and analytical survey on Soviet supersonic transport equipment methodology and concepts
[ADT-67-27] 20 p3565 N67-34455
Shock wave and noise problem of sonic boom 20 p3567 N67-34810
Noise attenuation of aircraft annoyance around airports 20 p3567 N67-35021
Low visibility operation of supersonic transport Concorde using duplicate monitored systems to achieve automatic failure survival
[REPT.-300-TP-391] 20 p3567 N67-35099
Cost estimating methods for jet aircraft and supersonic transport flight path deviations on London to New York route
[RAE-TR-66148] 20 p3677 N67-35171
Simulated air speed control system to investigate overspeeding and maneuver speed of supersonic transport configuration in relation to speed margin
[NASA-TN-D-4085] 22 p3960 N67-37285
Flight simulator study of pitch maneuver speed margins for variable-sweep wing supersonic transport configuration
[NASA-TN-D-4170] 22 p3961 N67-37674
Fatigue behavior of fusion welded structural assembly with supersonic transport application
[NASA-CR-881] 22 p4157 N67-37682
Initial data on galactic radiation levels for tissue damage inside supersonic transport
[NASA-CR-66503] 22 p3974 N67-37934
Financing and management of supersonic transport development program
[AD-655695] 22 p3961 N67-37962
Economic feasibility report for supersonic transport program
[CRA-122-1] 23 p4177 N67-38367
Simulated flight testing of air traffic control concepts for supersonic transports
[RD-67-38] 23 p4283 N67-38953
Large transport approach and landing simulation - direct lift control applied to noise abatement approaches, and supersonic transport handling capabilities
[NASA-CR-73148] 23 p4170 N67-39061
Impact of domestic and oceanic supersonic transport operations in simulated alphanumeric system representing 1970 air traffic control environment
[RD-67-38] 24 p4490 N67-39745
Cabin air conditioning and insulation evaluated on simulated Mach 2.2 transport aircraft cabin
[RAE-TR-66118] 24 p4375 N67-40253
SUPERSONIC TURBINE
Erosion characteristics of blade of supersonic potassium turbine
[SAN-595-2] 16 p3823 N67-29699
Partial admission performance characteristics of single stage supersonic turbine
[NASA-TM-X-99] 18 p3321 N67-32157
SUPERSONIC VEHICLE
Air traffic control concepts for supersonic vehicles
[NASA-TM-X-59175] 03 p0421 N67-12346
SUPERSONIC WAKE
Axisymmetric base flow behind bodies of revolution at supersonic speeds 06 p1219 N67-19306
Flow field in turbulent supersonic near wake behind two dimensional wedge flat plate model
[TAE-54] 10 p1553 N67-21706
Effect of vehicle and fluid injection geometries on near-wake flow field structure behind conical bodies 11 p1863 N67-23411
Wake measurements behind half-angle cone suspended magnetically in Mach number 4.3 stream 23 p4029 N67-37004
Wakes behind cylinders and wedges in rarefied gas flow, and surface and base pressurements at Mach numbers 3 and 4 23 p4030 N67-37009
Sequential spark method for velocity profile measurements across wake of hypersonic and supersonic spheres 23 p4230 N67-37611
SUPERSONIC WIND TUNNEL
Spinning cryostat, or chemical camera, for sampling supersonic gas stream and recording chemical kinetics
[NASA-CR-66511] 03 p0430 N67-12318
Force and moment measurements on scale model ELDO launch vehicle in supersonic blowdown wind tunnel to determine nose shape and roll angle effects on aerodynamic characteristics
[NLR-TR-6-37] 04 p0481 N67-14279
Design and performance of digital test data computer for supersonic wind tunnel 05 p0679 N67-14689
Supersonic wind tunnel test data, angle of attack envelope computations, and accelerometer package for reconstructing density profile of unknown atmosphere 06 p0980 N67-15716
Supersonic wind tunnel test of nose-cone angle, upper stage fineness ratio, and transition-flare angle effects on aerodynamic characteristics of simulated launch vehicle
[NASA-TN-D-3755] 06 p0706 N67-15867
Design calculations and gas dynamics for subsonic and supersonic wind tunnels 19 p1662 N67-21284
Simulation of chemiluminescent reaction of nitric oxide with atomic oxygen in supersonic low density wind tunnel
[AEDC-TR-66-254] 19 p1839 N67-21857
Supersonic wind tunnel measurements of load and internal pressure distributions on circular and rectangular ducts at incidence
[ARC-CP-788] 11 p1770 N67-22790
Supersonic wind tunnel measurements of ignition delay using shock induced combustion
[D1-82-0699] 13 p2436 N67-26313
Calculation of aerodynamic capacities of supersonic wind tunnels
[DLR-FB-67-14] 14 p2513 N67-27196
Supersonic wind tunnel tests on flutter resistance of Centaur flight insulation panels
[NASA-TM-X-1417] 18 p3346 N67-32562
Air liquefaction boundaries for supersonic and hypersonic wind tunnels
[BRL-R-1367] 22 p3938 N67-37238
Hypersonic and supersonic wind tunnels as continuous flow multigas facilities
[NASA-CR-89231] 23 p4234 N67-39269
Technical and operation data for supersonic and hypersonic wind tunnels used in aerodynamic testing
[NASA-CR-89794] 24 p4438 N67-40691
SUPERSONIC WIND TUNNEL APPARATUS
Flexible supersonic wind tunnel nozzle for variation of flow Mach number
[ARC-CP-985] 13 p2264 N67-26155
SUPPLY
SA POWER SUPPLY
Procurement of portable fire fighting equipment by government agencies through Federal Supply Service 08 p1398 N67-18563
United States Army logistics support operations in Viet Nam 11 p1630 N67-21985
Compilation of rare earth products available from commercial suppliers
[IS-RIC-1] 22 p3907 N67-37481
SUPPORT
On significance of supports when calibrating strain gauge installations for measuring loads on aircraft
[RAE-TR-66298] 15 p2902 N67-28986
Budgetary considerations and engineering and technical support service contract operations - statements before Committee on Government Operations hearing 24 p4588 N67-39825
SUPPORT SYSTEM
SA GROUND SUPPORT SYSTEM
SA LIFE SUPPORT SYSTEM
Summary of technical papers presented at Magnetic Wind Tunnel Model Suspension and Balance Symposium
[ARL-66-0125] 04 p0544 N67-13281
Electromagnetic suspension system to support models in hypersonic wind tunnel for studying wakes of axisymmetric bodies 04 p0525 N67-13502
Magnetic suspension system for supporting axisymmetric models in hypersonic wind tunnel 04 p0525 N67-13503
Air core, single coil, one-dimensional magnetic suspension system 04 p0525 N67-13504
Technical and operational development of magnetic suspension system for hypersonic wind tunnel applications 04 p0526 N67-13505
Design limitations of magnetic suspension systems for dynamic testing 04 p0526 N67-13506
Feasibility studies of foil bearing rotor support system
[NASA-CR-61206] 03 p0360 N67-10509
Mobile integrated support system for transporting tactical electronic equipment compared to conventionally supported system 07 p1000 N67-16580
Strengths of cylindrical shells with elastic edge frames and varied conditions of support 09 p1518 N67-19483

Logistics management conference [NASA-TM-X-53566] 11 p1850 N67-21962
United States Army logistics support operations in Viet Nam 11 p1850 N67-21965
Integrated logistics support and role in planning for hardware acquisition 11 p1850 N67-21966
Preplanning logistics support and role in Air Force Systems Command program scheduling 11 p1851 N67-21967
Naval Air Systems Command technical philosophy of logistics support 11 p1851 N67-21968
Scoping of logistics support to program requirements - participation of logistician during conceptual, design, development, production, and deployment phases 11 p1851 N67-21969
Logistics support management and program controls 11 p1851 N67-21971
Government position in contracting for logistics support 11 p1852 N67-21973
Performance evaluation in government - industry logistics contracts 11 p1852 N67-21976
Aircraft maintenance system as example for evaluating logistics support by contractors 11 p1853 N67-21977
Management planning and visibility in evaluation of contractor logistics in missile systems 11 p1853 N67-21978
Management planning, systems analysis, and evaluation of logistics within NASA programs 11 p1853 N67-21979
Procurement process for evaluating logistics performance, and incentive features in support contracts 11 p1855 N67-21980
Design data and principles for constructing high voltage transmission lines 11 p1836 N67-22199
Space programs supporting research and advanced development in systems analysis, spacecraft guidance and control, materials science, communications and telemetry, and propulsion [NASA-CR-83604] 12 p2073 N67-22641
Support facilities and transportation equipment for missile and space systems - annotated bibliography [ATD-66-130] 13 p2305 N67-26351
Use of antenna support mast diffraction phenomena 14 p2494 N67-27630
Physiological effects of flight and support equipment 17 p3004 N67-30822
Flight vehicle operations and launch support system for horizon definition spacecraft [NASA-CR-66275] 18 p3341 N67-31833
Systems and subsystems requirements, astronaut mobility and capability, and experimental - systems, technology, and operational requirements for lunar scientific programs [NASA-CR-87400] 20 p3721 N67-34066
Overview on scientific support requirements for extended lunar exploration missions including experiments, data management, equipment, astronaut training, and lunar systems planning [NASA-CR-87399] 20 p3723 N67-34067
Computer printouts of experimental sequence data for study on scientific mission support for extended lunar exploration [NASA-CR-87403] 20 p3724 N67-34121
Performance, design, test, and qualification requirements of computer programs for support system for on-board checkout and data management system of Saturn/Apollo application program [NASA-CR-88514] 22 p4066 N67-37201
Integration support equipment functions, operation, and physical characteristics for interrogation, recording, and location subsystem used in Nimbus B satellite [NASA-CR-89559] 24 p4428 N67-39234
Planetary quarantine, operational support equipment, system interfaces, and implementation of preferred design concept for capsule bus system of Voyager flight capsule [NASA-CR-89674] 24 p4536 N67-40043
Operational support equipment for Voyager space capsule bus system [NASA-CR-89689] 24 p4537 N67-40050
Contractor data package for Voyager logistics and support in transportation, communications, supply, and maintenance [NASA-CR-89712] 24 p4532 N67-40419

SUPPRESSOR
SA ECHO SUPPRESSION
SA NOISE SUPPRESSOR
Transient voltage suppression filter networks for protecting electronic equipment [R-506] 10 p1591 N67-29684
High current Zener diode array used as voltage transient suppressor [ECOM-2777] 10 p1596 N67-21859
Sound suppressor models for exhaust jets of large rocket engines 17 p3130 N67-30971

SURFACE
SA CONTROL SURFACE
SA CRYSTAL SURFACE
SA CURVED SURFACE
SA EARTH SURFACE
SA FERMI SURFACE
SA FLAT SURFACE
SA INTERFACE
SA LAMBERT SURFACE
SA LIFTING SURFACE
SA LIQUID SURFACE
SA LUNAR SURFACE
SA MARS SURFACE
SA METAL SURFACE
SA PLANE
SA PLANETARY SURFACE
SA SOLID SURFACE
SA SUBSURFACE
SA TAIL SURFACE
Turbulent boundary layer on permeable surface 04 p0629 N67-13540
Solution to equation of magnetic surfaces by perturbation method [IAE-1150] 07 p1138 N67-17447
Molecular beams, and velocity of sound surfaces in lithium niobate 14 p2603 N67-27063
Road surface texture and change in skidding resistance with speed [RRL-30] 16 p2939 N67-30016
Possible forecasting technique for surface wind from geostrophic wind for sea areas [MET-O-773] 20 p3675 N67-35133

SURFACE CHEMISTRY
Interfacial water structure - electric conductivity of aqueous electrolyte permeated particulate solids under hydrostatic pressure [TR-23] 02 p0225 N67-11304
Total solvation atmospheres of alkali metal cations in aqueous solution [TR-34] 02 p0225 N67-11306
Surface conductivity as function of temperature, composition of solution, and concentration 03 p0355 N67-12375
Behavior of nonionic detergents in nonpolar solvents [AD-642004] 06 p0620 N67-16150
Methods for determining surface areas of selected solids [MRL-27/67] 16 p2849 N67-29664
Ceramic materials science - chemical effects, surface phenomena, solid state ceramics, and processing [NASA-CR-85768] 17 p3087 N67-31333
Electrochemistry of platinum surface oxidation in relation to hydrocarbon oxidation - carbon 14 labelled compounds in relation to carbon dioxide formation and platinum surface oxidation [AD-652680] 18 p3223 N67-31980
Contact angle hysteresis, wetting of solidified rare gases, and surface properties of mercury [NASA-CR-72269] 18 p3234 N67-32280
Glass surface properties effect on glass-polymer bonding in glass reinforced plastics [AD-652468] 18 p3284 N67-32642
Oxygen chemisorption and penetration at nickel surface by measuring surface potential changes [REPT.-66-C-337] 20 p3596 N67-35212
K-band radar remote sensor agricultural study of surface soils in western Kansas [NASA-CR-88368] 21 p3849 N67-36003
Hydrogen-deuterium exchange reaction on clean nickel surface using modulated molecular beam techniques [GA-7927] 23 p4260 N67-38082
Sodium contamination of metal oxide semiconductor systems associated with silicon surface preparation and oxidation 23 p4329 N67-38474
Additives used to provide surface recombination centers on thermal control coatings and thus stop optical degradation [NASA-CR-89655] 24 p4517 N67-40089

SURFACE COATING
Vacuum deposition methods for placing soft, thin metal gold film on metal surfaces for lubrication purposes - vapor deposition, sputtering, and ion plating [NASA-TM-X-52585] 14 p2544 N67-27319

SURFACE COOLING
Protective cooling of insulated plane surface by gas injection into turbulent boundary layer of incident flow through slot system [NASA-TT-F-10643] 14 p2630 N67-26572
Prediction of heat transfer and skin friction for mass transfer cooled zero pressure gradient surfaces exposed to high velocity laminar flow of nitrogen and carbon dioxide gas streams [NASA-CR-85499] 17 p3179 N67-31323
Coolant heat capacity requirements of wing skin and leading edge elements of hypersonic gliders [NASA-MEMO-1-29-59L] 18 p3193 N67-31834
Pumping speed for carbon dioxide using liquid nitrogen cooled surface at gas temperatures from 136 deg to 548 deg K [DVL-600] 22 p4044 N67-36761
Literature review on transient heat transfer and steam formation at fuel element surface [IDO-17236] 22 p4166 N67-37862

SURFACE CRACK
Crack propagation measurement by foil strain gauge on flat and curved surfaces at cryogenic temperatures [NASA-TN-D-3747] 02 p0260 N67-11969
Ultrasonic techniques to measure residual stress in surface of aluminum structures 12 p2105 N67-23671
Flame propagation inside of cracks in polyester ammonium perchlorate composite propellants [NASA-TM-X-60559] 24 p4520 N67-39864

SURFACE DIFFUSION EFFECT
Diffusion model calculation of variations produced in lunar atmosphere by Lunar Excursion Module [NASA-CR-65573] 06 p0963 N67-15675
Surface phenomena and diffusion in solids [AD-640920] 07 p1178 N67-17647
Swelling mechanisms of metallic uranium - fission gas bubble coalescence, crack formation, surface diffusion, and suppression [JAERI-4037] 07 p1183 N67-17700
Free molecule flow and surface diffusion through tubes and two-dimensional slots [NASA-TR-R-255] 11 p1857 N67-22040
High subsonic Mach number 33-blade rotor turbine with low suction-surface diffusion experiment to determine effect of low rotor blade solidity on losses [NASA-MEMO-10-2-58E] 18 p3321 N67-31975
Hydrocarbon contamination of nuclear submarine atmospheres due to diffusion of methyl chloroform through insulating and decorative materials 19 p3396 N67-33762

SURFACE DISTORTION
Modified root-mean-square computer program used to evaluate distortion of reflective surface of paraboloidal antenna - Deep Space Instrumentation Facility /DSIF/ 02 p0237 N67-12136
Streak interferometric measurement of transient deformation on metallic solid surfaces during wave propagation in solids and application to elastic-plastic wave propagation studies [BRL-R-1363] 20 p3737 N67-34346

SURFACE ENERGY
Accumulation and decay of mobile surface charges on insulating layers and relation to reliability of silicon devices 01 p0049 N67-10116
Equilibrium and stability of toroidal plasma with surface currents [IPP-6/53] 01 p0123 N67-10468
Surface energy effects in sliding phenomena [AROD-4986-4] 05 p0714 N67-15310
Surface currents induced on wedges under plane wave illumination [AFCRL-66-742] 10 p1607 N67-20620
Electrostatic potential and electric field intensity calculated by prior computation of charge distribution on equipotential surfaces [LA-3512] 11 p1927 N67-22385
Inhomogeneous sheath effect on surface current excitation of immersed plasma cylinder by electromagnetic and electrokinetic waves [NASA-CR-83835] 13 p2385 N67-25835
Control of hydrodynamics of two-phase liquid-gas weightless medium with aid of surface energy [NASA-TT-F-468] 13 p2386 N67-25848
Pendulum sclerometric determination of

surface energy and hardness of rocks
[BM-RI-6953] 17 p3061 N67-39680
SURFACE EROSION
Reinforced concrete breakwater for protection and repasturing of narrow eroding coastlines 01 p0168 N67-10470
Corrosion and oxidation defects on stainless steel surfaces
[EURAEC-1701] 08 p1289 N67-18523
Ground erosion effects in operation of jet lift aircraft
[AGARD-516] 08 p1221 N67-19342
Theory and experiments to determine mechanism of liquid drop impact erosion on metal surfaces
[NASA-CR-82957] 09 p1520 N67-19941
Erosion mechanism of solid metals
[NYO-3477-8] 10 p1657 N67-21675
Tailing erosion control to prevent radioactive contamination by wind and air transport
[RMO-3005, SUPPL.] 10 p1733 N67-21830
Electrical erosion of metallic electrodes in low voltage spark
[NASA-TT-F-11287] 24 p4497 N67-40374
SURFACE FINISH
Bonding of optically polished surfaces
[AFCRL-66-649] 10 p1637 N67-20643
Industrial application of interferometry for measuring linear distance, straightness, surface finish, and flatness
[Y-1589] 11 p1981 N67-22390
Surface preparation, indenting load, and gallium content effects on microhardness of plutonium-gallium alloys 12 p2118 N67-24982
Temperature control system, surface finishes and materials, thermal shields, and louvers of Mariner IV space probe
[NASA-CR-84293] 14 p2617 N67-28581
Surface finish, piping configuration, and leak tightness evaluations on seat materials for pressurizer steam relief valve
[Y-EF-23] 15 p2747 N67-29414
Preparation and application of paint coatings on ship hull steel plate and testing in sea water for effects of cathodic action
[TDCK-48258] 17 p3079 N67-30794
Grinding apparatus and surface finishing methods for ceramic materials
[REPT.-13] 23 p4077 N67-37363
Modified melting, casting, and grinding techniques to improve surface finish of uranium carbide fuel slugs for heavy water organic cooled reactor
[AI-CE-48] 24 p4491 N67-39659
SURFACE GEOMETRY
Translunar trajectory and lighting ring problems associated with design of lunar photography survey mission 12 p2210 N67-24269
Lunar terrain analysis 12 p2210 N67-24270
X-ray and electron microscopic techniques to compare surface topography, mosaic spread, average strain, and other structural details of oxide on several dilute copper base alloys 13 p2335 N67-25353
Slant thickness calculations between successive quadric surface representations of space vehicle and shield configurations
[RM-345] 13 p2420 N67-26355
Terrain geometry measuring equipment for off-road vehicle locomotion studies 18 p3270 N67-31931
Integral equation solution for density of simple layer potential - theory of determining topographic surface of earth
[ACIC-TC-1172] 20 p3626 N67-34020
Polarization curve of silver anode in ammoniacal electrolyte - Effective electrolytic surface area of sintered silver electrodes - Ultrasonic vibration effects on oxidation of electrode
[NASA-CR-88556] 24 p4396 N67-39832
SURFACE INTERACTION
Relationship between interatomic reactions and adsorption induced strength deterioration under effect of liquid metal 01 p0062 N67-10000
Surface-delta interaction and potassium 40 03 p0435 N67-12568
Wall interaction reduction in magnetic induction plasma accelerator
[NASA-CR-54762] 03 p0456 N67-13193
Oxide film effect on dislocation-surface interactions in aluminum
[AD-640280] 05 p0752 N67-15021
Ion current-voltage characteristics in seeded combustion products for plasma-metallic surface interaction 05 p0776 N67-15225
Interactions between hydrogen and oxygen atoms and surfaces
[GA-7467] 08 p1329 N67-18297
Mass transfer rate and surface characteristics of air-water interface during annular two-phase flow in vertical pipe
[NASA-CR-82543] 08 p1375 N67-19228
Molecular beams and surface interactions 09 p1433 N67-19413
Free molecule surface sources and sinks
[TN-36] 09 p1437 N67-19240
Ion range determination in solids by sputtering and method for conducting gas-surface experiments on satellites
[GD/C-DBE-66-016] 10 p1698 N67-20676
Interactions of ions and protons with material surfaces - surface density, velocity spectrum, mercury ion sputtering, aluminum-aluminum oxide sputtering, and ion implantation
[NASA-CR-72013,SER.NO.8,ISSUE 6] 11 p1931 N67-22064
Physical electronics and surface physics - contact potential measurements of adsorption of oxygen on Ta and steady-state analysis of desorption of molecules from nonuniform surfaces 11 p1967 N67-22650
Air permeability and elutriation methods for determining specific surface of dry chemical fire extinguishing powders
[NRL-6499] 13 p2045 N67-24736
Low energy electron diffraction method of identifying atomically clean surface after laser surface interaction
[NASA-CR-84054] 13 p2334 N67-26221
Adhesion and friction between surfaces in ultrahigh vacuum
[AD-634678] 15 p2751 N67-27957
Momentum transfer to solid surfaces by nitrogen molecules at satellite velocities
[NASA-CR-66372] 15 p2790 N67-28365
Endogenous seismicity of moon and role in producing morphological features and modifications of lunar surface 18 p3227 N67-31943
Mathematical model of contact between two surfaces for calculating infacial thermal conductivity
[NASA-CR-87316] 19 p3553 N67-33395
Surface interactions between carbon monoxide and transition metals
[CEA-R-3123] 19 p3593 N67-33495
Surface interactions in free molecule flow - reflected particle velocity density function model
[AFM-66-17] 20 p3624 N67-34022
Interactions between moving plasmas and boundaries
[NASA-CR-868] 20 p3710 N67-34915
Mechanisms of particle emission production in laser surface interaction - angular distribution of charged particles
[AD-654594] 21 p3865 N67-35538
Surface interactions against leakage from metal to metal sealing 21 p3857 N67-35572
Literature survey on energy transfer in particle and surface interactions in hypervelocity flight
[RM-4885-PR] 21 p3949 N67-36168
Surface interaction between aluminum single crystals in ultrahigh vacuum 21 p3963 N67-36219
SURFACE IONIZATION
Surface ionization of cesium and thermionic emission from planar single crystals of tungsten
[UCRL-11857] 07 p1178 N67-17598
Kinetic theory of surface ionization on glowing metals
[NASA-TT-F-478] 13 p2434 N67-25850
Kinetic theory of surface ionization of alkaline metal atoms, based on Sommerfeld approximation model of metal with free electron gas
[NASA-TT-F-10978] 16 p2949 N67-29068
Behavior of cesium surface ionization on porous tungsten
[NASA-CR-72180] 19 p3434 N67-32701
Determination of work function distribution on metal surfaces from surface ionization
[UCRL-17437] 21 p3923 N67-36433
Surface ionization studies on refractory metals and metal alloys used in long term contact ion engine operation
[NASA-CR-54675] 24 p4496 N67-39780
SURFACE LAYER
Surface pinned layer-like electric field inhomogeneities in cadmium sulfide crystals
[AROD-4461-12] 01 p0138 N67-10235
Measurements on proton energy loss in passing through gold layer on silicon surface barrier detector
[CLM-P107] 03 p0482 N67-13204
Possible structure of surface layer of moon
[NASA-CR-86579] 03 p0486 N67-13294
Relation between particle size and conductivity of slow moving chlorine ion in sodium chloride surface layer diffusion of ceramic materials 07 p1174 N67-16948
Heat transfer characteristics of wire gauze, surface mass transfer in falling film, and cooling of electromagnetic liquid metal pump
[TUBIK-1] 07 p1206 N67-17188
Correlation between surface ripples and mass transfer in pseudolaminar falling film 07 p1208 N67-17189
Lunar surface photographs transmitted by Lunik 73 lunar probe
[NASA-CR-81705] 07 p1196 N67-18043
Phase composition of heat resistant nickel alloy surface layers after heat treatment in nitrogen containing media 10 p1650 N67-20478
Forced convection and nonisothermal irradiation effects on sublimation and mass transfer from snow surface
[CRREL-SR-99] 11 p1970 N67-22520
Irradiated specimen preparation to retain edges for examining thin surface layers 12 p2149 N67-24255
Fundamental mechanisms of thermionic emission based on surface layer work function and volume work functions 12 p2155 N67-24315
Splitting off of surface layer of material during rapid heating investigated under effect of radiation from laser 13 p2294 N67-26398
Reflective surface deposition of aluminum and silicon oxide on epoxy coated substrate of solar energy concentrator
[NASA-TM-X-1379] 14 p2448 N67-27262
Axial load fatigue endurance distributions of annealed oxygen free high conductivity copper specimens with cold worked surface layer tested at four stress levels
[NASA-CR-66434] 17 p3173 N67-30963
Acoustic scattering coefficients and size distribution of underwater resonant scatterers, and sound scattering in surface layers of the ocean
[JPRS-40765] 17 p3057 N67-31461
Physical and mechanical properties of lunar surface layer as determined from Surveyor III landing pictures 18 p3226 N67-31868
Compressive surface layers affecting strength of polycrystalline ceramic bodies
[AD-652290] 19 p3476 N67-33060
Heat transfer from cylinders during free movement of air in rarefied space, and X-ray analysis of surface layer of heat resisting alloys after heat treatment in various gas media
[FTD-MT-65-469] 19 p3550 N67-33161
X-ray study of surface layer of two heat resisting alloys after heat treatment in various gas media 19 p3470 N67-33103
Spatial and temporal distribution of gradient Richardson number in surface and planetary boundary layers
[ECOM-5123] 21 p3939 N67-35919
Low pressure nitriding effects on diffusion layer structure of titanium alloy 23 p4065 N67-37139
Mechanical steam condensation film removal from condensing surface
[MEL-R+D-505/66] 24 p4530 N67-39883
SURFACE PRESSURE
Flow field and surface pressure measurements in fully merged and transition flow regimes on cooled sharp flat plate
[AEDC-TR-66-111] 03 p0252 N67-12187
Shock tunnel measurements of surface heat transfer and pressure data of viscous hypersonic flows over pointed cones at low Reynolds numbers
[AEL-66-9111] 04 p0625 N67-13416
Contact pressure applied to elastic foundation and depression of surface points represented by linear system 09 p1525 N67-20120
Skin friction and surface pressure measurements on upper surface of slender sharp-edge delta wing at incidence
[RAE-TN-AERO-2916] 11 p1777 N67-22712
Shock wave shape and surface pressure distribution in hypersonic flow of blunt delta wings at low angles of attack
[ARA-61] 12 p2011 N67-24085
Pressure fluctuations on flat plate with

oblique jet impingement
[NASA-CR-839] 17 p3650 N67-31478
Convective heat transfer and surface pressure measurements for reentry configuration of Mercury capsule model
[NASA-TM-X-647] 18 p3240 N67-31809
Velocity decay, surface pressure distribution, and perturbation in two-dimensional turbulent wall jets over curved surfaces
[MERL-TN-67-1] 20 p3634 N67-34701
Measurement of pressure fluctuations and skin friction on slender wing upper surface
[RAE-TR-66339] 20 p3564 N67-35233
SURFACE PROPERTY
SA HARDNESS
Surface and bulk leakage resistances of silicon oxide in humid ambients determined from charging and discharging curves of metal oxide semiconductor capacitors 01 p0049 N67-10119
Effect of localized normal surface oscillations on laminar flow over flat plate
[ARL-66-0010, PT. VI] 01 p0061 N67-11022
Surface properties of atomically clean metals and semiconductors - oxygen adsorption effects on cadmium sulfide surface
[REPT.-9] 01 p0142 N67-11032
Spectrophotometric analysis and X-ray diffraction of fine grained rocks and minerals for examining composition of Martian surface
[AD-639076] 03 p0459 N67-12661
Scattering properties of dull dielectric surface in polarized light
[NASA-TM-X-59178] 03 p0430 N67-13034
Surface area measurements adn pore size distribution analyses on beryllium and aluminum solids, gels, and oxides by gas adsorption
[CEA-R-2947] 03 p0362 N67-13316
Radar scatterometry used as active remote sensing tool for determining surface properties 04 p0548 N67-13494
Interpretation of surface characteristics from both radar and radiometer sensors 04 p0550 N67-13522
Role of surface treatment in field effect anomaly of n-type InSb at high magnetic fields
[TR-6] 05 p0753 N67-15325
Ceramics and ceramic engineering - zirconium oxygen carbon system, solid state ceramics, surface phenomena, radiation effects, and processing
[NASA-CR-81163] 06 p0896 N67-15290
Airport runway surface traction measuring device
[FAA-ADS-55] 06 p0860 N67-15772
Glass surface properties in aqueous media
[AD-641500] 06 p0900 N67-16373
Surface phenomena and diffusion in solids
[AD-640920] 07 p1178 N67-17647
Theory of radiant heat exchange for nongray nondiffuse surfaces in space environment
[NASA-CR-81653] 07 p1210 N67-17996
Surface-plateauing techniques, and flexible surface membranes for improved thermal conductance of mechanical joints in vacuum
[NASA-CR-81712] 07 p1095 N67-18050
Surface properties, temperature effects, cooling behavior, and observability of neutron stars
[NASA-TM-X-57318] 07 p1195 N67-18196
Relationship of geometric surface properties to solutions of ordinary differential equation systems 06 p1298 N67-18306
Comparison of surface and atmospheric characteristics of Earth and Venus
[NASA-TM-X-57351] 06 p1301 N67-18435
Cross polarization technique for radar exploration of surface properties of rough targets such as moon
[NASA-CR-83401] 06 p1248 N67-18974
Surface viscosity of polydimethylsiloxane monolayers
[NRL-6430] 10 p1660 N67-20697
Surface contouring applied to semiconductor radiation detector
[NYO-3246-6] 10 p1749 N67-20984
Surface state influence on various types of corrosion in stainless steels
[EUR-2991.E] 10 p1654 N67-21055
Acoustic reverberation at sea surface - wind driven sea surface statistics for determining scattering and reflection strength of surface and subsurface
[P-384] 11 p1928 N67-22540
Longitudinal surface curvature effects on steady, two-dimensional, incompressible laminar boundary layers
[AE-164-A] 11 p1860 N67-22955
Electroless nickel plating of graphite specimens to preserve edge and surface detail 12 p2149 N67-24259
Spreading pressure, interfacial tension, and adhesional energy of lower alkanes, alkenes, and alkyl benzenes on water
[NRL-6495] 12 p2046 N67-24747
Mossbauer effect at crystal surfaces
[AD-647244] 13 p2391 N67-25625
Calculated surface impedance of superconductor at low frequencies and temperatures
[BNL-10979] 13 p2294 N67-25932
Infrared spectroscopic observations on role of surface boron as adsorption center for sorption of water by porous glass
[TR-6] 14 p2477 N67-27076
Surface structure and electronic properties of single crystal molybdenum and tungsten ribbons
[COO-1417-2] 15 p2723 N67-28216
Best-fit computer program for evaluating surface quality of large paraboloidal antennas 15 p2670 N67-28733
Adsorbed water effects on organic liquid spreading on soda-lime glass
[NRL-6436] 15 p2864 N67-28971
Topographic mapping using monoscopic photographs and surface photometric properties, and testing photoconductors for slow-scan vidicons 16 p2893 N67-29156
Surface properties of germanium semiconductors
[REPT.-4720.4-C] 16 p2869 N67-29557
Wetting of high and low energy surfaces by liquid adhesives and correlation to bond strength
[PA-TR-3456] 16 p2849 N67-29662
Surface properties of magnetic materials
[ORO-2755-17] 16 p2909 N67-29747
Schottky data used in analysis of metal-vacuum surface barrier for thermionic emitters - rhenium
[SR-1] 17 p3146 N67-30218
Surface electric properties of oxidized clean single crystal and polycrystalline chromium films
[TM-592] 17 p3036 N67-30525
Literature search of physical property data and composite surface work function models
[NASA-CR-85562] 17 p3148 N67-30636
Microwave system to study effects of structure, processing, and impurities on superconducting behavior of metals
[ORO-2570-11] 17 p3080 N67-31140
Low energy electron diffraction analysis of surface properties of zinc oxide single crystals cleaned by argon ion bombardment and annealing treatment
[ECOM-02511-1] 17 p3150 N67-31386
Preliminary observations from Surveyor III soft moon landing - telemetered pictures and data on mechanical soil sampler, and lunar surface properties
[NASA-SP-146] 18 p3246 N67-32582
Televised pictures of lunar surface properties from Surveyor III landing site 18 p3247 N67-32583
Zero energy reflection coefficient of electrons at freshly evaporated silver surface
[AFCRL-67-0228] 18 p3312 N67-33643
Dionized water immersion effect on adhesive bondability of prepared aluminum alloy 2024 surfaces
[TR-3495] 19 p3469 N67-32919
Lunar surface models survey for use in environmental analysis
[NASA-CR-87326] 19 p3535 N67-33244
Sintering wires by surface diffusion
[WAPD-T-1965] 19 p3465 N67-33846
Surface properties of germanium and silicon single crystals 20 p3713 N67-34491
Surface properties of oxidized silicon 20 p3713 N67-34495
Spatial structure, spatial process, order, and hierarchy in theoretical geography and properties of surfaces
[AD-659464] 20 p3633 N67-34574
Second gradient of strain in linear elasticity - Mindlin theory
[AROD-5642-1-MC] 21 p3940 N67-35548
Surface area effects on oxidation kinetics of pyrolytic graphite
[AMRA-TR-67-20] 21 p3973 N67-35601
Polarimetry of limonite surface as function of wavelength and particle size
[RM-3711] 21 p3921 N67-36001
Experimental investigation to determine relationships between polarization and surface structure of rhyolytic pumice
[RM-3707] 21 p3940 N67-36002
Invariant surfaces of ordinary differential equations with and without time lag
[UCRL-17525] 21 p3880 N67-36097
Payload analysis for automated Mars surface sampling mission modes
[NASA-CR-84849] 21 p3926 N67-36556
Bistatic radar imaging techniques for study of planetary surfaces
[NASA-CR-88284] 21 p3902 N67-36611
Interference of earth surface properties through satellite measurements of infrared emission
[NASA-TM-X-55910] 21 p3845 N67-36612
Analysis and measurement of radiative heat transfer between simply arranged surfaces
[AFFDL-TR-67-94] 22 p4158 N67-36717
Selected transition metal silicides for electrochemical oxidation of fuels, and effects of trace amounts of platinum on catalytic activity of gold surfaces
[PWA-3108] 22 p3901 N67-36731
Diamagnetic and paramagnetic surface currents in Type II superconductors in static magnetic fields
[TR-1001/9230-01/-3] 22 p4124 N67-36784
Spectral studies of Mars surface materials
[AD-655257] 22 p4140 N67-37051
Microwave temperature dependent measurements of superconducting tin and lead surface impedance
[HEPL-507] 22 p4127 N67-37256
Relation between surface tension and surface stress of gold
[ORO-3106-28] 22 p4129 N67-37768
Reflection of polarized light from film covered surfaces
[UCRL-17128] 23 p4293 N67-38208
Surfaces and interfaces in composite materials technology
[RIAS-TR-67-12-C] 23 p4329 N67-38410
Surface effects of radiation on metal oxide silicon field effect transistors 23 p4234 N67-38476
Photographic and backscattering instrumental data from Surveyor V soft touchdown on lunar surface on mechanical, magnetic, and chemical properties of surface 23 p4348 N67-39341
Surface effects in polymer film photodegradation
[NRL-6563] 24 p4394 N67-39565
Surface potential measurements to determine effects of adsorbed organic monolayers on metal substrates
[RIA-67-1754] 24 p4396 N67-39715
Interaction between crack front and cleavage steps in magnesium oxide
[AERE-R-5498] 24 p4473 N67-40147
Radar observation of lunar surface properties
[NASA-CR-89685] 24 p4530 N67-40153
SURFACE REACTION
Changes in structure and mechanical properties due to loss of interstitials to reactive metal coatings studied in dispersion strengthened niobium alloys
[NASA-CR-79546] 02 p0269 N67-11737
Effect of oxygen and water vapor on fatigue properties of titanium alloy and 4340 steel
[NASA-CR-82971] 09 p1482 N67-19983
Chemisorption and surface reactions of acetylene and ethylene on tungsten surfaces
[IS-T-136] 13 p2268 N67-25551
Mossbauer effect studies of surface reactions and hydrogen-reduction of supported iron catalysts
[AFOSR-67-0823] 16 p2843 N67-29120
Nuclear radiation effects on oxidized silicon surfaces
[SC-CR-67-2571] 19 p3528 N67-33963
Carbon dioxide determination during galvanostatic oxidation of adsorbed propane intermediates
[REPT.-66-C-485] 20 p3587 N67-34061
Electrochemical reactions studied on surface of germanium in contact with aqueous electrolytes 20 p3591 N67-34350
Diffusion and surface reactions of singlet excitons in anthracene and other aromatic hydrocarbons 20 p3596 N67-34836
SURFACE ROUGHNESS
Lunar surface roughness comminution estimated by considering meteoric body

catering process
[NASA-CR-80137] 02 p0207 N67-12165
Error correction in lunar slope angles and surface roughness of Ranger photographs 04 p0610 N67-13497
Effect of surface roughness and waviness on overall thermal contact resistance
[NASA-CR-81156] 06 p0979 N67-15385
Nature of lunar surface from standpoint of prospective landing on moon 06 p0982 N67-15494
Theoretical model for ray reflection from rough dielectric surface
[AA+ES-66-5] 07 p1140 N67-18058
Kirchhoff approximation used to calculate backscatter of ultrasonic waves from rough layer
[NASA-CR-82399] 08 p1327 N67-18976
Statistical technique for prediction and analysis of dynamic response of vehicles traversing rough yielding and non-yielding surfaces
[NASA-CR-659] 09 p1431 N67-19696
Flow structure and velocity data for turbulent boundary layer on rough surface
[AFOSR-67-0420] 12 p2089 N67-24809
Plastic adhesive layer process for creating surface roughness on dielectric materials prior to metallic coating
[FTD-HT-66-681] 13 p2368 N67-25972
Surface roughness measurement of machined parts 13 p2329 N67-26652
Plasma radiation by surface roughness of silver foils
[D1-82-0581] 13 p2387 N67-26312
Polarization of infrared light emitted by sea calculated in geometrical optics approximation
[RM-360] 13 p2370 N67-26354
Electron beam remelted tungsten technetium alloys forged while encapsulated in molybdenum cans - surface appearance and edge cracking properties
[NASA-CR-84071] 13 p2341 N67-26374
Statistical model of lunar surface roughness, shadow, and thermal emission
[NASA-CR-84117] 13 p2495 N67-26450
Optimization of reactor fuel element heat transfer by surface roughness
[AE-271] 17 p3176 N67-30519
Statistical model of lunar surface roughness for shadow and infrared emission characteristics
[NASA-CR-85836] 17 p3164 N67-31378
Quantitative parameters of surface roughness for use in geologic remote sensing
[NASA-CR-87323] 19 p3442 N67-33245
SURFACE ROUGHNESS EFFECT
Humidity, chemical composition, and surface roughness effects on rubbed lubricant films of laminates
[RAE-TR-66184] 04 p0557 N67-14123
Surface and reflection effects on microwave propagation path across sea water
[NSTIC/07072/66] 06 p0844 N67-16500
Backscatter of electromagnetic waves from rough surface
[NASA-CR-81757] 07 p1042 N67-18086
Roughness effect on heat transfer to hemisphere cylinders in hypersonic flow
[NASA-TN-D-3671] 09 p1434 N67-19867
Pilot identification instruments and sea surface roughness effect for radar navigation of small ships
[FTD-MT-65-35] 10 p1673 N67-20531
Sea roughness effects on dispersion of radar for small ship navigation 10 p1674 N67-20533
Surface roughness and surface oxidation affecting radiant properties of platinum and stainless steel
[REPT.-6-77-67-27] 22 p4073 N67-37706
Statistical analysis and physical interpretation of scattering from surfaces with different roughness scales
[NASA-CR-89320] 23 p4215 N67-39091
SURFACE STABILITY
Longitudinal dynamics of liquid filled elastic shells - interaction liquid and elastic tank, liquid surface instability, and bubble dynamics
[NASA-CR-79725] 03 p0489 N67-12909
Impurities and interface states in silicon dioxide-silicon system
[NASA-CR-83983] 13 p2394 N67-25945
Fabrication induced surface instabilities in semiconductor devices 18 p2243 N67-31575
Surface stability of dayside of magnetosphere associated with solar wind and geomagnetic field interaction 20 p3721 N67-34575
Surface related failures of oxide-silicon interface 23 p4329 N67-38471
Dynamic scale model of lunar module type spacecraft - overturn stability for nonlevel surface landings
[NASA-TN-D-4215] 23 p4351 N67-38813
SURFACE TEMPERATURE
Sea surface temperature determination from Tiros VII satellite data 04 p0527 N67-13499
Method of showing what radiometer sees during surface temperature survey by aircraft 04 p0549 N67-13508
Heat propagation and thermal flux at surface temperature studied by analog method
[TN-21] 07 p1207 N67-17371
Analog computer program for predicting orbiting spacecraft external surface temperatures
[NASA-TN-D-3712] 08 p1254 N67-18721
Temperature field of thin wall satellite surfaces in radiant heat transfer 10 p1767 N67-20393
Temperature of water surface and other natural surfaces measured by radiation method 11 p1864 N67-22628
Review of lunar surface thermal infrared emission measurements
[D1-82-0586] 11 p1977 N67-22731
Thermal design of navigational satellites for attaining balance between external and internal heat inputs and heat output by radiation from external surfaces
[APL-TG-845] 14 p2618 N67-25819
Time-series length necessary for long term estimation of sea surface temperature
[NRL-1429] 14 p2523 N67-26913
Airborne measurements of infrared sea temperature in northern Gulf of Mexico
[TR-3] 16 p2886 N67-29516
Temperature of earth surface and clouds determined using meteorological satellites 18 p2262 N67-31909
Approach to analysis of sea surface temperature data recorded by merchant vessels for use in hurricane forecasting in Gulf of Mexico
[AD-653389] 18 p2291 N67-32442
Digital computer program for predicting lunar surface temperature and surface temperature of objects near moon
[NASA-CR-87300] 19 p3523 N67-33996
Multidetector spectrometer for measuring surface temperature of Mars, and error analysis on application of stereophotogrammetry to extraterrestrial mapping 20 p3643 N67-34773
Variable wavelength pyrometer measurements on surface brightness temperature of glowing ablating materials
[NASA-TN-D-4107] 21 p3947 N67-35727
Development and testing of airborne equipment, including radiometers, for direct measurement of total heat flow from sea surface
[U-636] 21 p3839 N67-35894
Surveyor III data on lunar surface temperatures, thermophysical characteristics, and spacecraft thermal performance on lunar surface 23 p4542 N67-38166
Primary shock wave reflection in shock tunnel and, surface temperatures and thermoconductivity rates 23 p4364 N67-38689
Transient surface temperatures of strips with coatings of temperature indicating materials
[UCRL-70397] 23 p4396 N67-39245
Surface temperature role in estimates of laser injury thresholds
[AMRL-733] 24 p4384 N67-39984
Indian Ocean surface temperature distributions for January 1963-December 1964 - charts and tables
[HIG-67-14] 24 p4445 N67-40837
SURFACE TENSION
SA LIQUID-LIQUID INTERFACE
SA WETTING
Surface-active agent influence on decontamination
[REPT.-725/XXII/C] 01 p0636 N67-10147
Surface tension and liquid pressure variation effects on growth of vapor bubble in superheated liquid metal
[ORNL-TM-1413] 01 p0605 N67-10710
Surface tension and reaction measurements to determine impurities in sodium
[MSAR-66-150] 03 p0941 N67-13291
Critical surface tension for spreading on liquid substrate
[NRL-6488] 12 p2047 N67-24823
Surface tension effects on motion of bubble and spike generated by Taylor instability
[SUDAAR-286] 14 p2517 N67-27185
Asymptotic integration of equilibrium equations of fluid with surface tension in gravitational field 14 p2520 N67-27720
Surface tension, viscosity, and Raman spectra of fused salts
[ORO-3973-12] 19 p3294 N67-33569
Surface tension measurement apparatus for determining impurities in sodium
[MSAR-67-90] 21 p3795 N67-36590
SURFACE TO AIR MISSILE
Probabilistic event store computer simulation for evaluating interactions between surface-to-air missile systems and aircraft in nonjamming environment
[TR/RP-67] 01 p0168 N67-10020
SURFACE TREATMENT
Decontamination procedure with isopropyl alcohol for reducing microbial population from surfaces of Anchored Interplanetary Monitoring Platform /AIMP/
[NASA-TM-X-55628] 05 p0706 N67-14911
Pack carburization of iron under vacuum conditions
[IS-T-106] 08 p1290 N67-18589
Suppression of outgassing in metallic and nonmetallic coatings by surface treatment for reducing damage resulting from cavitation
[AD-643842] 09 p1461 N67-19744
Cleaning of surfaces by ion bombardment and abrasion, and measuring of surface cleanliness
[NASA-CR-66373] 09 p1454 N67-19992
Nonaqueous electrolytic polishing ethanediol bath saturated with sodium hypophosphite for uranium
[RFP-816] 12 p2044 N67-24582
Hydrogen reaction kinetics for evaluating surface treatment effects on corrosion of carbon steel and stainless steel in high temperature water and steam
[EURAEC-1784] 12 p2120 N67-24591
Effects of pickling agents and surface alloying on photosensitivity of cadmium sulfide crystal
[NASA-TT-F-10821] 13 p2393 N67-25817
Cleaning methods and primer paint systems for steel sheet treatment evaluated for mechanical and corrosive properties
[V-67-21] 13 p2328 N67-26040
Semiautomatic preparation of specimens for transmission electron microscopy
[ORNL-4006] 14 p2532 N67-26835
Solution deoxygenation and specimen pretreatment techniques for use in hydrogen permeation apparatus
[NAEC-AML-2582] 15 p2881 N67-28806
Surface treatments for precipitation hardenable stainless steels
[NASA-TM-X-52663] 16 p2906 N67-29177
Surface treatment of zirconium alloys by oxidizing fused salts
[EUR-3476.F] 20 p3682 N67-35272
Method of treating optical components with deep concave aspheric surfaces
[JPRS-43682] 24 p4495 N67-39577
Surface preparation effects on defect potential in welded aluminum alloy Saturn S-1C
[NASA-CR-89008] 24 p4458 N67-39982
SURFACE VEHICLE
SA LUNAR SURFACE VEHICLE
Statistical technique for prediction and analysis of dynamic response of vehicles traversing rough yielding and non-yielding surfaces
[NASA-CR-659] 09 p1431 N67-19696
Review and analyses of land locomotion theories, soil mechanics, and unusual vehicle concepts for off-road trafficability
[TR-2500] 18 p2255 N67-31921
Soil-vehicle system theory to predict sinkage and motion resistance using plate penetration test 18 p2283 N67-31922
Engineering methods for measuring horizontal shear strength in soil-vehicle mechanics 18 p2263 N67-31923
Analytical methods for predicting performance of wheeled or tracked vehicles over off-road terrain 18 p2285 N67-31926
Dimensional analyses and model techniques for evaluating and predicting off-road vehicle performance and soil behavior 18 p2268 N67-31927
Soil analogs used for strength predictions

in terms of surface vehicle locomotion in remote or inaccessible areas 18 p3263 N67-31928
Unusual surface vehicle concepts and components evaluated for off-road locomotion 18 p3256 N67-31922
Visual, contact, and decision subsystems for Mars rover [NASA-CR-87583] 20 p3621 N67-34834
SURFACE WAVE
Surface wave development on thin films of variable viscosity under hot gas flow 01 p0039 N67-10053
Surface variation of radio refractive index in reduced-to-sea-level form 01 p0099 N67-10345
General function of wave height distribution over heavy liquid surface [TRANS-249] 01 p0060 N67-10366
Short period seismic noise studies on spectral moments, sources of microseisms, surface waves, and statistical analysis [TR-66-90] 01 p0069 N67-11005
Supersonic wave drag increase on circular cylinder due to surface waviness [RAE-TR-65173] 03 p0331 N67-12473
Radio antenna and radioelectric liaison of weightlessness laboratory [TP-374/1966/] 04 p0510 N67-13644
Focal mechanisms of earthquakes, azimuthal departure of P wave motion from great circle path, depth of focus determinations, and phase velocity of surface waves [AD-640637] 05 p0699 N67-14380
Guided surface waves supported by layers of lossy compressible plasma slab [S-5158-3] 05 p0745 N67-15050
Dynamic pressure trace at sea bottom and surface waves created by ground effect machine of rectangular planform moving with constant velocity over quiescent water of finite depth [TR-595-1] 06 p0886 N67-15967
Weak hydraulic jumps in shallow water [AVCO-EVERETT RES. REPT.-250] 06 p0869 N67-16658
Surface wave guiding and radiating systems - perturbation theory, ferroelectrics at microwave frequencies, magnetoplasmaguides, warm plasma wave propagation, and correlation radiometry [SR-95] 07 p1162 N67-17001
Transmission and radiation properties of V-Line, or wedge shaped surface wave structure 07 p1035 N67-17005
Nonquasistatic plasma surface wave propagation along unmagnetized plasma column 07 p1163 N67-17009
Measured elevations in wave train of Rankine ovoid compared with computed elevations for ideal source and sink [NWL-2056] 07 p1006 N67-17712
Seismic data recorded from LONG Shot underground explosion [AWRE-O-67/66] 07 p1075 N67-18076
Kinetic theory of surface wave in plasma wave guide 09 p1495 N67-20229
Second order theory of cylinders oscillating vertically in free surface [NA-66-7] 10 p1606 N67-20693
Scattering field and reflection amplitude of surface wave diffraction on rectangular wedge 11 p1949 N67-21898
Analysis of nonlinear wave oscillation on surface of dielectric fluid 12 p2153 N67-23706
Conference on problems of surface wave propagation and amplification, self-induced vibration, aeromagneto flutter, Rayleigh wave scattering, and traveling waves in various media 12 p2154 N67-24141
Amplification of ultra and hypersonic surface waves in dielectrics by current flowing in thin piezosemiconducting boundary layer 12 p2191 N67-24142
Traveling surface waves in system of mechanical oscillators moving over elastic surface and in gas flow over finite elastic surface with thin plate 12 p2191 N67-24149
Perturbation solution to surface wave propagation in piezoelectric quartz 12 p2191 N67-24150
Interaction of longitudinal, surface, and transverse waves on plasma boundary [NASA-TT-F-10030] 12 p2187 N67-25027
Surface and sound wave diffraction, excitation of electromagnetic horn by wide waveguide, and solution of elliptic equations 13 p2346 N67-25214
Electromagnetic, shock, and surface wave propagation, reflection, and diffraction 13 p2365 N67-25217
Axisymmetric surface wave on temperate collisional argon plasma column [AFCRL-66-785] 13 p2385 N67-25749
Interaction between surface and internal waves in shallow water [NEL-1432] 17 p3049 N67-31310
Progressive surface wave motions of small amplitude and time-periodic nature in ideal fluid containing infinite submerged array of parallel and identical circular cylinders [TR-11] 19 p3432 N67-32692
Laser light diffraction by ultrasonic surface waves [TR-3] 22 p4097 N67-36790
Dispersion analysis of earthquakes and study of teleseismic signals with analog model data [AFOSR-67-1561] 22 p4034 N67-36840
VHF surface wave electron density measurements in positive column of sustained mercury vapor arc 22 p4114 N67-36956
Method of achieving matched radiating element in phased array antenna in investigation of superimposed surface wave modes [FR-67-14-151, PT. II] 23 p4314 N67-38701
Seismological studies including work on mode filters, earth core models, surface wave velocity, wave excitation, and seismograph array data processing techniques [AD-657067] 23 p4348 N67-39156
Calculation of phase velocity perturbations due to small changes in earth models 23 p4348 N67-39160
SURFACTANT
Rheology of concentrated suspensions - effects of surfactant 05 p0663 N67-14518
Valid and nonvalid dimensional analyses of detergency process using commercial hard surfactants [CCL-211] 10 p1563 N67-21840
Burning rate catalysts in ammonium perchlorate propellants, and surfactants with high metal contents [ERDE-15/M/65] 11 p1969 N67-22785
Influence of surface active materials on development of morphological structures of polyurethanes 19 p3477 N67-33482
SURGE
Steady state equations for hydrogen excitation in prominence surges 20 p3723 N67-35046
Short power surge effects on hydraulic and thermal performance in swimming pool reactor channel - out-of-pile experiments on power excursions [ANL-TRANS-467] 21 p3890 N67-36519
SURGERY
Rheological disturbances and their treatment in clinical surgery 05 p0648 N67-14591
Microbiological survey of vertical laminar airflow surgical theater [NASA-CR-87428] 20 p3578 N67-34949
SURGICAL INSTRUMENT
Bibliography on contamination control, and air filtering for application to electronics and surgical instruments [NASA-CR-81783] 07 p1017 N67-18126
Stainless steels for surgical instruments [JPRS-39976] 14 p2559 N67-27706
SURVEILLANCE
SA RECONNAISSANCE
SA SPACE SURVEILLANCE SYSTEM
Two-dimensional surveillance problems with continuous surveillance [M113] 05 p0714 N67-15311
Surveillance of in-pile tests using neutron radiography 18 p3300 N67-32437
Performance evaluation technique for surveillance sensors applied to airborne radar [USAEPG-FR-299] 19 p3400 N67-32952
SURVEILLANCE RADAR
Automatic surveillance radar system to detect and track targets at low and high elevation angles 04 p0572 N67-13936
Real time system to evaluate surveillance radar signals for automatic tracking of air targets 04 p0514 N67-13549
SURVEYING
SA GEODETIC SURVEYING
SA MAGNETIC SURVEY
Plotted charts of locations where echo soundings of Atlantic Ocean bottom were made along cruising route of Chain [WHOI-66-2] 01 p0066 N67-10310
Method of showing what radiometer sees during surface temperature survey by aircraft 04 p0549 N67-13506
Systematic research of world ocean through oceanographic surveys and construction of stations 04 p0544 N67-14224
Practical field accuracy limits for optical theodolite [REPT.-30-TR] 05 p0709 N67-15112
Design, fabrication, and testing of prototype fly-away satellite triangulation system for geodetic stellar camera survey system 07 p1077 N67-16976
Gravimetric surveying at sea to process method for observations [ACIC-TC-1117] 09 p1441 N67-19816
Experimental setups and parameters for surveying synchrotron [DESY-66/28] 10 p1723 N67-21569
Penetrometer technique applied to lunar surveying staff concept [NASA-TN-D-3927] 12 p2099 N67-22619
Reliability of aerial photogrammetric surveying of forest areas [T-1895-67] 15 p2702 N67-28082
Captains Flat metalliferous geophysical survey, New South Wales, Australia, 1960 [REPT.-96] 18 p3265 N67-32036
Description of intrusive trap magnetic properties in Degen River section of U.S.S.R. for interpreting aeromagnetic and terrestrial magnetic survey data [ACIC-TC-1162] 18 p3266 N67-32174
Organization and planning of geodetic and topographic operations [ACIC-TC-1144] 21 p3836 N67-35436
SURVEYOR I SPACECRAFT
Scientific data and results of lunar surface exploration by Surveyor I spacecraft [NASA-CR-79150] 01 p0150 N67-10061
Scientific data and observations summary of Surveyor I lunar surface exploration 01 p0150 N67-10062
Objectives, launch and landing operations, and lunar surface photography of Surveyor I spacecraft 01 p0155 N67-10063
Surveyor I spacecraft photographs evaluated for lunar surface topography 01 p0150 N67-10064
Theoretical temperature calculations compared with lunar surface thermal data obtained by Surveyor I spacecraft 01 p0155 N67-10065
Radar instrumentation on Surveyor I spacecraft and use in determining electrical properties of lunar surface 01 p0150 N67-10066
Lunar surface mechanical properties as determined from photographs and landing dynamics of Surveyor I spacecraft 01 p0150 N67-10067
Outer solar corona photographed from lunar surface with Surveyor I TV camera 01 p0150 N67-10068
Photographs taken by Surveyor I camera on lunar surface examined for dust particle locations 01 p0150 N67-10069
Design considerations for midcourse guidance and terminal descent system of Surveyor lunar soft landing spacecraft [NASA-CR-80599] 03 p0468 N67-13202
Lunar Orbiter, Pioneer space probe, and Apollo backup station - flight project support 05 p0629 N67-14454
Atlas-Centaur-Surveyor range safety data - trajectory characteristics, impact locations for jettisoned items, and destruct data [NASA-CR-80692] 05 p0705 N67-14557
Surveyor I lunar photographs interpretation, and television subsystem [NASA-CR-81520] 07 p1189 N67-17186
Mechanical, optical, thermal, and electrical properties of Surveyor I landing site [NASA-CR-82458] 08 p1368 N67-19121
Lunar surface interpretation based on Luna IX and Surveyor I photographic data 09 p1513 N67-20274
Major functional systems, schematic diagrams, and telemetry signal data for Surveyor spacecraft [NASA-CR-83680] 23 p4352 N67-38879
Design and performance of Surveyor spacecraft development models [NASA-CR-84185] 23 p4355 N67-39257
Surveyor I spacecraft accomplishments, flight and lunar landing performance, electronic and telecommunications equipment, and lunar operations [NASA FACTS, VOL. IV, NO. 6] 24 p4540 N67-40500
SURVEYOR II SPACECRAFT
Surveyor II mission and failure analysis

[NASA-CR-83644] 12 p2213 N67-33860
SURVEYOR III SPACECRAFT
Surveyor C spacecraft - flight plan, Atlas Centaur launch vehicle, tracking and communication, and trajectory
[NASA NEWS RELEASE-67-85] 11 p1980 N67-22971
Surveyor III capabilities and accomplishments using photographs to illustrate lunar surface and measurements 17 p3165 N67-31447
Preliminary observations from Surveyor III soft moon landing - telemetered pictures and data on mechanical soil sampler, and lunar surface properties
[NASA-SP-146] 18 p3346 N67-32562
Televised pictures of lunar surface properties from Surveyor III landing site 18 p3347 N67-32563
Mechanical properties of lunar surface at Surveyor III landing site 18 p3337 N67-32585
Surveyor III measurements of lunar surface temperatures and thermal characteristics 18 p3338 N67-32586
Surveyor III radar data evaluation for electrical properties of lunar surface 18 p3339 N67-32587
Physical and mechanical properties of lunar surface layer as determined from Surveyor III landing pictures 18 p3336 N67-32588
Television observations, soil sampling, lunar surface mechanical properties, lunar temperature and thermal characteristics, and other scientific results from Surveyor III mission
[NASA-CR-88952] 23 p4341 N67-38161
Television camera aboard Surveyor III, maps and photographs of landing site, and geological interpretations of lunar surface 23 p4342 N67-38163
Soil mechanics surface sampler aboard Surveyor III spacecraft 23 p4343 N67-38164
Surveyor III data on lunar surface temperatures, thermophysical characteristics, and spacecraft thermal performance on lunar surface 23 p4343 N67-38166
Relative dielectric constant for regions external to crater where Surveyor III landed 23 p4343 N67-38167
Lunar surface position and properties, morphology of lunar landing site, and downhill material transport from preliminary reduced data from Surveyor III mission 23 p4343 N67-38168
SURVEYOR PROJECT
Engineering analyses on Surveyor lunar dust particle detector instrumentation, and ground support equipment
[NASA-CR-79306] 03 p0381 N67-13019
Dynamic analysis and computer simulation of Surveyor lunar landing stability
[NASA-CR-80514] 03 p0465 N67-13183
Alpha particle detector experiment for chemical analysis of lunar surface by Surveyor spacecraft
[NASA-CR-75748] 03 p0466 N67-13343
Reliability efforts and test facility developments summarized for Deep Space Instrumentation Facility and Surveyor, Mariner, and Voyager projects
[NASA-CR-81190] 06 p0971 N67-15685
Three-dimensional parameter effects on dynamic stability of Surveyor vehicle landing system 06 p0971 N67-15715
Surveyor mission operations, and systems design engineering for Mariner, Voyager, and Surveyor space probes
[NASA-CR-81273] 06 p0968 N67-16561
Correlation between predicted and measured dynamic behavior for full scale Surveyor stability drop test
[NASA-CR-82994] 09 p1515 N67-19900
Ranger flight data for dynamic torsional model synthesis to predict transient vibration of Surveyor spacecraft
[NASA-CR-83116] 10 p1763 N67-21446
Surveyor C spacecraft - flight plan, Atlas Centaur launch vehicle, tracking and communication, and trajectory
[NASA NEWS RELEASE-67-85] 11 p1980 N67-22971
Subsystem implementation and performance of on-board Surveyor telecommunications and command systems
[NASA-CR-83583] 11 p1835 N67-23339
Surveyor II mission and failure analysis
[NASA-CR-83644] 12 p2213 N67-33860
Postflight analysis of AC-8 Atlas Centaur vehicle with Surveyor payload model
[NASA-TM-X-1343] 12 p2218 N67-35045
Computer programming technology and Surveyor software system, for deep space network 12 p2213 N67-35068
NASA space exploration programs design modifications and instrumentation developments
[NASA-CR-83745] 13 p2466 N67-35092
Surveyor project developments for lunar landing mission 13 p2466 N67-35093
Nasa programs related to Surveyor, Mariner, Pioneer, Venus probe, and similar projects 13 p2466 N67-35097
Surveyor project, Mariner Venus and Mariner Mars projects, and deep space network
[NASA-CR-84519] 14 p2616 N67-37741
Surveyor spacecraft systems engineering, thermal control, propulsion system, and scientific instrumentation 14 p2621 N67-37742
Orbital trajectory analysis for Ranger VII lunar probe, and systems and thermal testing of Mariner spacecraft - deep space network, and Surveyor project
[NASA-CR-88007] 21 p3734 N67-35546
Surveyor, Mariner Venus 67, and Mariner Mars 1969 projects, and Deep Space Network /DSN/
[NASA-CR-88737] 22 p4149 N67-37345
Mission description and performance evaluation of Surveyor III lunar soft landing
[NASA-CR-88739] 22 p4150 N67-37346
SURVEYOR SPACECRAFT
Composite Teflon-aluminum foil bladders for Surveyor vernier propulsion system
[NASA-CR-84563] 15 p2784 N67-30018
Surveyor sterilization study - spacecraft material and component compatibility to sterilization process, sterile techniques for aseptic assembly, and operation plan
[NASA-CR-85672] 17 p3167 N67-31115
Ethylene oxide and Freon 12 gas mixture and formaldehyde as sterilants for components of Surveyor spacecraft
[NASA-CR-88673] 18 p3210 N67-31880
Surveyor D spacecraft, Atlas Centaur launch vehicle, tracking and communication system, trajectory, and flight plan
[NASA NEWS RELEASE-67-172] 19 p3541 N67-33759
Dynamic behavior of Surveyor landing system and surface material during lunar landing
[NASA-CR-87421] 20 p3731 N67-34177
Centaur AC-6 nose fairing separation tests
[NASA-TM-X-52190] 21 p3734 N67-35375
Summaries covering system development and operations of Ranger VII, Surveyor, and Mariner spacecraft, and engineering development at deep space network facilities
[NASA-CR-88165] 21 p3936 N67-36100
Solenoid stepper motor for positioning Surveyor antenna/solar cell panel 21 p3763 N67-36286
Design specifications for Surveyor Spacecraft television camera mechanisms, and operating conditions in lunar environment 21 p3852 N67-36211
Mechanical design and properties of Surveyor star tracking guidance system and Scanner project dual radiometer 21 p3853 N67-36213
Surveyor thermal switch for thermoconductivity control on lunar surface 21 p3937 N67-36215
Double acting, rotary solenoid-actuated shutter for Surveyor spacecraft cameras 21 p3852 N67-36230
Surveyor E instrumentation, propulsion and control systems, and flight plans
[NASA NEWS RELEASE-67-127] 22 p4148 N67-37235
Test program evaluation and modifications for Surveyor radar altimeter and Doppler velocity sensor system
[NASA-CR-88083] 22 p4002 N67-37622
Lunar surface mechanical properties determined by landing impacts, telemetry data from Surveyor III, and comparison of data collected by Surveyor I and Surveyor III 23 p4343 N67-38165
Surveyor spacecraft A-21A design and performance
[NASA-CR-84186] 23 p4323 N67-39240
Surveyor A launching and flight characteristics
[NASA-TM-X-57882] 23 p4323 N67-39211
Photographic and backscattering instrumental data from Surveyor V soft touchdown on lunar surface on mechanical, magnetic, and chemical properties of surface 23 p4340 N67-39241
SURVIVAL
SA LIFE SUPPORT SYSTEM
SA SHELTER
Rocket and balloon borne exposure experiments on survival of microorganisms in space environment
[NASA-CR-79911] 02 p0227 N67-11644
Conference on nutritional requirements for survival in Arctic and at high altitudes
[AD-637687] 02 p0229 N67-13641
Austere diet and survival ration experiments 02 p0240 N67-12647
Therapeutic approach to Arctic survival rations 02 p0240 N67-12649
Log-normal model for microbial survival in heat sterilization
[NASA-CR-86973] 02 p0245 N67-12597
Aircraft crash fire fighting film that depicts survival conditions within fuselages 06 p1388 N67-18586
Biological effect of proton radiation and radioprotective agents on survival rate and average survival time of mice 10 p1589 N67-20403
Lunar surface origin theories related to exploration and survival problems by use of Ranger, Luna, and Mariner probe data
[DOUGLAS PAPER-4036] 11 p1979 N67-23412
Concepts for improving probability of human survival in aircraft emergency conditions
[NASA-CR-84413] 14 p2446 N67-37972
Aircraft requirements and human physical limits in study to improve human survival in aircraft accident
[NASA-CR-84436] 14 p2446 N67-37432
Data compilation for aircraft design improvement to enhance human survival in emergencies
[NASA-CR-84455] 14 p2447 N67-37636
Ecological experiments on bacteria growth response and survival in different soils simulating extraterrestrial environments
[NASA-CR-84516] 14 p2465 N67-37674
Ground temperature data for predicting temperatures of survival shelters heated by earth radiation
[AAL-TR-67-2] 18 p3286 N67-32261
Survival of selected microorganisms exposed to high ultraviolet flux equivalent to Martian surface
[NASA-TM-X-55853] 19 p3376 N67-33406
Survival possibilities after exposure to fire in artificial gas environments
[R-400] 20 p3583 N67-34430
Survivable crash environments based on crash test and commercial aircraft accident data analyses
[DA-67-2] 21 p3756 N67-35218
Aircraft design - crash survival aspects of aviation safety
[AVSER-66-15] 22 p3990 N67-37177
SUSCEPTIBILITY
SA MAGNETIC SUSCEPTIBILITY
Simulation of radio frequency radiation environment for susceptibility testing
[NASA-CR-83966] 12 p2261 N67-30963
Drugs altering susceptibility to motion sickness in aerobatics and slow rotation room
[NASA-CR-84019] 13 p2389 N67-36270
High and low barometric pressure effects on susceptibility and resistance of mice to infection
[NASA-CR-84073] 13 p2381 N67-36272
Susceptibility and high field magnetization of rare earth compounds with singlet crystal field ground state 21 p3918 N67-36211
SUSPENSION
SA MAGNETIC SUSPENSION
SA SOLID SUSPENSION
Rheology of concentrated suspensions - effects of surfactant 05 p0643 N67-14518
Viscosity of thixotropic suspensions at medium and large shear rates 05 p0734 N67-14552
Thixotropy and dilatancy in complex multiphase emulsions and suspensions - microrheological classification 05 p0735 N67-14555
Necklace-like formations in Poiseuille flow of suspension of spheres 05 p0643 N67-14570
Hydrodynamic interaction between particles in suspension 05 p0643 N67-14571
Electrokinetic charge influence on rheological properties of red blood cell suspensions 05 p0645 N67-14587
Extracorporeal determination of difference in mean velocities of red cells and their suspending phase 05 p0645 N67-14590

Aerodynamic suspension and propulsion during jet flight conditions, and long-distance transportation studies 06 p1355 N67-18685
Viscosity and shear strain behavior of sodium clay suspension in water [NASA-CR-83852] 13 p2258 N67-25838
Transverse magnetoresistance of germanium and ultrasonic absorption in aqueous suspensions [FTD-HT-66-531] 20 p3688 N67-34699
Ultrasonic absorption in aqueous suspensions at low concentrations 20 p3688 N67-34611

SUSPENSION SYSTEM
SA SPRING
Summary of technical papers presented at Magnetic Wind Tunnel Model Suspension and Balance Symposium [ARL-66-0135] 04 p0524 N67-13581
Electromagnetic suspension system to support models in hypersonic wind tunnel for studying wakes of axisymmetric bodies 04 p0525 N67-13582
Magnetic suspension system for supporting axisymmetric models in hypersonic wind tunnel 04 p0525 N67-13583
Six-component magnetic suspension and balance system for use in wind tunnels 04 p0525 N67-13584
Air core, single coil, one-dimensional magnetic suspension system 04 p0525 N67-13585
Electronic circuitry for suspending electric vacuum gyro rotor in center of electrode sphere [NASA-CR-80613] 08 p1258 N67-19276
Automatically controlled low frequency air spring suspension system for vibration testing [NASA-TN-D-3891] 11 p1861 N67-23287
Soviet handbook on design and components of gyromotors, suspension systems, spin axle support, power transmission devices, housings, and gyroscopic instrumentation [FTD-HT-66-359] 16 p2892 N67-29044
Nonlinear vacuum spring in suspension system for shock and vibration protection 18 p3349 N67-31697
Design theory for vehicle suspension system with increased speed capability over rough terrain 18 p3256 N67-31924
Effects of springs and suspensions on railroad car wheels running on straight tracks 21 p3895 N67-35961

SWAGING
Electrodeposits evaluated as bearing surfaces for swaging-steel cylinder bores [WVT-6608] 01 p0087 N67-10992
Survey on deformation processes in difficult to form metals [AD-656423] 23 p4061 N67-36975

SWEAT COOLING
Feasibility of controlling cosmonaut thermal balance in space suit by physiological perspiration [NASA-TT-F-10413] 14 p2466 N67-26575

SWEATING
Moisture losses and skin temperatures of humans subjected to prolonged stays at high altitudes 03 p0185 N67-11455
Physical and chemical properties of human sweat and factors affecting water balance in confined spaces [NASA-CR-82590] 08 p1230 N67-19216
Physical and chemical properties of human sweat and factors affecting water balance in confined spaces [NASA-CR-87512] 20 p3578 N67-34934
Thermal assessment of convective air ventilated suit and water conditioned suit for personal cooling [ARC-CP-953] 22 p3900 N67-37739
Collection and preservation of blood, urine, and feces and sweat samples obtained during space flights [NASA-CR-99330] 23 p4196 N67-39361

SWEDEN
Research projects and seismic and gravimetric instrumentation at Swedish university and geophysical observatory 04 p0528 N67-14234
Description of power control using fine-control rod and control system design of fast reactor FR-0 of Studsvik in Sweden [AE-262] 10 p1685 N67-21303
Design and operation of large astronomical telescope in Swedish observatory 16 p2875 N67-29951
Progress of research projects in electron and plasma physics at Royal Institute of Tech., Stockholm, Sweden [REPT.-67-04] 19 p3519 N67-33636
Swedish research on speech production, perception, and discrimination, and musical acoustics [STL-QPSR-1/1967] 20 p3566 N67-35228

SWEEP
S LEADING-EDGE SWEEP
S VARIABLE SWEEP

SWEEP FREQUENCY
Sweep frequency technique used in auditory nerve fiber responses to two-tone stimuli 05 p0649 N67-14635
Slotted line method for swept-frequency standing wave ratio measurements in coaxial systems 18 p3249 N67-32001
Fast sweep spectrum analyzer for noise pulse analysis 23 p4252 N67-38771
Real height of reflection in vertical in incidence sweep-frequency ionospheric sounding calculated from radio frequency functions 24 p4441 N67-39966
Virtual height slopes used to determine ionospheric electron density profiles from sweep-frequency ionograms 24 p4442 N67-39971
Single polynomial analysis for direct manual calculation of ionospheric electron density parameters 24 p4442 N67-39974

SWEEPBACK
Flow of air around delta and other swept-back wings - vortices from apex and sheets 06 p0757 N67-16169
Six component force and moment wind tunnel measurements made on jet flap complete models - effects produced by variations of wing aspect ratio, dihedral, and sweepback [ARC-R+M-3441] 15 p2638 N67-28172

SWEEPBACK ANGLE
Pressure distribution on hypersonic glide configuration having 79.5 deg sweepback and 45 deg dihedral at Mach number of 4.95 [NASA-TM-X-223] 18 p3186 N67-31814
Low speed wind tunnel tests of delta wings with sharp leading edges and 80 deg sweepback angle 18 p3187 N67-31973
Low speed wind tunnel tests of delta wings with sharp leading edges and 20 deg sweepback angle 18 p3187 N67-31974

SWELLING
Swelling mechanisms of metallic uranium - fission gas bubble coalescence, crack formation, surface diffusion, and suppression [JAERI-4037] 07 p1102 N67-17700
Swelling of uranium aluminide-aluminum alloy fuel element compacts [ORNL-4056] 12 p2149 N67-24553
Controlled temperature and pressure irradiation capsules to study basic swelling mechanisms 18 p3296 N67-32421

SWEPT FREQUENCY TOPSIDE SOUNDER
S ALOUETTE SATELLITE
S TOPSIDE PROGRAM

SWEPT WING
Flight tests of laminar flow swept wing having slitted suction surfaces for boundary layer control [COA-AERO-192] 01 p0002 N67-10475
Handling qualities of swept wing aircraft 02 p0173 N67-11750
Swept wing and leading edge configuration modifications to improve aerodynamic characteristics of aircraft [TP-353/1966/] 02 p0174 N67-11872
Measurement by wake momentum surveys at Mach 1.61 and 2.01 of turbulent boundary layer skin friction on five swept wings [NASA-TN-D-3764] 03 p0332 N67-13170
Flight measurements of swept-wing Hawker Hunter F Mk. I aircraft drag and lift-curve slope at Mach numbers up to 1.2 [ARC-R+M-3429] 04 p0482 N67-14124
Measurements of direct pitching moment derivatives for four wing planforms at transonic speeds [ARC-R+M-3435] 09 p1393 N67-20332
Turbulent boundary layer flow along attachment line of infinite swept wing, calculated by entrainment and momentum integral equations in streamwise and cross flow directions [ARC-28180] 09 p1393 N67-20372
Dampings, flutter speeds, and frequency responses of swept wing model determined in subsonic wind tunnel - displacement vector responses [RAE-TR-65186] 15 p2637 N67-28159
Low subsonic flight and force testing of supersonic transport model with highly swept arrow wing [NASA-TN-D-3887] 16 p2818 N67-29356
Supersonic flutter derivatives for swept and cropped delta wings [ARC-CP-920] 16 p2815 N67-29917
Pressure tunnel investigation of supersonic store interference in vicinity of 22 deg swept wing fuselage configuration at mach numbers 1.61 and 2.01 [NACA-RM-L57L18] 18 p3185 N67-31546
Highly swept warped-wing data from experiments on isolated wings, wing-body configurations, and complete configurations for supersonic aircraft 18 p3185 N67-31614
Wind tunnel determination of supersonic flow properties in vicinity swept, delta, and trapezoidal wing-body combinations [NASA-TM-X-64] 18 p3189 N67-32309
Aerodynamic information for development of variable-sweep multimission military aircraft 19 p3366 N67-33072
Subsonic and supersonic flutter analysis of tapered swept wing planform, including effects of density variation and finite wing thickness [NASA-TN-D-4230] 24 p4372 N67-40150
Static aerodynamic characteristics of variable sweep wing aircraft model studied in wind tunnel [DTMB-AL-28] 24 p4372 N67-40208

SWEPTBACK WING
Transonic wind tunnel tests on finite sweptback wings for predicting three-dimensional flow [ARC-R+M-3348] 08 p1217 N67-18706
Interference effects on wing body combinations with sweptback and delta wings in asymmetric flow [DLR-FB-66-77] 13 p2243 N67-26085
Calculation of load distribution at supersonic speeds on sweptback wing of arbitrary planform [RAE-TR-66356] 15 p2639 N67-28924
Automatic control and stability problems of supersonic transport aircraft with sweptback wing configuration [DLR-MITT.-66-19] 18 p3193 N67-31956
Automatic steering system for supersonic aircraft with sweptback wing 18 p3193 N67-31957
Spanwise loadings and aerodynamic characteristics for trailing-edge controls on 40 deg sweptback wing at Mach numbers 1.61 and 2.01 [NASA-TM-X-752] 18 p3188 N67-32002

SWIRLING WAKE
Decay of turbulent axisymmetrical free jet and wake flows with rotation [TAE-55] 11 p1860 N67-22916

SWITCH
SA CAPACITANCE SWITCH
SA ECHO SUPPRESSION
SA ELECTRONIC SWITCH
Energy-losing bleaching mechanism of organic phototropic crystals used for ruby laser switches [ATD-66-119] 01 p0080 N67-10437
Photon-coupled isolation switch to provide transistor output electrically isolated from driving sources and all other switch terminals [NASA-CR-80850] 04 p0521 N67-14257
Manual override trim switch used in AD type aircraft [NADC-AE-6629] 05 p0631 N67-14746
Properties of hydrogen plasma for high current switch application [ECOM-2773] 08 p1346 N67-18287
Explosively actuated high voltage switch to short diodes as safety device for fast pulse accelerator [UCRL-70030] 08 p1256 N67-18467
Survey of vacuum switchgear technology [NASA-SP-5083] 08 p1257 N67-18628
Development of fast mercury-jet switch for electrolytic capacitor bank [UCRL-70014] 10 p1601 N67-20680
Vacuum clamp switch for capacitor bank for high density plasma research [NRL-6416] 10 p1602 N67-21369
Quality control testing of semiconductor switches [W-22] 11 p1838 N67-22678
Test data summarized for pressure switch [NASA-CR-84664] 15 p2716 N67-28019
Function and environmental testing of pressure switch [NASA-CR-86007] 21 p3880 N67-36090
Cathode ray tube as fast multiplier with high input resistance [KFK-552] 21 p3819 N67-36092

Surveyor thermal switch for thermoconductivity control on lunar surface 21 p3937 N67-36215
Effects of primary task performance on response time to toggle switches in workspace configuration [AMRL-TR-66-190] 23 p3975 N67-36628
Electro-optic and magnetic-optic Q switches for narrow line width ruby lasers - Farraday rotation switch [CLM-R-73] 22 p4010 N67-36786
Environmental tests on pressure switches for Saturn IB program [NASA-CR-88626] 22 p4010 N67-36867
Function and environmental testing of pressure switch [NASA-CR-88623] 22 p4012 N67-37010
Sled track photographic camera switch/minus two relay box [SC-TM-67-290] 23 p4014 N67-37719
Alternating current circuit breakers and direct current engine contactors for space nuclear electrical systems [NASA-CR-54401] 23 p4236 N67-38813
Testing of pressure switch for liquid hydrogen transfer system automatic loading sequence circuit [NASA-CR-89777] 24 p4419 N67-39090
Functional and environmental testing of pressure switch for use in storage tank [NASA-CR-89776] 24 p4419 N67-39091

SWITCHING
SA BEAM SWITCHING
SA MAGNETIC SWITCHING
SA MICROWAVE SWITCHING
Microwave correlation radiometer without RF switching [AFCRL-66-534] 01 p0054 N67-10988
Faraday effect as switching technique for high power laser output 02 p0407 N67-12651
Algorithm for optimal control of switching on redundant subsystems 05 p0686 N67-14356
Fluid and fluid jet systems and controls [NASA-CR-89623] 06 p0858 N67-16061
Switching theory application to control systems 06 p0858 N67-16067
Adaptive bang-bang controller for switching rod hinged to motorized cart 07 p1054 N67-16942
Turbulent reattachment fluid amplifier switching times prediction based on turbulent jet entrainment properties and quasi-steady flow [A1] 10 p1612 N67-21129
Switching, and modulator development at Los Alamos Scientific Laboratory 12 p2078 N67-24090
Flux switching in magnetic circuits [NASA-CR-83793] 13 p2296 N67-25486
Bibliography of pulse magnetized ferrite device references [RAE-LIB-BIBL-270] 13 p2295 N67-26190
Analytical method of calculating switching time and power lost by compound transistors operating under commutating conditions 15 p2677 N67-27833
Digital computer calculations of parameter and switching effects on signal stability from ferrite cores with rectangular hysteresis loops 15 p2671 N67-27839
Single ended switching transformer regulator 17 p3036 N67-30592
Radio interference produced by recurrent thyristor switching of ac supplies [RAE-TR-67013] 20 p3569 N67-34734

SWITCHING CIRCUIT
SA DUPLEXER
Differentiation circuits for amplitude-modulated signal envelopes [NASA-TM-X-57990] 02 p0345 N67-13230
Semiconductor lasers for digital computer circuits 03 p0408 N67-13063
Switched amplifier, mode control circuit for ASTRAC II iterative differential analyzer 04 p0516 N67-13802
Matrix switches and error correcting codes from block designs in magnetic core storage [R-314] 05 p0687 N67-14732
Apparatus used in constructing pneumatic switching circuits 07 p0994 N67-16864
Production engineering measure for silicon n-p-n switching transistors [T-21] 07 p1051 N67-17645
Network synthesis of cascaded threshold elements [RADC-TR-66-518] 09 p1427 N67-19454
Production engineering measure for silicon npn switching transistors [I-23] 09 p1434 N67-19544
Method for synthesizing multiterminal switching circuits using only generalized numeration [FTD-TT-65-1854] 09 p1438 N67-20196
Checkout concepts for contactless switching system for application to aircraft electric systems [REPT.-3-51727/7S-449-7] 10 p1555 N67-21077
Integrated circuit amplifier and analog switching circuit for deep space probes [NASA-CR-89017] 11 p1833 N67-22176
Secondary state assignment and decomposition of sequential machines [PIBMRI-1345-66] 11 p1830 N67-22694
Characterization of polyfunctional switching net structures [AFCRL-66-632] 11 p1949 N67-23151
Linear gating circuit for delayed counting and recording of pulses in multichannel analyzer, with switching circuit and control trigger 12 p2083 N67-23503
Spares switching method for design and construction of self repairing digital systems [ECOM-02343-2] 13 p2296 N67-25435
Cost effectiveness comparison of message and circuit switching in military communication system under record traffic [MTP-28-A] 13 p2382 N67-26226
Switching circuit for sequential timing control of high frequency direct current regulator [DISS-2647] 18 p2349 N67-32102
BRLESC I and III memory crossbar switch - microcircuit high speed digital communication switching system for multiprocessor computer system [BRL-MR-1827] 19 p3409 N67-32922
Cryotron logical design and photoetching technique for constructing circuits [C-67024] 19 p3421 N67-33175
High current switching circuit with low inductance field distortion spark gaps in parallel [CLM-R-71] 20 p3621 N67-34920
Coaxial circulator combined with p-i-n active switching in broadband medium power radar duplexer [NEL-1454] 21 p3814 N67-35488
Design, development, and testing of new integrated circuit switch device [NASA-CR-88506] 22 p4009 N67-36729
Application of computer program to dc and transient analysis of switching circuits [ECOM-2834] 22 p4016 N67-37327
Research projects on threshold logic, sequential switching network designs, shift registers, and relevant computer programs [DSR-74631] 23 p4229 N67-38139
Junction field effect transistors evaluated for use in analog switch circuits [TG-908] 23 p4232 N67-38156
Incidence matrices used to sequence row and column permutations in designing computer switches [RM-197] 24 p4478 N67-39542

SWITCHING ELEMENT
SA FLUID SWITCHING ELEMENT
Design theory and fabrication procedure for n-p-n 100 ampere silicon switching transistor [NASA-CR-89141] 02 p0345 N67-12161
Production engineering measure to establish capability of manufacturing p-n-p silicon switching transistor [TI-02-66-93] 02 p0345 N67-12198
Responsive switching element for magnetic control of nuclear reactor armature [WAPD-TRANS-34] 04 p0523 N67-14046
Relay track drive switching element and time delay 07 p1091 N67-17291
Solid state display device using binary input information [GRR-65-1063] 07 p1091 N67-17656
Fluid logic foil switching device 10 p1608 N67-21104
High voltage switching equipment for large hydroelectric plants 11 p1838 N67-22304
High voltage step-down substations 11 p1838 N67-22305
Gallium arsenide thin film switching diode development 19 p3418 N67-32422
Standard method for synthesis of finite automata without storage constructed from static switching elements [FTD-HT-66-494] 22 p4005 N67-37221
Silicon switching transistor with saturation voltage of 0.1 V at 75 A collector current [NASA-CR-89750] 24 p4420 N67-40229

SWITCHING FUNCTION
Use of chatter mode in self-adaptive control systems where switching function describes model dynamics [NASA-CR-88700] 22 p4017 N67-37384
Simplified switching functions for time optimal control systems [R-365] 24 p4423 N67-39580

SWITZERLAND
European space program, research projects in space technology, and international cooperation of Swiss organizations 07 p1213 N67-17650

SYMBOL
Fortran computer program, vocabulary, symbols, and instructions used in calculating propellant performance 03 p0371 N67-13055
Symbols for analog and hybrid computer signal flow diagrams 04 p0517 N67-13907
Relative legibility of Leroy and teletypewriter symbols during hourly sequence weather reports [MTR-303] 06 p0816 N67-16484
Legibility of alphanumeric display symbols [MTR-304] 07 p1019 N67-16899
Standardization of symbols and units for biological variables used in environmental research [AMRL-TR-66-115] 10 p1561 N67-20650
Standard identification symbols adopted by metallurgical industry of Chinese Peoples Republic for iron and steel, nonferrous metals, and alloy products [JPRS-40131] 14 p2557 N67-27322
Comparison of standard Leroy alphanumeric symbols with Lincoln/MITRE symbols for legibility on television display systems [MTR-289] 21 p3797 N67-35689

SYMMETRICAL BODY
SA GEOID
Pressure, temperature, and velocity distributions of symmetric airfoil models in boundary layer wind tunnel [DLR-FB-66-57] 04 p0479 N67-13758
Flow of strongly rarified plasma around charged body [FTD-HT-66-290] 11 p1983 N67-23142
Solution of nonhomogeneous thermal conduction equation for multilayered bodies 18 p3355 N67-32285
Equations for gravitational collapse of spherically symmetric body with radial energy flow to obtain diagram of total energy emitted during collapse versus original mass 20 p3738 N67-34947
Description of quasi-symmetric rockets attitude by means of trigonometric functions [ESRO-TM-91] 24 p4490 N67-40054

SYMMETRY
SA AXISYMMETRY
SA ISOTROPISM
Problem of dynamical groups in quantum mechanics [INR-687/VII/PH] 01 p0119 N67-10137
Symmetry breaking quasi-particle method for baryons and quarks - bound state problem [JINR-E-2714] 01 p0122 N67-10618
Elementary particle theory in relation to triplets, static SU-6, and spontaneously broken SU-3 symmetry [COO-264-306] 01 p0122 N67-10622
Fundamental fields of matter to suggest common basis for higher symmetry multiplets and algebra for weak currents in particle theory [IC/66/85] 01 p0122 N67-10624
Hadron form factors according to SL/6,C/ [IC/66/84] 01 p0123 N67-10678
Hypothesis of conserved tensor currents and SU/6/ group [JINR-P-2686] 01 p0125 N67-10679
Group theory SU/3 algebra of currents and P-wave non-leptonic hyperon decays [IC/66/73] 01 p0126 N67-10717
Algebraic method for solution of dynamic problems in nonrelativistic system with known symmetry properties [IC/66/87] 01 p0126 N67-10729
Phenomenological symmetries of baryon-antibaryon-meson vertices [BNL-10267] 01 p0127 N67-10786
High energy scattering lectures on experimental survey, cross section bounds, nonforward scattering, crossing symmetry, partial wave amplitudes, and dispersion relations [NP-16231] 01 p0129 N67-10939
Number of idempotent elements in symmetric semigroup and asymptotic expansion of equivalence class [MRC-807] 01 p0065 N67-10966
Dense packing of hard spheres with five-fold symmetry and observations in metal crystal lattice

[TR-5] 03 p0428 N67-12534
Structural analysis of S-matrix in non-compact symmetry groups and collinear particle subgroups
[JINR-E-2754] 03 p0446 N67-13311
SU/3/ symmetry used to obtain relations between cross sections for baryon-baryon reactions
[TR-585] 03 p0447 N67-13333
Symmetry principles in physics - history, effectiveness in quantum mechanics, symmetries in elementary particle physics, and C, P, and T invariances
[BNL-956/T-397/] 04 p0584 N67-13625
Historical survey and phenomenological approach to SU sub 6 symmetry of elementary particles - hadrons
[NP-16191] 07 p1148 N67-17416
Group theory lectures on SU sub 3 symmetry
[NP-16343] 07 p1148 N67-17417
Relations between total cross sections for scattering from singlet and triplet states following from collinear symmetries for baryon-baryon forward scattering
[JINR-P-2672] 07 p1155 N67-17695
Scattering amplitude analysis for symmetry group with infinite multiplets
[JINR-E2-3933] 10 p1702 N67-20962
Relativistic SL/6,C/ symmetry
[JINR-E2-3951] 10 p1719 N67-21488
Matrix element calculation of particle decay in internal symmetry group
[JINR-P2-2957] 10 p1720 N67-21518
Statistical model of multiple particle production in broken unitary symmetry
[JINR-P2-2956] 10 p1720 N67-21519
Statistical model with breaking unitary symmetry for annihilation processes
[JINR-P2-3001] 10 p1729 N67-21674
Su-3 Wigner coefficients in angular momentum space
[IC/66/108] 11 p1936 N67-22501
Optimum design of symmetrical parallel-T RC networks
[AFCRL-66-733] 11 p1845 N67-23527
Degenerate unitarity representations of SU/2,2/ group and elementary particle symmetry
[JINR-P2-3078] 12 p2160 N67-23579
Transmission electron microscopy studies of pseudo-fivefold symmetry in carbonyl process nickel 12 p2118 N67-24381
Sum rule for pion coupling constant resulting from current algebra
[INP-496/PL] 13 p2172 N67-24693
Unitary symmetry in hadron production reactions
[AEC-TR-6807] 13 p2371 N67-25399
Spontaneous breakdown of symmetries and zero mass states - Goldstone theorem in relativistic field theory
[DESY-66/38] 13 p2378 N67-25987
Currents and symmetry breaking in field theoretical model of fermion triplet field coupled to pseudoscalar, scalar, vector, and axial vector meson nonets 13 p2380 N67-26144
Theory of elementary particle symmetry
[NASA-TT-F-10618] 14 p2584 N67-26566
Theoretical physics, elementary particles, symmetries in strong interactions, and weak interactions - conference
[CERN-66-29, VOL. 2] 14 p2591 N67-27490
Fitting of Regge symmetries into broader group theoretic framework
[TH/183] 14 p2593 N67-27828
Development of modern physics, emphasizing symmetry and elementary particle theories 15 p2756 N67-27867
Annihilation of stopping antiprotons into kaons
[R-575] 15 p2767 N67-28523
SU3 particle hole states in calcium 40
[IS-1429] 16 p2947 N67-29726
Group theory and unitary symmetry applications to problem of weak particle interactions
[TH/115] 16 p2950 N67-29983
Neutron electric dipole moment experiment and summary of symmetry principles for elementary particles
[ORNL-TM-1754] 18 p3307 N67-31540
Branching diagrams for SU/2/, SU/3/, U/2/, and U/3/ 19 p3503 N67-33062
Optimization method with symmetry considerations for single parametric adjustment of control loop
[RAE-LIB-TRANS-1216] 19 p3421 N67-33339
Search for hyperons and bosons belonging to higher symmetries
[UCRL-17388] 20 p3693 N67-34353
Elementary particle physics and broken symmetries in quantum electrodynamics
[REPT.-2] 20 p3695 N67-34540
Superconvergent sum rule for pion photoproduction on lambda hyperon derived in framework of SU/3/ symmetry 20 p3697 N67-34747
Symmetries and current algebras applied to electromagnetic interactions
[JINR-E2-3203] 20 p3700 N67-34922
Dispersive method for calculating symmetry breaking corrections to strong coupling constants and application to baryon-pseudoscalar meson coupling in broken SU/3/ symmetry
[INP-541/PL] 20 p3701 N67-34971
Determination of coordinates of center of gravity in symmetry plane of aircraft
[REPT.-36] 20 p3568 N67-35348
Relation between vector and axial vector Cabibbo angles in broken SU-3 symmetry
[AD-654194] 21 p3899 N67-35590
High energy physics index - nuclear reactions and interactions, strange particles, accelerators, methods and instruments, experiments, symmetry principles, and field theory
[AED-C-23-12] 21 p3903 N67-36005
Field theory with infinite multiplets for two series with degenerate unitary group representation
[JINR-P2-3200] 21 p3905 N67-36400
Coulomb and exchange integrals constructed from Slater wave functions for calculating molecular orbitals
[R675D44] 22 p4102 N67-36871
Connection between SU/3/ and O/4/ symmetries
[AD-655653] 22 p4102 N67-36874
Regge symmetries of 3J symbols of SU-2
[LPTHE-TH-183] 22 p4110 N67-37936
Strong decays of baryonic resonances in baryons, pseudoscalar mesons, and SU/3/ symmetry
[TH/214] 23 p4312 N67-39052
Fubini-Furlan method applied to problem of q squared dependence of K sub l3 form factors - group symmetry and matrix algebra
[TH/211] 23 p4313 N67-39146
Mathematical investigation of structural relations between endomorphisms, automorphisms, and all congruence relations of an arbitrary, not necessarily finite automaton
[D1-82-0592] 23 p4231 N67-39203
Coincidence of Regge trajectories and Su/2/ symmetry for nucleon-meson interaction
[FTI-LA-1] 24 p4504 N67-40478

SYMPATHETIC NERVOUS SYSTEM
Role of cervical and abdominal regions of sympathetic nervous system in changing blood and blood circulation under action of chronic hypoxia and ionizing radiation 02 p0194 N67-11530
Influence of steroid hormones on afferent and efferent impulsation in conductors of sympathetic nerves and electrical activity of sympathetic ganglion in dogs under stress 02 p0202 N67-11604

SYNAPSE
Vestibular nuclear complex of cat, afferent and efferent fiber connections and synaptic arrangements, and dissimilarity in functioning of cell groups and parts of nuclei 05 p0655 N67-15121
Frequency analysis method for investigating information transmission through cerebral synapses 20 p3575 N67-34512

SYNCHROCYCLOTRON
Regenerative beam extraction for synchrocyclotrons and isochronous cyclotrons
[UCRL-16793] 01 p0121 N67-10600
Synchrocyclotron accelerating voltage using intensity dependence on frequency modulation
[JINR-P-2730] 01 p0126 N67-10698
Synchrocyclotron conversion
[CONF-660518-19] 01 p0056 N67-10788
Capture efficiencies of synchocyclotrons
[CERN-66-27] 03 p0440 N67-12824
Particle beam extraction from 600-MeV synchrocyclotron
[JINR-P-2811] 04 p0583 N67-13380
Energy evaluation and sample dependent background corrections for total neutron cross section measurements by synchrocyclotron spectrometer 06 p1236 N67-18612
Isochronous cyclotron, synchrocyclotron, and separated orbit cyclotron for measuring slow neutron cross sections 08 p1342 N67-18867
Magnetic measurements on different types of magnetic structures applicable to synchrocyclotrons 09 p1483 N67-19365
Beam current restriction by space charge in synchrocyclotron
[JINR-P-2912] 10 p1719 N67-21490
Wideband grounded-grid amplifier design and tuning for multistage synchrocyclotron machines
[CERN-66-35] 13 p2292 N67-25660
Polarization measurements of proton beam obtained by scattering beryllium target inside synchrocyclotron
[JINR-P1-3189] 17 p3123 N67-30232
Magnetic field formation in central region of synchrocyclotron to increase particle vertical focusing
[JINR-P09-3181] 19 p3511 N67-33922
Inductive beam intensity monitor for extracted proton beam from synchro-cyclotron
[CERN-67-9] 20 p3643 N67-34970
Retrospective study of Buenos Aires synchrocyclotron facility, with bibliography on its completed nuclear research
[CNEA-186] 21 p3829 N67-36562

SYNCHRONIZATION
SA BIT SYNCHRONIZATION
SA FREQUENCY SYNCHRONIZATION
Fabrication feasibility of power supply synchronizer subsystem
[NASA-CR-80538] 03 p0335 N67-13203
Time synchronization experiments with Deep Space Network Stations 06 p0639 N67-15918
Clock synchronization by satellite, and radio frequencies from space 06 p0916 N67-16002
Nanosecond light pulse generator with external synchronization
[NASA-TT-F-10662] 08 p1257 N67-18928
Methods for synchronizing remotely located clocks
[NASA-CR-738] 09 p1448 N67-19896
Synchronous system of data processing to offset signal delay effect in digital computer systems 13 p2286 N67-25711
Magnetic tape recorder-reproducer to accept data pulses at varying rates, record data at constant rate, and retrieve recorded data at rate synchronized to external clock
[NASA-CR-84145] 14 p2496 N67-26519
Mathematical formulation for phase synchronization of parametric subharmonic oscillator
[ECOM-01870/E/-8-T] 18 p3250 N67-32263
Up-down counter for synchronization of instrumentation used with pressure driven shock tube
[HDL-TM-67-5] 19 p3450 N67-32855
Behavior of automata in periodic random media, and synchronization problem in presence of interference - Markov process 20 p3614 N67-34556
Block coding and synchronization, propagation, communications systems, information processing, and data compression of space telemetry 20 p3603 N67-34778
Breadboard magnetic tape recorder-reproducer with servocontrol and data synchronization
[NASA-CR-88197] 21 p3848 N67-35754
Survey and analysis of techniques for providing synchronous time information for tagging recorded data
[NASA-CR-85359] 23 p4214 N67-38636
Coding of time signals - oscillators used on satellites and ground for signal production
[ESRO-TM-46] 24 p4406 N67-40081

SYNCHRONIZATION CODE
Methods of synchronizing information transfer by multifrequency codes with correction of errors 03 p0365 N67-12413
Communication systems research in block coding and synchronization, cyclic Hadamard matrixes, range-grated autocorrelation function, and information processing 12 p2050 N67-23661

SYNCHRONIZED OSCILLATOR
Oscillation stability for synchronization of finite set of weakly coupled oscillators to small external signal - frequency entrainment
[R-318] 03 p0273 N67-12878
Frequency shifter subassembly using synchronized avalanche oscillator for Block IIB receiver exciter 06 p0639 N67-15923

SYNCHRONOUS COMMUNICATIONS /SYNCOM/ SATELLITE
Syncom 2 and Syncom 3 observed during seven periods of free drift to find effective potential at synchronous height
[RAE-TR-66397] 15 p2788 N67-27789

SYNCHRONOUS COMMUNICATIONS /SYNCOM-III/ SATELLITE
Syncom III engineering data, launch and orbital maneuvers, and television transmission
[NASA-TR-R-253] 12 p2218 N67-35044

SYNCHRONOUS COMMUNICATIONS SATELLITE PROJECT
Orbital-positioning phases of Syncom II observed by control tracker of telecommunications station
[NASA-TT-F-8522] 01 p0036 N67-10187
High gain antenna beam geometry calculations for communications satellites in synchronous orbits
[NASA-CR-89343] 23 p4348 N67-39294

SYNCHRONOUS DETECTOR
Nucleonic experiment fundamentals, nuclear detector types, synchronous detector applications, and experimental data reduction
[FTD-TT-65-552] 10 p1697 N67-20643

SYNCHRONOUS MOTOR
Transient behavior of synchronous electrical machines in terms of Laplace transformation
[RAE-LIB-TRANS-1130] 10 p1897 N67-21150
Power angle regulator for synchronous machines
[RAE-LIB-TRANS-1192] 11 p1787 N67-22063
Nondestructive method for determining residual gas life of charcoal beds, and motor and lubricant for vacuum operation at cryogenic temperatures
[PB-173179] 17 p3189 N67-30282
Motor and solid film lubricant for vacuum operation at cryogenic temperatures 17 p3071 N67-30284
Starting of converter controlled synchronized induction motor under load
[DISS-3760] 17 p3152 N67-30760
Compensation method for hysteresis effect in synchronous induction motor
[PROM.-3606] 17 p2907 N67-30763

SYNCHRONOUS SATELLITE
Function minimization applied to nonlinear least squares curve fitting problem arising in estimation of geophysical constraints from synchronous satellite observations
[RAE-TR-66280] 11 p1974 N67-22486
Optimized performance of articulated gravity gradient satellite at synchronous altitude
[UTIAS-118] 11 p1977 N67-23125
Use of high gain antennas and advanced electronics for synchronous satellite communication
[P-3477] 15 p2796 N67-28960
Orbit trim propulsion requirements for sun synchronous satellites
[NASA-TM-X-55825] 16 p2965 N67-30148
Program plan for fan beam navigation test satellite
[NASA-CR-85003] 17 p3102 N67-31433
Geosynchronous satellite transponder for providing two-way voice and data communication between aircraft and ground control facilities, and position location
[NASA-TM-X-55863] 19 p3403 N67-33199
Optimal control applications for electrothermal multijet systems for attitude control and station keeping of 24-hour synchronous satellite
[NASA-TM-X-55969] 19 p3370 N67-33431
Ion propulsion system evaluation for attitude control and stationkeeping of synchronous satellites
[NASA-TM-X-55974] 20 p3716 N67-34342
Electric propulsion application to synchronous satellite orbit adjustment, stationkeeping, and attitude control
[NASA-TM-X-55880] 20 p3716 N67-34300
Tracking requirements for a twenty-four hour satellite station keeping control system
[ELDO-TM-F-93] 20 p3684 N67-34679
Motion stability of twenty-four hour satellite in geomagnetic field 20 p3734 N67-35024
Degrading effects of sea reflection multipath fading on synchronous satellite 21 p3795 N67-35362
Omega position location equipment feasibility experiment on using Omega navigation system and synchronous satellites for global location and data collection system
[NASA-TM-X-55885] 21 p3885 N67-36634
Orbital regression of synchronous satellites due to combined gravitational effects of sun, moon, and oblate earth
[NASA-CR-88355] 21 p3823 N67-36636
Technical and cost factors regarding effective television reception from synchronous satellite
[NASA-CR-76091] 21 p3802 N67-36665
Earth coverage from circularly symmetric shaped-beam antenna on synchronous satellite
[ESD-TR-67-321] 22 p4000 N67-37883
Determining locations of equilibrium positions of synchronous equatorial satellites
[NAL-TN-2] 23 p4345 N67-39079
Natural environment surrounding satellite in synchronous circular orbit defined in terms of thermodynamic and geophysical variables, and electromagnetic and particle radiation field
[TR-192] 24 p4527 N67-39566

SYNCHRONOUS SATELLITE SYSTEM
Deployable antenna, fine pointing and slewing, and oriented platform at synchronous altitude for Applications Technology Satellite program
[NASA-TM-X-55833] 17 p3166 N67-31355
Economic synchronous communications satellite system in equatorial orbit for handling world telecommunications needs
[NASA-CR-89627] 24 p4495 N67-39645

SYNCHROPHASOTRON
Neutral particle beam direction in bubble chamber of synchrophasotron determined by conversion pairs and gamma quantum spectrum
[JINR-P-2916] 10 p1675 N67-20783
Measurement of synchrophasotron magnetic field by Hall generator
[JINR-P-3818] 10 p1760 N67-20693
Nonlinear terms taken into account when finding field components of charged particle trajectory in synchrophasotron magnetic field
[JINR-P-3880] 10 p1797 N67-20913
Concrete attenuation of neutron flux emitted at 90 deg to primary proton beam direction of 10 GeV synchrophasotron
[JINR-P9-3923] 10 p1734 N67-21586
Proton multiple acceleration system resonator designed for synchrophasotron
[JINR-P13-3084] 12 p2083 N67-24666

SYNCHROTRON
SA PARTICLE ACCELERATOR
Problem of finding current distributions to obtain magnetic field in superconducting synchrotron magnets
[BNL-10297] 01 p0116 N67-10728
Using extracted beam of electron synchrotron to study reactions /e,e prime p/, /e, prime n/, and /e, e prime alpha/
[ISS-66/20] 01 p0127 N67-10774
Thermoluminescent dosimeters used to measure number of particles, particle distribution, and beam shape of 12.5 BeV external proton beam of synchrotron
[ANL-7196] 04 p0551 N67-13829
Electron synchrotron of 4 GeV
[DNPL-2] 04 p0528 N67-13904
Construction of 4 GeV electron synchrotron - laboratory buildings, magnet, magnet power supply, rf accelerating system, vacuum system, and injection system
[DNPL-1] 07 p1152 N67-17533
Glass and ceramic support insulators for high voltage apparatus in vacuum - proton synchrotron
[RHEL/R-17] 07 p1651 N67-17580
High voltage performance of electrostatic separators for proton synchrotron
[NP-TR-1419] 07 p0999 N67-17581
Engineering and model studies for flat-topping of synchrotron
[PPAD-597D] 08 p1281 N67-18825
Deflection of accelerated beam to internal target in strong focusing synchrotron 09 p1467 N67-19362
Modification of magnetic structure of isochronous synchrotron to study proton acceleration up to 60 MeV 09 p1482 N67-19363
Automatic control system for magnetic field of proton-synchrotron electromagnet 09 p1426 N67-19364
Pulsed excitation of resonance power supply system for high energy synchrotron electromagnets 09 p1427 N67-19378
Vacuum chamber designs for proton and electron synchrotrons 09 p1429 N67-19379
Radio frequency beam separator and transport system for alternating-gradient synchrotron
[BNL-10585] 10 p1711 N67-20978
Photoproduction, electron scattering, and quantum electrodynamics experiments on electron synchrotron
[NP-16354] 10 p1721 N67-21529
Experimental setups and parameters for surveying synchrotron
[DESY-66/28] 10 p1723 N67-21569
Theory of gradient perturbations in alternating synchrotron
[BNL-10899] 12 p2164 N67-23770
Design study for 1000 MeV booster synchrotron injector for alternating gradient synchrotron
[BNL-10894] 12 p2974 N67-23771
Photoproduction of neutral pions for incident photon energies 400 to 800 MeV measured in electron synchrotron
[LNF-66/65] 12 p2165 N67-24028
Recent operating experience with zero gradient synchrotron injector linear accelerator 12 p2975 N67-24068
Performance characteristics of zero gradient synchrotron linac automatic gradient stabilizer 12 p2976 N67-24071
New 500 keV single gap preinjector tube for CERN proton synchrotron linac 12 p2979 N67-24114
Structural design of 20 MeV proton linear accelerator, new injection for SATURNE synchrotron 12 p2980 N67-24122
Longitudinal instability and synchrotron oscillation theories
[BNL-11041] 14 p2391 N67-27484
Folded ferrite loaded cavities for impedance matching in alternating gradient synchrotron
[BNL-11076] 14 p2513 N67-27489
Synchrotrons for producing proton beams with energies above 20 GeV
[BNL-11117] 15 p2687 N67-28438
Synchrotron, fast ejected proton beam behavior in energy range of 50 to 400 MeV determined by measuring ejected beam vertical phase space emittance and density distribution
[BNL-11141] 15 p2789 N67-28584
Mathematical method for improved calculations of slow beam extraction from alternating gradient synchrotron
[BNL-11160] 15 p2770 N67-28585
Fast beam and slow third integral resonance extraction from proton synchrotron
[BNL-11102] 15 p2770 N67-28586
Advanced proton linear accelerators - meson factories and injectors for synchrotrons
[LA-DC-8383] 16 p2972 N67-28697
West German electron synchrotron and theories on photoproduction and electroproduction
[DESY-67/1] 16 p2947 N67-29720
Design of flexible mounting facility for pion-muon channel for 600 MeV synchrocyclotron and evaluation of channel performance
[NASA-CR-68410] 16 p2975 N67-30021
Installation, debugging, and testing of radio frequency beam separator in synchrotron 17 p3066 N67-30906
Aluminum coils for ac injector synchrotron and dc storage ring magnet systems
[UCRL-17252] 19 p3425 N67-33234
Magnetic characteristics of separated function magnet lattice for very high energy synchrotron
[BNL-11346] 20 p3686 N67-34171
Ceramic vacuum chamber for injector synchrotron magnet
[UCRL-17234] 20 p3619 N67-34296
Rf system high power components and accelerating structures in interlaced-beam injector synchrotrons for use as possible component of injection system for 300-BeV accelerator
[UCRL-17451] 20 p3620 N67-34709
Injection timing and radio frequency control system for electron synchrotron
[CALT-68-169] 21 p3816 N67-35700
Brightness of Penning discharge ion source used in cosmotron injector
[BNL-11364] 21 p3825 N67-35835
Booster design study of large aperture AG synchrotron magnet
[BNL-11441] 21 p3827 N67-36075
Selection of injector synchrotron

parameters to minimize cost of 200 GeV accelerator
[UCRL-17191] 21 p3826 N67-36434
Superperiod gradient perturbations in alternating gradient synchrotrons
[BNL-11423] 21 p3906 N67-36589
Approximate Hamiltonian for analysis of resonant beam extraction from synchrotron
[SJC-A-66-1] 21 p3906 N67-36642
Design of large hydrogen bubble chamber for proton synchrotron
[CERN/TC/BEBC-66-73] 21 p3829 N67-36657
Alternating gradient synchrotron injector beam monitoring system
[BNL-11493] 22 p4049 N67-37691
Calculation method for beam orbits in alternating gradient synchrotron
[BNL-11469] 22 p4107 N67-37721
Angular distribution of electron pairs produced by polarized photons at Frascati electron synchrotron
[LNF-67/49] 23 p4309 N67-38816
Linac-like techniques and short and long burst techniques for extracting external burst from electron synchrotrons
[LNF-67/39] 23 p4309 N67-38847
Finite difference equations calculation of beam cavity coupling instability of coherent synchrotron oscillations
[LNF-67/45] 24 p4502 N67-40228
SYNCHROTRON RADIATION
Electron storage ring for synchrotron radiation with line spectra
[CEAL-1032] 10 p1600 N67-20865
New injectors for large proton synchrotrons, and recent developments in linear accelerators
[BNL-10687] 10 p1601 N67-20958
Method to determine content of relativistic protons and electrons in synchrotron radiation sources
[NASA-CR-83534] 11 p1973 N67-23260
Thermal instability resulting from synchrotron radiation
[CSUAC-68] 17 p3143 N67-30953
Radiation levels in area of external proton tunnel of Argonne Zero Gradient Synchrotron, and shielding protection
[ANL-7273] 18 p3306 N67-31766
Atmospheric electric field relation to ionospheric irregularities, and absorption mechanisms for synchrotron radiation from trapped electrons in Van Allen belts 18 p3322 N67-32503
Photon-photon scattering experiments - laser beams, X-rays, synchrotron radiation, and nuclear explosions
[CERN-67-15] 20 p3697 N67-34706
Beam current measurements in 6 GeV electron synchrotron using synchrotron radiation
[DESY-67/9] 21 p3904 N67-36198
SYNCOM PROJECT
S SYNCHRONOUS COMMUNICATIONS SATELLITE PROJECT
SYNCOM SATELLITE
S SYNCHRONOUS COMMUNICATIONS /SYNCOM/ SATELLITE
SYNOPTIC METEOROLOGY
Radio refractive index of atmosphere, tropospheric refraction, and synoptic radio meteorology
[NBS-MONOGRAPH-92] 01 p0008 N67-10241
Time and space variations of refractive index structure with synoptic tropospheric disturbance 01 p0089 N67-10246
Satellite data, vorticity, divergence, and Raob, synoptic, and isohyetal analyses for two successive heavy rainstorms over south Florida
[SAR-2] 01 p0100 N67-10290
Conference of Directors of Hydrometeorological and Meteorological Services of Socialist Countries of Europe
[JPRS-39494] 01 p0100 N67-10292
Secular and seasonal variations of atmospheric droughts in Ukraine 03 p0419 N67-12865
Synoptic and Nimbus I infrared radiometer data used to investigate peripheral subsidence in hurricane outflow
[NASA-CR-80833] 03 p0419 N67-12974
Error reduction in synoptic infrared radiation data as filed on meteorological tapes from Tiros satellite 04 p0576 N67-13498
Conference on diurnal, seasonal, and synoptic aspects of tropical meteorology
[ML-66210] 10 p1669 N67-20422
Spatial distribution of rainfall probability over Barbados based on 11-year sample stratified for climatic and synoptic regimes 10 p1670 N67-20426
Mesoscale rainfall in macroscale system - synoptic situations in southeastern Guatemala 10 p1670 N67-20427
Harmonic analysis of rainfall in Central America and synoptic features associated with rainfall 10 p1670 N67-20428
Nephanalysis techniques evaluated for case of artificial cloud cover 12 p2133 N67-23482
Midlatitude frontal cloud models for weather forecasting
[AD-640931] 12 p2136 N67-24005
Conference on satellite data techniques in meteorological research
[NCAR-TN-11] 12 p2137 N67-24283
Production and maintenance of large scale cloud systems, and relationship between calculated fields of large scale vertical motion and Tiros cloud photography 12 p2138 N67-24292
Potentiality of satellite radiometric measurements in carbon dioxide emission band for synoptic representation of stratosphere temperature patterns 12 p2139 N67-24300
Tabulated Alouette I ionospheric data 13 p2311 N67-25574
Tabulated Alouette I ionospheric data 13 p2311 N67-25575
Tabulated Alouette I ionosphere data 13 p2311 N67-25576
Synoptic conditions of characteristic weather types analyzed for glacier region of Polar Urals 14 p2568 N67-27145
Synoptic model relating surface winds, flying conditions, and rainfall at Kadena AB, Okinawa, to positions and intensities of tropical cyclones
[AD-656258] 16 p2924 N67-29060
Synoptic world weather analysis of Tiros VII radiation data
[NASA-TN-D-3787] 16 p2924 N67-29357
Synoptic relationship between concurrent radar precipitation patterns and Tiros IX cloud photographs
[AD-649003] 16 p2925 N67-29671
Synoptic meteorological study of high latitude field of polar disturbances
[NASA-CR-85243] 16 p2989 N67-30002
Diagnostic studies of weather systems of high and low latitudes using general balance model for small Rossby numbers
[NASA-CR-85513] 17 p3097 N67-30784
Numerical calculation of three-dimensional trajectories using balanced horizontal and vertical motions 17 p3098 N67-30787
Dynamical structure of tropical atmosphere based on experiments with diagnostic numerical model 17 p3098 N67-30788
Synoptic study of developing tropical easterly waves 17 p3098 N67-30789
Calculation of percentage area covered by convective clouds from moisture convergence 17 p3098 N67-30790
Weekly synoptic analyses for 1964 of 5-mb, and 0.4-mb surface charts based on meteorological rocket network observations
[WB-2] 17 p3098 N67-30879
Radio direction finder data as backup source for meteorological detection of thunderstorms and related atmospherics centers
[T-R-573] 19 p3483 N67-32841
Lower atmospheric processes on low cloud cover day
[FTD-MT-66-23] 19 p3484 N67-33402
Synoptic meteorology - atmospheric processes as related to solar activity, solar cosmic rays and high energy particles in troposphere, and color photography as visual aid
[JPRS-41465] 19 p3484 N67-33523
Atmospheric circulation changes in Northern Hemisphere as related to solar activity 19 p3485 N67-33524
Solar cosmic rays and high-energy particles of earth's inner radiation belt as intermediaries in transmission of disturbance from sun to troposphere 19 p3485 N67-33525
Color photography for visual showing of atmospheric processes in Northern Hemisphere - synoptic meteorology 19 p3485 N67-33526
Synoptic analyses of upper stratospheric circulation over northern hemisphere during late winter storm of 1966
[ECOM-5126] 21 p3883 N67-35781
Thunderstorm and lightning activity, and frontal passages over Hawaiian Islands - synoptic climatology
[HIG-67-9] 21 p3883 N67-36522
Synoptic climatology of Hawaii - frontal passages and number of cyclonic storms 21 p3883 N67-36523
Synoptic surface observations for Greenland, 1951-1960 - tables 22 p4086 N67-36873
Application of computer method for determining probability of cloud free line of sight for satellite reconnaissance in intermontane region of United States
[RM-5365-PR] 22 p4087 N67-37261
Budget of kinetic energy in developing cyclone over northwest Europe
[REPT.-64] 23 p4278 N67-38293
Persistent and widespread fog periods in southern Germany during winter months
[REPT.-2VS-432] 23 p4278 N67-38504
Meteorological, snow, and ice data and charts for Berlin and Germany, and articles on North Sea storms, radioactivity, arctic, and tropical meteorology, winter 1966-67 23 p4278 N67-38555
February 1967 weather charts and meteorological data for Berlin and Germany, and articles on storm phenomena, polar and arctic research, weather radar, and heat budget of earth 23 p4279 N67-38603
Interaction between upper and lower atmosphere
[NASA-TM-X-55951] 23 p4246 N67-39055
Onset-duration tables of specified ceiling and visibility categories for use as supplemental aid in short period weather forecasting
[AD-658038] 24 p4485 N67-39842
Synoptic results from general atmospheric circulation model 24 p4486 N67-39917
Short range, subsynoptic surface weather forecasts of cloudiness and precipitation 24 p4487 N67-39935
July 1967 weather charts, climatological data, and meteorological articles for Berlin, Germany, and central Europe 24 p4487 N67-39955
May and spring 1967 weather charts, climatological data, and meteorological articles for Berlin, Germany, and central Europe 24 p4488 N67-39959
June 1967 daily weather maps for Germany and synoptic meteorological data and articles for central Europe 24 p4488 N67-40000
Synoptic processes in south China measured for March through May during 1956-1962
[EMM-66-139] 24 p4488 N67-40018
Daily weather maps for Germany and synoptic meteorological data and articles for central Europe for April 1967 24 p4488 N67-40038
SYNOPTIC PERIOD
Extreme rainfall and extensive flooding in southern Florida analyzed for synoptic aspects 10 p1670 N67-20424
SYNOPTIC SYSTEM
Visibility deterioration on approach of synoptic weather front 06 p0906 N67-15469
Objectives, methods, and results of Gemini 4 synoptic terrain photography experiment
[NASA-TN-D-3983] 14 p2525 N67-27274
Typhoons, heavy rainstorms, and anticyclones in China during summer
[EMM-66-103/A/] 14 p2569 N67-27717
SYNOPTICAL MEASUREMENT
Large-scale measurements of rate of snow melting made by meteorological stations 11 p1864 N67-22936
Potentiality of satellite radiation data for synoptic analysis 12 p2130 N67-24293
Alouette topside sounder synoptic data for February 16 through 29, 1964 13 p2314 N67-26116
Synoptic analysis of near surface and subsurface temperatures in Atlantic Ocean during passage of Hurricane Betsy - bathythermograph radio data
[AD-653270] 18 p3291 N67-32516
SYNTHESIS
SA FREQUENCY SYNTHESIS
SA NETWORK SYNTHESIS
SA NUCLEOSYNTHESIS
SA PHOTOSYNTHESIS
Shaped-beam radiation pattern synthesis with approximately equal-percentage ripple
[FR-66-14-241] 01 p0038 N67-10447
Mechanism of 2,4-dimethylenetetraborane formation and suggested classification for carboranes and alkylboran hydrides
[TR-9] 01 p0038 N67-10513
Synthesis of carborane-siloxane elastomers
[RMD-5065-Q6] 01 p0035 N67-11186

Synthesis and characterization of vinylaromatic polymers
[NASA-CR-80125] 02 p0230 N67-12176
Synthesis of linear, double-chain ladder polymers from substituted tetraphosphonitriles
[NASA-CR-79273] 02 p0230 N67-12261
Unit synthesis of special purpose computers 03 p0370 N67-12416
Escape of hydrogen and equilibria of carbon and nitrogen compounds in relation to synthesis of organic compounds in primitive earth atmosphere 03 p0342 N67-12735
Synthesis of adenine under conditions simulating primitive earth atmosphere 03 p0342 N67-12736
Synthesis of purine intermediates from hydrogen cyanide under conditions simulating primitive earth atmosphere 03 p0343 N67-12737
Models and available energy sources for synthesis of organic compounds 03 p0357 N67-12738
Adenine synthesis by electron irradiation of gas mixture of methane, ammonia, and water 03 p0343 N67-12739
Hydrogen cyanide used to synthesize deoxyadenosine under conditions simulating primitive earth atmosphere 03 p0343 N67-12740
Conference on pure materials in science and technology - synthesis of high purity beryllium oxide and separation of titanium, niobium, and tantalum through liquid-liquid extraction
[FTD-TT-65-837] 03 p0358 N67-12838
Synthesis of high purity beryllium oxide 03 p0358 N67-12839
Linear optimal control theory for design synthesis of multivariable system
[IH-1943-F-1] 03 p0378 N67-13039
Research on synthesis, modification, and properties of heat resistant polymers of polyimide, polyoxazole, and polyoxadiazole 04 p0499 N67-13389
Adaptive properties of enzymatic reactions with enzyme forming system 04 p0499 N67-13451
Glycidic esters and/or organic disulfides and related substances as sources of antiradiation drugs
[AD-630199] 04 p0491 N67-13734
Technical cybernetics problems of optimal control, queueing, random processes, speech and pattern recognition, and information processing
[JPRS-39381] 05 p0685 N67-14341
Differential equations for optimal control synthesis of isoperimetric problem 05 p0686 N67-14345
Algorithm for constructing base in language of regular expressions, and application to abstract synthesis of nondeterministic automata 05 p0686 N67-14355
Analytical expressions for synthesis of formal neurons 05 p0686 N67-14356
Synthesis of automatic control system with variable parameters in phase space of coordinates with slip hyperplane 05 p0687 N67-14361
Synthesis, purification, and dissociation of boron triiodide and crystallization, purification, and evaluation of elemental boron
[AFCRL-66-561] 05 p0664 N67-14732
Algorithm for synthesis of binary sequence detectors
[NASA-CR-80690] 05 p0686 N67-14932
Synthesis and evaluation of thorium thin film thermionic electron emitter
[REPT.-388-1F] 05 p0654 N67-15099
Chemical synthesis of new hypofluorites containing nitrogen
[AR-3] 06 p0617 N67-15546
Synthesis of ring polyphenyls, and Grignard reagent preparation from substance containing two or three bromine atoms
[ARL-66-0144] 06 p0631 N67-16219
Synthesis of anhydrous uranyl nitrate 06 p0622 N67-16233
Synthesis of bis/fluoroxy/ difluoromethane by reaction of fluorine with carbon dioxide in presence of cesium fluoride at room temperature
[TR-55] 06 p0620 N67-16356
Synthesis of double chain novolac resins from polyhydric polynuclear phenols
[PA-TR-1346] 06 p0628 N67-16491
Regulation of RNA synthesis
[AFOSR-66-2650] 06 p0605 N67-16434
Synthesis of carborane siloxane elastomers
[RMD-5065-Q7] 06 p0631 N67-16641
High pressure synthesis of new crystalline lead dichalcogenides
[TR-5?] 06 p0631 N67-16652
Conference on molecular aspects of biological development
[NASA-CR-673] 07 p1005 N67-16781
Ribonucleic acid and protein synthesis in sea urchin eggs after fertilization 07 p1005 N67-16782
Ribosomal ribonucleic acid synthesis in frog embryos 07 p1006 N67-16784
Antigen synthesis during cellular reorganization in slime molds 07 p1006 N67-16788
Cell wall synthesis, and enzyme activity control in cellular slime mold development 07 p1006 N67-16789
Nucleic acid synthesis during differentiation of Blastocladiella emersonii fungus 07 p1007 N67-16793
Synthesis and characterization of polymeric systems for space vehicle protective coatings 07 p1024 N67-16857
Synthesis of networks containing lumped building blocks and uniform transmission lines
[PIBMRI-1323-66, PT. 1] 07 p1055 N67-17272
Synthesis of new solid state materials by ultrahigh pressure techniques
[AFCRL-66-737] 07 p1106 N67-17860
Chemical synthesis of silicon compounds
[ARPA-26] 07 p1029 N67-17716
Synthesis of fluoropolymers for elastomeric bladders for containment of nitrogen tetroxide and hydrazine fuels
[NASA-CR-81645] 07 p1107 N67-18000
Synthesis, temperature measurement, and high temperature furnaces related to refractory compound processing
[JPRS-39488] 07 p1105 N67-18080
Synthesis of beta-hydroxy alpha-amino acids from glycine in studying carbonyl compound reactions with N-salicylideneglycinato-aquo-copper /II/
[NASA-CR-81743] 07 p1022 N67-18087
Synthesis of model compounds and intramolecular energy transfer for organic laser materials, and sensitive rare earth fluorescence in organic solvents
[NASA-CR-81780] 07 p1022 N67-18123
Algorithm for synthesis of binary sequence detectors 06 p1280 N67-18333
Histone effect on synthesis of antibodies and other proteins in rabbit spleen cell culture
[NASA-TT-F-10737] 08 p1227 N67-18541
Synthesis and characteristics of atactic and stereoregular vinylaromatic polymers and their reactions with alkali metals
[NASA-CR-82397] 08 p1238 N67-18978
Optimization and synthesis of antenna arrays
[AFCRL-66-525] 08 p1251 N67-19147
Hydrogenated biphenyls synthesized for use as reference compounds in identification of radiolysis products obtained from benzene and diphenyl - phenylcyclohexenes
[EUR-3168.F] 08 p1241 N67-19193
Synthesis and properties of vinylallyl benzenes
[FTD-TT-65-1665] 09 p1408 N67-19546
Synthesis and evaluation of aromatic polyheterocyclics for use in rocket and missile components
[AD-642943] 09 p1485 N67-19819
Synthesis of automatic schemes from logical elements with direct connection
[FTD-TT-65-1633] 09 p1438 N67-19839
Method for synthesizing multiterminal switching circuits using only generalized numeration
[FTD-TT-65-1854] 09 p1438 N67-20196
Syntheses of ethanol, amino acids, and carbohydrates by carbon dioxide conversion for food 10 p1568 N67-20418
Syntheses of isotopes 254, 253, and 252 by plutonium bombardment with oxygen ions
[JINR-P-2839] 10 p1706 N67-20673
Synthesis of indigotin from n carboxymethyl anthranilic acid
[CNEA-178] 10 p1563 N67-21152
Synthesis and evaluation of complex polyammonium hydrides
[RMD-5064-F] 10 p1582 N67-21813
Formaldehyde synthesis procedures under space conditions, with bibliography
[NASA-CR-73979-1] 11 p1804 N67-21173
Solid catalyst selection for formaldehyde synthesis by methane oxidation
[NASA-CR-73971-11] 11 p1804 N67-22174
Synthesis and polymerization of trioxane derivatives obtained by cotrimerization of formaldehyde and acetaldehyde 11 p1807 N67-22246
Synthesis of aliphatic ketone by repeated exchange of 2-heptanone with deuterium oxide 11 p1808 N67-22253
Temperature effect on synthesis of cerium chalcogenides
[AD-640011] 11 p1811 N67-22739
Truncation errors in natural frequencies as computed by method of component mode synthesis 11 p1891 N67-22830
Quadrupole mass spectrometer for determining relationship between partial pressures and filament temperature in synthesis of hydrocarbons
[NASA-TN-D-3986] 11 p1811 N67-22869
Chemical synthesis of bridged bicyclic molecules to give medium-sized rings
[AFOSR-67-0026] 11 p1815 N67-22238
Boron phosphorus halide complexes for intermediates in preparation of boron phosphide films
[AFCRL-66-623] 12 p2008 N67-23606
Synthesis of fluorine containing olefins and dioleffins
[REPT.-67-48-CM] 12 p2028 N67-23631
Synthesis of small ring compounds containing silicon
[AD-645879] 12 p2039 N67-23677
Synthesis of 102 isotopes with mass numbers 256 and 255 in reactions induced by oxygen ions
[JINR-P7-3059] 12 p2046 N67-23721
Time synthesis approach to solution of time dependent diffusion problems
[WAPD-TM-641] 12 p2163 N67-23756
Oxidation resistance of hydraulic brake fluids - synthesis and characterization of methoxy butanol
[CCL-217] 12 p2042 N67-24009
Synthesis of chromium III phthalocyanine phosphinates
[TR-52] 12 p2042 N67-24051
Synthesis, structure, properties, and application of coordination compounds derived from triethanolamine 12 p2042 N67-24317
Power system synthesizer for simulating power line faults, and generating, programming, and recording output voltage, frequency conversion, and transient power conditions
[F-15568] 12 p2018 N67-24327
Synthesis of organometallic compounds by exchange of mercury group
[FTD-HT-66-479] 12 p2046 N67-24736
Synthesis of phosphorus-nitrogen reagents
[ARL-66-0063] 12 p2043 N67-24876
Pyrolysis and oxidation processes of cellulosic and synthetic materials
[USNRDL-TR-1113] 12 p2126 N67-24894
Synthesis of boron-permethyl cluster-carborane 12 p2049 N67-24903
Ozone and nitrous oxide formation by gamma irradiation of nitrogen oxygen gas mixture in flowing system at elevated pressure
[BNL-50017] 12 p2267 N67-25422
Bis /fluoroxy/difluoromethane preparation
[TR-57] 12 p2329 N67-25626
Synthesis and characterization of carbon subsulfide for use in determining properties of carbon telluride
[NASA-TM-X-59068] 13 p2274 N67-25970
Attempts to compound titanium chalcogenide infrared transmitting glasses
[TI-66-67-18] 14 p2381 N67-27019
Photolysis of metal ion complexes of olefins, heavy metal acetates, carboxylic acids and synthesis of ceric acetate
[AFOSR-67-0296] 14 p2477 N67-27980
Synthesis of mediators of sympathetic nervous system and pigmentation in ontogenesis of vertebrates
[NASA-TT-F-10953] 14 p2462 N67-27315
Abiogenic synthesis of protobiochemicals in hydrothermal model system under influence of ionizing radiation
[NASA-CR-84414] 14 p2462 N67-27972
Kinetics of methanol dehydration and dimethyl ether hydrochlorination in catalytic vapor phase synthesis of methyl chloride
[NASA-TT-F-10937] 14 p2461 N67-27417
Synthesis of linear double chain ladder polymers from substituted tetraphosphenitriles

[NASA-CR-84471] 14 p2483 N67-27505
Products and methods of polymer syntheses
[NASA-TT-F-10982] 14 p2484 N67-27600
Synthesis of capacitance transducers into digital codes 15 p2707 N67-27828
Synthesis, dissemination, collection, and analysis of iodine 129 used as atmospheric circulation tracers
[NYO-3301-1] 15 p2708 N67-28205
Synthesis of alkyl cyanopropionates and measurement of spreading coefficients on aqueous casein and water
[TR-6701] 15 p2862 N67-28690
Cassegrain antenna synthesis program 15 p2869 N67-28723
Crystal structure and growth, synthesis, and mechanical properties of mica
[AMRA-CR-66-07/2] 15 p2732 N67-28897
Chemical bonds, chemical reaction mechanisms, chemical synthesis methods, and catalysis 16 p2846 N67-29463
Synthesis techniques applied to calculations of three-dimensional reactivity coefficient distributions
[KAPL-P-2186] 16 p2930 N67-29695
Synthesis of thiacyclopentanes and thiacyclohexanes to provide reference compounds in needed for identification of sulfur compounds in crude oils
[BM-RI-6970] 16 p2853 N67-29975
Fluorocarbonyl hypofluorite synthesis and properties
[TR-61] 17 p3011 N67-30248
Synthesis of diethyl dithiocarbamates of quadrivalent actinides
[DP-MS-66-62] 17 p3018 N67-31153
Synthesis of phosphorus containing polyesters and polyamides of aliphatic series and aromatic polymers from boron fluoride bis-diazonium diphenyl
[FTD-HT-66-118] 18 p3222 N67-31816
Synthesis of phosphorus containing polyesters and polyamides of aliphatic series 18 p3222 N67-31817
Thermophysical properties and synthesis of aromatic polymers from boron fluoride bis-diazonium diphenyl 18 p3223 N67-31818
Synthesis of thirty-five anils and O-hydroyanils of aromatic and heterocyclic aldehydes
[FTD-HT-67-190] 19 p3389 N67-33057
Resonators for synthesis of transfer functions of complex frequency
[TR-466-154] 19 p3420 N67-33068
Age related characteristics in proportion of histones and nucleic acids in regenerating liver cell nuclei of white rats after partial hepatectomy 19 p3375 N67-33359
Synthesis of high molecular weight thermostable polymers 19 p3393 N67-33485
Synthesis of acetylene in plasma jet - electric discharge
[FTD-MT-65-540] 19 p3396 N67-33650
Synthesis of polymers containing ferrocene nitrogen with system of conjugated bonds
[FTD-HT-66-416] 19 p3396 N67-33690
Synthesis of cholanic acid, cholene, 23-amino norcholane, and derivatives
[CNAEM-45] 20 p3589 N67-34122
Fluorimino compound syntheses, properties, and copolymerization, fluoroaziridine syntheses, and other perfluorinated heterocyclic syntheses for use in heat resistant elastomers
[RMD-5066-F] 20 p3663 N67-34133
Chemical synthesis of protinaceous foodstuffs in application to long manned space flights 20 p3576 N67-34590
Algal systems for biological food synthesis in manned space flights 20 p3576 N67-34592
Pyromellitic and cumylic acid derivatives
[NASA-TT-F-11200] 20 p3595 N67-34730
Critical review of experimental data on synthesis of organic and inorganic living globules
[NASA-TM-X-1439] 21 p3765 N67-35613
Sequential optimization method for synthesizing linear discrete control system 21 p3631 N67-35805
Microprogram automata synthesis, algorithm for obtaining complex microcommands, and control system applications 21 p3833 N67-35819
Algorithms for automata synthesis with least mean frequency of memory element use 21 p3833 N67-35820
Syntheses of 3-pyridyl indole and indole derivatives by pyridine substitution 21 p3783 N67-35948
Kinetic synthesis problems, and mechanical linkwork design for aerospace applications 21 p3862 N67-36207
Chemical reactions and alkoxy and acyloxy derivatives of lanthanons 21 p3789 N67-36352
Synthesis of fluorine olefins and diolefins
[TR-68-5-CM] 22 p3963 N67-36806
Synthesis of linear double chain ladder polymers from substituted tetraphosphonitriles
[NASA-CR-88613] 22 p3964 N67-37026
Standard method for synthesis of finite automata without storage constructed from static switching elements
[FTD-HT-66-484] 22 p4005 N67-37221
Synthesis of 2-beranorborane and electronic transitions in trialkylborane and arylboronic acids
[TR-1] 23 p4201 N67-38259
Synthesis and production of man-made diamonds by corporate research laboratory of geographically and managerially diversified industrial complex 23 p4368 N67-38518
Preparation and physical properties of rigid ferrocene-urethane foam
[SC-DC-67-1831] 23 p4370 N67-38833
Synthesis and fabrication of uranium nitride - diffusion, creep, crystallogenics, particle size distribution, and solubility of high temperature nuclear fuels
[UCID-15135, PT. 1] 23 p4392 N67-39318
Decoupling in design and synthesis of multivariable control systems
[NASA-TN-D-4319] 24 p4423 N67-39718
Phosphorus nitride salt synthesis
[SR-1] 24 p4400 N67-40354
Synthesis of fluorinated nitromethanes containing hydrogen
[FTD-HT-66-425] 24 p4401 N67-40472

SYNTHETIC ARRAY
Coherent optical systems for processing data from synthetic-antenna radar systems 03 p0366 N67-12062

SYNTHETIC FIBER
SA DACRON
SA NYLON
SA POLYAMIDE
SA POLYBENZIMIDAZOLE
SA POLYESTER
Effect of synthetic fiber and weathering variables on tensile strength of cloths
[PR-2] 01 p0090 N67-10454
Application and properties of dyeable polypropylene fiber
[AD-627875] 02 p0279 N67-12282
Process of extracting polyacrylonitrile fibers and modification of polypropylene fibers, tissues, and textures by using acrylonitrile
[FTD-TT-65-1897] 04 p0566 N67-13381
Process of extracting polyacrylonitrile fibers in aqueous dimethyl formamide baths 04 p0566 N67-13382
Modification of polypropylene fibers, tissues, and textures by using acrylonitrile 04 p0566 N67-13383
Transient behavior and response tests of synthetic fiber felts under ballistic impact and projectile penetration
[TR-67-8-CM] 06 p0090 N67-10453
Stress distributions in fiber reinforced plastics analyzed after process shrinkage and external loading
[USAAVLABS-TR-66-62] 10 p1659 N67-30613
Thermostabilization of polyamide fiber by grafting n-formyl amidoacrylic acid to fibers and treating with copper or calcium acetate
[FTD-HT-66-89] 10 p1660 N67-30622
Temperature distribution and limitations of polymeric materials and fibers
[RAE-TN-CPM-50] 10 p1661 N67-21183
Stable organosilicon polymer from chrysotile reaction with hydrochloric acid and chlorotrimethylsilane
[TR-5] 15 p2730 N67-28188
Dynel fiber blending effects on yarn shrinkage and woven fabric properties
[TR-67-64-CM] 24 p4471 N67-39422

SYNTHETIC MICROSTRUCTURE
Formation of uranium, zirconium, and thorium oxide microspheres by ammonium hydrolysis of sols
[ORNL-TM-1508] 07 p1028 N67-17563

SYNTHETIC RESIN
SA PHENOL RESIN
SA PLASTIC
SA POLYCARBONATE
SA POLYESTER
SA POLYETHYLENE
SA POLYMETHYL METHACRYLATE
SA POLYPROPYLENE
SA POLYSTYRENE
SA POLYTETRAFLUOROETHYLENE
SA POLYURETHANE
SA POLYVINYL ALCOHOL
SA POLYVINYL CHLORIDE
SA TEFLON
Synthetic heterochain polymers containing heteroatoms as oxygen, nitrogen, and sulfur
[JPRS-41622] 18 p3283 N67-32470
Analytical and experimental studies of chemical bonding in resin-treated cellulose
[REPT.-66-15-PR] 24 p4470 N67-39416

SYNTHETIC RUBBER
SA ELASTOMER
SA NEOPRENE
SA POLYBUTADIENE
SA VULCANIZATE
Statistical variability of rupture stress and rupture strain studied by breaking ring specimens of peroxide cured styrene butadiene rubber - tensile failure envelope 05 p0722 N67-14512
Effect of size and amount of NaCl filler on mechanical properties of polyurethane rubber 05 p0722 N67-14535
Phase method used to study propagation speed and damping of wave propagated in rubber vulcanized with sulfur, rubber vulcanized with dicumyl peroxide and butyl rubber vulcanized with sulfur 05 p0723 N67-14540
Synthetic rubber manufacturing wastes for steel and copper corrosion decelerators in acid solutions
[FTD-TT-65-1636] 08 p1233 N67-18230
Composite layer conductive-rubber internal insulation malfunction sensor for large solid propellant rocket engines
[REPT.-550] 17 p3152 N67-30634
Body heat loss of divers wearing variety of foam neoprene wet suits studied while immersed at 30-32 deg F in arctic pool
[NEL-1408] 19 p3372 N67-32971

SYSTEM
S AEROSPACE SYSTEM
S AIRCRAFT HYDRAULIC SYSTEM
S AUTOMATIC DATA PROCESSING SYSTEM
S CARDIOVASCULAR SYSTEM
S CARRIER SYSTEM
S CIRCULATORY SYSTEM
S CLOSED LOOP SYSTEM
S CODING SYSTEM
S COMMAND SYSTEM
S COMMUNICATION SYSTEM
S CONJUGATED SYSTEM
S CONTINUOUS FLOW SYSTEM
S CONTROL SYSTEM
S COOLING SYSTEM
S COORDINATE SYSTEM
S DATA HANDLING SYSTEM
S DATA READOUT SYSTEM
S DEWAR SYSTEM
S DIGESTIVE SYSTEM
S DISPLAY SYSTEM
S EARTH-MOON SYSTEM
S ECOLOGICAL SYSTEM
S ELASTIC SYSTEM
S EMERGENCY LIFE SUSTAINING SYSTEM
S ENDOCRINE SYSTEM
S EXHAUST SYSTEM
S FAIL-SAFE SYSTEM
S FEED SYSTEM
S FLOTATION SYSTEM
S FUEL SYSTEM
S FUEL TANK PRESSURIZATION SYSTEM
S GASTROINTESTINAL SYSTEM
S GODDARD RANGE AND RATE SYSTEM
S GUIDANCE SYSTEM
S HEMATOPOIETIC SYSTEM
S HOT GAS SYSTEM
S HYDRAULIC SYSTEM
S HYPERBOLIC SYSTEM
S IGNITION SYSTEM
S INDUCTION SYSTEM
S INTERFEROMETER SYSTEM
S JETTISON SYSTEM
S LANDING SYSTEM
S LEARNING SYSTEM
S LINEAR SYSTEM
S LUBRICATION SYSTEM
S MAN-MACHINE SYSTEM
S MECHANICAL SYSTEM
S METAL-GAS SYSTEM
S METHOXY SYSTEM
S MISSILE SYSTEM
S MONOPOLE ANTENNA SYSTEM
S MOTOR SYSTEM

S MULTIPLE-DEGREE-OF-FREEDOM SYSTEM
S MUSCULAR SYSTEM
S NATIONAL AIR SPACE UTILIZATION SYSTEM
S NAVIGATION SYSTEM
S NERVOUS SYSTEM
S NONLINEAR SYSTEM
S OXYGEN SYSTEM
S PROPULSION SYSTEM
S PULSE TRANSMISSION SYSTEM
S RADAR SYSTEM
S RAIN REMOVAL SYSTEM
S RANDOM ACCESS DISCRETE ADDRESS /RADA/ SYSTEM
S RECEIVING SYSTEM
S REDUNDANT SYSTEM
S REFLECTOR SATELLITE SYSTEM
S REPRODUCTIVE SYSTEM
S RESPIRATORY SYSTEM
S ROTOR SYSTEM
S SAMPLED DATA SYSTEM
S SCIENTIFIC DATA CONDITIONING SYSTEM
S SELF-ADAPTIVE SYSTEM
S SELF-REPAIRING SYSTEM
S SOLAR POWER SYSTEM
S SOLAR SYSTEM
S SPACE SURVEILLANCE SYSTEM
S SUBSYSTEM
S SUPPORT SYSTEM
S SUSPENSION SYSTEM
S SYNCHRONOUS SATELLITE SYSTEM
S SYNOPTIC SYSTEM
S TAKEOFF SYSTEM
S TERNARY SYSTEM
S THERMIONIC CONVERSION SYSTEM
S THERMOELECTRIC CONVERSION SYSTEM
S TRACKING SYSTEM
S TRAJECTORY MEASURING SYSTEM
S TWO-ELECTRON SYSTEM
S TWO-PHASE SYSTEM
S VACUUM SYSTEM
S VARIABLE MASS SYSTEM
S VASCULAR SYSTEM
S VISUAL SYSTEM
S VOICE DATA PROCESSING SYSTEM
S VOR SYSTEM
S WARNING SYSTEM
S WEAPON SYSTEM
S WIRING SYSTEM

SYSTEM FAILURE

Mathematical expectancy and reliability determination of reserved systems with or without repair 03 p0376 N67-12512

Optimal programs constructed for diagnosing conditions of complex technical systems using dynamic programming and algorithms 03 p0376 N67-12513

Magnetic element with forked magnetic circuit to be used as self-repair unit of redundant systems 03 p0376 N67-12514

Synthesis of relay devices insensitive to damages of elements with unreliable input effects 03 p0376 N67-12517

Mission planning, launch operations, and performance of Ranger VI lunar probe and Atlas Agena launch vehicle - TV subsystem failure
[NASA-CR-81193] 06 p0971 N67-15682

Design considerations in radiation hardening of spacecraft telemetry and control circuitry
[NASA-TM-X-57002] 08 p1346 N67-18431

Ultrahigh temperature reactor experiment system dynamics study using mathematical model and digital computer programs
[LA-3561] 10 p1689 N67-21607

Self-repair theory for digital networks based on Sequential Prime Implicant Form Technique
[ECOM-0344-1] 11 p1845 N67-22533

Redundancy optimization to decrease probability of system failures in space computers 12 p2068 N67-23645

Canonical expansion and output event techniques for estimating component probability of failure in simple and complex systems
[NASA-TM-X-53592] 16 p2720 N67-29437

Renewal processes in study of multiplex systems and reliability
[ARC-R+M-3444] 16 p2933 N67-30648

Analog multichannel tape recorder applications in high energy systems for detecting equipment system failures
[MATT-503] 17 p3143 N67-35656

Reliability theory for complex technical systems-evaluation tests methods, failure analyses, and statistical control probabilities
[JPRS-41634] 18 p3274 N67-32193

Failure probability and operating mode selection for temporarily halted automatic system 18 p3275 N67-32200

Reliability criteria and failure mode analysis for automatic equipment checkout 18 p3275 N67-32203

Statistical reliability and failure estimation for components of complex systems 18 p3275 N67-32205

Mean time estimation and probability of failure free operation for redundant equipment system 18 p3275 N67-32207

Distribution function in operating time to failure analysis for reduced test statistics 18 p3276 N67-32212

Human initiated malfunctions in system effectiveness, and need for definition and adequate data acquisition 19 p3383 N67-33311

Evaluating efficiency and reliability of repairable automatic control systems 20 p3616 N67-35286

SYSTEM FOR NUCLEAR AUXILIARY POWER /SNAP/ PROGRAM

S SNAP-2
S SNAP-7
S SNAP-8
S SNAP-9A
S SNAP PROGRAM
S SNAP-10A
S SNAP-19
S SNAP-21
S SNAP-23

SYSTEM STABILITY

Survey and approaches to stability of motion of systems described by differential equations with aftereffect or time delay - Liapunov functions
[NASA-TT-F-10468] 06 p0916 N67-15495

Method for constructing Liapunov functions for control systems with two control devices
[RAE-LIB-TRANS-1200] 09 p1429 N67-20351

Stability analysis of multiple control systems
[RAE-LIB-TRANS-1187] 09 p1429 N67-20356

Stability analysis of high voltage transmission lines using electric dynamic models 11 p1834 N67-22185

Operational regimes and stability of high voltage Volgograd-Moscow transmission line 11 p1834 N67-22186

Operation and stability of Kuibyshev-Ural high voltage transmission line 11 p1834 N67-22187

Performance characteristics and stability of high voltage power systems with direct current transmission lines 11 p1835 N67-22189

Asymptotic stability and response of nonlinear systems
[NASA-CR-83788] 13 p2296 N67-25496

Stability of closed loop control system for rotational speed and temperature of variable nozzle turbojet engine 16 p2821 N67-29193

SYSTEMS ANALYSIS

Modifications and additions to systems analysis translator digital computer program [AMRL-TR-65-133, SUPPL. I] 01 p0043 N67-10300

Ecosystems, systems ecology, and systems ecologists
[ORNL-2957] 02 p0210 N67-11717

Failure analysis of adjoint systems method for determining optimal trajectories
[NASA-CR-79509] 02 p0294 N67-11729

Cybernetics and systems analysis in todays economy
[JPRS-38375] 02 p0347 N67-11829

Apache - analog programming and checking system programmers guide
[EUR-3662.E] 02 p0371 N67-13000

Systems analyses and models of laser techniques designed to detect interplanetary dust in atmosphere of earth
[NASA-CR-80473] 03 p0390 N67-13106

Research summaries on systems analysis, guidance and control, environmental factors, engineering development, propulsion, space sciences, and telecommunications
[NASA-CR-81261] 06 p0900 N67-15701

Mariner IV spacecraft system and subsystem performance and analysis
[NASA-CR-82154] 06 p1271 N67-16625

Mercury Rankine program integrated system test - system operation
[NAA-SR-11945, VOL. I] 08 p1319 N67-18886

Analysis of 48-hr period in operational lifetime of Manned Orbital Research Laboratory - mission description, experiment program, flight crew activity, and perturbation analyses
[NASA-CR-66287] 09 p1514 N67-19857

Communications and telemetry subsystem analyses for Manned Orbital Research Laboratory system improvement study
[NASA-CR-66291] 09 p1417 N67-19960

Orthonormal bases for exponential and rational function approximations of network and signal characteristics
[RM-5177-PR] 11 p1847 N67-22720

Systems analysis of fire control radar systems
[ORD-RM-2167-1] 11 p1823 N67-23048

Analysis of system problems in conversion of missile telemetry from very high to ultrahigh frequency
[NAFI-TR-753] 11 p1824 N67-23060

System optimization for large information collection system
[NASA-CR-83546] 11 p1825 N67-23273

Improvements in structural dynamic analysis methods
[LMSC-L-30-66-3] 12 p2230 N67-23634

Space programs supporting research and advanced development in systems analysis, spacecraft guidance and control, materials science, communications and telemetry, and propulsion
[NASA-CR-83604] 12 p2073 N67-23641

Seleneodesy experiment, data compression, Mars and Venus mass data, Earth-Moon mass ratio, orbits for three-body problem, and unbraked impact time for lunar landing mission - systems analyses 12 p2208 N67-23642

Parameter estimation in mathematical modeling using least squares method
[WRE-SAD-41] 12 p2069 N67-24282

System flow charts and coded mathematical model expressions for automatic data processing application of corrective maintenance burden prediction procedures
[PTB-66-8, VOL. II] 12 p2069 N67-24361

Systems analysis of Applications Technology Satellite-4 - mission and power profiles, antenna array accuracy and efficiency, failure modes, and weight summaries
[NASA-CR-81615] 12 p2217 N67-24606

Systems analysis techniques for automatic data processing application of corrective maintenance burden prediction procedures
[PTB-66-8, VOL. I] 12 p2340 N67-24828

Systems and mission analysis of solar electric propulsion for solar system exploration
[NASA-CR-84026] 13 p2494 N67-26389

Systems performance analyses, launch vehicle configuration, and launch and flight operations of Lunar Orbiter 1
[NASA-CR-66254] 14 p2830 N67-27419

Computer programs and sample cases for antenna feed system design and analysis
[NASA-CR-84810] 15 p2868 N67-28721

Research in systems analysis, propulsion, guidance and control, telecommunication, and space sciences
[NASA-CR-84965] 16 p2903 N67-29141

Evaluation of systems approach in management science and planning
[NASA-CR-85563] 17 p3182 N67-30814

Systems analysis and integration studies for 15-micron horizon radiance measurement experiment
[NASA-CR-66377] 18 p3246 N67-32500

Generalizations in system theory and applications to control systems
[R-398] 19 p3431 N67-33298

Soviet computer development and quality control, data processing, and systems analysis
[P-3600/5] 20 p3607 N67-34282

Abstracts and analytical survey on Soviet supersonic transport equipment methodology and concepts
[ADT-67-37] 20 p3565 N67-34455

Systems analysis of lunar and interplanetary spacecraft 20 p3727 N67-34762

Summaries of progress during 1966 in research projects covering management planning, systems analysis, information processing, and methods of rationalization in research
[REPT.-23] 20 p3751 N67-34918

Compact microbarograph system development and analysis
[SC-DCR-149] 20 p3643 N67-34982

Space exploration research on systems analyses, guidance and control, engineering development, propulsion systems, telecommunications, and space sciences

[NASA-CR-88108] 21 p3952 N67-35972
Graphic method for stability analysis of manual control systems using parameter plane technique
[RE-299] 21 p3773 N67-36189
Recommended configuration and mission profile on Voyager orbital experiment capsule based on systems analyses and tradeoff studies
[NASA-CR-73127] 22 p4147 N67-37173
Analysis of information retrieval methods effectiveness using statistical decision theory
[AFCRL-67-0412] 22 p4189 N67-37341
Technical study of European telecommunications satellite - systems performance analysis 22 p4149 N67-37348
Optimum maintenance of systems with randomly decreasing performance levels assessible only by costly imperfect inspection
[RM-5390-PR] 23 p4257 N67-38117
Systems analysis of mechanical properties of veins
[NASA-CR-88978] 23 p4187 N67-38431
Systems criteria analysis and implementation cost estimates for advanced computerized information retrieval system
[NASA-CR-84648] 23 p4389 N67-38978
Major functional systems, schematic diagrams, and telemetry signal data for Surveyor spacecraft
[NASA-CR-83650] 23 p4352 N67-38879
Low-speed anemometers analysis
[CER66-67RJK49] 24 p4449 N67-39489
Reliability problems in systems analysis considered in terms of exponential and distribution functions
[RR-89] 24 p4456 N67-39643
Integrated cockpit research program - data processing analyses of 12 major avionic subsystems
[AD-656754] 24 p4373 N67-39738
Spacecraft guidance and control, propulsion, telecommunications, and systems analysis, and space science research
[NASA-CR-89567] 24 p4531 N67-40233
Overall data management for Voyager project based on data system study and contractor data requirements, implementation, and management information studies
[NASA-CR-89764] 24 p4555 N67-40412
Design alternatives and systems analysis of Voyager entry science package for Mars atmosphere probe
[NASA-CR-89790] 24 p4533 N67-40558
Spacecraft trajectories, aerospace systems analysis, launch vehicle capabilities for Jupiter flyby, and radar system for detection asteroids
[NASA-CR-89638] 24 p4534 N67-40580
SYSTEMS DESIGN
Design concept for distance coded runway markings
[RD-66-37] 01 p0057 N67-10434
Scientific instrument design and integration for space missions 02 p0258 N67-11284
Design of actuators and mechanical positioning subsystems for space missions 02 p0310 N67-11285
Systems design analysis of tubular thermoelectric module for two-loop liquid metal system
[NASA-CR-80198] 03 p0235 N67-13017
Systems design study of advanced geodetic laser system
[AFCRL-66-731] 05 p0715 N67-15008
Design guidelines for monolithic circuits resistant to transient radiation effects
[REPT.-5] 06 p0850 N67-15500
Usefulness of adaptive simulators in manual control system design 06 p0813 N67-15675
AROD concept and systems design, and error signal analysis
[NASA-CR-61697] 07 p1041 N67-18026
Design, weight, and performance of new thermionic reactor concept 08 p1308 N67-18227
Lunar mobility systems derived from Lunar Excursion Module, Apollo Command Module, and Multimission Module - configuration, system design, human factors, mobility, and performance
[NASA-CR-82753] 09 p1514 N67-19380
Manned Orbital Research Laboratory system improvement study
[NASA-CR-66388] 09 p1516 N67-20163
Manned Orbital Laboratory propulsion/ reaction control system improvement
[NASA-CR-66292] 09 p1516 N67-20166
Computer program for steady state process design and cost optimization of Fast Flux Test Facility heat removal systems using air heat dump
[BNWL-908] 09 p1481 N67-20219
Design of command and data handling system for orbiting astronomical observatory, and scientific experiments for OAO spacecraft
[ESRO-SP-15] 09 p1517 N67-20294
Attitude control system design of astronomical satellite for stellar ultraviolet observation
[ESRO-TM-39] 09 p1517 N67-20297
Optimum design of symmetrical parallel-T RC networks
[AFCRL-66-733] 11 p1845 N67-22527
Software for threshold gate network research and automated design aid systems for computer systems design
[AFCRL-66-998] 11 p1833 N67-23352
Load relief control system design concept for Saturn V S-IC stage with Voyager payload
[NASA-CR-83727] 12 p2218 N67-24638
Operational concept and plan for engineering development of management information system based on Air Force automatic data processing experience
[PRC-R-932, VOL. III] 13 p2284 N67-25118
Handbook for designing aerospace ground equipment control panels
[AMRL-TR-66-29] 13 p2300 N67-25176
Systems design and calculation of magnetic film parametron 13 p2293 N67-25709
Computer systems design techniques, and related bibliography 13 p2287 N67-25719
Computer systems for automatic control of project planning, speech discrimination, and computations - U.S.S.R.
[AEC-TR-6637/10-14] 13 p2287 N67-25761
Critical path technique for automatic control of complex systems design planning 13 p2289 N67-25769
Nimbus pulse code modulation telemetry subsystem design study
[NASA-CR-83996] 13 p2280 N67-25901
Addendum to final report for Nimbus pulse code modulation design study
[NASA-CR-83997] 13 p2280 N67-26062
Engineering design and development of large solar cell array
[NASA-CR-83990] 13 p2250 N67-26008
System configuration synthesis
[NASA-CR-83971] 13 p2300 N67-26162
Curtain antenna arrays of unequal heights and spaced dipoles for log periodic antenna
[AFCRL-67-0036] 14 p2488 N67-26939
Systems design manual for forming airframe parts of annealed titanium alloys
[GDC-ERR-AN-957] 14 p2544 N67-27218
Human factors, environment, logistics, systems, weights, and configurations for earth orbital manned space station
[NASA-TM-X-59098] 14 p2830 N67-27855
Soviet articles on design and operation of instruments and measuring apparatus
[TT-67-31045] 15 p2707 N67-27831
Sub-optimal control structures for systems of arbitrary order
[AD-634685] 15 p2682 N67-27963
Problems of spacecraft life support systems design 16 p2838 N67-29209
Systems approach to signal design problems of radar and communication systems, using state variable differential equations and optimization techniques 16 p2863 N67-29906
Optimum interferometer design, methods of recording interferograms, an aircraft interferometer chopper system 17 p3056 N67-30270
Parametric analysis and preliminary design of shaft driven lifting rotor system for heavy lift helicopter
[USAAVLABS-TR-66-96] 17 p2993 N67-30286
Systems design and cost of indexing scientific abstracts for information retrieval, based on universal decimal classification and using IBM 1401 computer 17 p3181 N67-30693
Preliminary systems design for lunar gravity simulator to evaluate lunar surface vehicle
[NASA-CR-85584] 17 p3044 N67-30771
Preliminary systems design of two-dimensional lunar gravity simulator, and mathematical model of lunar gravity simulator/lunar surface vehicle
[NASA-CR-85563] 17 p3045 N67-30819
Design developments for large hydrogen bubble chamber system 17 p3065 N67-30[illegible]
Design of expansion bellows, piston, hydraulic system, and magnetic steel base plate for hydrogen bubble chamber 17 p3065 N67-30[illegible]
Design of digital adapter with [illegible] storage for transducers for use in multichannel digital data acquisition system
[NASA-CR-85867] 17 p3068 N67-31[illegible]
Annotated bibliography on design of instruction systems - training systems, knowledge presentation, practice of knowledge, practice of performance, and student management
[TR-67-5] 18 p3217 N67-32[illegible]
Design guide for pressurized gas systems for spacecraft - conversion tables, pressure vessels, materials and fabrication, leak detection, fluid system components, and storage
[NASA-CR-86591] 18 p3196 N67-32[illegible]
Precision theory in design and reliability control of machines and instruments 18 p3274 N67-32[illegible]
Computer engineering methods for reliability estimation of complex radio electronics system 18 p3275 N67-32[illegible]
Design evaluation of vapor absorption refrigerator systems operating independently of gravity
[NASA-CR-836] 18 p3200 N67-32[illegible]
Technical control and design verification of computer programs
[ESD-TR-67-67] 18 p3240 N67-32[illegible]
Systems design of unattended system for automatic measurement and digital recording of critical transportation environmental parameters 19 p3452 N67-33[illegible]
Controller design for non-linear and time varying plants
[NASA-CR-87275] 19 p3421 N67-33[illegible]
Design review procedures for space system contractors to optimize design and functional performance in terms of total system requirements
[NASA-SP-6502] 19 p3557 N67-33[illegible]
Digital computer program based on matrix formulation for analysis and design of linear state variable feedback systems
[NASA-CR-850] 19 p3422 N67-33[illegible]
Statistical methods for analyzing stochastic effects influencing design of space vehicle control systems
[NASA-CR-835] 19 p3540 N67-33[illegible]
Lunar stay time extension module design
[NASA-CR-66061] 19 p3541 N67-33[illegible]
Step recovery diode frequency multiplier design
[AN-913] 19 p3418 N67-33[illegible]
Specimen facilities design for very high voltage electron microscopes 19 p3457 N67-33[illegible]
Cryogenic kick stage
[RKS-66-1029] 19 p3541 N67-33[illegible]
Overview on scientific support requirements for extended lunar exploration missions including experiments, data management, equipment, astronaut training, and lunar systems planning
[NASA-CR-87399] 20 p3723 N67-34[illegible]
Biosatellite environmental control and life support system design
[NASA-CR-73116] 21 p3770 N67-35[illegible]
Chronology on systems design, test program, and Ranger/Atlas Agena launch vehicle integration
[NASA-CR-88066] 21 p3934 N67-35[illegible]
Analysis and design of attitude control systems for earth orbiting satellite
[NASA-CR-831] 21 p3934 N67-35[illegible]
General assessment of status of automated technology in production, analysis, and communication of technical information concerning engineering processes
[P-3435] 21 p3804 N67-35[illegible]
Design performance and integration of Brookhaven flying spot device measurement facility and bubble chamber research program 21 p3806 N67-36[illegible]
Hardware and software requirements of flying spot digitizer-IBM 7094 system at CNAF 21 p3809 N67-36[illegible]
Prototype and production version of POLLY bubble chamber film measuring system 21 p3810 N67-36[illegible]
Operator console design concepts for production version of POLLY bubble chamber film measuring system 21 p3810 N67-36[illegible]
Design principles and simulation studies of

stereoscopic analog track recognition machine for analyzing bubble chamber film 21 p3811 N67-36276
Transrotor engine, high temperature platinum resistance thermometer, dynamic analog correlation system and safety valve developments
[NBS-TN-295] 22 p4042 N67-36739
Reentry vehicle design - aerothermodynamics
[AFFDL-TR-66-229] 22 p4146 N67-36788
Simulated redesign of existing electronic system to illustrate handbook of design criteria for microelectronic system packages
[RADC-TR-67-125, VOL. IV] 22 p4012 N67-37116
Spaceborne memory organization, associative data acquisition system design, and data compression techniques
[NASA-CR-80861] 23 p4006 N67-37343
Feasibility design of instrument system to collect data of horizon radiance profile in carbon dioxide absorption band
[NASA-CR-66429] 22 p4047 N67-37404
Design modifications for six converter solar thermionic generator
[NASA-CR-66497] 22 p3965 N67-37479
Machine-oriented first-order logic system as basis for design of mechanical procedures
[ORO-3572-12] 23 p4236 N67-38486
Handbook of design criteria for microelectronic system packages
[RADC-TR-67-125, VOL. I] 23 p4227 N67-39162
Handbook of design criteria for microelectronic system packages - Volume I packaging system methodology 23 p4228 N67-39163
Handbook of design criteria for microelectronic system packages - Volume II packaging system design and evaluation procedure 23 p4238 N67-39164
Surveyor spacecraft A-21A design and performance
[NASA-CR-84186] 23 p4353 N67-39240
Decoupling in design and synthesis of multivariable control systems
[NASA-TN-D-4219] 24 p4423 N67-39716
Parametric screening studies, system definitions, and experimental verification to determine electrical component technology for 0.25 to 10.0 megawatt space power system
[SAN-679-3] 24 p4377 N67-39753
Design study for electrical components for 0.25 to 10.0 megawatt space power systems using Rankine conversion cycle
[SAN-679-1] 24 p4377 N67-39754
Man-machine interface in automated systems design
[JPRS-43043] 24 p4454 N67-40296
Integrated test plan and implementation plan highlights for Voyager capsule - preliminary design phase B
[NASA-CR-89730] 24 p4538 N67-40442
Design and evaluation of development model for airborne range and orbit determination system
[NASA-CR-89610] 24 p4411 N67-40544
Voyager capsule surface laboratory system - design concepts and objectives
[NASA-CR-89691] 24 p4540 N67-40581
Voyager capsule surface laboratory system - mission analysis, system functional requirements, and design selection and alternatives
[NASA-CR-89692] 24 p4534 N67-40582
Voyager capsule surface laboratory system - subsystem design analysis
[NASA-CR-89693] 24 p4534 N67-40583
Voyager capsule surface laboratory system - subsystem design analysis
[NASA-CR-89694] 24 p4495 N67-40584
SYSTEMS ENGINEERING
Engineering applications of function space concepts to finite signals and systems - linear processing of finite data - vector spaces
[RADC-TR-65-399] 01 p0093 N67-10315
Codes in engineering for information processing
[FTD-TT-65-1558] 01 p0042 N67-11073
Soviet technical cybernetics publication with articles on automatic and optimal controls, systems engineering, information processing, and computer programming
[JPRS-38664] 03 p0375 N67-12501
Control system design for plants developed into engineering technique via direct method of Liapunov
[NASA-CR-854] 03 p0379 N67-13258
Technical feasibility of increasing payload of ELDO-A launch vehicle to capabilities of launching communications satellite in polar orbit
[BOLKOW-RF-13E] 04 p0007 N67-14511
Isotope systems engineering and technology development
[CONF-651206] 05 p0707 N67-14620
Systems engineering principles used in design of low cost communication satellite educational television system
[SP-3492] 05 p0841 N67-16123
Scientific payload objectives definition, and systems engineering for automated biological laboratory for exploration of life on Mars
[NASA-CR-81309] 06 p0969 N67-16575
Systems engineering studies for automated biological laboratory for exploration of life on Mars
[NASA-CR-81307] 06 p0973 N67-16577
Performance analysis of characteristic parameters of aircraft generation, transformation, and configuration subsystems 07 p0997 N67-16967
System requirements and design concepts of remote control command loop for future unmanned spacecraft
[NASA-CR-81523] 07 p0998 N67-17120
Annotated bibliography of laboratory research in fluid dynamics, physical and organic chemistry, and system optimization, programming, and control
[AD-641986] 07 p1061 N67-17720
Lunar Roving Vehicles systems and subsystems engineering designs an Design Point Vehicle selection - lunar surface mobility systems comparison and evolution /Mobev/
[NASA-CR-82750] 09 p1507 N67-19283
Lunar surface mobility systems comparison and evolution - lunar flying vehicle systems engineering
[NASA-CR-82748] 09 p1508 N67-19284
Lunar surface mobility systems comparison and evolution
[NASA-CR-82744] 09 p1508 N67-19285
Reactor technology process instrumentation and control systems engineering 09 p1445 N67-19435
Scoping of logistics support to program requirements - participation of logistician during conceptual, design, development, production, and deployment phases 11 p1851 N67-21969
Growing need for logistics engineers and proposed educational program for meeting requirements of government and industry 11 p1851 N67-21970
Mercury-Rankine program for SNAP systems improvement
[NAA-SR-12256, VOL. I] 12 p2152 N67-24911
Automatic data processing management information system program activites - data collection and reduction, experience handbook development, and operational concept and plan development
[PRC-R-932, VOL. II] 13 p2264 N67-25119
Cost effectiveness of high frequency fleet broadcast link analyzed by statistical method
[NEL-1422] 13 p2276 N67-25321
Plant engineering, systems engineering, physics, instrumentation and control, heavy electronics, mechanical design, klystron studies, and operation of two-mile accelerator
[SLAC-69] 14 p2514 N67-27596
Existing system management techniques adapted to computer programs for system compatibility, design integrity, and technical control
[ESD-TR-67-395] 15 p2676 N67-28911
Optimum regression designs for discriminating between two mathematical models for assessing system performance
[SU-307] 16 p2919 N67-29222
Comparison of two methods for obtaining confidence intervals for system reliability
[D1-82-0557] 17 p2999 N67-31055
Reliability theory for complex technical systems-evaluation tests methods, failure analyses, and statistical control probabilities
[JPRS-41634] 18 p3274 N67-32193
Functional analysis for failure location searches in engineering systems 18 p3275 N67-32201
Bayesian statistics for reliability estimation of complex engineering systems 18 p3275 N67-32209
Construction of confidence integrals with low failure probability from test results for system engineering 18 p3276 N67-32210
Spacecraft functional design, guidance and control, systems engineering, and communications
[NASA-CR-86916] 18 p3345 N67-32275
Automatic checkout of space systems as result of cost - effectiveness study
[P-3503] 18 p3357 N67-32539
Research summaries of work in plasma physics, quantum electronics, radio science, solid state electronics, and systems theory
[SEL-67-020] 19 p3497 N67-32749
Systems theory and test methods used in analysis of photo-optical systems
[REPT.-352] 19 p3451 N67-33009
Closed life support system research, and other conference papers on water purification, waste disposal, and food synthesis for space flights
[NASA-SP-134] 20 p3583 N67-34583
Life support systems for manned space missions exceeding one year in duration 20 p3583 N67-34584
Regenerative life support system to minimize expendable materials aboard spacecraft during long manned flights 20 p3583 N67-34585
Program plans to study closed life support system in manned spacecraft flights 20 p3584 N67-34586
Uncertainty analysis approach to study of dynamic systems
[BCL-8.0] 21 p3797 N67-35655
Indexed proceedings of remote systems technology branch of American Nuclear Society
[SC-R-67-1056] 21 p3952 N67-36147
System theory techniques and analysis of system with delay subject to generalized function inputs
[RM-4673-PR] 21 p3834 N67-36169
Bayesian analysis of system readiness
[REPT.-105] 22 p4002 N67-37008
System and component operation, physics, klystron studies, mechanical engineering and fabrication, instrumentation and control, and electronic engineering in two-mile accelerator project
[SLAC-73] 22 p4021 N67-37350
Systems engineering approach to multidisciplinary problems in industry, with notes on microwave relay systems and Nike-Ajax rocket 23 p4308 N67-38511
Computer systems application for engineering support in weapon system development by aerospace industry
[RM-5264-PR] 23 p4230 N67-38668
Technical description and systems engineering contractor data package for Voyager spacecraft
[NASA-CR-89795] 24 p4555 N67-40413
Configuration, rod tradeoff, and deployment parameter studies for design of solar panel array
[NASA-CR-89796] 24 p4280 N67-40430
Systems engineering aspects of developing Pioneer space probe
[NASA-TM-X-66564] 24 p4540 N67-40439

T

T TAIL SURFACE
Generalized aerodynamic forces on T tail oscillating harmonically in subsonic flow
[ARC-R+M-3422] 05 p0629 N67-14600
Deep stall effects of rear-mounted turbojet T tail aircraft
[TP-967/1967/] 13 p2990 N67-37312
T-TAURI STAR
Stars of T-Tauri and uv Ceti types, and phenomenon of continuous emission 04 p0609 N67-13411
Characteristics of T-Tauri variable stars associated with Orion nebula 04 p0610 N67-13418
T-33 AIRCRAFT
Human describing functions measured in flight by T-33 variable-stability airplane, and by ground simulation of instrument flight of same aircraft and on analog computer with contact display 06 p0813 N67-15571
Pilot performance of landing maneuver in T-33-A jet trainer with restricted fields of view
[NASA-TN-D-4018] 14 p2448 N67-27294
Lateral directional handling qualities of piloted reentry vehicles utilizing fixed base and in flight evaluations
[NASA-CR-778] 16 p2973 N67-29829

Flight test of longitudinal short period frequency requirements and pilot induced oscillation tendencies in T-33 aircraft [CAL-TC-2063-F-1] 22 p3969 N67-36983
T-34 AIRCRAFT
Nucleonic mass measurement technique for detecting aeration in T-34 aircraft engine lubrication system 07 p1062 N67-16965
TABLE
SA CONVERSION TABLE
SA INTERFERENCE FACTOR TABLE
SA MATHEMATICAL TABLE
Tables of vertical echo sounding ionospheric data 01 p0063 N67-10007
Vertical echo sounding ionospheric data tables 01 p0063 N67-10012
Data from ionograms of E and F layers [REPT.-235-F] 01 p0063 N67-10027
Rocket and satellite data tables 01 p0150 N67-10054
Ionospheric frequency characteristics and virtual altitudes tabulated at Kerguelen for January and February 1962 01 p0064 N67-10162
Ionospheric frequency characteristics and virtual altitudes tabulated at Kerguelen for March and April 1962 01 p0064 N67-10163
Ionospheric frequency characteristics and virtual altitudes tabulated at Kerguelen for September and October 1962 01 p0064 N67-10166
Ionospheric frequency characteristics and virtual altitudes tabulated at Kerguelen for November and December 1962 01 p0064 N67-10167
Ionospheric frequency characteristics and virtual altitudes tabulated at Terre Adelie for March 1963 01 p0064 N67-10168
Ionospheric frequency characteristics and virtual altitudes tabulated at Terre Adelie for April 1963 01 p0064 N67-10169
Ionospheric frequency characteristics and virtual altitudes tabulated at Terre Adelie for May and June 1963 01 p0064 N67-10170
Radio meteorological charts, graphs, tables, and sample computations 01 p0100 N67-10250
Neutron monitor and telescopic recordings of diurnal and semidiurnal variations of cosmic ray intensity during 1965 - tables [AFCRL-66-523] 01 p0147 N67-10307
Experimental photonuclear reaction data on isotopes and nuclides - tables 01 p0130 N67-10441
Solar activity and geophysical data for July 1965 - June 1966 - tables [CRPL-FB-263] 01 p0147 N67-10452
Astronomical tables for use in aircraft navigation and positioning 01 p0103 N67-10478
Satellite tracking data from Stade, West Germany for March 2 to March 7, 1965 [NASA-TT-F-9311] 01 p0039 N67-10755
Discrete compound Poisson processes and tables of geometric Poisson distribution [RM-4831-PR] 01 p0096 N67-10952
Atomic transition probabilities tabulated for some 4,000 spectral lines of first ten elements at various ionization stages [NSRDS-NBS-4, VOL. I] 01 p0131 N67-11116
Table to evaluate potential radioactive nuclei production occurring in accelerator laboratory [NASA-TM-X-55577] 02 p0290 N67-11359
Tables of 10-10 uranium unit cost components [K-OA-1313] 02 p0327 N67-11707
Tables of computer generated photographic parameters necessary for detailed interpretation of Ranger VII television camera pictures - trajectory and time-to-impact data [NASA-CR-79938] 02 p0259 N67-11817
Tables of computer program generated photographic interpretation of selected Ranger VIII television camera pictures [NASA-CR-79939] 02 p0259 N67-11818
Snow cover and snow flood calculations in forest and steppes - tables [JPRS-39499] 02 p0283 N67-11825
Tabulated data from optical observations of satellites 02 p0235 N67-11874
Average anomaly and eccentricity for satellite orbits with small eccentricity - tables 02 p0347 N67-11912
Cinetheodolite observations received by Malta tracking station for U.S. and Russian satellites in orbit during June 1966 - tables 02 p0235 N67-11914
Cinetheodolite observations received by Malta tracking station for U.S. and Russian satellites in orbit during June and July 1966 - tables 02 p0235 N67-11915
Tabulated solar and geophysical data [RRC-A132, PT. 2] 03 p0388 N67-13638
Tabulated solar and geophysical data [RRC-A133, PT. 2] 03 p0390 N67-13088
Fission product production data tabulated as function of fuel exposure for specific reactor conditions [BNWL-244] 03 p0428 N67-13324
Averages of interferometric measurements of thorium lines - tables [ANL-7209] 04 p0501 N67-13633
Tabulation of protactinium 233 total neutron cross section data [IN-1014] 04 p0584 N67-13634
Tables of dose rate surveys and derived decay relations resulting from Kiwi transient nuclear test [LA-3519-MS] 04 p0574 N67-13857
Stopping power and range tables for protons, mesons, and electrons in lithium fluoride, silicon, germanium, liquid hydrogen, propane, and freon [NASA-SP-3036] 04 p0592 N67-14099
High purity inorganic solid state research materials and available crystal growth references - tables [ORNL-RMIC-5] 04 p0601 N67-14132
Daily solar flare index - Tables 04 p0608 N67-14142
Tables of ionospheric data from Salisbury, South Australia for June, 1966 [WRE-CPD-1966/6/S/] 04 p0543 N67-14172
Tabulated data for orbiting satellites launched from 1957 to 1965 [CF-2-1965] 04 p0615 N67-14188
Launch, orbital, and landing information on various Soviet satellites, rockets, automatic interplanetary stations, and spacecraft - Table 04 p0612 N67-14235
Electron density and plasma scale height in upper ionosphere based on Alouette I topside sounder ionograms - Tables [NASA-SP-3033, VOL. III] 05 p0757 N67-14933
Daily indices of ionospheric blackout incidence in polar cap and in auroral zone for years 1957 through 1965 [NASA-TM-X-55835] 05 p0766 N67-15156
Thermionic and electric properties of solid and liquid elements and compounds - tables [NASA-TM-X-52363] 06 p0819 N67-16043
Polarimetric observations of mu Cepheus - tables 06 p0967 N67-16163
General computer program and computation tables for linear wire antennas and scatterers with arbitrary excitations and loads - matrix methods for solving field problems [RADC-TR-66-351, VOL. II] 06 p0842 N67-16207
Photon interaction data for 25 elements and water - tabulations of cross sections and angular distribution for Compton scattering at 23 energies [AHSB/S/-R-109] 07 p1143 N67-17139
Internal conversion coefficients of gamma radiation on K and L shells - Tables [BNL-TR-65] 07 p1152 N67-17590
Time required to perform various chemical analyses - Table 08 p1235 N67-18390
Tabulated expressions of short period lunar and solar perturbations for artificial satellites [NASA-TM-X-55683] 08 p1364 N67-18737
Tabulated values of total cross sections for annihilation processes, and differential cross sections for bremsstrahlung processes for fixed photon scattering angle and positron energy [SLAC-67] 08 p1343 N67-18894
Tables constructed from Monte Carlo calculations of intranuclear cascades to represent energy and angles of emitted particles [NASA-CR-83502] 08 p1321 N67-19078
Cinetheodolite observations of several satellites received from Malta station during May 1966 08 p1251 N67-19188
Zero pressure thermodynamic properties of nitrogen gas [BM-IC-8219] 08 p1384 N67-19203
Tabular and graphical data on thermophysical properties of selected gases below 200 degrees Kelvin [BM-IC-8317] 08 p1384 N67-19219
Smoothed thermocouple tables of extended significance for use in precision thermometry 09 p1541 N67-19625
Diagonal sequences of Pade table [MRC-TSR-660] 09 p1497 N67-19700
Thermodynamic properties and chemical composition of argon in chemical equilibrium, including second virial corrections from 2400 deg to 35,000 deg K - Tables [AEDC-TR-66-248] 09 p1543 N67-20000
Stratospheric and mesospheric wind and temperature measurements at Sardinia, autumn 1963 and spring 1964 - tables [DLR-FB-66-30] 09 p1474 N67-20313
Tables of hourly values of ionospheric data for Salisbury station for August 1966 [WRE-CPD-1966/8/S/] 09 p1443 N67-20367
Tables of hourly values of ionospheric data for Woomera, March 1966 [WRE-CPD-1966/3/W/] 09 p1444 N67-20369
Tables of hourly values of ionospheric data at Salisbury, Australia, July 1966 [WRE-CPD-1966/7/S/] 09 p1444 N67-20370
Table, and identification of solar spectrum from lambda 7498 to lambda 12916 10 p1766 N67-20492
Data from horizontal intensity photographic variable area recording magnetograph - Tables [AFCRL-66-720] 10 p1620 N67-20635
Tables of isotopic composition of plutonium in gas cooled and moderated reactors [AECL-2631] 10 p1678 N67-20691
Tables for rapid evaluation of Debye characteristic temperature of cubic crystals from elastic constants [LA-3615-MS] 11 p1965 N67-22302
Seaborne magnetic measurements in Antarctica - tables [B7] 11 p1869 N67-22470
Compressibility factors of He, N, and He-N mixtures in three-dimensional space of pressure, temperature, and gas composition related to Leiden form of virial equation of state - table [BM-RI-6896] 11 p1810 N67-22471
Satellite tracking data for July 1966 from Malta 11 p1977 N67-22964
Uncorrected and barometer-corrected results from cosmic ray stations in Canada in tabular form [CRGP-1244] 11 p1871 N67-22971
Pile neutron capture cross sections of rare earth isotopes determined by mass spectrometric analysis - tables [SGAE-PH-47/1966] 11 p1939 N67-22976
Tabulated solar and geophysical data from vertical incidence soundings in India [RRC-A135, PT. 2] 11 p1972 N67-23008
Monte Carlo calculation of electron, electron, proton reaction for incident energies between 300 and 600 MeV - tables [ISS-66/37] 11 p1941 N67-23064
Equalant III fishery and biology oriented oceanographic survey of tropical Atlantic [G-7] 11 p1872 N67-23410
Wind and temperature measurements from meteorological sounding rocket firings and computed values for pressure, density, and speed of sound for July, 1966 11 p1917 N67-23417
Spectral analysis of titanium from 2000 to 9000 angstroms 11 p1816 N67-23443
Location and topography, weather controls, climatic aids, and local forecast studies for Wright Patterson AFB, Ohio - tables and graphs [AD-643300] 12 p2135 N67-23515
Tables for thermodynamic properties of equilibrium air [AEDC-TR-66-247] 12 p2234 N67-23679
Tabulated radio antenna noise measurements [IER-18-ITSA-18-27] 12 p2091 N67-23837
Instrumentation and geomagnetic data tables from Kakioka Magnetic Observatory, Japan in 1961 [REPT.-41] 12 p2093 N67-24023
Instrumentation and geomagnetic data tables from Kakioka Magnetic Observatory, Japan in 1962 [REPT.-43] 12 p2093 N67-24024
Colors, luminosities, and motions of 1000 giants of types K and M - Tables 12 p2209 N67-24028
Thermodynamic properties of compressed gases - Tables [AFOSR-67-0640] 12 p2236 N67-24370
Tabulation of total neutron cross section of uranium 232 determined with materials testing reactor fast chopper [IN-1015] 12 p2189 N67-24559
Tabulation of thorium 233 total neutron cross sections for 1.9 and 7.5 eV resonances

[IN-1040] 12 p2189 N67-24509
Thermodynamic data in condensed media obtained by shock wave techniques - Tables and graphs
[UCRL-50106, VOL. 1] 12 p2156 N67-24567
Thermochemical constants of elements and compounds - Tables
[NASA-CR-83718] 12 p2044 N67-24580
Rated association values of 251 centroid colors - Tables
[P-3511] 12 p2033 N67-24655
Tables of confidence intervals for binomial distribution
[PMR-MP-59-23] 12 p2340 N67-24900
Tabulation of nondimensional parameters and ratios for diabatic surface boundary layer models based on similarity theory and extrapolation schemes extending diabatic theory
[ECOM-5104] 12 p2000 N67-24986
Guided missiles exhaust nozzle shape effects on tailfin loads and pressure distribution - Tables
[CAL-AA-2234-W-1, VOL. I]
13 p2342 N67-25126
Lattice dynamics calculations for LiF, LiCl, and S sodium and potassium halides - tables of eigenvectors and eigenfrequencies
[UCRL-14822] 13 p2390 N67-25364
Tabulated geomagnetic data from New Zealand 13 p2311 N67-25561
Geomagnetic field intensity and diurnal variation for South Africa, 1964 - table
[B6] 13 p2313 N67-25648
Photographic observations of minor planets - table 13 p2401 N67-25655
Hourly values of ionospheric data for Woomera, Australia, May 1966 - table
[WRE-CPD-1966/5/W/] 13 p2312 N67-25656
Listing of artificial earth orbiting satellites Feb 28, 1967
[NASA-TM-X-59655] 13 p2406 N67-25754
Normal values of precipitation highs in France
[REPT.-55] 13 p2352 N67-26023
Tables of radioelectric solar activity, Belgium, 1963
[AR-14] 13 p2398 N67-26109
Sunspot size and position, K-line and H-alpha line cinematographic patrol, and longitudinal sunspot magnetic fields - tables for February, 1967 13 p2398 N67-26126
Solar filament and prominence diagrams, and solar activity observation tables for Manila, March 1967 13 p2398 N67-26140
Oblate radial functions for spheroidal wave functions - tables
[NRL-6472] 13 p2369 N67-26234
Strobridge equation digitally calculated for vapor pressure and temperature relationships for saturated pure liquid nitrogen
[BM-IC-8322] 13 p2274 N67-26347
Tables of artificial satellites launched from 1957 to 1966 13 p2410 N67-26471
Catalog of earth gravity, tsunami, seismology, and longitude and latitude data received by World Data Center-A for international exchange of information 13 p2317 N67-26479
New H-alpha emission stars in eta carinae nebula region - tables and charts 14 p2610 N67-25483
Orbital elements from Doppler observations of Geos-A - table
[TG-862] 14 p2610 N67-26497
Temperature, pressure, density, and wind measurements in upper stratosphere and mesosphere - tables
[NASA-TM-X-55780] 14 p2520 N67-26594
Tables and graphs of eigenvalues for layered ground propagation
[IER-5-ITSA-5] 14 p2488 N67-27050
Atmospheric density exponential, scale height, and base density as function of altitude tabular data for six atmospheric models
[SC-RR-66-3675] 14 p2525 N67-27342
Astronomical observations of solar phenomena 14 p2609 N67-27352
Geophysics and space data bulletin - cosmic ray neutron monitor, field intensity magnetometer, high frequency propagation, solar radio emission, and ionospheric soundings
[AD-648046] 14 p2527 N67-27464
Pion photoproduction data below 1.5 GeV - tables and graphs
[CALT-68-168] 14 p2592 N67-27498
Tabular and graphical representations of photon cross sections
[UCRL-50178] 14 p2592 N67-27562
Geophysical data related to polar ionospheric activity
[NASA-CR-84491] 14 p2528 N67-27646
High latitude graphical and tabular geophysical data of ionospheric activity
[NASA-CR-84494] 14 p2528 N67-27648
Geophysical observations from sounding rockets and satellites, 1 July - 31 December 1966 - tables and bibliography 14 p2621 N67-27748
Geophysical data tables - airglow, ionosphere, aurora, cosmic rays, geomagnetism, and solar activity 14 p2329 N67-27749
Differential scattering cross sections of heavy water at 540 deg K - Tables
[AERE-R-5408] 15 p2756 N67-27664
Hartree Fock self consistent field wave functions of atoms and ions
[ARL-67-0014, SUPPL. III]
15 p2769 N67-28552
Enthalpy of nitrogen oxygen argon mixtures
[AFAPL-TR-66-138] 15 p2804 N67-28571
Argon electron transition tables
[ARL-67-0016] 15 p2776 N67-28627
Tables and graphs for interplanetary navigation and guidance study
[NASA-CR-61131] 15 p2743 N67-28743
Chronological summary listing of AFCRL rocket and satellite borne scientific experiments from 1946 to 1966
[AFCRL-66-968] 15 p2796 N67-28900
Energy levels and chemical equilibrium data for atmospheric atoms and molecules - tables
[RM-5201-ARPA] 15 p2844 N67-28918
Turbulent boundary layer under conditions of heat and mass transfer at hypersonic flow - data tabulation
[NOLTR-67-6] 16 p2876 N67-29121
Five place tables of Jacobi elliptic functions for complex arguments
[ARL-67-0001] 16 p2921 N67-29635
Table of exact critical values of information for case of equiprobable alternatives
[REPT.-689] 16 p2922 N67-29787
Two center problem of quantum mechanics
[JINR-P4-3175] 16 p2950 N67-29865
World Data Center geomagnetic data for February 1966-January 1967 and solar geophysical data for January 1967-December 1963 - tables 16 p2880 N67-29965
Yearbook of Colombia national astronomical observatory, 1967 16 p2970 N67-29977
Interferometric determination of radio scurces in declination ranges minus 7 to 20 degrees and 40 to 80 degrees - tabular listing of positions and flux densities 16 p2972 N67-30107
Solar activity data and ionospheric effects for India, January 1967 - tables
[RRC-A140, PT. 2] 16 p2890 N67-30110
Solar flare observations for 1965-1964 - tables
[AFCRL-67-0165] 17 p3155 N67-30436
Range, energy loss, and differential of rate of energy loss for 37 target materials for all hydrogen and helium ions - tables
[CEA-R-3643] 17 p3128 N67-30511
Meteorological data of diurnal variation
[REPT.-51] 17 p3007 N67-30542
Tabulation of satellite optical observations for Jan 1967 17 p3025 N67-30635
Catalog of satellite observation data received between 1 Jun 1966 and 31 Dec 1966 17 p3169 N67-30636
Hourly values of ionospheric data for October 1966 for Salisbury, South Australia - table
[WRE-CPD-1966/10/S/] 17 p3009 N67-30811
Hourly values of ionospheric data for June 1966 for Woomera, South Australia
[WRE-CPD-1966/6/W/] 17 p3008 N67-30812
Tabulated magnetic values and magnetograms recorded at Hartland during 1958 17 p3055 N67-30834
Photoelectric UBV observations of RR Lyrae variable stars - Tables 17 p3169 N67-30881
Energy loss of charged particle in its trajectory through absorption medium
[CERN-67-5] 17 p3136 N67-31197
Tabulated oxidation potentials for various transition elements
[NASA-CR-85811] 17 p3019 N67-31297
Index to contents of neutron data compilation center master data tape
[CCDN-NW/4] 17 p3126 N67-31419
Moonwatch program observations of satellite orbits - decay prediction table
[NASA-CR-85063] 17 p3169 N67-31450
Pressure distribution on trapezoidal wing of canard aircraft model in supersonic pressure tunnel - tables
[NASA-TM-X-140] 18 p3189 N67-31894
Tables of geophysics and space data for 1966 - magnetic field intensities, cosmic neutron intensities, high frequency propagation, solar optics, ionospheric sounding, and radio emission
[AD-656274] 18 p3236 N67-32260
Tables of magnetic mean hourly and monthly values from Watheroo Observatory, western Australia for period 1957 to 1966
[REPT.-120] 18 p3267 N67-32264
Tables of magnetic mean hourly and monthly values from Watheroo Observatory, western Australia during 1948, 1949, and 1950
[REPT.-110] 18 p3267 N67-32265
Tables of magnetic mean hourly and monthly values from Watheroo Observatory, western Australia for period 1951 to 1962
[REPT.-111] 18 p3267 N67-32266
Geomagnetic field elements taken at Hurbanovo, Czechoslovakia, during 1962 - tables 18 p3268 N67-32619
Geomagnetic field elements taken at Hurbanovo, Czechoslovakia, during 1963 - tables 18 p3268 N67-32620
Nitrogen lines and excitation potentials in infrared solar spectrum
[SR-1] 19 p3321 N67-32717
Tables for square root of complex numbers for determining propagation constant of electromagnetic field in dissipative medium
[SC-R-67-1052] 19 p3478 N67-32767
Tables of two-sided tolerance factors for normal distributions
[NASA-CR-87306] 19 p3479 N67-33975
Tables of annual variations of star constants a and a prime 19 p3584 N67-33194
Thermodynamic-transport and related property data for para-hydrogen - tables
[LA-3569] 19 p3581 N67-33235
Provisional hourly values of equatorial Storm Time Variation for years 1961 through 1963
[NASA-TN-D-4047] 19 p3530 N67-33469
Cross reference index of lunar photos, FPAC supporting data, sequence of events, anomalies, V/H sensor performance, and telemetered vibration data from Lunar Orbiter II
[NASA-CR-66436] 19 p3536 N67-33934
Tabulation of wind and temperature measurements from meteorological rocket network firings in September, 1966 19 p3485 N67-33982
Thermodynamic properties of three Martian model atmospheres for calculating equilibrium flow fields for real gases - tables
[ATDM-66-1] 20 p3734 N67-34125
Tables of joint probabilities useful in evaluating mixed acceptance sampling plans
[NASA-CR-87434] 20 p3669 N67-34130
Electron impact ionization cross sections and ionization rate coefficients for atoms and ions from hydrogen to caldium - tables and graphs
[IPP-1/63] 20 p3671 N67-34299
Hourly ionospheric data during November 1966 for Salisbury, Australia - tables
[CPD-1966/11/S/] 20 p3620 N67-34379
Vertical echo soundings and tables on ionosphere data
[REPT.-253-F] 20 p3632 N67-34435
Tabulated electron number density profiles for selected ionograms from Alouette I satellite 20 p3632 N67-34440
Ionospheric electron density profiles from Alouette I satellite - tables 20 p3782 N67-34681
International critical tables for solution densities of sodium bromide as function of temperature and anhydrous salt content
[UCRL-50287] 20 p3685 N67-34720
Ionospheric data obtained by vertical soundings over Freiburg, Germany
[REPT.-351-F] 20 p3683 N67-34722
Sunspot positions, areas, and magnetic fields tabulated and illustrated for May-June 1967 by Observatorio Astronomico di Roma 20 p3722 N67-34890
Stopping power formulas and L-shell

correction tabulations
[USC-138-130] 20 p3702 N67-35027
Horizontal and vertical components of magnetic intensity, extreme values and ranges, and lunar diurnal variations of declination for 1959-1963 20 p3636 N67-35095
Tables of maximum energies of beta decay
[NASA-TT-F-11203] 21 p3899 N67-35648
Kanoya City geomagnetic observatory data for 1958 and 1959, Japan
[REPT.-45] 21 p3837 N67-35686
Kakioka Magnetic Observatory tabular data on geomagnetism, 1948 to 1949
[REPT.-39] 21 p3837 N67-35687
Kakioka Magnetic Observatory report on geomagnetism for 1950 and 1951
[REPT.-40] 21 p3837 N67-35688
Civil aircraft accident investigations - tables
[BOSR-7-5] 21 p3757 N67-35757
Magnetic declination, inclination, and intensity observations at magnetic observatory during 1964 and 1965 21 p3841 N67-36074
Tabulated vibrational frequencies for study of atomic and molecular properties
[NSRDS-NBS-6, PT. 1] 21 p3791 N67-36437
Magnetic mean hourly values from Watheroo Observatory, Western Australia, 1955 and 1956
[REPT.-119] 21 p3844 N67-36473
Synoptic surface observations for Greenland, 1951-1960 - tables 22 p4086 N67-36873
Life cycle data on electrochemical cells - tables
[NASA-CR-88705] 22 p3964 N67-37070
Alouette I data on ionospheric electron densities from October 1962 through 1963 - tables 22 p4036 N67-37071
Tables of similar solutions for equations of momentum, heat, and mass transfer in laminar boundary flow 22 p4163 N67-37388
Extension tables for U. S. standard atmosphere, 1962 and calculation of geopotential
[GCA-TR-67-1-A] 22 p4039 N67-37442
Tables of thermal radiative properties of air
[DASA-1971-3] 22 p4184 N67-37540
Eight color narrow band photometry of 985 stars north of minus twenty degrees declination
[NASA-CR-88750] 22 p4142 N67-37586
Reading schedule tables for particle size analyzer
[LA-3692] 22 p4049 N67-37782
Extra atmospheric values of brightness and illumination of continuous solar spectrum in 2.7-5.0 micron range - table
[NASA-CR-88875] 22 p4145 N67-37847
Aeronautical data on Sun, Moon, and planets 22 p4041 N67-37848
Review of theory of oblate spheroidal wave functions and formulas and tables for numerical calculation of oblate radial functions of first and second type
[NRL-6543] 23 p4293 N67-38287
Ionospheric data for India, June 1966 - tables
[RRC-A133] 23 p4342 N67-38291
Ionospheric data for India, July 1966 - tables
[RRC-A134] 23 p4342 N67-38292
Solar activity and ionospheric effects for India, March 1967 - tables
[RRC-A142, PT. 2] 23 p4343 N67-38303
Solar activity and ionospheric effects for India, April 1967 - tables
[RRC-A143, PT. 2] 23 p4343 N67-38304
Solar activity and ionospheric effects for India, May 1967 - tables
[RRC-A144, PT. 2] 23 p4343 N67-38305
Tables for ionization loss distribution of heavy charged particles in Al, Be, Ch, Ch2, Cu, and Pb
[JINR-P1-3190] 23 p4300 N67-38375
Response curves and tables for quick selection of photocathode-filter combination
[ARL-67-0067] 23 p4333 N67-38401
Monthly and annual mean values of geomagnetic element variations for Nurmijarvi observatory, Finland, 1953-1965 - tables 23 p4343 N67-38413
Catalog of radio observations of Jupiter for 1965-1967 - tables
[NASA-CR-89269] 23 p4345 N67-38796
Tables of universal functions for calculating class of laminar boundary layer flows with suction and injection
[DLR-FB-67-51] 23 p4329 N67-39062
Energy levels and transition probabilities of manganese plus 4 titanium oxide and chromium plus 3 zinc tungstate - tables
[NASA-TM-X-55972] 24 p4515 N67-39594
Onset-duration tables of specified ceiling and visibility categories for use as supplemental aid in short period weather forecasting
[AD-658038] 24 p4485 N67-39642
Wind and temperature data measurements from meteorological sounding rocket firings during February, 1967 24 p4487 N67-39679
Climatological tables for Finland, 1966 24 p4488 N67-40035
Indian Ocean surface temperature distributions for January 1963-December 1964 - charts and tables
[HIG-67-14] 24 p4445 N67-40037
TACAN
S TACTICAL AIR NAVIGATION /TACAN/
TACHOMETER
Forced oscillations of gyroscopic tachometer with dry friction 15 p2710 N67-28122
Slow speed tachometer for measuring weld wire and carriage feeds
[NASA-TM-X-53615] 18 p3272 N67-32559
Drive unit for testing tachometer-generators
[RAE-TR-67121] 22 p4044 N67-36850
TACHYPNEA
Relationship of fever and heat regulation from dog and rabbit experimentation
[NASA-TT-F-11375] 24 p4387 N67-40582
TACTICAL AIR NAVIGATION /TACAN/
Feasibility model TACAN and DME test signal sets for ground checks of airborne interrogator units prior to flight
[RD-66-84] 04 p0510 N67-13613
Performance characteristics of Tacan antennas, and techniques for improving ground station directional antenna designs and siting practices
[RD-66-91] 14 p2489 N67-27214
Low altitude navigation methods - effects of map scale and reference point variables, and training on ability of pilots to estimate direction
[TR-67-4] 17 p3100 N67-30345
Modified Tacan beacon receiver for eliminating distance measuring equipment false reply problem
[FAA-D-66-97] 17 p3100 N67-30485
Interference predictions for VHF Omnirange, Tactical Air Navigation, and Instrument Landing System air navigation aids
[IER-26-ITSA-26] 17 p3102 N67-31234
TACTILE DISCRIMINATION
SA CUTANEOUS PERCEPTION
Cognitive information processing studies of digital and PCM picture and signal transmission systems, and methods for tactile display reading and magnetic tape to Braille conversion 05 p0678 N67-14634
Visual, contact, and decision subsystems for Mars rover
[NASA-CR-87503] 20 p3821 N67-34234
Experiments and models on tactile perception, visual tracking behavior, and tactile and visual choice reaction time
[NASA-CR-73135] 22 p3999 N67-37386
TACTILE SENSATION
Flight personnel responses to visual, acoustics, and tactile stimuli for testing throughput capability of indicators over prolonged flight period 02 p0217 N67-11445
Literature survey on tactile sensitivity and cutaneous communication
[AMRL-TR-66-50] 02 p0212 N67-11922
TAIL
SA AIRFRAME
SA HORIZONTAL TAIL
Mathematical expressions derived for application of wind tunnel wall corrections to pitching moments caused by tail of aircraft model
[NASA-TN-D-3738] 02 p0172 N67-11814
Magnetic field experiment data for geomagnetic tail analysis
[NASA-TM-X-55691] 06 p1362 N67-19850
TAIL PLANE
Tailplane flight loads measured on Hunter F.2 aircraft by means of two strain gauge methods
[ARC-CP-754] 15 p2640 N67-28180
TAIL SURFACE
SA HORIZONTAL TAIL SURFACE
SA T TAIL SURFACE
Effect of tail surfaces and angle of attack on base pressure in supersonic flow 06 p0784 N67-18374
Wind tunnel studies of pressure distributions on S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86580] 18 p3342 N67-32909
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86575] 18 p3342 N67-32910
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86581] 18 p3342 N67-32911
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86582] 18 p3342 N67-32912
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86576] 18 p3342 N67-32913
Wind tunnel data on pressure distributions for S-IB stage fins and tail area of Saturn IB vehicle - correlation tables
[NASA-CR-86583] 18 p3342 N67-32914
TAILLESS AIRCRAFT
Problems of flight quality posed by transport aircraft with slender wing and no tail unit
[AGARD-533] 16 p2819 N67-30025
Longitudinal and lateral aerodynamic characteristics of tailless fixed-wing supersonic transport configuration in pressure tunnel
[NASA-TM-X-960] 18 p3193 N67-31933
Lateral and longitudinal aerodynamic characteristics of tailless supersonic transport model having ogee, delta, and trapezoidal wing planforms in wind tunnel
[NASA-TM-X-992] 18 p3194 N67-32143
TAKEOFF
SA LANDING
Method for determination of noise from turbojet aircraft on takeoff trajectories
[NASA-TT-F-10351] 01 p0004 N67-10225
Piloting of heavy jet transport aircraft during takeoff
[RAE-LIB-TRANS-1144] 01 p0006 N67-10579
Noise measurement evaluations of various takeoff-climbout profiles of four engine turbojet transport airplane
[NASA-TN-D-3715] 03 p0333 N67-12793
Noise measurements of sound propagation related to jet aircraft takeoffs
[NASA-CR-787] 12 p2157 N67-25653
Test and data analysis techniques for rotary wing hovering and takeoff performance
[AGARD-517] 15 p2642 N67-28378
Calculation of maximum noise pressure spectrum from turbojets on takeoff trajectory
[ONERA-TN-108/1967/] 20 p3564 N67-34013
TAKEOFF AND LANDING
SA AIRCRAFT LANDING
Evaluation of runway centerline, high speed exit taxiway and runway remaining lighting systems for Category III flight operations
[FAA-RD-66-6] 07 p1120 N67-17956
Prediction of ground effect of aircraft or wing model takeoff and landing in wind tunnel
[ONERA-TN-87/1965/] 13 p2342 N67-25647
Supersonic transport noise during takeoff and landing 18 p3192 N67-31930
Pilot evaluation of colored centerline lighting systems for indicating runway distance remaining and taxiway exits
[SRDS-RD-67-10] 21 p3826 N67-36000
Feasibility study of boundary layer control system for YCV-2B aircraft
[REPT.-45D017A] 22 p3960 N67-37002
TAKEOFF RUN
Calculating noise from jet aircraft on takeoff trajectory
[TIL/T-5473] 08 p1221 N67-19068
Drag effects on aircraft pneumatic tire during takeoff under hazardous runway conditions
[S+T-MEMO-9/66] 09 p1455 N67-20233
TAKEOFF SYSTEM
SA CATAPULT
Design and flight testing of takeoff and overshoot director for large jet airliners
[RAE-TR-66063] 01 p1116 N67-10377
Analog computer program for calculating flight path of aircraft leaving end of ship catapult
[RAE-TR-66026] 11 p1781 N67-23705

TALC
Talc dehydration kinetics, and activation energies of two-stage process 22 p3983 N67-36956

TANDEM
Double focusing tandem mass spectrometer for ion molecule reaction studies 07 p1077 N67-16945
Industrial production of insulated electric wire using tandem wire drawing and insulating line facilities [AD-646546] 14 p2542 N67-26802
Longitudinal aerodynamic characteristics in ground effect of V/STOL model with four tilting ducted fans in dual tandem arrangement [NASA-TN-D-4218] 24 p4374 N67-39980

TANDEM-ROTOR HELICOPTER
Analysis of cinematographically measured blade deflection at front rotor of tandem helicopter [DLR-FB-66-55] 04 p0479 N67-13458
Parametric analysis and preliminary design of shaft driven rotor system for heavy lift helicopter [LR-19143] 12 p2913 N67-23861
Transport helicopter rotor design optimization for single lift and tandem lift systems [R-445] 13 p2247 N67-26225
Method for predicting aerodynamic loads and dynamic response of tandem rotor helicopter blades [CAL-BB-1960-S-1] 22 p3960 N67-37325

TANDEM WING
Subsonic wind tunnel tests of longitudinal characteristics of aspect ratio 10 tandem wing aircraft configuration in ground effect [DTMB-2259-1] 05 p0630 N67-14989
Lateral aerodynamic characteristics of tandem wing aircraft model in and out of ground effect - subsonic wind tunnel testing [DTMB-AERO-1111-2] 16 p2816 N67-29023

TANK
SA CONTAINER
SA CYLINDRICAL TANK
SA FUEL TANK
SA PROPELLANT TANK
SA SPHERICAL TANK
SA STORAGE TANK
Determining liquid surface profiles in cryogenic tank during gas injection [NASA-CR-79731] 03 p0383 N67-12932
Tank in conjuction with wind tunnel used to test effect of water waves and wind on model ships 20 p3618 N67-34014
Prediction model for rate of fluid loss from closed tank containing orifices [T-11/67] 24 p4434 N67-40384

TANK GEOMETRY
Tuning and field measurements on long cavity chain accelerator tank [LA-DC-8243] 13 p2363 N67-25918
Design of side coupled tank for linear accelerator [LA-DC-8244] 13 p2363 N67-25919
Motion equations, geometry, natural frequency, and sloshing considered in active tank system design for roll control of ships [TR-490-3] 23 p4355 N67-38149

TANTALUM
Accelerated aging and failure mode analysis of thin tantalum film RC networks 01 p0048 N67-10110
Production engineering measure for improved reliability of solid electrolyte tantalum capacitors [QR-12] 03 p0373 N67-12879
Conference on pure materials in science and technology - synthesis of high purity beryllium oxide and separation of titanium, niobium, and tantalum through liquid-liquid extraction [FTD-TT-65-837] 03 p0358 N67-12838
Separation of titanium, niobium, and tantalum through liquid-liquid extraction 03 p0358 N67-12840
Production engineering measure for improved reliability of hermetically sealed tantalum foil capacitors [QR-4] 06 p0856 N67-16589
Neutron activation procedure to simultaneously detect cesium, hafnium, and tantalum in tektites 09 p1466 N67-19507
Equilibrium solubilities of niobium and tantalum in molten potassium 09 p1407 N67-19585
Diffusion experiment on tantalum mass transfer in linear system under isothermal and temperature conditions 09 p1477 N67-19597
Electrical properties and temperature dependence of niobium, vanadium, and tantalum in superconducting state investigated by ultrasonic radiation [TR-36] 10 p1745 N67-20603
Possibility of hydrogen embrittlement of tantalum in sodium cooled reactor [LA-3506-MS] 11 p1930 N67-22323
Production and reliability engineering measures for hermetically sealed tantalum foil capacitors [QR-5] 11 p1837 N67-22572
Gamma spectrum of tantalum 182 for energy range 50 to 1500 keV studied by using semiconductor spectrometer [JINR-P6-2979] 11 p1943 N67-23195
Transitions in radioactive decay of tantalum 182 isomer [AE-264] 11 p1946 N67-23397
Chromatographic separations of niobium, tantalum, molybdenum, and tungsten [IS-T-113] 12 p2041 N67-23758
Remote handling techniques for studying fission product diffusion in irradiated tantalum, and tungsten rhenium molybdenum alloy materials 12 p2149 N67-24251
Field ion microscopic determination of screw dislocations during degradation of tungsten, tantalum, and nickel monocrystals [TIL/T-5666] 15 p2782 N67-28843
Oxidation protection of tantalum and niobium by silicide coatings [NASA-CR-54874] 15 p2884 N67-28937
Detection system for monitoring plutonium penetration through tantalum capsules by counting alpha particles with silicon surface barrier detectors [LA-3654] 17 p3134 N67-31038
Life test measurements of capacitance, dissipation factor, and current leakage on solid electrolyte tantalum capacitor [ECOM-2812] 18 p3251 N67-32544
Cavitation-erosion characteristics of niobium, tantalum, and steel in mercury at 500 deg F [NASA-CR-87000] 18 p3281 N67-32578
Reliability testing of hermatically sealed tantalum foil capacitors [QR-6] 18 p3251 N67-32655
Creep strength test for strips of high strength refractory alloy composed of tantalum, tungsten, and hafnium 19 p3548 N67-33372
Crack propagation studies of welds in tantalum and niobium sheet [B-70-67-18] 19 p3465 N67-33634
Dissociation of hydrogen on tantalum using modulated molecular beam, mass spectrometric technique [UCRL-17236] 19 p3508 N67-33696
Scattering of molecular gas beams from platinum and tantalum surfaces [F910439-7] 20 p3691 N67-34246
Porous bodies of tantalum, niobium, and aluminum fabricated by plasma arc metal spraying in argon atmosphere for electrode applications [REPT.-66-C-318] 20 p3649 N67-34698
Ultrasonic state equation for tantalum crystal [TR-10] 22 p4126 N67-37950
Cross sections producing isomeric state of tantalum 180 formed in neutron-neutron reaction [INR-795/I/PL] 24 p4498 N67-39427
Oxidation protection of niobium and tantalum by their silicides [NASA-CR-89935] 24 p4457 N67-40040

TANTALUM ALLOY
Phase equilibrium diagrams of hafnium-tantalum system in solid state [NASA-TT-F-10280] 01 p0062 N67-10309
Welding, aging, and oxygen contamination effects on dispersion strengthened tantalum base alloys [NASA-CR-72020] 03 p0413 N67-13185
Oxidation resistance tests of protective coatings for tantalum alloy [NASA-CR-54578] 05 p0718 N67-14924
Effect of 1000 hour thermal exposures on tensile properties of refractory metal alloys [NASA-CR-72005] 06 p0896 N67-16564
Contamination exposures of columbium, zirconium, and tantalum alloys under conditions of low pressures and high temperatures [NASA-CR-54934] 06 p0898 N67-16673
Structure of zirconium carbon tantalum alloys [NASA-TT-F-10646] 07 p1101 N67-17517
Corrosion resistance of Nb and Ta tubing alloys to boiling K 09 p1489 N67-19981
Corrosion resistance evaluation of tantalum alloy tubing for sodium natural convection loop 09 p1541 N67-19600
Long time creep test data on molybdenum base alloys, tantalum base alloys, and vapor deposited tungsten [NASA-CR-82815] 09 p1462 N67-19959
Long-time creep data on refractory metal alloys for advanced space power systems [NASA-CR-72185] 11 p1909 N67-23223
Orientation dependence of storage energy during deformation of copper crystals, rate controlling mechanisms in tantalum and its alloys, and changes during annealing 13 p2535 N67-25844
Thermal properties, electrical and oxidation resistance, tensile strength, hardness, and workability of niobium and tantalum alloys [BM-RI-6964] 17 p3081 N67-31185
Deformation structures of polycrystalline slightly strained tungsten, tungsten rhenium, and tungsten tantalum alloys examined by transmission electron microscopy [NASA-TN-D-4094] 18 p3263 N67-32639
Development and testing of coatings for tantalum alloy nozzle vanes [NASA-CR-54898] 21 p3969 N67-36159
Effects of radiation, high temperature, and vacuum on Rene 41 and tantalum alloy spring for SNAP [NAA-SR-11819] 23 p4292 N67-38298

TANTALUM CARBIDE
Refractory properties and thermal shock resistance of impregnated tantalum carbide [NASA-TT-F-10249] 01 p0062 N67-10306
Physical and mechanical properties of tantalum carbide and niobium carbide composites [NASA-CR-79757] 02 p0277 N67-12972
Growth parameters for hafnium carbide/tantalum carbide single crystals [NASA-CR-83466] 08 p1298 N67-18083
Spin-casting and property evaluation of high temperature Hf, Zr, Ti, and Ta carbide alloys 13 p2197 N67-25964
Growth parameters for refractory carbide single crystals [NASA-CR-83823] 13 p2337 N67-25867
Feasibility studies for growing refractory metal carbides single crystals from melts and liquid solutions [NASA-CR-83354] 21 p3969 N67-36061
Carbon diffusion in tantalum carbides [WANL-TNR-305] 23 p4009 N67-38741
Hall coefficient and electric resistivity of tantalum carbide as function of carbon content and temperature [NASA-TN-D-4168] 23 p4349 N67-38277

TANTALUM COMPOUND
Chemistry of vanadium, niobium, and tantalum in compounds and solvents [ARL-66-0062] 05 p0634 N67-14718
Resistors formed by reactively sputtered tantalum in oxygen [TI-02-66-98] 06 p0852 N67-15972
Improvement in growth and reproducibility of single crystal potassium tantalate niobate and electooptical evaluation for use in laser technology [QPR-1] 15 p2783 N67-28882
Specific heats of hydrogen tantalum compounds in 3 deg to 9 deg K range [ONERA-TP-479/1967/] 19 p3550 N67-33438
Tantalum halide films evaluated as coating materials for far infrared filters [QR-4] 20 p3696 N67-34185
Kinetics of tantalum cluster ion oxidation by cobalt /III/ complexes in acidic solution [IS-T-165] 21 p3775 N67-35437
Three-dimensional diffractometer analysis of yttrium tantalate structure and phase transformation at low and high temperatures [TR-1661/2250-10/-5] 22 p3901 N67-37849
Dispersion strengthened tantalum base alloys - continued development in test program [NASA-CR-72004] 24 p4464 N67-39589
Dispersion strengthened tantalum base alloys - development with evaluation of oxygen contaminated and welded compositions [NASA-CR-72093] 24 p4484 N67-39836
Potassium tantalate niobate crystal perovskites as electro-optically active material [SRCR-67-12] 24 p4317 N67-39946

TANTALUM OXIDE
Radiation induced behavior of tantalum oxide, mica, ceramic, mylar, glass, and

polystyrene capacitors
[IBM-66-521-13] 06 p0856 N67-16492
High temperature stability and feasibility of hydrated titanium and tantalum oxides as ion exchangers in water cooled reactors
[AERE-R-5230] 06 p1241 N67-19200
Anodic formation of tantalum oxide used in electrolytic capacitors studied by electrochemical methods
[DISS-3879] 18 p3234 N67-32367
TAPE
SA MAGNETIC TAPE
SA PUNCHED TAPE
Theory for shortening of metallic tape carrying tensile load by transverse crease
[NASA-CR-83969] 13 p2343 N67-36061
Welding methods for cladding of steel plates and shells with stainless steel tape
[EURAEC-1692] 16 p2910 N67-29625
Computer program for listing OGO attitude orbit tapes
[NASA-TM-X-55879] 20 p3606 N67-34374
Micrometeoroid impact fracture rates in wire, flat tapes, and thin-walled hollow tubes
[NASA-CR-869] 21 p3931 N67-35736
TAPE MERGE
Systems manual program description R 104 Master Orbit Tape Routine for computing inertial, geocentric, geodetic position, velocity, real field, and geomagnetic data for satellites
[NASA-TM-X-55633] 05 p0681 N67-15154
Fortran IV program for constructing cross section data from multigroup cross section data and addition to ROC nuclear data library tapes
[WAPD-TM-586] 10 p1723 N67-21357
Fortran computer program to merge two, three, or four tape files resulting from sort program
[MTR-271] 24 p4417 N67-40341
TAPE RECORDER
SA MAGNETIC TAPE RECORDER
Performance of tape recorder with incremental playback capabilities for use in deep space missions 02 p0263 N67-12135
Design of helical pack tape recorder transport capable of handling 2000 feet of 1/2 inch magnetic tape
[NASA-CR-80140] 02 p0383 N67-12163
Tape recorder flutter analysis and bit rate smoothing of digital data
[NASA-CR-80535] 03 p0369 N67-13206
Multichannel, instrumentation type, tape recorder used together with multichannel light beam oscillograph as data acquisition and reproduction system for Alice machine
[UCRL-70010] 07 p1062 N67-17682
Fluid logic elements used in devices for driving recording tape
[J1] 10 p1612 N67-21132
Tape recorder WOW and flutter effects on sonar data
[NADC-AE-6636] 12 p2053 N67-24500
Optical reading and writing on magnetic metal films, phototropic media, and thermoplastic materials for use in high information packing density tape recording systems
[AERE-R-5063] 15 p2714 N67-28859
Slow motion video tape recorder using tape recorded under standard conditions
[NHK-10] 16 p2936 N67-29117
Analog multichannel tape recorder applications in high energy systems for detecting equipment system failures
[MATT-563] 17 p3143 N67-30880
Digital recording and playback equipment operation and maintenanace
[TG-697] 18 p3372 N67-33468
Multiple channel analog tape recorder for high energy systems of thermonuclear research 23 p4383 N67-38779
TAPERED WING
Longitudinal aerodynamic characteristics of extended span tapered wing Jindivik target aircraft
[ARL/A-253] 03 p0331 N67-13282
Theoretical stability derivatives for symmetrically tapered wing of aspect ratio 3 at supersonic speeds
[ARC-CP-955] 07 p0989 N67-17580
TAPERING
Design and fabrication of wideband high isolation microwave coupler using tapered line techniques
[REPT.-3772] 22 p4008 N67-36685
TAR
S ASPHALT
TARGET
SA RADAR TARGET
Modified Fortran evaporation program used for calculating radiochemical cross sections and particle multiplicities for protons on carbon and aluminum targets
[NASA-CR-80437] 03 p0442 N67-13116
Measurement of thermal neutron fluxes in simulated intense neutron generator target using manganese and gold foils and small boron trifluoride detector
[AECL-2635] 07 p1158 N67-17944
Radar tracking of moving targets
[FTD-MT-64-554] 12 p2051 N67-23962
Slow extracted beam handling at targeting stations and external proton beam production
[BNL-11034] 14 p2591 N67-27483
Fabrication of target elements for high flux isotope reactor
[ORNL-TM-1712] 15 p2750 N67-28521
Rotating neutron target system
[UCRL-70183] 17 p3045 N67-30628
Thermostable material of high isotopic hydrogen content, and fabrication of new target for neutron production in accelerators
[EUR-3474.F] 20 p3664 N67-34364
Vacuum evaporation of thin film nuclear targets
[AWRE-O-33/67] 24 p4504 N67-40492
TARGET ACQUISITION
Analysis of relationships between radar and mission parameters pertaining to search and acquisition of target spacecraft 04 p0511 N67-13923
Survey of principal developments in moving target indication theory and technique 04 p0512 N67-13930
Apollo passive infrared acquisition and tracking system analysis
[NASA-CR-681] 04 p0515 N67-14220
Use of perspective geometry training for target area location
[OR-8528] 09 p1484 N67-19559
Radar location for complete scanning coverage of representative threat volume and application to target acquisition and terminal defense
[TR-422] 10 p1586 N67-21422
Visual lobe theory for air to ground target detection
[RAE-TN-ARM-715] 13 p2354 N67-28214
Army research and development activities in electronics, theoretical and applied physics, ballistics, pyrotechnic chemistry, and weapon system technology
[AD-634616] 15 p2808 N67-27971
Mathematical model for target location accuracy requirements in weapon systems analysis
[AD-634642] 15 p2808 N67-27989
Photogrammetric methods applied to calculation of target position and attitude relative to missile
[WRE-TN-TRD-23] 16 p2897 N67-29939
Probability of target lock-on by tracking system using automatic rangefinder during automatic search
[JPRS-41344] 17 p3028 N67-31428
Man-computer target detection systems and sonar operator performance characteristics
[U417-66-037] 18 p3238 N67-32313
Doppler radar system for detecting moving targets in clutter noise
[HDL-TR-1349] 19 p3399 N67-32861
Mathematical models for predicting radar clutter performance and application to radar design
[RE-TR-67-1] 19 p3403 N67-32205
Optical beam deflectors with piezoelectrically driven mirrors for use in optical acquisition and tracking systems
[NASA-CR-86115] 21 p3967 N67-36558
TARGET AIRCRAFT
S JINDIVIK TARGET AIRCRAFT
TARGET PENETRATION
SA PROJECTILE PENETRATION
Hypervelocity impact of polythene projectiles on semiinfinite aluminum targets 04 p0619 N67-13856
Multivariable analysis of mechanics of penetration of high speed particles
[NASA-CR-664] 06 p0978 N67-16664
Electron transmission measurements for aluminum and gold, and backscattering measurements on targets of iron, tin, aluminum, and gold
[NASA-CR-759] 12 p2162 N67-23717
Penetration depth of 2-11 keV lithium ions into silicon carbide single crystals
[NASA-TT-F-10777] 12 p2195 N67-25023
Cratering in low density targets, and comparisons of various hypervelocity projectile-target combinations
[NASA-CR-796] 14 p2580 N67-26356
TARGET RECOGNITION
Colored burning smoke charges for low-spin folding-fin aircraft rocket
[PA-TR-3273] 02 p0230 N67-12197
Evaluation system for classification of remote objects and materials identified by solar and thermal radiation emission
[NASA-CR-80724] 04 p0551 N67-13688
Statistical methods for radio detection 04 p0512 N67-13926
Capabilities and limitations of radar for target resolution 04 p0512 N67-13927
Automatic surveillance radar system to detect and track targets at low and high elevation angles 04 p0572 N67-13936
Integrated trajectory multiple target tracking system employing continuous wave phase comparison and continuous wave Doppler measurements 04 p0513 N67-13938
Real time system to evaluate surveillance radar signals for automatic tracking of air targets 04 p0514 N67-13940
Validity boundaries examined of radar waveform concepts for multiple target resolution
[IDA/HQ-66-5068] 06 p0843 N67-16449
Group interpretation in information exchange, confidence, and agreement forming
[REPT.-1151] 08 p1280 N67-18281
Radar waveforms for clutter suppression in target recognition
[TR-669/6230-46/-10] 09 p1419 N67-20364
Performance of ground observers in detecting, recognizing, and estimating range of low altitude aircraft
[TR-66-19] 11 p1799 N67-23043
Accurate two-dimensional optical spatial auto and cross-correlation functions and application to target recognition and tracking
[USL-744] 12 p2054 N67-24798
Multiband reconnaissance concepts, and color photography techniques for target identification
[NASA-CR-84063] 13 p2323 N67-26322
Sectional aeronautical charts and series 200 charts as briefing aids for side-looking radar reconnaissance task
[AMRL-TR-66-153] 14 p2573 N67-27467
Pulse radar system at 70 Gc for target signature studies
[BRL-TN-1637] 16 p2862 N67-29653
Effects of overlapping frames on speed and accuracy in screening and interpretation of aerial photographs
[AD-649988] 16 p2896 N67-29670
Solution of geometrical problem of inverse diffraction theory
[ESD-TR-67-92] 17 p3025 N67-30673
Detection of modulated Gaussian signals and noise with application to fast digital simulation of continuous wave radar receivers under multiple target conditions
[WRE-TN-SAD-173] 17 p3025 N67-30679
Overall false alarm probability for radar scanning over a wide interval of target ranges
[RAE-TR-66405] 17 p3027 N67-31168
Waveform design and resolution of multiple radar targets in clutter
[IDA/HQ-67-6117] 18 p3229 N67-32023
Effect of target size and color specifications in visual search using eye movement recordings
[REPT.-12000-IR-3] 18 p3218 N67-32482
Target enhancement on simulated radar/sonar type display using multi-phosphor cathode ray tube
[REPT.-9991021] 19 p3400 N67-32864
Factors influencing visual detection and recognition of low altitude aircraft
[AD-654125] 20 p3580 N67-34067
Radar techniques developed for generating, radiating, receiving and processing of large bandwith signals
[NEL-1455] 24 p4408 N67-40019
TARGET SIMULATION
Specular analysis of reflections from flat region and smooth surface tangent to plane along curve to obtain data on radar target geometry
[MTR-253] 22 p3998 N67-36972
TARGET THICKNESS
Determination of deuterium /deuteron, neutron/ helium 3 and tritium /deuteron,

neutron/ helium 4 nuclear reaction yields in thick targets at energies up to 100 keV
[NP-16203] 03 p0445 N67-13291
Meteoroid flux and puncture models for cislunar space 17 p3170 N67-30578
TARTARIC ACID
SA DICARBOXYLIC ACID
Spontaneous polarization of tartaric acid and triglycerine sulfate by thermal depolarization current method
[NASA-CR-84162] 14 p2691 N67-26502
Measurements of electrocaloric effect and static dielectric properties of crystalline tartaric acid
[NASA-CR-89302] 23 p4210 N67-39201
TASK
SA AUDITORY TASK
SA VISUAL TASK
Sequential probabilities, and learning and retention of tracking task skill
[NASA-CR-79915] 02 p0222 N67-11847
Model for multiprocessor control of real-time task schedules 07 p1030 N67-17271
Tasks involved in topographic description of Antarctica 11 p1868 N67-22353
Psychological stress and justification effects on performance of dull task by students
[TR-3] 16 p2825 N67-29137
Drug effects on human performance under conditions of task induced stress
[ONR-H-67-1] 16 p2833 N67-29302
Effects of primary task performance on response time to toggle switches in workspace configuration
[AMRL-TR-66-190] 22 p3975 N67-36088
Computer techniques for handling and processing human factors task data
[NASA-CR-88560] 22 p3980 N67-37654
TASK COMPLEXITY
Adaptive simulation - design applications, cross-adaptive operator loading tasks, and self-adjusting vehicle simulators
[AD-637658] 01 p0030 N67-10149
Cross-adaptive operator loading tasks 01 p0021 N67-10151
Increase in work rate accompanied by decrease in quality when additional sensory information is introduced during performance of tasks which require complex coordinated movements 02 p0218 N67-11500
Mutual compensation of certain qualities of motor activity in performing complex coordinated movement 02 p0221 N67-11649
Indirect measurement technique of task difficulty in information theory
[ARL/HE-4] 03 p0352 N67-12472
Pilot responses in multiloop control tracking system with and without side tasks 06 p0810 N67-15865
Coding and identification, signal-response compatibility, conservation, reduction and creation, and expectancy and motivation
[IZF-1966-8] 08 p1230 N67-19208
Physiological response to varied work programs in men wearing water cooled protective clothing
[NASA-CR-739] 11 p1788 N67-22151
Human operators performance in high order, multiloop task, typified by helicopter control
[NASA-CR-83740] 12 p2037 N67-25074
Data generating model used in complex probability estimation tasks by human subjects
[P-3579] 16 p2825 N67-29136
Evaluation of basic assumptions in contingency model for predicting group performance on basis of leadership behavior and task situation elements
[TR-52] 21 p3772 N67-35674
TASTE
Test method for studying salivation in human taste function
[FTD-TT-65-1915] 01 p0019 N67-11097
Preparation, taste, and nutritional balance of NASA freeze-dehydrated diet 07 p1013 N67-17614
Fibrinogen deposition and taste thresholds in X-irradiated rats
[NYO-3250-3] 19 p3196 N67-33718
TAU STAR
Chemical composition of manganese star 53 Tau determined by differential curve of growth method 16 p2972 N67-30084
TAUBERIAN THEOREM
Translation extension in Tauberian topological algebras
[BN-441] 06 p0963 N67-16195
TAXIING
Technical testing of masked lamps for taxiway edge lights
[RD-66-44] 01 p0007 N67-10344
Wide angle 60 watt pavement inset light for use in center line of short radius taxiway turns
[RD-66-78] 14 p2512 N67-27182
Pilot evaluation of colored centerline lighting systems for indicating runway distance remaining and taxiway exits
[SRDS-RD-67-16] 21 p3826 N67-36000
Feasibility of radioisotope taxi guidance system
[RD-67-18] 22 p4088 N67-37544
Feasibility study of aircraft taxiing guidance system using buried radioactive isotopes and avionic gamma ray detector
[SRDS-RD-67-18] 23 p4382 N67-38180
Radioactive taxi guidance system for ground guidance equipment
[RD-67-9] 24 p4426 N67-39733
TAYLOR INSTABILITY
Taylor and Helmholtz instabilities pertaining to interior ballistics of liquid propellant guns 06 p0863 N67-15943
Taylor instability of flat plate subjected to uniform pressure
[GAMD-7335] 08 p1275 N67-18284
Hydrogen bubble technique used for visual observation measurements of critical Taylor numbers for different nonnewtonian fluids
[AD-642847] 09 p1434 N67-19749
Surface tension effects on motion of bubble and spike generated by Taylor instability
[SUDAAR-286] 14 p2517 N67-27185
TAYLOR THEOREM
Theoretical basis for prognosis using transient statistics for random processes in form of mean square of Taylor series 03 p0366 N67-12519
Coefficients calculated for Taylor series expansion about two points - application of Taylor expansion to two-body problem
[NASA-TM-X-55759] 12 p2190 N67-23965
Computation of complex error function by Taylor continued fractions 24 p4477 N67-39478
TEACHING MACHINE
Self-instructional features of information systems for automated on-job training
[ESD-TDR-64-234] 01 p0096 N67-11000
Computer assisted instruction, including programmed texts, teaching machines, and learning theory - Annotated bibliography
[R-49/64] 01 p0046 N67-11179
SOCRATES project using computer-based facility for psychological research on variables associated with preprogrammed self-instruction and self-programmed individualized education
[AD-636676] 02 p0222 N67-11900
Graphical data processing - data preparation, learning machines, and recognition of hand printed Fortran text
[ECOM-01901-24] 05 p0699 N67-14967
Sequential stochastic convergence algorithm for teaching machines to classify input signal
[TR-121] 07 p1109 N67-17933
Description and summary of computer augmented learning devices and systems
[REPT.-66TMP-55] 11 p1798 N67-22575
Complexity effect of natural language mediators and associability of pairs on paired-associate learning
[R-333] 11 p1799 N67-23684
Digital computers and teaching models applied in programmed instruction and language translation
[FTD-MT-65-302] 16 p2840 N67-29485
Error repetition and student response confidence estimates during spelling drills in computers-assisted instruction program
[NASA-CR-87483] 20 p3582 N67-34432
TECHNETIUM
Electron beam remelted tungsten technetium alloys forged while encapsulated in molybdenum cans - surface appearance and edge cracking properties
[NASA-CR-84071] 13 p2341 N67-26374
Burning process of nuclear fuels - uranium 235 thermal fission yields and spectrophotometric method for determining technetium fission yields for uranium 233 and 235
[IN-1064] 16 p2984 N67-29834
Complex-chemical and polarographic investigation to characterize technetium, and comparison with rhenium
[JUL-465-RC] 20 p3580 N67-34165
Labeled technetium 99m human serum albumin for scintillation scanning of lungs
[CNEA-193] 20 p3590 N67-35266
Absolute activity measurements of molybdenum 99 and 4 pi-gamma ion chamber measurement of technetium 99m, and molybdenum 99 with ingrown technetium 99m
[AAEC/TM274] 22 p4107 N67-37832
Self-heating hazard analysis for technetium recovery and purification by anion exchange cycle
[BNWL-476] 24 p4399 N67-40125
TECHNICAL DRAWING
S MECHANICAL DRAWING
TECHNICAL WRITING
Effects of three variables on effectiveness of written technical communication in factorial experiment
[AFIT-TR-66-15] 08 p0815 N67-16342
Coordinate indexing of technical books and monographs to determine compatibility with aerospace information retrieval systems
[NASA-TM-X-53154] 20 p3752 N67-35230
TECHNIQUE
S CULTURE TECHNIQUE
S DIGITAL TECHNIQUE
S FARADAY-DOPPLER TECHNIQUE
S IMAGING TECHNIQUE
S INDUCTION LOOP TECHNIQUE
S MODULATION TECHNIQUE
S PARTICLE IN CELL TECHNIQUE
S REACTION JET ATTITUDE CONTROL TECHNIQUE
S SCREENING TECHNIQUE
S VERNEUIL TECHNIQUE
S ZONING TECHNIQUE
TECHNOLOGY
SA AEROSPACE TECHNOLOGY
SA BIOTECHNOLOGY
SA MILITARY TECHNOLOGY
SA REACTOR TECHNOLOGY
Bibliography of publications on quantum field theory, Regge poles, cosmic radiation, elementary particles, and radiation detection
[AED-C-12-13, PT. III] 01 p0134 N67-10654
Technical progress, fiscal laws for encouraging research and development activities, equipment obsolescence, and role and effect of technology on United States economy
[NASA-TT-F-10487] 03 p0478 N67-12838
Technical progress, equipment obsolescence, and effectiveness of replacement investments 03 p0476 N67-12837
Potentialities and dangers of technological evolution 03 p0476 N67-12839
Analysis of role and effect of technology on national economy of United States 03 p0476 N67-12823
Transfer and utilization of new technology in United States
[NASA-SP-5067] 03 p0478 N67-12187
Problems of automatic control and information transmission in Soviet technical cybernetics
[JPRS-39696] 04 p0823 N67-13896
Phenomena and technology of contained /nonexcavation/ nuclear explosions for industrial applications
[UCRL-14756] 04 p0879 N67-14661
Status of rotorcraft technology 05 p0823 N67-15185
Lecture series on integrated circuit technology, design, and application
[ECOM-3747] 06 p0859 N67-15847
Research plans and technological developments in metallurgy 06 p0894 N67-15521
Electronic circuit technology for industrial and commercial applications
[NASA-SP-5046] 06 p0851 N67-15872
State of the art review on expandable and modular structures technology for manned spacecraft missions
[AFAPL-CONF-67-5] 06 p0977 N67-16108
Sociological implications of human population explosion and technological and food production
[NASA-CR-82163] 06 p1388 N67-19821
Foreign aid from surplus of developed nations as means of hastening industrialization of undeveloped nations with long term benefits to all 06 p1389 N67-19834
Science and technology needed to solve economic and sociological problems of cities
[HUD-MP-39] 06 p1389 N67-19822
Infrared radiation technology, and military and economic applications in U.S.S.R.
[FTD-MT-65-139] 06 p1404 N67-19980
Manufacturing technology of glue-welded aluminum joints

[FTD-MT-65-270] 10 p1647 N67-31254
Scientific and technological research policy of France
[NASA-TT-F-10748] 12 p2240 N67-25024
Technology utilization program for use in regional economic profile
[NASA-CR-83825] 13 p2440 N67-25665
Spin-off from space science and technology to industry and influence of European space program on technology, economy, education and politics 13 p2441 N67-25696
Computer systems design and technology, automaton theories, and automation systems
[AEC-TR-6637/1-9] 13 p2285 N67-25701
Computer technology outside U.S.S.R. 13 p2285 N67-25702
Computer system design and technology problems associated with automation systems for scientific experiments 13 p2287 N67-25729
Computer model of automation system for scientific experiments in technology research 13 p2297 N67-25731
Radioactive nuclide technology and methods applied to industrial and manufacturing processes
[SGAE-IB/IA-10/1966] 13 p2363 N67-26117
Catalog of technological-industrial data, by firm, material, country, and representatives
[EUR-3068.F] 13 p2441 N67-26134
Objectives, resources, organizational structure, services, goals, and specific program plans of Technology Application Center
[NASA-CR-84661] 13 p2441 N67-26365
Operations, marketing, dissemination activity, special services, and production figures for Technology Application Center
[NASA-CR-84662] 13 p2441 N67-26377
Eighth meeting proceedings of Panel of Science and Technology presented before Committee on Science and Astronautics of House of Representatives 13 p2442 N67-26420
Cumulative index of NASA Tech Briefs dealing with electrical and electronic, physical science and energy sources, materials and chemistry, life science, and mechanical innovations
[NASA-SP-5021/04/] 14 p2635 N67-27296
Papers presented at 1966 United States Army Conference on science and technology
[AD-634615] 15 p2807 N67-27941
Government aid to encourage research and development in private economy of advanced nations
[NASA-CR-84826] 15 p2809 N67-28758
Scheme to aid decision making in allocating public resources for support of science and technology
[NASA-CR-84798] 15 p2810 N67-28780
Impacts of modern science and technology on urban society 15 p2810 N67-28792
Economics of technical and scientific information systems - conference report
[NASA-TT-F-10891] 16 p2968 N67-29004
Particle accelerator technology - bibliography
[AED-C-16-67] 16 p2973 N67-29334
Policy planning for transfer of government sponsored technology to industry 17 p3183 N67-30783
State-of-art in bubble chamber and large magnetic field developments 17 p3067 N67-31011
NASA Space Science and Applications Program
[NASA-EP-47] 17 p3164 N67-31420
Technology acquisition in commercial firms, and NASA dissemination program
[NASA-CR-790] 17 p3182 N67-31477
Development and implementation planning for marketing information technology
[NASA-CR-83577] 18 p3274 N67-31736
Effects of science and newly emerging technologies on contemporary urban management
[NASA-CR-86864] 18 p3360 N67-32557
Technology utilization by government, industry, and students in Oklahoma area
[NASA-CR-87365] 19 p3557 N67-32974
Regional dissemination for technology utilization by students and industry
[NASA-CR-87368] 19 p3557 N67-33018
Planning, organization, and management of science and technology programs in Soviet Union
[FTD-MT-67-17] 19 p3587 N67-33429
New solid state device concepts
[AFCRL-67-0646] 19 p3416 N67-33439
Establishment and operation of regional information center for technology utilization
[NASA-CR-87505] 20 p3751 N67-35072
Reactor analysis, dc conduction pump development, basic shielding technology development, SNAP 10A FS-3 post test exam, and supersaturation studies for SNAP program
[NAA-SR-12216] 20 p3684 N67-35116
Rocket capabilities and rate of technological progress in Communist China 20 p3735 N67-35142
Technological innovations for January-June 1967, abstracts and subject index
[NASA-SP-5021/05/] 21 p3951 N67-35596
General assessment of status of automated technology in production, analysis, and communication of technical information concerning engineering processes
[P-3625] 21 p3804 N67-35696
Interdisciplinary study of organization, planning, and management of science and technology
[JPRS-43937] 21 p3951 N67-35900
Science and technology assessment policy 21 p3902 N67-35990
Research and technology review in fields of lunar and planetary exploration, physics, astronomy, and bioscience
[NASA-CR-86536] 22 p4144 N67-37810
Applied science and technology progress related to industry, government, society, and human behavior - report to House Committee on Space and Astronautics 23 p4367 N67-38506
Applied research concepts, evolving nature of research and technology, and roles of industry, government, and universities 23 p4367 N67-38509
Transfer of technology developed for atomic energy, defense, and space to private industry and public sector of community 23 p4368 N67-38519
Technological innovations related to development of new industry and to economic growth 23 p4368 N67-38520
Application of mathematics to electronic computers and to technological growth in general 23 p4275 N67-38595
Summary of Langley Research Center accomplishments in aeronautics and astronautics during past fifty years
[NASA NEWS RELEASE-67-251] 23 p4178 N67-38621
Semiannual review of supporting research and technology projects at Jet Propulsion Laboratory
[NASA-CR-86968] 23 p4182 N67-38822
TECTONIC MOVEMENT
New structural movement in tidal water basin and magnesium carbonate control of endogenic boron bed formation
[JPRS-38369] 03 p0283 N67-12827
New structural movement in tidal water basin 03 p0288 N67-12828
Resolutions of First International Symposium on Recent Crustal Movements 04 p0545 N67-14233
Oceanic compressive faults and tectonic movements analyzed for island arc formation and convection
[D1-82-0523] 10 p1620 N67-30610
Tectonic movement, regional faults, and a seismic nature of Antarctica 11 p1867 N67-32344
Related characteristics of fault systems of two terrestrial grabens and lunar rilles Rima Ariadaeus and Rimae Hypatia I and II, and possible tectonic origins 18 p3337 N67-31942
Geologic, geophysical, and geochemical data on crust and upper mantle of continents 19 p3447 N67-33683
Local gravity anomalies in northern Cis-Caucasus mountains explained by tectonic concept 19 p3448 N67-33745
Geological structure of U.S.S.R. - history and regional study of Soviet tectonic development
[ACIC-TC-1122, PT. I] 20 p3627 N67-34072
Seismology and tectonics in northeastern U.S.S.R.
[JPRS-42710] 23 p4349 N67-39326
Geophysical subsurface structure analyses of tectonically active valley basin in Nevada - seismic and gravity measurements, aerial magnetic and geodetic surveys, and elevations
[AFCRL-66-848] 24 p4443 N67-40021
Networks of stationary geophysical polygons developed to determine connections between temporal gravitational and magnetic potentials and perturbated bodies which change with time
[ACIC-TC-1248] 24 p4445 N67-40063
Neotectonic movements used as indicators of anomalous thicknesses of earth crust
[ACIC-TC-1246] 24 p4448 N67-40594
TEFLON
High pressure arc jet ablation characteristics of Teflon
[APL-TG-861] 13 p2342 N67-25411
Teflon tensile strength and elongation-at-break as function of irradiation in inert atmosphere, and in air
[ORNL-TM-1757] 13 p2343 N67-25614
Axial force, normal force, and pitching moment coefficients of ablating conical Teflon models at Mach number 16
[NASA-TN-D-4022] 14 p2445 N67-27616
Composite Teflon-aluminum foil bladders for Surveyor vernier propulsion system
[NASA-CR-84663] 15 p2784 N67-28018
Polonium sorption on Teflon 21 p3778 N67-35511
Hydrogen-oxygen electrolytic regenerative fuel cells with potassium titanate and Teflon matrix structures
[NASA-CR-88283] 21 p3783 N67-36065
Measured rates of heat transfer to Teflon in dissociated hypersonic flow
[NAL-TR-133] 21 p3949 N67-36155
Insulation for transformer, pothead, and coaxial cable in low radio frequency system 23 p4295 N67-38773
Hydrox regenerative fuel cell testing of single cells with matrix structures of potassium titanate and Teflon
[NASA-CR-89753] 24 p4389 N67-40475
Hydrox regenerative fuel cell testing of single cells with matrix structures of potassium titanate, Teflon, and asbestos
[NASA-CR-89754] 24 p4389 N67-40508
TEKTITE
Sound wave velocities measured in tektites and other natural glasses
[NASA-TM-X-55593] 03 p0291 N67-12234
Cosmic chemistry and petrology studies related to tektites, origin of lamellar troilites in iron meteorites, determination of metallic content in silicates, and geochemical techniques
[NASA-CR-83837] 09 p1439 N67-19561
Nitrogen content of metallic spherules in tektite and impactite glasses 09 p1440 N67-19562
Chemical composition and ages of high silica Georgia and Marthas Vineyard tektites 09 p1440 N67-19563
Neutron activation procedure to simultaneously detect cesium, hafnium, and tantalum in tektites 09 p1405 N67-19607
Spectrographic determination of silver and zinc in silicates chemically similar to tektite glass 09 p1405 N67-19608
Detection, identification, and structural analyses of tektites
[NASA-CR-83861] 13 p2312 N67-25630
Tektite compositional trends and experimental vapor fractionation of silicates
[NASA-TM-X-55781] 14 p2536 N67-27307
Primary cosmic radiation by tracks of nuclear particles in meteorites and tektites
[NASA-CR-86636] 18 p3322 N67-31989
Homogeneity of Thailand tektites and self-diffusion measurements of silicon, strontium, and potassium
[NASA-CR-89773] 24 p4474 N67-40237
TELECOMMUNICATION
Stipulations of international telecommunications agreement concerning military radio stations serving national defense purposes
[NASA-TT-F-8463] 01 p0036 N67-10186
Orbital-positioning phases of Syncom II observed by control tracker of telecommunications station
[NASA-TT-F-8522] 01 p0036 N67-10187
Ionospheric telecommunication studies in radio wave propagation and information theory
[ITSA-TM-4] 01 p0039 N67-10679
Space program research and advanced development in guidance and control, engineering mechanics, environmental simulation, propulsion, space sciences, and telecommunications
[NASA-CR-79917] 02 p0339 N67-12181
Performance of tape recorder with incremental playback capabilities for use in deep space missions 02 p0062 N67-12135
Low data rate telemetry radio frequency solid state transmitter for telecommunication system capable of surviving high impact on lunar or planetary

surface 02 p0237 N67-12139
Radiation patterns of high impact coaxial cavity radiator antenna before and after impact 02 p0237 N67-12140
Operations, characteristics, and performance of Telstar satellite tracking facilities in Italy, France, and England [NASA-SP-32, VOL. 4] 02 p0963 N67-12301
Characteristics list of launched or projected communications satellites [ELDO-TM-F-37] 04 p0616 N67-14273
Worldwide bibliography for the year 1965 of space law and related matters [IISL-BIBL.-2] 04 p0636 N67-14274
Sterilization of spacecraft telecommunications system - pressure transducers, magnetic tape recorders, and magnetic core memories 05 p0674 N67-14789
Research summaries on systems analysis, guidance and control, environmental factors, engineering development, propulsion, space sciences, and telecommunications [NASA-CR-81301] 06 p0886 N67-15701
Target lemma in combinatorial communications - proof of geometric property of multivariate Gaussian distribution 06 p0834 N67-15754
Primitive polynomials of high degree - combinatorial communications 06 p0834 N67-15755
Existence criteria for cyclic difference sets - combinatorial communications 06 p0834 N67-15756
Computer simulation of maximum-likelihood and most-likely-word decision feedback modes of phase sign estimation using Monte Carlo method 06 p0834 N67-15757
Improved data handling and pulse modulation systems for space telecommunication [NASA-SP-59] 06 p0844 N67-16555
Communications and telemetry subsystem analyses for Manned Orbital Research Laboratory system improvement study [NASA-CR-66291] 09 p1417 N67-19660
Predicting statistical performance indexes for high frequency ionosphere telecommunications systems [IER-1-ITSA-1] 09 p1419 N67-20188
Subsystem implementation and performance of on-board Surveyor telecommunications and command systems [NASA-CR-83553] 11 p1825 N67-23339
Long distance communication using tropospheric scatter or diffraction mechanism of propagation [IER-2-ITSA-2] 11 p1830 N67-23454
Research in systems analysis, propulsion, guidance and control, telecommunication, and space sciences [NASA-CR-84965] 16 p2988 N67-29141
Telecommunications system design and theory, and information processing 16 p2855 N67-29162
Radio antenna, transponder, multipacting in coaxial transmission, and radar beam geometry for spacecraft guidance and telecommunication 16 p2855 N67-29164
Telecommunications satellites of Europe, U.S.S.R., and United States 17 p3166 N67-30733
Telecommunication and power supply requirements for inflatable buoyant Venus station [NASA-CR-66407] 18 p3345 N67-32391
Soviet open source abstracts on communication and data transmission systems and equipment for industrial and railroad applications [ATD-66-66] 19 p3399 N67-32796
Soviet open source abstracts and bibliography on radio, loudspeaker, telephone, telegraph, and facsimile equipment 19 p3399 N67-32797
Soviet open source abstracts on railroad radio, telecommunication, and data transmission systems and equipment 19 p3399 N67-32798
Soviet-source abstracts from 1965-66 articles on radio, telegraph, telephone, teletype, and facsimile equipment and systems stressing railroad communications [ATD-67-5, PT. I-II] 19 p3402 N67-33026
Soviet-source abstracts from 1965-66 articles on radio relay, telecommunication, telegraph, telephone, and cable facilities for U.S.S.R. cities and railroads 19 p3402 N67-33028
Optimization of electromagnetic spectrum utilization in telecommunications 20 p3691 N67-34514
Space exploration projects on systems, guidance and control, environmental simulation, space sciences, propulsion, telecommunications, and engineering mechanics [NASA-CR-87456] 20 p3727 N67-34781
Spacecraft guidance radar beam performance, and performance margin and cost tradeoff for telecommunication system design 20 p3602 N67-34790
Characteristics of split phase telecommunications link [NASA-TN-D-4163] 20 p3694 N67-34836
Economic problems and estimated rate levels and structures for international telecommunications satellite systems [NASA-CR-87991, VOL. I] 21 p3794 N67-35309
Space exploration research on systems analyses, guidance and control, engineering development, propulsion systems, telecommunications, and space sciences [NASA-CR-86108] 21 p3943 N67-35972
Placing in orbit and monitoring geostationary satellite, role of ESRO Redu station, and construction of control and mobile stations 22 p4149 N67-37347
Technical study of European telecommunications satellite - systems performance analysis 22 p4149 N67-37348
Telecommunications, power subsystem, guidance and control, sequencing and timing, and radar for Voyager capsule bus system [NASA-CR-89678] 24 p4536 N67-40647
Spacecraft guidance and control, propulsion, telecommunications, and systems analysis, and space science research [NASA-CR-89567] 24 p4531 N67-40233
TELEGRAPHY
SA COMMUNICATION
Problem of linking automatic telemetering meteorological stations to general Soviet telegraph circuit 11 p1817 N67-21980
TELEMETER
Establishment and operation of New England seismic network - refraction studies, anomalous delays in teleseismic arrivals, local earthquakes, and crustal transfer function [AFCRL-66-767] 09 p1441 N67-19666
Data coding and processing principles applied to design of automatic telemetering meteorological stations 11 p1817 N67-21969
Telemetric apparatus for converting voltage and transmitting hydrophysical data in binary code 11 p1818 N67-22374
TELEMETRY
SA PFM TELEMETRY
SA PHYSIOLOGICAL TELEMETRY
SA RADIO TELEMETRY
Phase nonlinearities in telemetry-receiving systems, and data degradation sources [G-71-F] 01 p0027 N67-10359
Clamp-on sensors for long range telemetering oceanographic buoys [C104-3] 01 p0072 N67-10363
Operational specifications for UHF telemetry transmission link [NAVWEPS-8850] 01 p0041 N67-11047
Solid state high power low frequency telemetry transmitters 01 p0042 N67-11122
Press conference of Lunik IX flight - telemetry, landing, lunar surface, and photography [FTD-HT-66-227] 01 p0155 N67-11169
Effects contributed by tape recorders and by wow and flutter of magnetic tape on accuracy of telemetry system [NASA-CR-79821] 02 p0233 N67-11690
Telemetry systems for gun-launched upper atmosphere probes [ERR-743] 02 p0234 N67-11868
Operating principle of high-speed pulse-time alternating current transducer based on magnetic core with rectangular hysteresis loop for discrete telemetering system 02 p0298 N67-12486
Integrated-circuit multiplexed telemetry systems for biomedical applications [NASA-CR-79726] 03 p0554 N67-12921
Sampled data function and staircase function described in telemetry time-division multiplexing devices [DLR-MITT.-66-12] 04 p0511 N67-13709
Pulse code modulated bid detector for noise signal correction in aerospace telemetry 05 p0674 N67-14664
Time division multiplex telemetry for onboard data transmission to earth station 05 p0674 N67-14665
Medical and biological applications of space telemetry [NASA-CR-80967] 05 p0680 N67-14889
Telemetry data processing plan for OGO-A mission - pulse code modulation digital and analog data techniques - ground data acquisition system [NASA-TM-X-55634] 06 p0875 N67-14912
VHF and UHF high gravity telemetry instrumentation for HARP vehicles 06 p0822 N67-15982
Approximate analysis of frequency-shift keyed telemetry system with uncertainty in carrier frequency 06 p0834 N67-15751
Breadboard demonstration of delay line in frequency modulated carrier system for telemetry tape combination into one signal [ETR-TR-66-5] 06 p0844 N67-16485
Method for increasing accuracy of telemetry signal strength predictions 07 p1023 N67-16727
Research conference on magnets, telemetry, attitude control logic, altimeters, lightning, pilot safety, biostronautics, accelerometer, clear air turbulence, and electromagnetic pulse [AD-641923] 07 p1212 N67-16984
Eastern Test Range central telemetry station 07 p1059 N67-16985
Biostronautics laboratory research tool for developing techniques to monitor, analyze, and display biomedical telemetry data from astronauts 07 p1019 N67-16982
Techniques for demodulation of angle-modulated telemetry signals [WDL-TM-101] 07 p1037 N67-17273
Flight prototype equipment of addressable telemetry systems with all multiplexers interconnected to addressing and monitoring sources by one address cable and one data cable [NASA-CR-81738] 07 p1042 N67-18162
Design considerations in radiation hardening of spacecraft telemetry and control circuitry [NASA-TM-X-57092] 08 p1246 N67-18431
Digital command computer and telemetry computing system used at Apollo remote tracking sites 08 p1255 N67-18904
Computation of intermodulation distortion levels produced by telemetry system predetection filter [NASA-CR-83444] 08 p1256 N67-19135
Technical equipment and block diagrams of telemetry ground stations in West Germany [DLR-MITT.-66-17] 08 p1251 N67-19162
Instrumentation, transmission, and data processing of experimental aircraft testing program 08 p1221 N67-19653
HARP vehicles - VHF and UHF high-g telemetry instrumentation [BRL-MR-1768] 09 p1434 N67-19542
Scientific data storage problems of telemetry tapes [NASA-TM-X-55714] 09 p1417 N67-19661
Automatic telemetering meteorological station, and its importance for comprehensive automation of hydrometeorological service 11 p1918 N67-21967
Problem of linking automatic telemetering meteorological stations to general Soviet telegraph circuit 11 p1817 N67-21980
Hydroacoustic system for telemetering data on sea water transparency 11 p1878 N67-22330
Magnetic tape recorder for shipboard telemetric system of recording hydrophysical parameters 11 p1961 N67-22376
Propellant chemistry, PCM telemetry, and computer simulation related to European space vehicle launcher development 11 p2006 N67-22491
Pulse code modulation telemetry system for satellite test vehicle of ELDO launch vehicle 11 p1819 N67-22498
Machine language to describe on board and ground station data handling and processing of satellite experiments 11 p1830 N67-22799
Parity bit performance curves for pulse code modulated telemetry system [NASA-TM-X-55744] 11 p1833 N67-22877
Analysis of system problems in conversion of missile telemetry from very high to ultrahigh frequency [NAFI-TR-788] 11 p1834 N67-22960
Telemetry propagation characteristics of test track operated at L and S-band frequencies [MDC-TR-66-114] 11 p1835 N67-22847

Optical equipment, mechanical structure, stabilization and guidance, focusing device, telemetry, and remote control system of balloon borne solar observatory 12 p2212 N67-34469
Telemetry problems of ELOISE project solar observations 12 p2212 N67-34470
Telemetry, antenna, command, power, solar array, battery, attitude control, spin-up, de-spin, housekeeping, and thermal control systems for ESRO II satellite - press kit release
[NASA NEWS RELEASE-67-110] 12 p2216 N67-34548
Nimbus satellite design study - failure rate data sheets, vibration tests of pulse code modulation and telemetry electronics, encoding accuracy, and metal oxide silicon field effect transistors
[NASA-CR-83729] 12 p2218 N67-34621
Laboratory study of shaft encoders for use in automatic altitude reporting
[NADC-AM-6672] 12 p2060 N67-34741
Quarter-wavelength ring antenna for telemetering active fuse in flight
[HDL-TR-1335] 12 p2055 N67-34806
Maximum utilization of FM subcarrier bandwidth in FM-FM telemetry systems
[NRL-6449] 13 p2277 N67-35167
Miniaturized biotelemetry system for measuring temperature of small mammal and radio telemetry system for measuring temperature of moving machine part
[Y-1568] 13 p2262 N67-35385
Flight evaluation on Model III /RA-8/ of Ranger television subsystem - failure analysis
[NASA-CR-73783] 13 p2407 N67-35492
Five-watt solid state S-band telemetry transmitter
[NASA-CR-83836] 13 p2379 N67-35747
Satellite telemetry automatic reduction system, with fully automatic computer controlled telemetry data processor
[NASA-TN-D-3961] 13 p2290 N67-35799
Nimbus pulse code modulation telemetry subsystem design study
[NASA-CR-83996] 13 p2280 N67-36001
Addendum to final report for Nimbus pulse code modulation design study
[NASA-CR-83997] 13 p2280 N67-36002
Black Brant III missile launching, tracking, telemetry operation, and aerodynamic heating
[SRFB-603] 13 p2409 N67-36084
Adaptive telemetry conference on adaptive data control and processing, prediction, data compression, encoding, decoding, and modulation
[NASA-TM-X-53747] 14 p2491 N67-27401
Adaptative telemetry systems in relation to space exploration requirements 14 p2492 N67-27402
Multidisciplinary approach to unified information processing telemetry system 14 p2493 N67-27412
Channel noise effects on performance of adaptive compressive telemetry techniques 14 p2493 N67-27413
Data compression with error-control coding for space telemetry
[NASA-TR-R-261] 14 p2494 N67-27614
Coverage by network of telemetry and tracking stations of satellites on near-earth orbits
[ESRO-TM-9] 15 p2065 N67-27929
Mathematical simulation model to relate input and output of telemetry system on Saturn vehicle
[NASA-CR-84831] 15 p2071 N67-28835
Dynamic characteristics of FM multichannel telemetering system
[NAL-TR-124] 16 p2863 N67-29976
Nimbus D versatile information processor
[NASA-TM-X-55821] 16 p2863 N67-30141
Algorithm for recovery of pulse code telemetry data, and simulation program to determine matrix characteristics 17 p3029 N67-30376
Data registration and processing methods with magnetic tape connected to telemetry system 17 p3181 N67-30491
Ultrahigh frequency transmitter and telemetry development 17 p3024 N67-30586
Design considerations of central programmer, common address, and data return bus 17 p3030 N67-30587
Propagation anomaly research, and telemetry signal strength prediction for manned spacecraft application 17 p3025 N67-30602
Telemetry and command antennas for atmospheric composition satellite
[SR-3] 17 p3025 N67-30620
Analysis of Explorer IV satellite telemetry records concerning geomagnetically trapped radiation
[DASA-1889] 17 p3155 N67-31099
Atomic clocks and ruby lasers used for greater precision in trajectory analysis
[TP-446/1967/] 17 p3076 N67-31105
Brain probes, multichannel telemetry devices, and telemetric brain temperature sensors for space biology studies
[NASA-CR-85913] 17 p3068 N67-31419
Design concept of combined counter/shift register module and applications as spacecraft telemetry encoders and logarithmic data compressor 18 p3245 N67-31594
Pulse code modulation telemetry data compression evaluation - redundancy removal techniques, and buffer queueing control methods
[NASA-CR-85894] 18 p3228 N67-31840
Crystal oscillator, phase modulator, frequency multiplier, and power amplifier modules used in design telemetry transmitter for satellite applications
[TG-967] 18 p3234 N67-32561
Model analyses and computer simulations used in data compression study for improved pulse code modulation telemetry links
[NASA-CR-86995] 19 p3402 N67-33013
Soviet-source abstracts from 1965-66 articles on telephone, telegraph, teletype, and facsimile equipment and radio relays and miniature transceivers 19 p3402 N67-33027
One-half rate convolutional encoding with sequential decoding for deep space probe telemetry links with application to Pioneer missions
[NASA-TN-D-4105] 19 p3404 N67-33270
Coding method for transmitting digital data over telemetry system, and instrumentation program 19 p3407 N67-33753
RF intermodulation characteristics of VHF telemetry preamplifiers and receivers
[SC-DR-67-298] 20 p3661 N67-34429
Multiplex telemetry for data transmission from high velocity projectiles
[ISL-T-41/65] 20 p3665 N67-35061
Turnstile conical scan feed to improve tracking antenna performance on Apollo-instrumented ships
[NASA-TM-X-55699] 21 p3796 N67-35779
Airframe, pneumatic, hydraulic, propulsion, flight control, electrical, guidance, telemetry, and range safety command subsystems for Atlas launch vehicle
[GD/C-BGJ67-001] 21 p3936 N67-36061
Telemetry and automatic data processing systems in meteorology - abstracts
[ATD-67-29] 21 p3883 N67-36432
Telemetry equipment of satellite laser tracking stations and geodesic applications
[NASA-TT-F-11192] 22 p3994 N67-36693
Data processing plan for interplanetary data monitored from IMP-F platform
[NASA-TM-X-55892] 22 p4147 N67-36917
Engineering development of 1680 MHZ telemetry antenna for Arcus type rocket ejectable twenty-four inch sphere
[AFCRL-67-0238] 22 p3996 N67-36926
Deep Space Network research on tracking and navigation accuracy, communications, facility engineering and equipment, and multiple mission telemetry system
[NASA-CR-86585] 22 p3996 N67-36965
Ocean station telemetering buoy for acquisition of oceanographic and meteorological data in experiments at sea
[GDC-66-005] 22 p3997 N67-37053
Biotelemetry system operating and assembly manual
[NASA-CR-86408] 22 p3999 N67-37336
Data transmission capabilities of spacecraft telemetry communications systems, and guidelines for planning 1975-1980 missions
[NASA-CR-86859] 22 p4062 N67-37941
Lunar surface mechanical properties determined by landing impacts, telemetry data from Surveyor III, and comparison of data collected by Surveyor I and Surveyor III 23 p4342 N67-38185
Performance of DME-A satellite attitude control, attitude detection, telemetry, command, antenna, and power systems
[TG-907] 23 p4352 N67-38850
Major functional systems, schematic diagrams, and telemetry signal data for Surveyor spacecraft
[NASA-CR-83850] 23 p4352 N67-38879
NASA aircraft/spacecraft telemetry receiving systems
[NASA-TM-X-55900] 23 p4218 N67-39368
Antenna, command, data storage, radio, telemetry, and structural/mechanical subsystems of preferred Voyager capsule bus system
[NASA-CR-89679] 24 p4536 N67-40848
Coding of time signals - oscillators used on satellites and ground for signal production
[ESRO-TM-46] 24 p4406 N67-40881
Payload preparation and launching of Black Brant rocket AAF-VA-107
[SRFB-006] 24 p4538 N67-40887
Telemetry methods for manned and unmanned spacecrafts measurement of physiological, physical and operational data
[NASA FACTS S-3/8-67] 24 p4411 N67-40539
Development work on improved five telemetry data display system for OGO operations control
[NASA-CR-89740] 24 p4411 N67-40541

TELEPHONE
Feasibility of voice actuated address mechanism for use as input device to Army field telephone communications system
[REPT.-3] 02 p0236 N67-12065
Voice communication systems
[FTD-HT-66-202] 10 p1585 N67-21332
High speed coating process for producing foamed high density polyethylene insulated fine gauge conductors for use in exchange cables
[AD-646542] 14 p2542 N67-26784
Metal, plastic, and rubber sheathing materials for protecting telephone lines from insect attacks
[AD-646543] 14 p2486 N67-26807
Water vapor permeation effect on capacitance and conductance of plastic insulated underground telephone cables
[AD-646528] 14 p2487 N67-26808
Improved efficiency of telephone operator time in customer information work 19 p3383 N67-33314

TELEPHONY
5A ECHO SUPPRESSION
Application of synthetic telephony to long distance communications with reduction in transmission frequency spectrum
[JPRS-39705] 11 p1826 N67-23405

TELEPHOTOMETRY
Telephotometric observation results obtained during September and October 1964 of comet Everhart /1964 h/ 06 p0968 N67-16165

TELESCOPE
5A ASTRONOMICAL TELESCOPE
5A ELECTRON TELESCOPE
5A PROTON TELESCOPE
5A RADIO TELESCOPE
5A REFLECTING TELESCOPE
5A REFRACTING TELESCOPE
5A STRATOSCOPE II TELESCOPE
5A X-RAY TELESCOPE
Activities at Kitt Peak National Observatory and Cerro Tololo Interamerican Observatory 01 p0057 N67-10361
Method for calculating angle through which telescope views sunlit portion of central body
[NASA-TM-X-55588] 02 p0288 N67-11366
Interplanetary flight orientation by instruments based on utilization of rigidly mounted and oppositely directed telescopes 06 p0763 N67-14889
Elementary particle detection by high resolution cosmic ray charged particle telescope during three flights in summer of 1966
[NASA-CR-81761] 07 p1068 N67-18124
Aerobee rocket instrumentation, including glancing incidence telescopes for soft X-ray photography of sun
[NASA-TM-X-55671] 08 p1282 N67-18919
Maksutov-Cassegrain type telescope for Aerobee rocket instrumentation package
[NASA-TM-X-55689] 08 p1283 N67-18920
Emission telescope for studying light intensity versus time of scintillators and Cerenkov radiators in subnanosecond time domain
[EGG-1183-2122] 10 p1701 N67-20789
Engineering estimate of costs associated with giant aperture telescope
[NASA-CR-83393] 11 p1818 N67-23438
Instrument for determining instantaneous

focal lengths of large telescopes used in lunar photography 11 p1582 N67-22513
Theoretical, observational, and laboratory work on planetary environments [NASA-CR-84461] 14 p2465 N67-27826
Comparison of results of concurrent observation with two zenith telescopes at Kitab 15 p2701 N67-28078
Automatic electro-optical satellite triangulation system for finding geodetic connections [GIMRADA-RN-23] 18 p3234 N67-32517
Telescopic spectroscopic, and photometric observations of galaxies, various types of stars, night sky, and zodiacal light 20 p3728 N67-34871
Use of giant aperture telescopes as ground receivers for spacecraft laser communication system [NASA-CR-87987] 21 p3794 N67-35334
Nuclear particle identification solid state detector telescope systems [TR-163] 21 p3848 N67-35889
Modification of 82 inch coude spectrograph of observatory telescope [NASA-CR-86263] 22 p4044 N67-36617
Optical design for infrared spectrophotometer and telescope for Mars flyby spacecraft [NASA-CR-86500] 22 p4045 N67-37174
Materials compilation for construction of low frequency telescope structure [NASA-CR-88861] 22 p4157 N67-37780
Neutron monitor modifications and muon telescope design for cosmic ray studies 23 p4251 N67-38232
Balloon borne selenodetic telescope feasibility study and design [FR-12] 24 p4451 N67-39994

TELETYPE
Network circuit devices for correcting errors in noise rejection coding of digital teletype communications in complex automatic hydrometeorological telemetering systems [JPRS-40557] 14 p2491 N67-27395
Input output and control system of problem solving facility - teleregister and teletype consoles and console demands [REPT.-67-30] 20 p3606 N67-34222
Teletype symbol font legibility on television [MTR-388] 22 p3980 N67-37714
Teletype transmission of plotted intelligence data 24 p4407 N67-39827

TELEVISION
SA CLOSED CIRCUIT TELEVISION
SA COLOR TELEVISION
SA EDUCATIONAL TELEVISION
SA SATELLITE TELEVISION
SA SPACECRAFT TELEVISION
Alphanumeric symbol legibility on television display systems [MTR-234] 01 p0043 N67-10323
Real-time visual information acquisition and processing using advanced photographic and television techniques 11 p1583 N67-22663
Semiautomated X-ray television for nondestructive testing and inspection 12 p2106 N67-23674
Alphanumeric display symbol legibility for digitalized television [ESD-TR-66-117] 13 p2283 N67-26342
Recording and display of reduced bandwidth television signals [PIBMRI-1356-66] 14 p2494 N67-27470
X-ray photography-television system for monitoring biodynamic experiments [AMRL-TR-66-104] 16 p2327 N67-29091
Artificial reverberation for radio and television broadcasting rooms 20 p3602 N67-34707
Comparison of standard Leroy alphanumeric symbols with Lincoln/MITRE symbols for legibility on television display systems [MTR-389] 21 p3797 N67-35669
Teletype symbol font legibility on television [MTR-388] 22 p3980 N67-37714
Visual automobile simulation tests of driver control for sudden changes in previewed path - television and oscilloscope remote controlled simulation [NASA-CR-86272] 23 p4198 N67-38942
Control system for plate movement of photometer television microscope [UUIP-844] 24 p4452 N67-40186

TELEVISION CAMERA
Tables of computer generated photographic parameters necessary for detailed interpretation of Ranger VII television camera pictures - trajectory and time-to-impact data [NASA-CR-79938] 02 p0259 N67-11817
Tables of computer program generated photographic interpretation of selected Ranger VIII television camera pictures [NASA-CR-79939] 02 p0259 N67-11818
Line scan television for earth observation satellites [TG-853] 06 p0841 N67-16141
Solid state image convertor capable of imaging radiation from near infrared to 11,000 Angstrom 07 p1076 N67-16726
Image orthicon television camera system improvements for sensitivity, and application to satellite and underwater technology [NASA-CR-83870] 08 p1283 N67-19017
Color closed circuit television camera system for signal source of display system for simulation training [REPT.-827] 11 p1819 N67-22520
Comparison of storage and nonstorage type television camera tubes for use as image detectors in orbiting solar observatories 12 p2216 N67-24471
Image orthicon television camera tube with internal image motion compensation [REPT.-14] 16 p2294 N67-29442
Design and performance of compact lightweight two inch image orthicon television camera 16 p2297 N67-29443
Microcircuit design concepts applicable to Apollo television camera 18 p3345 N67-31590
Parameterization of cloud systems obtained with television cameras and digital computers 18 p3362 N67-31910
Noise threshold sensitivities of television camera image orthicon tubes and vidicons 19 p3419 N67-33819
Design specifications for Surveyor Spacecraft television camera mechanisms, and operating conditions in lunar environment 21 p3852 N67-36211
Television observations, soil sampling, lunar surface mechanical properties, lunar temperature and thermal characteristics, and other scientific results from Surveyor III mission [NASA-CR-86952] 23 p4241 N67-38161
Television camera aboard Surveyor III, maps and photographs of landing site, and geological interpretations of lunar surface 23 p4242 N67-38162
X-ray television system for use in inspection and evaluation of spacecraft electronic parts [TG-920] 23 p4251 N67-38226
Electrical, mechanical, and circuit design of ultraminiature television camera [NASA-CR-89625] 24 p4450 N67-39742

TELEVISION EQUIPMENT
Television equipment for automatic recognition of objects [FTD-HT-66-64] 01 p0072 N67-10415
Television monitoring system for launcher area 6 of EUROPA 1 Project [WRE-256, ISSUE 2] 02 p0260 N67-11871
Surveyor I lunar photographs interpretation, and television subsystem [NASA-CR-81530] 07 p1189 N67-17166
Design problems in visual displays - factors in legibility of television displays [MTR-362] 09 p1414 N67-19570
Photoelectric and television devices for combating noise from atmospheric turbulence during astronomical observations 11 p1975 N67-22506
Multi-audio video tape recording and automatic television audio editor for starting sound-effects tape 11 p1836 N67-22419
Ultradirectional condenser microphones for television studio use 12 p2051 N67-24024
Variable direction microphone for television studio use 12 p2052 N67-24026
Psychovisual factors of pseudo-random dot-scanning television systems [SRRC-CR-66-49] 12 p2068 N67-24482
Evaluation of large screen television display for air traffic control applications [RD-66-49] 12 p2143 N67-24673
Performance evaluation of Ranger VIII Flight Model III-3 television subsystem [NASA-CR-83784] 13 p2407 N67-25491
Research on radio frequency systems and millimeter waves [NASA-CR-83973] 13 p2283 N67-26185
Experimental investigations of two-dimensional aperture correction of television camera tubes using vidicon storage unit [RAE-LIB-TRANS-1204] 15 p2676 N67-27796
Multi-color gas lasers for displaying real-time information for color television [RADC-TR-66-711] 16 p2902 N67-29117
Astronomical television system to reduce exposure time for obtaining images of weak stars using average-size instruments [NASA-CR-86379] 21 p3668 N67-36409
Analysis of costs and benefits of relaying airport surveillance radar data to general aviation aircraft via television equipment [RD-67-54] 23 p3998 N67-37184

TELEVISION RECEPTION
Technical and cost factors regarding effective television reception from synchronous satellite [NASA-CR-76601] 21 p3662 N67-36665

TELEVISION TRANSMISSION
SA AUTOMATIC PICTURE TRANSMISSION /APT/
Scientific evaluation of television panoramas from lunar surface station [NASA-CR-80180] 02 p0257 N67-12282
Relative legibility of Leroy and teletypewriter symbols during hourly sequence weather reports [MTR-265] 06 p0816 N67-16484
Performance in flight of Nimbus 1 automatic picture transmission television-camera system [NASA-TM-X-55629] 08 p1282 N67-19649
Amplitude and frequency modulation of signal transmissions in television communication systems [RAE-TM-WE-1301/E/] 11 p1827 N67-22472
Syncom III engineering data, launch and orbital maneuvers, and television transmission [NASA-TR-R-252] 12 p2218 N67-25044
Eliminating redundancy in fixed frame television, and relationship between spectral properties of original sampled waveform and interpolation error 14 p2488 N67-27414
Use of high gain antennas and advanced electronics for synchronous satellite communication [P-3477] 15 p2786 N67-28889
Three-dimensional linear coding and decoding techniques for increasing interference stability of moving images in low frame rate television system 18 p3233 N67-32231
Entropy of sources of unidimensional and multidimensional television transmission - Information theory 18 p3228 N67-32232
Bandwidth compression and limiting information content of television signals [FTD-HT-66-592] 19 p3494 N67-33298
Simultaneous transmission of two sound channels in television broadcasting 20 p3662 N67-34691
Technical and economic aspects of communications satellites for radio and television broadcasts [JPRS-42194] 21 p3801 N67-36283
European communications satellite for television transmission 22 p4149 N67-37682
Potential uses of new communications technologies for national security and defense in 1970s [P-3629] 24 p4486 N67-39748
Wideband communication experiments with COMSAS, Japan via Relay II satellite 24 p4419 N67-40239

TELLURIC CURRENT
S GEOELECTRICITY

TELLURIC LINE
Balloon flight data on spectral absorption by earth atmosphere over long absat path at high altitude [AFCRL-66-812] 13 p2008 N67-24985

TELLURIDE
SA BISMUTH TELLURIDE
SA CADMIUM TELLURIDE
SA INDIUM TELLURIDE
SA LEAD TELLURIDE
SA MERCURY TELLURIDE
SA TIN TELLURIDE
SA ZINC TELLURIDE
Synthesis and characterization of carbon subsulfide for use in determining properties of carbon telluride [NASA-TM-X-55908] 13 p2274 N67-26279

TELLURIUM
Angular distributions of elastic and inelastic scattering of 43-MeV alpha particles measured for even tellurium isotopes [NASA-TN-D-3981] 14 p2503 N67-27866
Identification of tellurium-111 by daughter isotope of proton decay [JINR-P6-3138] 15 p2709 N67-28229
Delayed proton emitter produced by

reaction palladium 102 with carbon 12
[JINR-E6-3143] 17 p3134 N67-30234
Acoustical properties of tellurium crystals, and factors affecting accuracy of observations of acoustical activity
[TR-12] 19 p3522 N67-32776
TELLURIUM ALLOY
Thermoelectric properties of copper-antimony - tellurium sub two - tin-tellurium system
[FTD-TT-65-1993] 05 p0753 N67-15301
Mossbauer effect of Te 125 in simple cubic and amorphous phases determined in tellurium-base alloys
[REPT.-46] 10 p1747 N67-20746
Thermodynamic properties of indium antimony tellurides, indium antimonides, and indium tellurides
[TR-3] 12 p2049 N67-24970
TELLURIUM COMPOUND
Lasing potentials of compounds prepared from elements of group II and group IV in periodic table 07 p1174 N67-16953
Physical and chemical properties of tellurium, tellurium oxides, tellurium fluorides, and tellurium oxyfluorides for use in support of fluid bed fluoride volatility processes
[ANL-7142] 07 p1134 N67-17586
TELSTAR I SATELLITE
Performance tests with Telstar I satellite at French space communication station 03 p0363 N67-12304
TELSTAR II SATELLITE
Solar radiation pressure effect on semi-major axis of Telstar II orbit
[NASA-TM-X-55579] 02 p0203 N67-11361
Communications and radiation experiments with Telstar II satellite 03 p0365 N67-12320
TELSTAR SATELLITE
Operations, characteristics, and performance of Telstar satellite tracking facilities in Italy, France, and England
[NASA-SP-32, VOL. 4] 03 p0363 N67-12301
High power traveling wave amplifier tube for Telstar satellite ground transmitter 03 p0364 N67-12317
Test results and demonstration transmissions with Telstar I and Telstar II satellites received at Goonhilly ground station 03 p0365 N67-12319
TEMPERATURE
S ATMOSPHERIC TEMPERATURE
S AURORAL TEMPERATURE
S BODY TEMPERATURE
S BODY TEMPERATURE /BIOL/
S COMBUSTION TEMPERATURE
S CRYOGENIC TEMPERATURE
S DEBYE TEMPERATURE
S ELECTRON TEMPERATURE
S ENVIRONMENTAL TEMPERATURE
S ION TEMPERATURE
S IONOSPHERIC TEMPERATURE
S LUNAR TEMPERATURE
S OPERATIVE TEMPERATURE
S PLANETARY TEMPERATURE
S PLASMA TEMPERATURE
S RECOVERY TEMPERATURE
S ROOM TEMPERATURE
S SKIN TEMPERATURE
S SPACE TEMPERATURE
S STAGNATION TEMPERATURE
S WALL TEMPERATURE
TEMPERATURE CONTROL
SA CRYOSTAT
SA HEAT REGULATION
SA INSULATION
SA SKIN TEMPERATURE /BIOL/
Photoelectric pyrometer for measuring and controlling temperature of rotating machine parts
[FTD-TT-65-1939] 01 p0074 N67-10973
Optimal temperature for growing single cell algae with varying artificial illumination intensities
[JPRS-30731] 02 p0213 N67-12000
Improvement in accuracy of temperature control systems 03 p0378 N67-12791
Selection and evaluation of satellite thermal control surfaces - electrolytically deposited matt gold surface and black and white polymethyl methacrylate paints
[RAE-TR-66121] 03 p0458 N67-13240
Thermostat for high temperature measurements of neutron cross sections
[NP-497/PS] 04 p0574 N67-13599
Electronic package environmental control systems and vehicle thermal systems integration for space missions to 180 days duration
[NASA-CR-80771] 04 p0615 N67-13874
DOLTL computer code model for calculating temperature drift for statically controlled SNAP-10A type reactors
[NAA-SR-MEMO-11977] 07 p1135 N67-17698
Instrument unit temperature control system for Saturn IB and Saturn V
[NASA-CR-81679] 07 p1088 N67-18037
Internal restraint system, composed of liquid filled garment and separate auxiliary system, for integrated restraint pressure suit for acceleration protection and thermal transport
[NASA-CR-718] 08 p1231 N67-18396
Space simulation tests on temperature control, inorganic and silicone coatings, zinc titanate pigment synthesis and evaluation, and silicone photolysis
[NASA-CR-82091] 08 p1296 N67-18517
Thermal control coatings, cathodic processes on semiconductor zinc oxide, and semiconductor electrolyte interface capacitance
[NASA-CR-82100] 08 p1227 N67-18549
Temperature control in fallout shelters located above and below ground - mathematical techniques to predict cooling capabilities
[R-493] 08 p1262 N67-18569
Maintenance of predetermined temperature near variable source of thermal energy in relation to passive heat transfer control device
[NASA-CR-82395] 08 p1323 N67-18980
Material and performance tests of water boiler and water sublimator heat sink modules
[NASA-CR-82794] 09 p1540 N67-19418
Thermocouple systems for monitoring temperatures inside nuclear reactors 09 p1478 N67-19638
Infrared pyrometer for measuring remelt furnace pour temperatures 09 p1447 N67-19645
Self-regulating finned thermal control systems for spacecraft skin
[NASA-CR-82945] 09 p1520 N67-19954
Digital computer analysis of temperature control characteristics of spacecraft louvers in sunlight
[NASA-CR-83115] 10 p1771 N67-21162
Vortex arc studies, solar flux and spectral measurements, spacecraft coatings, solar simulation studies, and solar cell radiation effects testing
[NASA-TM-X-55735] 11 p1853 N67-22141
Solar simulation - paint testing, planning for high altitude tests of spectral irradiance, pressure arc and vortex stabilized radiation systems, and thermal control coating tests 11 p1858 N67-22142
Passive and thermal control coatings development and degradation equipment procurement 11 p1868 N67-22145
Physical-properties thermal-shock test of spacecraft thermal control coatings 11 p1901 N67-22146
Sensitivities of condenser, radiator, and pump bypass temperature controls to control flow
[NASA-CR-72217] 11 p1999 N67-22848
Phase transformation for accurate temperature control, and thermostatic control methods for gravimeters
[NASA-TT-F-467] 12 p2000 N67-23788
Infrared detector temperature regulator for carbon monoxide vibraluminescence
[AFCRL-65-587] 13 p2316 N67-25174
Calibration of in situ reflectometer irradiation facility in program for development of space stable thermal control coatings
[NASA-CR-84062] 13 p2426 N67-26323
Combined passive and active methods for thermal control of manned orbital space station to reduce heat flux on space radiators
[NASA-TM-D-2995] 14 p2466 N67-26551
Feasibility of controlling cosmonaut thermal balance in space suit by physiological perspiration
[NASA-TT-F-10413] 14 p2466 N67-26575
Temperature control system, surface finishes and materials, thermal shields, and louvers of Mariner IV space probe
[NASA-CR-84298] 14 p2617 N67-26581
Thermal design of navigational satellites for attaining balance between external and internal heat inputs and heat output by radiation from external surfaces
[APL-TG-845] 14 p2618 N67-26819
Metallic cryostat and electron stabilization circuit for electrical and optical studies at low temperatures
[NASA-TT-F-10988] 14 p2540 N67-27607
Surveyor spacecraft systems engineering, thermal control, propulsion system, and scientific instrumentation 14 p2621 N67-27742
Attitude control, temperature control, power system transducers, and space simulator tests for Mariner Venus 67 spacecraft 14 p2621 N67-27743
Spacecraft configuration, attitude control, propulsion, and temperature control for Mariner Mars 1969 project 14 p2621 N67-27744
Stability of closed loop control system for rotational speed and temperature of variable nozzle turbojet engine 16 p2821 N67-29109
Temperature control of orbital otolith experiment on Apollo flight
[NASA-CR-815] 16 p2841 N67-29695
External and internal passive and active methods for spacecraft thermal control - material insulation and structural properties
[NASA-CR-65580] 16 p2976 N67-30163
Controlled temperature and fatigue test capsule experiments 18 p3296 N67-32400
Irradiation capsule temperature control
[ORNL-P-2177] 18 p3297 N67-32414
Controlled temperature and pressure irradiation capsules to study basic swelling mechanisms 18 p3298 N67-32421
Temperature control of encapsulated irradiation specimens, based on capsule design and thermal insulation dependence on gas filling pressure 18 p3299 N67-32429
Controlled temperature room for storing samples of paints used for satellites 18 p3276 N67-32604
Instrument unit electronic packages, environmental control systems, and vehicle thermal systems integration for Saturn missions
[NASA-CR-87327] 19 p3540 N67-33580
Optimum thermal conditioning and control systems for instrument unit electronic packages in Saturn space missions ranging from 4-1/2 hours to 180 days
[NASA-CR-87299] 19 p3541 N67-33704
Handbook of thermal design data and information on thermophysical properties of high performance insulation materials for spacecraft thermal control surfaces
[NASA-CR-87484] 20 p3746 N67-34625
Permselective composite techniques applied to atmosphere thermal control of emergency and extravehicular manned space assemblies
[AMRL-TR-66-234] 21 p3770 N67-35423
Passive thermal control of ELDO satellite by solar cell arrangement
[DTA-66-4644, APPEND. IV] 21 p3948 N67-35931
Phase change coatings for use as variable thermal control surfaces
[NASA-CR-66394] 21 p3948 N67-36000
Solar energy simulation techniques for testing spacecraft thermal performance
[NASA-CR-73098] 21 p3956 N67-36429
Attitude control system to regulate skin temperature of manned lifting spacecraft during reentry into earth atmosphere
[UTIAS-126] 21 p3932 N67-36586
Analytical determination of shutter type temperature control system effective radiative properties
[REPT.-658D329] 22 p4160 N67-36888
Definition and design study of temperature control flux monitor for Mariner Mars 1969
[NASA-CR-66745] 22 p4049 N67-37616
Electronic packages, environmental control systems, and spacecraft thermal systems integration - thermal analysis data
[NASA-CR-66706] 22 p4018 N67-37649
Design study of temperature control flux monitor for Mariner Mars 1969 spacecraft
[NASA-CR-66746] 22 p4050 N67-37788
Description and mathematical analysis of thermal control aspects of spacecraft louvers
[NASA-CR-66976] 22 p4168 N67-38054
Multilayer insulation systems evaluation for 200 to 700 degrees K temperatures
[NASA-CR-907] 24 p4543 N67-39508
Control of time temperature relationships by impingement of carbon dioxide jets in weld vicinity during welding operation for improving weldments in aluminum plate
[NASA-CR-66931] 24 p4539 N67-40194
TEMPERATURE DIFFERENCE
Temperature variation at depth of 30 cm in clay till and outwash sand and

gravel 04 p0530 N67-13482
Computing longwave and shortwave radiation fluxes, and radiation-induced changes in temperature and geopotential 11 p1914 N67-22596
Vertical air motion effects on temperature changes during stratospheric warming 15 p2740 N67-28138
Temperature variation of gadolinium electron spin resonance in cubic and axial crystals 21 p3919 N67-36315
Resistance measurements of epitaxial gold films and their size effects in temperature variation of electric conductivity [R-364] 22 p4127 N67-37279

TEMPERATURE DISTRIBUTION
SA WALL TEMPERATURE DISTRIBUTION
Thermophysics of silicon epitaxial power transistors 01 p0048 N67-10115
Simple technique for observing temperature distribution and heat flow and estimating thermal impedance in thin film resistor arrays and integrated circuits 01 p0049 N67-10120
Chorioretinal burns examined in terms of temperature distributions 04 p0484 N67-13405
Pressure, temperature, and velocity distributions of symmetric airfoil models in boundary layer wind tunnel [DLR-FB-66-57] 04 p0479 N67-13768
Critical review of experimental heat transfer coefficients and temperature distributions in turbulent boundary layers of supersonic and hypersonic flows [DLR-FB-66-51] 04 p0622 N67-13770
TRUMP - computer program for transient and steady state temperature distributions in multidimensional systems [UCRL-14754] 04 p0623 N67-13900
Temperature distribution in cladding under spacers in BONUS superheater assemblies [ORNL-TM-1452] 04 p0624 N67-14000
Effect of fuel opacity on temperature distribution in gaseous nuclear rocket engine [NASA-CR-695] 06 p0954 N67-16913
Flow and temperature field calculations for gas flowing through packed reactor bed 06 p0913 N67-16253
Scattering sample influence on neutron temperature distribution in reactor core 06 p0913 N67-16295
Analytical prediction of defects for extrusion through conical dies, and Fortran program for numerical solution of temperature distribution problem [AD-641257] 06 p0888 N67-16647
Irregular shaped boundaries and effect on temperature distribution in solid [IN-1037] 07 p1208 N67-17468
Heat transfer and mean temperature distribution through turbulent free convection air layer between two aluminum plates - Mach-Zehnder interferometry [NASA-CR-81740] 07 p1210 N67-18096
Computation of equilibrium temperature distributional function of finned cylinder in sun radiation field using variant of successive approximation method 08 p1361 N67-18304
Radial temperature distribution and current density in infinite cylindrical conductor heated by direct current 08 p1383 N67-18553
Pressure and temperature distributions in shock layer along rays in three-ray scheme for solving singularities of hypersonic nonequilibrium gas flow around blunt body 08 p1370 N67-19174
Influence of temperature, pressure, and excess of air entering calorimeter on caloricity of kerosene 09 p1540 N67-19487
Temperature distribution along profile of cooled turbine blade with heat-insulated edges 09 p1540 N67-19489
Temperature distribution along profile of turbine bushing blade 09 p1540 N67-19496
Transient strain and temperature distributions in long circular cylinders cooled by emission of thermal radiation [SC-DC-66-1517] 10 p1779 N67-20942
LION computer program to solve temperature distributions for arbitrary shapes and complicated boundary conditions [KAPL-M-6832] 10 p1771 N67-20959
Temperature distribution and limitations of polymeric materials and fibers [RAE-TN-CPM-80] 10 p1661 N67-21168
Velocity and temperature distributions in thermally stratified boundary layer [AD-645531] 11 p1915 N67-22640
Finite element method for determination of nonstationary temperature distribution and thermal deformations 11 p1992 N67-22836
Meteorological considerations for supersonic transport flights 12 p2014 N67-23981
Temperature distribution at altitudes flown by supersonic transports 12 p2014 N67-23982
Sunspot model construction and temperature distribution assumptions 12 p2202 N67-24330
Heat transfer equation used to study temperature distribution in ammonium perchlorate composite propellants 12 p2198 N67-24394
Diagram for temperature distribution on porous plate exposed to uniform blast of homogeneous gas [NASA-TT-F-10959] 14 p2833 N67-27311
Computer program for studying nuclear reactor core thermal conditions during plant transients and calculating temperature distribution for coolant and fuel elements [GAMD-7397] 14 p2578 N67-27349
Heat transfer and temperature distribution of conical porous membrane used as decelerator during planetary entry [NASA-TN-D-4019] 14 p2634 N67-27612
Analytical formulation derived for computing local radiation equilibrium temperatures in diffusely reflecting semigray cavities [RR-17] 15 p2804 N67-28339
Forced-convection heat-transfer characteristics of liquid metal flow in circular tube, and in parallel plate channel [NASA-TN-D-3473] 15 p2907 N67-28821
Temperature distribution and heat transfer in gas turbine blades 16 p2984 N67-29190
Core stress, fission gas pressure, reactivity coefficient, fuel pellet thermal expansion, and temperature distribution data for low enriched PM replacement core [HIT-3563-43, VOL. II] 16 p2929 N67-29331
Nonlinear heat transfer and temperature distribution through electric filaments and fins of arbitrary geometry with temperature dependent properties and heat generation [NASA-TM-X-53621] 16 p2967 N67-30144
Vertical distributions of pressure, temperature, and density of mean monthly atmosphere models at 15 degrees north [AFCRL-67-0120] 17 p3002 N67-30491
Solutions and parametric computer study for class of boundary value problems of time dependent temperature distribution in two layer, composite slab [NASA-CR-84868] 17 p3178 N67-30861
Numerical method for determining free thermal expansion of finite cylinders of different length to diameter ratios having radially parabolic temperature distribution [AECL-2990] 17 p3093 N67-30947
Heat transfer coefficients and temperature distributions in turbulent boundary layers at supersonic and hypersonic flow [NASA-TT-F-10960] 18 p3256 N67-31557
Flow on airfoil profiles with blowing out from nose slots - measurement of pressure, temperature and velocity distributions in boundary layer wind tunnel [NASA-TT-F-10966] 18 p3180 N67-31850
Hazard analysis computer program for determining specimen and irradiation capsule component temperature distribution 18 p3297 N67-32413
Estimates of vertical temperature structure, heat balance, solstice circulation, and thermally driven tides on Mars in comparison with like conditions on Earth [NASA-CR-86912] 18 p3327 N67-32454
Temperature distribution in homogeneous opaque sphere traveling in space [NASA-TN-D-4046] 18 p3268 N67-32551
Alumina sandwich cone testing to develop theoretical values of internal temperature distribution and thermal stress 19 p3542 N67-32374
Heat flux equations for magnetospheric electron temperature distribution [NASA-TM-X-55071] 19 p3444 N67-32476
Heat distribution for three SNAP-19 generator models for use in burnup analysis during reentry [MND-3607-92, VOL. I] 18 p3498 N67-32779
Calculation methods for temperature distribution in shielding block of nuclear reactor [UJV-1663] 19 p3490 N67-32929
Transient temperature distribution in solid sphere of low conductivity material after application of aerodynamic heating [PIBAL-936] 20 p3743 N67-34694
Arctic ice cover effect on atmospheric temperature zonal distribution 20 p3675 N67-34850
Airfoil pressure profile for calculating temperature distributions in simulated turbine blade specimens 21 p3909 N67-35251
Thermodynamic processes in fuel element and determination of temperature distribution [KFK-477] 21 p3948 N67-36622
Material transport and temperature distribution in arc welding between melting aluminum electrodes [REPT.-67-66] 22 p4130 N67-37798
Heat generation rates and temperature distribution of axial loaded ball bearings [MEL-2458] 23 p4302 N67-38116
Space-temperature correlations in quantum statistical mechanics [NYO-1480-76] 23 p4290 N67-38231
Transient radiation and conduction in slotted slab and hollow cylinder [NASA-CR-905] 23 p4235 N67-38368
General expressions derived for radiation from nonisothermal gases in terms of spectral line width [AFCRL-67-0464] 24 p4530 N67-38636
Indian Ocean surface temperature distributions for January 1963-December 1964 - charts and tables [HIG-67-14] 24 p4445 N67-40627

TEMPERATURE EFFECT
SA HEAT EFFECT
Temperature dependence of internal friction, elastic modulus, and shear modulus in powdered beryllium alloy, hardened steel alloy, boron, and polycrystalline structures [JPRS-37880] 01 p0081 N67-10081
Temperature dependence of internal friction of monocrystalline boron obtained by zone refining 01 p0081 N67-10082
Temperature dependence of internal friction in hardened iron and steel alloy 01 p0081 N67-10083
Temperature dependence of internal friction, shear modulus, and elasticity in hot-pressed powdered beryllium alloys with beryllium oxide 01 p0081 N67-10084
Seasonal and latitudinal temperature effects on noctilucent cloud distribution in mesopause region [NASA-TT-F-10365] 01 p0086 N67-10215
Temperature dependence of fluorescent frequency shift in ruby laser [FTD-TT-65-2066] 01 p0141 N67-10978
Temperature dependence of absorptance of ammonia [AFCRL-66-456] 01 p0118 N67-10999
Warm temperature influence on adaptability of human subjects to orthostatic test 02 p0186 N67-11458
Effects of temperature and humidity on mental working ability 02 p0197 N67-11581
Errors in measuring containment structure leakage due to dynamic temperature effects [NAA-SR-12901] 02 p0085 N67-11712
Temperature dependence of mechanical properties of high strength alpha-phase titanium alloy containing aluminum 02 p0074 N67-11791
Behavior of foil resistance strain gauges, and temperature coefficients of resistance [ARL/SM-NOTE-299] 02 p0090 N67-11910
Body adaptation to temperature fluctuations 02 p0090 N67-12291
Temperature dependent multigroup capture cross section of thorium 02 p0434 N67-12000
Effect of air temperature on accuracy of measuring machines under unstable temperature conditions 02 p0090 N67-12790
Solid-liquid phase transformations of serpentine and olivine at varying temperatures and pressures [NASA-CR-80435] 02 p0090 N67-12114
Effect of radiation temperature on thermoluminescence of lithium fluoride /TLD-100/ [COO-1105-118] 02 p0455 N67-12963
Luminescence spectra of zinc oxide subjected to thermal processing [NASA-TT-F-10454] 04 p0090 N67-12990
Polymers studied for relationship between cohesive forces, refractive indices, and glass transition temperature data [RAE-TR-66185] 04 p0097 N67-14117

Temperature limitations of polymeric dielectrics
[RAE-TR-66300] 04 p0567 N67-14181
Effect of bias and high temperature on silicon dioxide devices
[RAE-TR-66236] 04 p0601 N67-14267
Temperature dependence of viscous and elastic properties of low density polyethylene melt 05 p0734 N67-14548
Temperature effects on strain in gels under constant stress 05 p0734 N67-14553
Effect of deformation rate and temperature on as formed and heat treated mechanical properties of titanium alloys
[AMRA-TR-66-23] 05 p0713 N67-14988
Temperature dependence and mechanism of sintering
[CRREL-RR-189] 05 p0706 N67-15313
Superconductivity and critical temperature studied in niobium carbonitride solid solutions
[NASA-TT-F-10446] 06 p0645 N67-15689
Effect of temperature on hardness of Cr-Re alloys in range 0 to 40 atomic percent Re 06 p0692 N67-15836
Activation volume analysis for Cr and Cr-35Re 06 p0692 N67-15837
Elastic constants of some alkali halides as function of temperature and composition
[TR-3] 06 p0646 N67-15998
Thermal switching of fluidic elements 06 p0794 N67-16064
Temperature dependence of electric and photoconductivity investigated in monohalo derivatives of benzene
[ATD-66-118] 06 p0629 N67-16459
Effects of various heat input rates on steel welds
[NASA-TM-X-53527] 06 p0688 N67-16541
Acoustic grenade soundings to determine relation between temperature structure in atmosphere and occurrence of noctilucent clouds
[NASA-TM-X-55648] 06 p0676 N67-16550
Absorption of sound in air as function of humidity and temperature
[NASA-CR-647] 06 p0819 N67-16642
Effects of high temperature, material hardness, and lubricants on wear of bearing cage materials
[NASA-TN-D-3821] 06 p0955 N67-16693
Electron microscopic study of influence of irradiation temperature on damage structure in neutron irradiated molybdenum 07 p1173 N67-16754
Electron microscopic studies on effect of irradiation temperature on cluster formation in neutron irradiated copper 07 p1173 N67-16756
Electron microscopic studies of influence of irradiation temperature on defect structures in stainless steel 07 p1121 N67-16762
Cavity formation in neutron irradiated magnesium oxide 07 p1173 N67-16763
Applicability of finite escape time concept in reactor kinetics 07 p1122 N67-17044
Low temperature irradiation of steels for reactor pressure vessels to determine radiation damage
[RCN-97] 07 p1135 N67-17843
Optimal hot extrusion parameters for canned ceramic billets, and multilayer tungsten-ceramic cans
[NASA-CR-61536] 07 p1095 N67-18053
Surface properties, temperature effects, cooling behavior, and observability of neutron stars
[NASA-TM-X-57318] 07 p1105 N67-18198
Temperature and pressure effects on elastic wave propagation velocity in monocrystalline metallic sodium
[NYO-2364-15] 08 p1289 N67-18464
Heat transfer across surfaces in contact - effects of transient temperature and pressure environments
[NASA-CR-82396] 08 p1383 N67-18979
Fiber orientation effects on tensile strength of hot pressed aluminum-Inconel and aluminum tungsten components
[AECL-2666] 08 p1298 N67-19112
Current-striction model for calculating magnitude, temperature dependence, and angular dependence of n-type semiconductors
[TR-30] 08 p1382 N67-19227
Pulse method to determine temperature and reactor radiation effects on elastic constants of solids
[FTD-HT-66-466] 09 p1479 N67-19648
Temperature and pressure dependence of infrared and optical spectra of solids
[IITRI-A6138] 10 p1742 N67-20462
Temperature dependence of ring current level structure of weakly coupled superconductors
[COO-1569-5] 10 p1745 N67-20785
Frequency and temperature dependence of sound propagation in liquid helium
[COO-1198-384] 10 p1692 N67-20813
Spectral sensitivity as function of temperature for cesium antimonide photocathodes
[CEA-R-2905] 10 p1592 N67-20816
Temperature dependence of lithium-drifted germanium detector response to gamma radiation
[NASA-CR-83350] 10 p1733 N67-21803
Temperature change effects during fatigue tests on endurance of aluminum alloy and carbon manganese steel
[NEL-221] 11 p1895 N67-22129
Relation of flow stress of aluminum to strain, strain rate, and temperature for solving metal forming problems
[LA-3544] 11 p1896 N67-22330
Temperature effect on synthesis of cerium chalcogenides
[AD-646011] 11 p1811 N67-23739
Temperature limitations of transparent polymeric materials used in aircraft canopies, windows, and windshields
[RAE-TN-CPM-53] 11 p1904 N67-23782
Position and form of critical zone and direction of magnetization in high frequency tape recording and temperature effect on magnetic and physical properties of magnetic tapes
[JPRS-39892] 12 p2100 N67-23916
Temperature effect on magnetic and physical properties of magnetic tapes 12 p2100 N67-23918
Thorium alloys studied for effects of submicron thoria additions and temperature on mechanical, electrical, and corrosion properties 12 p2117 N67-23955
Elastic equilibrium in isotropic plate in stationary thermal field, and bending due to temperature stresses 12 p2224 N67-24505
Temperature stresses in thin plates reinforced by rings 12 p2226 N67-24519
Clothing for protection against extreme ambient temperatures in aircraft
[RAE-LIB-TRANS-1205] 12 p2032 N67-24587
Data analyses of snow, soil, geological, and geophysical measurements obtained by microwave radiometry
[SGC-829R-4, VOL. II] 12 p2095 N67-24785
Instrumentation and measurement of brightness temperatures of snow, soil, and geological formations by microwave radiometry
[SGC-829R-4, VOL. I] 12 p2095 N67-24793
Vibration and temperature effects on dynamic response of composite material 13 p2414 N67-25195
Stiffness, damping, and creep properties of polyurethane foam and effects of temperature and humidity
[ARC-CP-965] 13 p2344 N67-26153
Temperature effect and irradiation on characteristics of ultraviolet ion chambers 13 p2324 N67-26465
Temperature coefficient of cross linking and effects in irradiation of polyethylene
[COO-1088-26] 15 p2720 N67-27910
Seasonal and latitudinal dependences of temperature to investigate correlation between temperature mesopause and noctilucent cloud distribution 15 p2700 N67-28022
Displacement of focal plane due to temperature variation, recorded by Danjon astrolabe 15 p2701 N67-28079
Viability of microorganisms under conditions of extreme dryness, irradiation, and temperature approximating those on Mars
[NASA-TT-F-10721] 15 p2649 N67-28222
Lead and temperature as related to solid film lubricant wear life
[RIA-TR-67-214] 15 p2718 N67-28271
Pressure-temperature history examined for effect on incipient boiling superheats in liquid metals
[ANL-7184] 15 p2726 N67-28518
Temperature and concentration effects on electric resistance determined in Cu-Fe base alloys
[NASA-TT-F-10834] 15 p2728 N67-28742
Stress-grain size and temperature dependence analyzed to determine effects on brittle fracture transition of steel
[ARPA-E38] 17 p3078 N67-30434
Physical properties of glassy carbon as function of heat treatment temperature 17 p3085 N67-30539
Time and temperature relationship in solution to various welding problems 17 p3072 N67-30567
Doppler coefficients and effective resonance integrals of natural and enriched tungsten samples at high temperatures
[NASA-CR-72229] 17 p3108 N67-30739
Theory and tabulated numerical values of viscosity and mean free paths as function of temperature for argon and nitrogen
[DLR-MITT.-67-06] 17 p3048 N67-30782
Amplifier-discriminator used in neutron counters - sensitivity, effects of temperature changes and transistor leakage and circuitry
[AECL-2880] 17 p3061 N67-30867
Temperature and gamma radiation effects on electric breakdown of polycrystalline alpha phase aluminum oxide ceramic insulators used in nuclear thermionic reactors
[NASA-CR-85774] 17 p3086 N67-30984
Micropower transistor logic circuits designed to operate from power supply voltages which vary with temperature
[NASA-TN-D-4052] 17 p3037 N67-31194
Partial derivatives of fundamental thermodynamic functions in terms of temperature and pressure variables
[NASA-TT-F-11089] 17 p3180 N67-31383
Effects of high initial tensile and compressive loads and elevated temperatures on room temperature fatigue life of notched titanium alloy sheets
[NASA-TN-D-4061] 18 p3248 N67-31539
Reaction of molten uranium dioxide with water at various water temperatures
[BNWL-362] 18 p3294 N67-32106
Side wall heat transfer and temperature effects of gas flow near cathode in Poiseuille inlet development region
[TR-28] 18 p3314 N67-32260
Temperature effect on stability of rotational motion of liquid 18 p3260 N67-32297
Polymers and glass transition temperatures
[AFML-TR-65-231, PT. 3] 18 p3227 N67-32657
Extrusion pressure, temperature, and grain structure of normal uranium as function of billet preheat temperature, press ram speed, die approach angle, and reduction ratio
[REPT.-4] 19 p3470 N67-32949
Temperature and shrinkage stresses in thick-walled reinforced cylinder bonded to rigid case
[TR-37] 19 p3545 N67-32969
Thermal method for measurement of neutral particle flux using junction temperature effect
[CEA-R-3094] 19 p3506 N67-33518
Thermal analysis data plots for heat loads of electronic packages, environmental control systems, and vehicle thermal systems
[NASA-CR-87306] 19 p3541 N67-33835
Temperature effects and thermoelastic stress in spherically symmetric fuel elements with varying material properties
[AAEC/TM371] 20 p3681 N67-34328
Effects of liquid temperature variations on model cavitation at free stream velocity
[NASA-CR-87472] 20 p3625 N67-35097
Crack toughness variation of mild steel with temperature and strain rate 20 p3661 N67-35149
Modifications of ion densities due to temperature variations
[REPT.-5] 21 p3838 N67-35880
Oils, greases, and additives as lubricants for aerospace applications 21 p3859 N67-35998
Temperature dependence of hyperfine structure in rare earth-gold alloys 21 p3921 N67-36306
Temperature effect on EDTA-elution positions of yttrium in rare earth sequence 21 p3790 N67-36361
Statistical evaluation of temperature, current density, and composition effects in preparation of boron by fused-salt electrolysis
[BM-RI-7028] 22 p3983 N67-36985
Optical absorption edge in lead salts and variation with temperature and pressure
[HP-13] 22 p4126 N67-37080
Dislocation theory for titanium alloy reversible brittleness at low deformation temperatures 22 p4084 N67-37133

Relaxation stability of titanium alloy at various temperatures and stresses 22 p4067 N67-37151
Mechanical properties of aluminum containing titanium alloys at room and high temperatures 22 p4067 N67-37153
Effects of stretch temperature, heat set time, and heat set temperature on cryogenic mechanical properties of polyethylene terephthalate film [NASA-TM-X-52351] 22 p4077 N67-37255
Microwave temperature dependent measurements of superconducting tin and lead surface impedance [HEPL-507] 22 p4127 N67-37256
Parameters affecting accuracy and setability of magnetic field in iron core electromagnet [SLAC-PUB-321] 22 p4100 N67-37911
Hastelloy X for nuclear cladding at wide range of temperatures [AGN-8234] 22 p4074 N67-37943
Hall coefficient and electric resistivity of tantalum carbide as function of carbon content and temperature [NASA-TN-D-4168] 23 p4269 N67-38277
Temperature and time dependence of hardness in iron and nickel [ORNL-TM-1861] 23 p4264 N67-38586
Maximum exposure temperature and time of exposure effects on plutonium oxide properties [RFP-927] 23 p4266 N67-38706
Time, temperature, and microbial effects on terminal heat sterilization of spacecraft [NASA-CR-89233] 23 p4198 N67-39251
Method of estimating high temperature, low-cycle strain fatigue behavior of materials from tensile and stress-rupture properties [NASA-TM-X-52357] 24 p4465 N67-39653
Ultrasonic attenuation and temperature dependence of nuclear spin-lattice relaxation time of magnetic materials [REPT.-6996.2-RT] 24 p4516 N67-39731
Rebuilt accelerometer resistant to temperature sterilization environment [NASA-CR-89595] 24 p4452 N67-40090
Chronic effects of subcritical temperatures and humidity on human, rat, and mice bone tissue of lower extremities [NASA-TT-F-11351] 24 p4385 N67-40159

TEMPERATURE FIELD
Approximation method for calculating temperature field in solids heated by convective and radiant fluxes [TG-236-T498] 06 p0979 N67-15348
Heat radiation coefficients of liquid in pipe with axisymmetrical temperature field 09 p1540 N67-19494
Temperature field in two-layer wall of section of structure under external heat-exchange conditions [FTD-HT-66-485] 09 p1542 N67-19797
Differential equations for disk with asymmetric profile in axisymmetric temperature field [FTD-TT-65-1949] 09 p1519 N67-19946
Elastic-plastic stressed states for rapidly revolving disk of arbitrary profile in nonstationary temperature field 09 p1532 N67-20104
Thermoelasticity of thin shells subjected to external load in nonstationary temperature field 09 p1534 N67-20116
Thermal stresses due to temperature field in infinite orthotropic cylindrical vault 09 p1537 N67-20133
Temperature field of thin wall satellite surfaces in radiant heat transfer 10 p1767 N67-20393
Thermoconductivity of exothermic bodies and temperature fields around partial and complex heat sources 11 p1996 N67-22042
Numerical analysis of temperature fields and heat fluxes during grinding of metals 11 p1994 N67-22046
Temperature field and stress state for material nonuniformity caused by macroinclusions or cavities in structural elements of elastic bodies 12 p2237 N67-24528
Steady stress state and temperature field in thin thermoelastic plate weakened by circular hole 12 p2239 N67-24543
Thermal stress in shells of revolution in nonaxisymmetric temperature field [FTD-TT-65-2044] 12 p2239 N67-24711
Flow and temperature fields in atmospheric lower layer in Mendoza province 13 p2315 N67-26197
Approximation method for calculating temperature field in infinite plate heated simultaneously by radiation and convection [NASA-TT-F-10960] 14 p2533 N67-27312
Relationship between solar wind velocities and temperature field of lower troposphere derived from satellite measurements [NASA-CR-87185] 19 p3443 N67-33356
Temperature field and heat liberation data for liquid metal cooled reactor cores in hexagonal containers 20 p3684 N67-35078
Measurement of temperature fields behind turbojet engine combustion chambers [NASA-TT-F-11111] 21 p3927 N67-36471
Temperature field for system of bodies with low thermoconductance 23 p4366 N67-39185

TEMPERATURE GRADIENT
Heat transfer from tube wall to monatomic, diatomic, and triatomic gases at large temperature gradients 02 p0330 N67-11304
Traveling wave bulk electroconvection induced across temperature gradient [NASA-CR-80101] 03 p0448 N67-12924
Scale depth determination of ocean thermocline 06 p0872 N67-15744
Utilization of localized cooling and temperature gradient in flux crystal growth [SSD-TR-66-174] 06 p0948 N67-16100
Circuit analog techniques applied to study of resonantly-coupled linear accelerator structures - temperature gradient effect along cavity chain [LA-DC-8246] 07 p1129 N67-17690
Integral equation for plasma instability due to thermal magnetic field shear [IC/66/24] 09 p1498 N67-20288
Temperature gradient . effect on distribution of hydrogen in zirconium [BNL-TR-101] 10 p1765 N67-20654
Temperature distribution and gradients, and heat transfer in one-dimensional glacier problem 11 p1867 N67-22247
Meteorological study of containment vessel temperatures on operating experimental breeder reactor [IDO-12055] 12 p2146 N67-23761
Energy transfer and temperature gradient in suns interior 12 p2301 N67-24322
Turbulent diffusion due to drift instability driven by temperature gradient [LGI-66-12] 15 p3773 N67-27802
Relation between fundamental modes for plasma with temperature gradient in presence and absence of magnetic shear [LGI-67-3] 15 p3773 N67-27804
Numerical computation of forces on impurities in copper, silver, and gold during increasing temperatures [CEA-R-3096] 17 p3135 N67-30297
Removal of liquid inclusions from solution-grown crystals in temperature gradient [TR-1001/9230-03/-5] 20 p3712 N67-34322
Plane stress analysis of edge stiffened rectangular plate subjected to boundary loads, boundary displacements, and temperature gradients [NASA-CR-864] 21 p3941 N67-35744
Predictive horizontal temperature gradient model of upper 750 feet of ocean [NEL-1445] 23 p4035 N67-38925

TEMPERATURE INDICATOR
Transient surface temperatures of strips with coatings of temperature indicating materials [UCRL-70397] 23 p4366 N67-39245

TEMPERATURE MEASUREMENT
SA CALORIMETRY
SA OPTICAL PYROMETER
SA PYROMETER
SA THERMOCOUPLE
SA THERMOMETRY
Scientific data and observations summary of Surveyor I lunar surface exploration 01 p0130 N67-10063
Theoretical temperature calculations compared with lunar surface thermal data obtained by Surveyor I spacecraft 01 p0155 N67-10065
Comparison of rocket sounding and radio sounding temperatures and verification of computed rocket sounding pressure and density [ECOM-5048] 01 p0102 N67-11018
Equipment for testing metals in high pressure chambers and temperature measuring method [FTD-TT-65-1887] 01 p0058 N67-11062
Device for multiple point measurement of temperature [FTD-TT-65-1937] 01 p0076 N67-11147
Temperature measuring device containing oscillating circuit introduced in feedback circuit of generator [FTD-TT-65-1938] 01 p0055 N67-11148
Pegasus measurements of temperature, radiation, and rigid body motion 02 p0312 N67-11287
Diurnal temperature and wind variation measured by instrumentation aboard meteorological rockets - detection of possible errors in temperature measurements in upper stratosphere [NASA-TM-X-1298] 02 p0283 N67-11816
Devices for measuring heat and temperature conductivity in continual heating range 03 p0393 N67-13423
Possible errors due to lack of spatial resolution in spectroscopically determined temperatures in plasmas [NASA-TN-D-3737] 03 p0447 N67-13798
Temperature measurements in small tube wind tunnel for preparing heat transfer measurements on bodies in hypersonic flow [DLR-FB-66-56] 04 p0547 N67-13459
Empirical method for correcting airborne infrared radiation thermometer readings for environmental factors 04 p0548 N67-13484
Annual and seasonal trends and fluctuations of temperature and precipitation in various regions of British Columbia [CIR-4296] 04 p0571 N67-13990
Airborne experiment to determine temperature variations throughout solar corona during eclipse of November 1966 [NASA-CR-80636] 04 p0643 N67-14205
Noise temperature calibrations of Venus Deep Space Station radio frequency cone antenna 05 p0672 N67-14443
Temperature of surface water and radiation components of Hudson Bay surveyed by airborne instruments [TR-28] 06 p0870 N67-15350
Rotational temperature measurement of electron beam excited nitrogen for free jet flow conditions 06 p0845 N67-15743
Measurement of high altitude balloon gas and air temperatures for improvement of mathematical model describing vertical motion of zero pressure balloons [C-62944] 06 p0790 N67-16343
Analytical model and measurements of coolant flow and temperatures on TRIGA Mark II pulsing reactor at steady state and transient conditions 07 p1135 N67-17068
Temperature response of sensor bonded to metal strip measured after pulse heating by capacitor discharge [UCRL-13484, REV. 2] 07 p1080 N67-17425
Synthesis, temperature measurement, and high temperature furnaces related to refractory compound processing [JPRS-39488] 07 p1186 N67-18660
Thermocouple wire size and configuration effects on internal temperature measurements in charring ablator [NASA-TN-D-3812] 08 p1281 N67-18407
Heat pipe capability and temperature measurement experiments [LA-3585-MS] 08 p1283 N67-19015
Mass drop-off measurements, based on precise pressure and temperature measurements, evaluated for space vehicle gas leak detection [NASA-TM-X-53551] 08 p1268 N67-19021
Direct relationship of temperature transients to bubble history during nucleate boiling [EUR-3142.F] 08 p1284 N67-19186
Physical properties of various thermistors for upper atmosphere measurements [DLR-FB-66-73] 08 p1284 N67-19266
Techniques for high altitude measurements of air density, temperature, and wind [AFCRL-66-637] 09 p1472 N67-19569
Pneumatic temperature measuring system for in-reactor high temperature measurements 09 p1477 N67-19823
Temperature measurements on electron and ion beams [AFCRL-66-769] 09 p1511 N67-19877
Dynamic thermocouple for measurement of plasmas in 2000 to 4000 deg temperature range [FTD-MT-65-328] 09 p1492 N67-19950
Glass temperatures of polymers having alkyl side chains [RAE-TR-66292] 09 p1412 N67-20237
Low temperature measurements of heat capacity of dilute solutions of helium 3 in helium 4 [COO-1192-292] 10 p1692 N67-20766

Low temperature measurements of heat capacity of dilute solutions of liquid helium 3 in helium 4
[COO-1196-363] 10 p1693 N67-20790
Multichannel fast scanning instrument for measuring and recording thermocouple output
[AEEW-R-486] 10 p1630 N67-20869
Temperature measurement and internal flow heat transfer analysis for partially ionized argon
[SU-247-11] 10 p1735 N67-20862
Temperature, density, and impact pressure local value measurements of hypersonic rarefied flow over 10 deg cone
[USCAE-101] 10 p1614 N67-21360
Calculating temperature and heat flow measurements in soil in relation to heat flow meters 11 p1911 N67-21098
Random errors in radiosonde measurements of temperature and wind 11 p1911 N67-22001
Thermoelectric temperature sensors for anisotropic turbulent air stream measurements in atmospheric ground layer 11 p1875 N67-22016
Fast-response thermocouple for measuring temperature transients of materials subject to pulsed neutron flux
[UCRL-14593] 11 p1878 N67-22327
Low inertia apparatus for measuring ocean surface temperature from moving ship 11 p1879 N67-22368
Deep water temperature measurement sensors with multiple frequency bands 11 p1880 N67-22367
Sounding thermometer design with induction pressure sensor and two-coordinate recorder for temperature and depth measurements of sea water 11 p1880 N67-22368
Copper resistance thermometer as sensor for measuring sea water temperature 11 p1880 N67-22369
Thermoelectric sensors for temperature fluctuation of sea water, and technology for multijunction radiation scattered by water 11 p1880 N67-22370
Device for measuring turbulent fluctuations of electric conductivity and temperature in sea water 11 p1881 N67-22379
Rotational temperature measurements of nitrogen fluorescence spectra using electron beam
[USCAE-104] 11 p1937 N67-22545
Neel temperature of maganese fluoride in two spin cluster variation limit
[NOLTR-66-193] 11 p1968 N67-23148
Planetary atmosphere structure determined from entry vehicle onboard measurements of pressure, temperature, and acceleration
[NASA-TN-D-3933] 11 p1872 N67-23302
Wind and temperature measurements from meteorological sounding rocket firings and computed values for pressure, density, and speed of sound for July, 1966 11 p1917 N67-23417
Thermoanalytic and X-ray measurements for lead telluride phase diagram
[AERE-TRANS-1063] 12 p2234 N67-23682
Comparison of Tiros VII 15-micron band radiometer temperature measurements with data from radiosonde measurements 12 p2139 N67-24302
Miniaturized biotelemetry system for measuring temperature of small mammal and radio telemetry system for measuring temperature of moving machine part
[Y-1848] 13 p2262 N67-25985
Atmospheric radio emission temperature, radio wave refraction, and antenna gain refraction attenuation measurements at low angles over horizon using radio astronomy methods 13 p2314 N67-26162
Theory and model calculations for heat flow measurements at lunar site using cylindrical ring source
[NASA-CR-84130] 13 p2427 N67-26447
Temperature, pressure, density, and wind measurements in upper stratosphere and mesosphere - tables
[NASA-TM-X-55790] 14 p2530 N67-26594
Heat transfer from nitrogen arc in cross flow for calculating arc radius, and centerline and peripheral temperatures
[ARL-66-0196] 14 p2631 N67-26742
Time-series length necessary for long term estimation of sea surface temperature
[NEL-1429] 14 p2522 N67-26913
Design and construction of cryogenic liquid level-temperature transducer
[AFFDL-TR-66-179] 14 p2523 N67-26942
Rotational temperature measurements in nitrogen flow field of low density free jet from sonic orifice made using electron beam fluorescence with spectrograph
[USCAE-103] 14 p2516 N67-26950
Radiation and temperature equations applied to calculate snow and ice melting of glaciers in Polar Urals 14 p2524 N67-27154
Air, ice, and snow temperatures measured to determine thermal regime of glaciers in Polar Urals 14 p2524 N67-27157
Acoustic attenuation in ultrasonic rhenium sensor for temperature measurements in carbon atmosphere
[NASA-CR-72243] 14 p2538 N67-27318
Analyzer of thermocouple curve when thermocouple used as temperature measurement probe
[INR-766/III/E] 14 p2540 N67-27666
Gas temperature measurement behind reflected shock wave in 20 to 50 Mach number range of incident shock 14 p2520 N67-27727
Thermocouple measurements of rapidly changing temperatures 15 p2707 N67-27829
Temperature measurement errors, and errors due to thermocouple electrode heat removal 15 p2711 N67-28126
Spectral reflection coefficient, emittance, and true temperature of zirconium dioxide and magnesium oxide determined in reflector furnace 15 p2803 N67-28167
Temperature and vapor pressure measurements at various system points of freon ejector solar refrigerator designed for cooling air in room 15 p2803 N67-28169
Spectroscopic electron and ion temperature measurements in rod plasma guns
[INR-718/XVIII/PP] 15 p2775 N67-28589
Apparatus for gas flow temperature measurements
[NASA-TT-F-11033] 16 p2891 N67-29012
Remote measurement of bare soil temperature and evaporation rate using infrared radiometer
[REPT.-392] 16 p2882 N67-29052
Airborne measurements of infrared sea temperature in northern Gulf of Mexico
[TR-2] 16 p2886 N67-29516
Sound velocity and temperature data for North Atlantic area in terms of monthly and seasonal variations
[NADC-AE-6710, VOL. I] 16 p2887 N67-29655
Spectroscopic method for measuring electron temperature of plasma
[PH-41] 16 p2957 N67-30040
Ambiguity in frost point temperatures measured by optical dew sensor
[AFCRL-67-0147] 17 p3060 N67-30615
Australian upper air statistics - temperature, humidity, and geopotential 17 p3099 N67-30951
Band intensity of aluminum oxide trails in upper atmosphere for temperature measurement
[NASA-CR-85006] 17 p3056 N67-31199
Thermal measurements on lunar surface at radio wavelengths
[NASA-CR-85850] 17 p3164 N67-31397
Surface temperature measurement technique application to thermal insulators under transient, radiant heat inputs - literature survey
[RAE-TN-STRUCT-340] 18 p3353 N67-31523
Variation of sound velocity and temperature in North Atlantic
[NADC-AE-6710, VOL. II] 18 p3264 N67-31981
Ground temperature data for predicting temperatures of survival shelters heated by earth radiation
[AAL-TR-67-2] 18 p3268 N67-32261
Thermistor used to obtain temperature and velocity measurements of gas flow 18 p3250 N67-32326
Operation manual for stratosphere temperature sonde
[ECOM-5114] 18 p3244 N67-32328
Thermocouple development for use in measuring oxide fuel temperatures in-pile above 4000 deg F 18 p3268 N67-32450
Heat transfer and equilibrium temperature of sphere in supersonic rarefied gas flow
[TG-230-T522] 18 p3356 N67-32465
Synoptic analysis of near surface and subsurface temperatures in Atlantic Ocean during passage of Hurricane Betsy - bathythermograph radio data
[AD-652270] 18 p3291 N67-32516
Extrusion process improvements and temperature detection sensor, and nuclear power reactor billet forging method
[RMI-6] 19 p3463 N67-33048
Infrared detector for measuring and recording uranium tube temperature variations during extrusion 19 p3463 N67-33052
Film boiling heat transfer coefficient and steam phase temperature measurements
[GEAP-5426] 19 p3554 N67-33434
Tabulation of wind and temperature measurements from meteorological rocket network firings in September, 1966 19 p3485 N67-33592
Twelve channel Doppler profile spectrophotometer for plasma scattered laser light
[AWRE-O-42/67] 20 p3638 N67-34178
Drag and heat flux measurements, vertical heat flux meter comparisons, convective vortices characteristics, and particular mode of instability for idealized vortex model
[ECOM-0396I-F] 20 p3638 N67-34181
Vortex generation, temperature and velocity measurements, boundary layer considerations, and other aspects of concentrated convective vortices 20 p3638 N67-34184
Nocturnal temperature minima determined by means of balancing equation
[RAE-LIB-TRANS-1226] 20 p3672 N67-34345
Cosmic microwave background temperature measurement at 1.5 centimeter wavelength
[AD-653449] 20 p3721 N67-34357
Temperature measurements of earth surface from aircraft infrared radiometers
[RAE-LIB-TRANS-1229] 20 p3633 N67-34744
Dicke-type radiometers for absolute temperature measurements at microwave frequencies
[NASA-TR-R-271] 21 p3796 N67-35589
Preliminary experiments to determine feasibility of measuring temperature in argon theta pinch tube using two-line ratio method
[BRL-MR-1847] 21 p3909 N67-35679
Determining residual adsorptive capacity of charcoals used in closed ecological systems by measuring temperature changes during moisture desorption
[NRL-MEMO-1776, PT. 2] 21 p3783 N67-35891
Development and testing of airborne equipment, including radiometers, for direct measurement of total heat flow from sea surface
[U-636] 21 p3839 N67-35894
Method for treating pressure volume temperature data from Burnett compressibility apparatus using nonlinear least squares technique
[RI-7020] 21 p3784 N67-36103
Variations in data with season and latitude of density, temperature, and composition in lower thermosphere
[AFCRL-67-0161] 21 p3841 N67-36104
Metallographic and X-ray analysis of failure in heat pipe models - leakage testing and wall temperatures of heat pipes for thermionic converters
[NASA-CR-85119] 21 p3764 N67-36582
Tidal periods and temperature fluctuations in deep water internal waves
[REPT.-39848] 22 p4095 N67-36923
Wind and temperature data measured by sounding rockets in meteorological rocket network 22 p4097 N67-37248
High temperature measurements of mica dielectric constant at various frequencies
[JPRS-43839] 22 p4129 N67-37713
Temperature measurement of high enthalpy gas flow
[ONERA-TP-484/1967] 22 p4167 N67-37918
Noise measurement under certain vibration and temperature effects
[ONERA-TP-448/1967] 22 p4101 N67-37967
Calibration drift effects in nickel alloy thermocouples
[TRG-1510/R/] 22 p4051 N67-38008
Upper atmosphere temperature corrections to bead thermistor
[PAD-121] 23 p4241 N67-38144
Reference standards for luminance, radiance, and temperature
[P-339] 23 p4294 N67-38455
Temperature coefficients of reactivity due to Doppler broadening of resonances in materials for in-pile thermionic reactor materials
[NASA-CR-85358] 23 p4286 N67-38536

Comparison of sodium D-line reversal temperatures and nitrogen vibrational temperatures in region of vibrational relaxation behind incident shock waves 23 p4364 N67-38686
Use of nitrogen 16 for measuring channel outlet temperatures in gas cooled reactors [PG-790/W/] 23 p4290 N67-38934
Measurement of ion temperature in barium plasma [MATT-461] 23 p4335 N67-39234
Test flight to obtain balloon gas and air temperature measurements for mathematical model of vertical motion of high altitude zero pressure balloons 23 p4160 N67-39283
Wind and temperature measurements from meteorological sounding rocket firings and computed values for pressure, density, and speed of sound for January 1967 23 p4281 N67-39302
Nimbus II satellite remote sensing of temperature in stratosphere [NASA-TM-X-55856] 23 p4282 N67-39366
Wind and temperature data measurements from meteorological sounding rocket firings during February, 1967 24 p4487 N67-39679
Temperature measurements behind strong shock waves in argon [UTIAS-119] 24 p4500 N67-39931
Glass transition temperature measurement - telomer preparation and reactions [NASA-CR-89626] 24 p4521 N67-40145
TEMPERATURE PROBE
Miniature enthalpy probes for high temperature gas streams [ARL-66-0115] 05 p0745 N67-15113
Thin film, heat flux probe for measuring gas velocities in unstable rocket combustor [NASA-TM-X-1333] 06 p0882 N67-16678
Water cooled thermo-sensitive, hot gas temperature probe tested with afterburning device [DLR-FB-66-70] 12 p2103 N67-24593
Short time response stagnation temperature probe for measuring mainstream and boundary layer maximum temperatures and temperature-time histories in hypersonic gun tunnel [ARC-CP-909] 13 p2304 N67-26150
Brain probes, multichannel telemetry devices, and telemetric brain temperature sensors for space biology studies [NASA-CR-85913] 17 p3008 N67-31419
Statistical estimation techniques applied to ground-based passive probing of tropospheric temperature structure [IER-37-ITSA-37] 19 p3442 N67-33242
TEMPERATURE PROFILE
Short period water temperature fluctuations in coastal zone of Baltic Sea [JPRS-38405] 01 p0067 N67-10386
Single and double gas number-density equations for determining temperature-altitude profile, high and low solar activity atmospheric models, and error analysis [NASA-CR-79525] 03 p0464 N67-13018
Temperature and wind profiles in stratosphere and mesosphere from acoustic grenade soundings [NASA-TM-X-55631] 03 p0391 N67-13165
Heat-momentum exchange coefficient in temperature and wind profiles in atmospheric boundary layer [ECOM-5059] 05 p0702 N67-14736
Wind and temperature data for first 62 meters of boundary layer at White Sands Missile Range [ECOM-5079] 06 p0807 N67-16440
Ionosphere model to explain spectrum of brightness temperatures found in radio emission from Venus atmosphere 07 p1187 N67-16804
Tethered airfoil balloon system to measure vertical profiles of temperature, wind speed, wind direction, and humidity in boundary layer [NCAR-TN-16] 07 p1118 N67-17639
Michelson interferometer to obtain vertical temperature and humidity profile from Nimbus satellite [NASA-TM-X-55678] 08 p1282 N67-18697
Velocity, temperature, and concentration profiles on boundary layer of isobaric turbulent mixture in supersonic flow 08 p1272 N67-19290
Aeronautical engineering studies dealing with gas flow, shell stability, temperature profiles, and equipment design [FTD-MT-64-343] 09 p1548 N67-19481
Velocity and temperature profile measurements for adiabatic boundary layers on cylindrical bodies in transonic parallel accelerated flows [NASA-TN-D-3683] 09 p1435 N67-19890
Electrical resistivity versus temperature curves of three equi-atomic phases of fim with Cu, Ag, and Au [CALT-221-25] 09 p1502 N67-20159
Biennial cycle of atmospheric circulation over Antarctic, and yearly predictions based on mean temperature profiles 11 p1868 N67-22349
Temperature and density profiles in stagnation region of hemisphere cylinder body in hypersonic low density nitrogen flow [USCAE-105] 11 p1778 N67-22723
Velocity and temperature profiles in boundary layer above unstable evaporating film under influence of hot gas stream [JPC-439] 11 p1861 N67-23179
Methods used in deriving stratospheric temperatures from Tiros VII measurements of carbon dioxide emission bands 12 p2138 N67-24299
Potentiality of satellite radiometric measurements in carbon dioxide emission band for synoptic representation of stratosphere temperature patterns 12 p2139 N67-24300
Equipment to obtain atmospheric stability data to determine capacity of atmosphere to dilute and disperse contaminants 13 p2311 N67-25464
Approximations of recurrence of temperature and wind velocity combinations in lower 100 M layer of atmosphere [NASA-TT-F-472] 13 p2252 N67-25649
Dissipative effects in simple perturbative model for finite temperature properties of normal Fermi systems [AD-647504] 14 p2587 N67-27049
Prediction of wind and virtual temperature profiles for periods up to 72 hours from surface through stratosphere [NASA-CR-61170] 14 p2568 N67-27317
Data analysis of wind, temperature, roughness, and heat flux profiles recorded at Antarctica meteorological stations - Little America V micrometeorology program [TR-67-66-ES] 16 p2934 N67-29139
Laminar boundary layer theory for approximating displacement thickness, skin friction, and temperature profiles on undersurface of caret wings [ARC-CP-894] 16 p2814 N67-29896
Error analysis of nonlinear inversion techniques for deriving atmospheric temperature profiles from satellite radiometer data [NASA-CR-88636] 18 p3296 N67-31993
Circulation features of stratosphere derived from radiometric temperature measurements with Tiros VII satellite [NASA-TM-X-55659] 19 p3443 N67-32499
Natural orthogonal functions applied to atmospheric dynamics and temperature profile studies 20 p3634 N67-34857
Empirical representation of creep strain data for problems involving time varying stresses and temperatures [ARC-CP-945] 23 p4153 N67-38928
Interferometric study of effects of corona discharge on temperature profiles on flat, uniform temperature plate in forced convection [AROD-4943-5-E] 23 p4163 N67-37375
Wind, temperature and Richardson numbers profiles from Project Windy Acres [AFCRL-67-0339] 24 p4485 N67-39798
TEMPERATURE REGULATION
See HEAT REGULATION
TEMPERATURE TRANSDUCER
Contamination of platinum-rhodium transducers used in thermal conductivity measurements of Inconel 702 09 p1447 N67-19631
Inspection and testing of proportional temperature controller for air conditioning system of Saturn IB launch vehicle [NASA-CR-85697] 17 p3068 N67-31110
TEMPERING
Hardenability of constructional steel 05 p0718 N67-14815
Additives, heat treatment, oil quenching, and tempering processes of pack carburizing stainless steels 14 p2553 N67-27023
Chemical shift in nuclear magnetic resonance of fluoride ions in crystals and solutions, and internal friction peaks occurring during tempering of high and low carbon martensites [FTD-TT-65-1851] 19 p3470 N67-32214
Internal friction peaks associated with coherency of decomposition products of high carbon and low carbon martensites 19 p3470 N67-32216
Tempering, prestraining, and retempering influence on strength and toughness of martensitic and bainitic 4340 steel rods [AMMRC-TR-67-03] 24 p4465 N67-39730
Stress relaxation in iron-nickel alloys after work hardening and tempering 24 p4468 N67-40113
TEMPLATE
Solution methods for template layout and cutting stock optimum two dimensional allocation problems - geometric manipulation, algorithms, and linear programming techniques [AFOSR-66-2698] 06 p0887 N67-16211
TENSILE CREEP
Mechanical properties, plastic deformation, and tensile creep rate in carbon and graphite 06 p0896 N67-15713
Tensile flow and fracture properties of thermally embrittled steel [AMRA-TR-66-28] 10 p1850 N67-20630
Tensile and creep properties of niobium-vanadium alloys as influenced by strain rate [KAPL-2145] 10 p1852 N67-20830
Tensile creep irradiation equipment for zirconium alloy creep rate measurements 21 p3891 N67-36349
TENSILE DEFORMATION
Tensile deformation in aluminum-copper eutectic alloy - superplasticity 03 p0400 N67-12674
Environmental effect on creep and tensile behavior of metal single crystals and polycrystalline metals 04 p0560 N67-13651
Effects of irradiation, cold work, and annealing on deformation induced martensitic transformation of austenitic stainless steel [BNWL-238] 06 p0894 N67-16384
Stress aging effects on tensile properties of stainless steels and ultrahigh strength steels [AD-634687] 15 p2722 N67-27965
Bending, tension-compression, and corrosion fatigue in aluminum alloys 17 p3077 N67-30221
Method of estimating high temperature, low-cycle strain fatigue behavior of materials from tensile and stress-rupture properties [NASA-TM-X-52257] 24 p4485 N67-39853
TENSILE STRENGTH
Effect of synthetic fiber and weathering variables on tensile strength of cloths [PB-2] 01 p0000 N67-10454
Influence of bending on determining tensile strength of brittle materials 03 p0412 N67-12945
Brittle fracture and tensile strengths of steels [EURAEC-1669] 04 p0562 N67-14094
Prestraining effect on tensile properties of stainless steel En58b at 20 deg and -196 deg C [RPE-TR-66/2] 04 p0563 N67-14138
Ultimate tensile properties of amorphous unfilled elastomers - dependence of failure envelope on crosslink density 05 p0721 N67-14811
Effect of 1000 hour thermal exposures on tensile properties of refractory metal alloys [NASA-CR-72005] 06 p0895 N67-16554
Solidification structures of magnesium base eutectic alloys and effect on strength [QPR-4] 07 p1090 N67-17241
Tensile and impact properties of LaCrosse Boiling Water Reactor vessel plate and control material [SWRI-1238-7-35] 07 p1132 N67-17558
Fiber orientation effects on tensile strength of hot pressed aluminum-Inconel and aluminum tungsten composite [AECL-2685] 08 p1286 N67-19112
Complex loading machine with automatic programming of stress state for use in testing of thin walled tubular samples under simultaneous effect of tensile force and torque 08 p1286 N67-19186
Measuring apparatus for tensile strength of electrostatic generator belt 09 p1436 N67-19874
Metallurgical and geometrical factors affecting high temperature tensile properties of discontinuous composites of copper and copper chromium alloy reinforced with tungsten wires [NASA-TN-D-3668] 09 p1462 N67-19901

Effect of submicron thoria particles on hardness, tensility, and electric resistivity of thorium
[USBM-RC-1245] 10 p1653 N67-30895
Fretting fatigue of pin joints in steel lugs, and effect of various jointing compounds
[S+T-MEMO-12/65] 10 p1639 N67-31060
Experimental check of theoretical methods of calculating strength
[FTD-MT-66-35] 10 p1766 N67-31737
Preliminary research on breaking strength of weldments on heavy gauge tensile steels
[EURAEC-1613] 10 p1648 N67-31902
Radiation effects on tensile strength and elongation of polyoxymethylene fibers 11 p1902 N67-32228
Mechanical properties of dilute uranium alloys at elevated temperatures - tensile strength and hardness
[MCW-1506] 11 p1896 N67-32391
Tensile test data and stress strain curves of hot forged bar specimens of chromium molybdenum alloy steel at several temperatures
[NASA-CR-72203] 11 p1897 N67-32848
High temperature tensile strengths of unirradiated and neutron bombarded austenitic steel
[AE-269] 11 p1898 N67-32937
Hoop test apparatus to measure tensile strength of ferroelectric ceramic materials
[SC-DR-66-503] 11 p1904 N67-33187
Effects of rare earth metal and oxide additions on tensile ductility and impact strength of carbon steel
[BM-RI-6907] 11 p1900 N67-33448
Tensile strength and deformation properties of glass fiber reinforced plastics
[ERDL-T-1875-66] 12 p2123 N67-33497
Role of fiber finish in wet strength retention of glass fibers
[MJO-382] 12 p2123 N67-33519
Structural strength of aluminum and steel alloys
[FTD-MT-65-92] 12 p2113 N67-33521
Resistance of chromium nickel vanadium steel in elastic plastic range to cyclic loads 12 p2114 N67-33539
Method of evaluating tear expected in different fabrics biaxially tensioned
[RAE-TR-66299] 12 p2124 N67-34032
Effect of nitrogen on tensile and creep-rupture properties of niobium
[NRL-6464] 12 p2121 N67-34925
Short-time tensile properties and joinability of eight alloys for use in Rover rocket nozzle 12 p2356 N67-35376
Teflon tensile strength and elongation-at-break as function of irradiation in inert atmosphere, and in air
[ORNL-TM-1757] 12 p2342 N67-35614
Load tests to determine tensile strength of aluminum alloy lug tie rods for aircraft landing gear
[FB-89] 13 p2419 N67-36194
Recrystallization, elevated temperature strengthening, and mechanical working effects on tensile strength of TD nickel
[NASA-CR-54160] 14 p2550 N67-36504
Tensile properties, notch strength, heat treatment and aging responses, welding behavior, and corrosion resistance of metastable beta titanium molybdenum vanadium iron aluminum sheet alloy
[WAL-TR-405/2-14, PT. 1]
14 p2551 N67-36780
Tensile properties of aluminum alloy when thermal stress relieved after solution treatment and prior to aging
[NASA-CR-54481] 14 p2558 N67-37513
Thermal environment effects on room temperature ductility and tensile strength of molybdenum wire
[AD-634663] 15 p2721 N67-37948
Corrosion resistance, tensile strength, and mechanical properties of titanium, 8 aluminum, 1 molybdenum IV alloy sheet
[RAE-TR-66062] 15 p2722 N67-38040
Tensile tests in liquid helium and role of twinning in plastic deformation of zirconium
[ORO-3262-3] 15 p2725 N67-38467
Tensile strength, brittle fracture toughness, structural transformations, and stress relaxation of nickel chromium molybdenum and manganese molybdenum vanadium steels
[EURAEC-1788] 16 p2906 N67-39734
Tensile and shear tests of lap shear specimen bonded with iridite adhesive
[NASA-CR-85223] 16 p2916 N67-39899
Evaluating two methods for predicting towline tensions and configurations of towed body system using bare cable
[DTMB-2313] 17 p3169 N67-40219
Comparison of methods for treating data on tensile strength of thermoplastics
[PA-TR-3537] 17 p3064 N67-40349
Ingot structure effects on strength and ductility of high strength wrought aluminum alloys
[R-1835] 17 p3078 N67-40338
Thermal properties, electrical and oxidation resistance, tensile strength, hardness, and workability of niobium and tantalum alloys
[BM-RI-6964] 17 p3081 N67-41195
Methods for testing tensile and shear strength of bulk solder and soldered joint cast specimens, and spread area test for determining wettability of solder on copper surfaces
[BM-RI-6963] 18 p3281 N67-42475
Corrosion and tensile strength tests of vanadium base alloys used in fabrication of cans for fast reactors
[CEA-R-3152] 19 p3473 N67-42680
Effect of carbon on strength of thorium
[IS-T-148] 19 p3474 N67-42941
Tear resistance of nylon fabrics coated with formulations containing neoprene latex
[AD-653792] 20 p3464 N67-34334
Residual static strength of bolted joint cracked in fatigue
[RAE-TR-66111] 20 p3740 N67-34909
Conference on steel crack toughness, concrete tensile test, stress and hardness effect on magnetization induced from cyclic deformation, and linear mechanical vibration system synthesis
[T+AM-298] 20 p3661 N67-35148
Direct tensile test for cement mortar and paste 20 p3667 N67-35150
Neutron irradiation effects on high temperature tensile properties of nickel-containing alloys
[AECL-2677] 20 p3662 N67-35256
Tensile and interlaminar shear strengths of glass, boron, and graphite filament wound resin composites and liners for cryogenic pressure vessels
[NASA-TM-X-53250] 22 p4076 N67-37078
Reaction rate analysis for describing tensile behavior of glass-cloth reinforced plastics
[PA-TR-3556] 22 p4078 N67-37536
Influence of filler content and temperature on ultimate tensile properties of highly filled elastomers
[CL-67/34] 22 p4078 N67-37549
Effects of dissolving gas nuclei in turbulently flowing water in pipe on cavitation and tensile strength
[S-67-1138] 24 p4431 N67-39685
Design criteria and evaluation of 7001-T75 aluminum alloy to obtain improved strength and corrosion resistance
[TR-101] 24 p4469 N67-40215
Tensile strength of rubbers tested with respect to crosslinkage in relaxation of stress experiments at various elongations at room temperatures
[ONR-TR-RLT-99] 24 p4474 N67-40356
TENSILE STRESS
Orientation of secondary neck in anisotropic titanium sheet tensile specimens
[AMRA-TR-66-17] 01 p0025 N67-10122
Tensile stress effect on critical current-carrying capacity of niobium-zirconium wire and niobium-tin ribbon superconductors at liquid helium temperature
[NASA-TN-D-3745] 02 p0294 N67-11815
Ramp rise time and relaxation time effects on tensile stress response 05 p0768 N67-14491
Elastic-plastic stressed states for rapidly revolving disk of arbitrary profile in nonstationary temperature field 09 p1522 N67-20104
Limiting equilibrium of plates weakened by series of aligned rectilinear cracks formed by tensile stress 12 p2224 N67-34504
Theory for shortening of metallic tape carrying tensile load by transverse crease
[NASA-CR-83969] 13 p2343 N67-36061
Stress effects on workability of metals
[NEL-216] 13 p2340 N67-36199
Cavitation processes produced by acoustic tensile pressure waves in tap water
[NASA-CR-89776] 17 p3087 N67-31299
Temperature and shrinkage stresses in thick-walled reinforced cylinder bonded to rigid case
[TR-37] 19 p3545 N67-33069
Mean stress and hardness effect on magnetization induced from cyclic deformation in quenched and tempered steel 20 p3681 N67-35151
Tensile and strain cycling fatigue properties of test materials for predicting life of turbine blade specimens 21 p3887 N67-35393
Thermoelastic stress wave generation by impulsive electromagnetic radiation determined in elastic half-space
[TR-11] 23 p4355 N67-36178
TENSILE TESTING MACHINE
Loading and optical systems of microtensile test machine modified for improved thin film and whisker testing
[NASA-TM-X-1326] 04 p0557 N67-14111
High temperature tensile testing machine for determining mechanical property of sintered refractory carbides of tantalum, titanium, and zirconium
[NASA-TT-F-11174] 19 p3471 N67-33297
Tensile tester to determine stress-strain responses of coated fabrics used in air supported tent construction - Design survey
[TR-67-71-GP] 24 p4449 N67-39088
TENSIOMETER
Tensiometric studies of cerium-terbium-oxygen system 21 p3786 N67-36338
TENSION
SA OXYGEN TENSION
SA SURFACE TENSION
Spleen oxygen tension and radiation protection in mice
[AD-638372] 01 p0015 N67-10417
Transonic aerodynamic investigation of tension shell and blunted 100 deg conical shapes for unmanned entry vehicles
[NASA-TN-D-3700] 01 p0003 N67-10767
Method of evaluating tear expected in different fabrics biaxially tensioned
[RAE-TR-66299] 12 p2124 N67-34032
Filament sliding and interface tension generation during muscular contraction
[DOUGLAS PAPER-4037] 12 p2021 N67-34066
Slip bands in elastic, isotropic, thin plates with rectilinear slits developed under simple tension 12 p2224 N67-34480
Mechanical properties of aluminum alloys during compression and tension 17 p3077 N67-39925
Evaluating two methods for predicting towline tensions and configurations of towed body system using bare cable
[DTMB-2313] 17 p3169 N67-40219
TENSION TESTING MACHINE
Isothermal tension testing of titanium and zirconium alloys for examining superplasticity property 03 p0410 N67-12675
Tension testing of electroplated lead and tin composites - microstructural grain size effect on superplasticity 03 p0410 N67-12676
Tension, torsion, and reverse bend testing of coldwelded copper to aluminum butt joint transition piece
[NASA-CR-72204] 11 p1897 N67-32381
Tension, compression, and impact testing of maraging and alloy steels and titanium alloy - welding materials for submersible pressure hulls
[REPT.-5-10-67-3] 13 p2341 N67-36368
Mechanical test facility for measuring deformation and fracture stresses in tension of brittle ceramic material
[NASA-CR-89744] 22 p4054 N67-37468
TENSOMETER
Device for gluing electric resistance tensometers to metal constructions
[FTD-TT-65-1942] 01 p0079 N67-11181
TENSOR
SA STRESS TENSOR
SA TRANSFORMATION TENSOR
Hypothesis of conserved tensor current and SU/6/ group
[JINR-P-2696] 01 p0125 N67-10679
Representation of spinors in n-dimensional space by complex and real systems of tensors
[NASA-CR-80146] 03 p0418 N67-12397
Exchange of tensor mesons in neutron-neutron scattering
[JINR-P02-2188] 19 p3505 N67-33428
Computational aspects of tensor product of linear programming 24 p4477 N67-39679
TENSOR ANALYSIS
Partial conservation of tensor currents and Pauli interaction
[IC/66/70] 01 p0127 N67-10728
Fundamental equations for shells with nearly regular middle surfaces

[FTD-TT-65-1057] 01 p0161 N67-11065
Relativity theory lectures involving Lorentz transformations, Minkowski space, and tensor analysis
[NASA-CR-81281] 06 p0918 N67-16519
Nonlinear structural analysis, and tensor formulation 11 p1900 N67-33823
Application of digital computers for deriving motion equations of point mass in curvilinear coordinate systems by use of tensor calculus
[NASA-TN-D-3939] 11 p1833 N67-33303
Simplified theory of optical maser in external static magnetic field using tensor operator expansion of density matrix needed in calculating macroscopic polarization
[SR-2] 14 p2548 N67-36702
Differential invariants of vectors and second order tensors, integrity bases for vector forms, and electromechanical field equations
[TDM-67-6] 18 p3304 N67-31638
Tensor equations of equilibrium for nonlinear membrane shell theory and small perturbations of pressurized membrane shells
[NASA-CR-86656] 18 p3350 N67-31737
Gyro-viscosity effect on Rayleigh-Taylor plasma instability
[NASA-TM-X-55906] 21 p3910 N67-35875
Tensor analysis derivation of equations for plane problem of elasticity theory in oblique angle coordinates and for conversion of stress and deformation components 23 p4381 N67-39191
TENSOR FIELD
Closed form solution for conductivity tensor for magnetic field strength obtained from linearized Boltzmann equation for electron conduction distribution function
[NASA-TN-D-4166] 21 p3915 N67-35591
TERBIUM
Electron spectra for decay scheme of terbium 152
[JINR-P-2762] 04 p0688 N67-14021
Energy levels and absorption spectrum of ionized terbium in calcium tungstate
[HDL-TR-1337] 06 p0950 N67-16585
Inelastic scattering of neutrons by spin waves in terbium 10 p1751 N67-31044
E1 transitions in odd-A isotopes of terbium and europium
[AE-275] 17 p3138 N67-30521
Alpha branching ratios and partial half-lives of alpha decay determined for Tb 151 and Tb 149 nuclei
[REPT.-535/PL] 18 p3366 N67-31722
High sensitivity neutron and proton flux detector using spallation of mercury to terbium 149
[UCRL-17505] 21 p3848 N67-35654
Hydrostatic pressure effect on magnetic ordering and saturation magnetization of dysprosium, gadolinium, holmium, terbium 21 p3918 N67-36307
Tensiometric studies of cerium-terbium-oxygen system 21 p3786 N67-36326
Magnetic structure of iron-terbium-oxygen compound 21 p3920 N67-36337
Energy distribution of neutrons scattered from single crystal of paramagnetic terbium 21 p3920 N67-36338
Magnon dispersion relation in pure terbium and in terbium-10 percent holmium alloy from inelastic neutron scattering 21 p3920 N67-36339
Magnetic behavior of trivalent terbium in some compounds with deformed perovskite structure 21 p3921 N67-36340
Preparation of thorium dicarbonate, uranyl carbonate, and sesquicarbonates of lanthanum, cerium, praseodymium, terbium, and yttrium from corresponding anhydrous acetates 21 p3788 N67-36348
Decay of terbium 160 to dysprosium 160
[JINR-P6-3312] 23 p4109 N67-37960
Holmium and terbium trichlorides heats of formation
[BM-RI-7046] 24 p4400 N67-40302
TERBIUM 155
Energies and intensities of gamma ray transitions from decay of terbium 155 yielding gadolinium 155
[JINR-E-2908] 07 p1157 N67-17895
TERMINAL
SA ELECTRIC TERMINAL
Low temperature waveguide termination for noise temperature calibration facility in receiving system of communication satellite ground station 08 p0980 N67-13215
Aging of carboxyl-terminated propolymers after reacting with polyepoxides and polyaziridines 06 p0818 N67-15724
Terminal voltage fluctuations of tandem Van De Graaff accelerator
[RLO-1388-23] 21 p3839 N67-36299
Optimum allocation of transportation terminals in urban areas
[R66-60] 23 p4188 N67-38919
Superconducting magnet studies of nonlinear heat transfer effects on terminal characteristics of composite conductor
[NASA-CR-86501] 22 p4096 N67-37175
TERMINAL GUIDANCE
Linear glide slope field detectors for landing system monitors
[SRDS-RD-66-12] 01 p0076 N67-11137
Environmental and hardware improvements for terminal radar control
[RD-66-22] 19 p3425 N67-33347
Technical performance evaluation of VOR localizer guidance system for low density airports
[FAA-RD-66-90] 19 p3486 N67-33357
Algorithms for discrete terminal state control system, and application to aircraft terminal guidance problem 21 p3822 N67-35826
TERNARY ALLOY
Microsegregation in dendritic solidification of ternary iron-carbon-chromium alloys
[AMRA-CR-65-04/4] 12 p2115 N67-23626
Freezing points of ternary alloys derived from uranium chloride-potassium chloride mixture
[LA-3579-MS] 12 p2044 N67-24571
Sputtering procedure for yielding AlFeSi thin magnetic coating materials - mechanical, electric, and magnetic properties of AlFeSi
[NASA-CR-86994] 18 p3281 N67-32539
Optimum compositions for ternary alloys of rhenium with tungsten and molybdenum - Alloying of molybdenum welds with rhenium to increase plastic properties
[FTD-MT-65-445] 19 p3472 N67-33586
Optimum compositions for ternary alloys of rhenium with tungsten and molybdenum 19 p3472 N67-33587
Unit cell constants for 19 ternary compounds formed when rare earths are alloyed with nickel and gallium 21 p3788 N67-36321
Phase equilibria of niobium rich regions in ternary alloys and effect of interstitial additions
[DRI-2397] 23 p4264 N67-38671
Chemical vapor deposition of tungsten molybdenum rhenium ternary alloy
[LA-DC-9605] 23 p4268 N67-39520
Phase equilibria in solid solution series of ternary plutonium iron manganese system
[MLM-1347] 24 p4491 N67-39960
TERNARY SYSTEM
Thermodynamic properties of silver chloride, sodium chloride, and lead chloride system 03 p0955 N67-12377
Two three-metal chemical compounds
[NASA-TT-F-10444] 06 p0818 N67-15587
Phase analysis of uranium iron aluminum ternary system with electron microprobe
[MCW-1505] 09 p1411 N67-26214
Metallographic and X-ray analysis of tungsten-molybdenum-zirconium ternary system isothermal section at 1200 deg C
[JPRS-39787] 11 p1900 N67-33408
Solubility of ternary mixtures of water/2-methoxybutanol-1/sodium tetraborate-diol condensates applied to hydraulic brake fluids
[CCL-223] 14 p2475 N67-30668
Digital integrator with ternary system for encoding increments 14 p2490 N67-30850
Phase relations in beryllium-oxide plutonium-oxide uranium-oxide pseudo ternary system
[BNWL-350] 14 p2579 N67-27505
Phase relations in uranium monocarbide region of ternary system uranium carbon oxygen at 1700 deg C
[RI-6968] 17 p3015 N67-30692
Two new intermetallic compounds found when studying uranium iron silicon ternary system
[LYEN.72/ALPHA/] 17 p3062 N67-31315
Ternary fission of uranium 236
[INP-839/PL] 17 p3130 N67-31402
Physical properties of plutonium uranium zirconium ternary system reactor fuel
[MLM-1346] 18 p3298 N67-31717
Thermoelectric properties of yttrium monoarsenide, yttrium monoantimonide, and other yttrium binary and ternary compounds and systems
[RI-7025] 21 p3917 N67-36143
Crystal chemistry and phase equilibra of ternary system Eu-Ti-O 21 p3786 N67-36325
Tensiometric studies of cerium-terbium-oxygen system 21 p3786 N67-36326
Alloy phase structures in ternary titanium aluminum zirconium system along binary titanium alloy section 22 p4063 N67-37139
Crystallization kinetics of molten binary and ternary oxide systems
[NASA-CR-86884] 22 p4079 N67-37859
TERRAIN
SA TOPOGRAPHY
Terrain information from high altitude side-looking radar imagery of Arctic area 04 p0527 N67-13507
Interpretations of multiple polarization radar data concerning terrain phenomena 04 p0686 N67-13512
Soil layering effects on use of VHF radio waves for remote terrain analysis 04 p0538 N67-13514
Terrain features interpreted from side-looking radar imagery 04 p0550 N67-13520
Response of airborne radiometer to microwave radiation from atmosphere and terrain
[NRL-MEMO-1717] 12 p2099 N67-23629
Transmission loss measurements over irregular terrain on 20-100 MHz using low antenna heights
[IER-10-ITSA-10] 13 p2050 N67-23636
Earth color photographs from Gemini 3, 4, and 5 indicating terrain features and cloud systems
[NASA-SP-129] 14 p2611 N67-26641
Approximate theory of wind profiles over homogeneous terrain below 200-meters based on planetary boundary layer models
[ECOM-01386-1] 14 p2530 N67-26664
Objectives, methods, and results of Gemini 4 synoptic terrain photography experiment
[NASA-TN-D-3962] 14 p2825 N67-27276
Alluvial fan method for developing quantified terrain data for vehicle design criteria
[AD-634659] 15 p2907 N67-27943
Evaluation of dyad-spline method for all-weather terrain mapping
[CS-3231/030] 15 p2703 N67-28382
Terrain geometry measuring equipment for off-road vehicle locomotion studies 18 p3270 N67-31931
Four-frequency radar system study of terrain clutter
[NRL-6497] 20 p3693 N67-34823
Gravitational clinometer for measuring terrain inclination angle corrections
[ACIC-TC-1218] 23 p4049 N67-37643
Microwave propagation reliability over selected terrain in optical paths
[NASA-CR-71230] 23 p4218 N67-39852
Gravimetric observations used to connect topographic corrections with corrections for intermediate layers in order to compute corrections for terrain relief calculations
[ACIC-TC-1219] 24 p4446 N67-40164
TERRESTRIAL MAGNETISM
S GEOMAGNETISM
TERRESTRIAL RADIATION
Environmental radiation measurement including cosmic ray ionization in first 10,000 feet, ultralow ionization from terrestrial sources, and beta component on ground
[NYO-1764-13] 02 p0459 N67-13326
Terrestrial radiation environment, and degradation to thermal protection surfaces from low energy charged particles
[NASA-TM-X-57330] 09 p1386 N67-18523
Radiance measurements of infrared horizon of earth in three infrared spectral regions during Aerobee sounding rocket flights
[AFCRL-66-631] 10 p1630 N67-20930
Gamma emissions of meteorites and terrestrial rocks and lunar soil radioactivity analysis
[CEA-R-3017] 10 p1821 N67-20777
Terrestrial infrared horizon profile data for space vehicle horizon sensing, with bibliography
[NASA-CR-722] 11 p1917 N67-22170
Analytical methods defining location of reference horizons in earth horizon radiance profile
[NASA-CR-726] 13 p2141 N67-28713
Solar and terrestrial optical radiation measurements for determining heat loads of second stage fuel and oxidant tanks and equipment of European I launch vehicle

[WRE-TN-PAD-123] 13 p2314 N67-26196
Martian surface determined by solar radiation absorption by carbon dioxide, and balloon sounding of earth radiance 16 p2966 N67-29156
Solar radiation, albedo, and terrestrial radiation contributions to spacecraft thermal environment 18 p3344 N67-32184
Short period oscillations in earth electromagnetic field
[TG-220-T524] 23 p4344 N67-38434
Spectral composition of earth radiation determined using monochromators installed on board Cosmos series earth satellites
[NASA-CR-83969] 23 p4344 N67-38707
Infrared radiance of selected terrain features measured with spectrometer from high altitude balloon
[AFCRL-67-0448] 24 p4446 N67-40218
TESSERAL HARMONICS
Earth-satellite orbits in resonance with tesseral perturbation, and motion near earth-moon libration point 06 p0073 N67-10083
Satellite orbit perturbations from tesseral harmonics of gravitational potential expansion
[NASA-CR-83564] 11 p1866 N67-22299
Determination of second and fourth order sectorial harmonics in earth gravity field from motion of twelve hour satellites
[NASA-TM-X-55763] 12 p2209 N67-23910
Geodetic parameters, astrophysical observations, and satellite orbit positioning
[SAO SPECIAL REPT.-200, VOL. 1]
21 p3839 N67-35962
Station coordinates and tesseral harmonic coefficients determination 21 p3900 N67-35969
Geodetic parameters for 1966 Smithsonian Institution standard earth
[SAO SPECIAL REPT.-200, VOL. 2]
21 p3843 N67-36463
Satellite orbits determined by technique of tesseral harmonics 21 p3844 N67-36466
TEST
S ALTITUDE TEST
S COLD FLOW TEST
S COLD WEATHER TESTING
S COMPRESSION TESTING
S CORROSION TEST
S DESTRUCTIVE TESTING
S DROP TEST
S EAR PRESSURE TEST
S ELECTRONIC EQUIPMENT TESTING
S ENGINE TESTING
S ENVIRONMENTAL TESTING
S FATIGUE TEST
S FLIGHT TEST
S FUEL TESTING
S FUNCTION TEST
S GROUND TEST
S HEAT TEST
S IMPACT TEST
S KOLMOGOROFF-SMIRNOFF TEST
S LOAD TEST
S MANN-WHITNEY-WILCOXON U TEST
S MATERIAL TESTING
S NONDESTRUCTIVE TESTING
S PRELAUNCH TESTING
S PROPELLANT TESTING
S PSYCHOLOGICAL TESTING
S RANK TEST
S RESONANCE TESTING
S SPIN TEST
S STATIC TESTING
S ULTRASONIC TESTING
S UNDERWATER TEST
S VESTIBULAR TEST
S VIBRATION TESTING
S WHIRLING TEST
TEST BED
Attitude control system simulation and mathematical analysis for Flying Test Bed - VTOL aircraft capabilities
[NAL-TR-130] 16 p2875 N67-30082
Design feasibility of Scout launched recoverable lifting reentry vehicle test bed
[NASA-CR-66306] 17 p3167 N67-31697
Program considerations and results of feasibility study for small, recoverable lifting reentry vehicle test bed launched by Scout vehicle
[NASA-CR-66399] 17 p3168 N67-31235
Feasibility of Scout launched small lifting reentry vehicle for testing materials and thermostructures of full scale reentry vehicles
[NASA-CR-66397] 17 p3168 N67-31444
TEST CHAMBER
SA ANECHOIC CHAMBER
Internal gaseous convection effects in thermal models of space vehicles
[AEDC-TR-66-257] 13 p2424 N67-25632
Evaluation of fog seeding experiments in thermal diffusion chamber
[NASA-CR-83854] 13 p2352 N67-25636
Toxicological screening of space cabin materials 14 p2470 N67-26717
Trace contamination composition within integrated life support system test chamber
[NASA-CR-754] 14 p2474 N67-27571
Effects of isolation of three individuals on 18 and 24 hour work-rest cycles in sealed chamber
[NASA-TT-F-11137] 18 p3213 N67-32362
Air shower experiments - testing of apparatus, and studies of angular distribution of air shower particles recorded on stereoscopic cloud chamber photographs
[BMWF-FBK-67-45] 23 p4255 N67-39142
TEST EQUIPMENT
SA AIRCRAFT MULTIPURPOSE TEST EQUIPMENT /AMTIDE/
SA CHECKOUT EQUIPMENT
SA COMPRESSION TESTING MACHINE
SA CREEP TESTING MACHINE
SA DROP-WEIGHT TESTER
SA FATIGUE TESTING MACHINE
SA FLIGHT TEST INSTRUMENT
SA FREE FLIGHT TEST APPARATUS
SA HYPERSONIC TEST APPARATUS
SA IMPACT TESTING MACHINE
SA LOAD TESTING MACHINE
SA TENSILE TESTING MACHINE
SA TENSION TESTING MACHINE
SA VIBRATION TESTING MACHINE
Synthesizer test unit for obtaining data on susceptibility of electronic equipment to power transients
[R-673] 01 p0074 N67-10949
Equipment for testing metals in high pressure chambers and temperature measuring method
[FTD-TT-65-1627] 01 p0058 N67-11093
Potassium corrosion test loop for refractory alloys evaluated after 5000-hour test operation
[NASA-CR-72042] 02 p0248 N67-12093
Wire-connected electronic module as standard configuration for operational tests of spacecraft components 02 p0245 N67-12114
Multiposition machine for fatigue testing of flat specimens using ring-shaped vibrator and electric heater
[FTD-TT-65-1391] 05 p0711 N67-14738
Test equipment for determining visual recovery from high intensity flashes, and pupil reflex measurements
[AD-642731] 06 p0797 N67-15360
S-band transponder laboratory test equipment
[NASA-CR-65570] 06 p0823 N67-15676
Operation of reactor in Poland from 1961 to 1962 06 p0912 N67-16283
Encoder tester for automatic evaluation of analog-to-digital converters
[NADC-AM-6646] 06 p0849 N67-16488
Pattern generator and signal analyser for digital communication test set
[VL-2378-S-0] 07 p1038 N67-17677
Amplitron life test unit
[NASA-CR-81614] 07 p1053 N67-17981
Command and communication system test set ground support equipment
[NASA-CR-81698] 07 p1041 N67-18025
Thermistor mount for dc potentiometer insertion loss test set 06 p1345 N67-18340
Test apparatus for evaluating magnetic tape interlayer adhesion problem 06 p1290 N67-18342
Single axis simulator design for satellite control system testing and low torque measurement
[NASA-TM-X-55660] 08 p1262 N67-18635
Test structural model for hydrogen-fueled hypersonic vehicles
[NASA-CR-66198] 08 p1376 N67-18688
Component design for refractory metal-alkali metal corrosion test system 09 p1450 N67-19599
Construction and testing of two-stage radiant cooler for day and night high resolution infrared radiometer
[NASA-CR-83953] 09 p1456 N67-19946
Experimental equipment, facility, and targeting application of 200 GeV accelerator
[UCRL-16820, VOL. II] 10 p1600 N67-20765
Electronically controlled universal compression testing machine for cyclic testing of uranium at elevated temperatures
[NLCO-994] 10 p1638 N67-20962
Automatically controlled low frequency air spring suspension system for vibration testing
[NASA-TN-D-3891] 11 p1861 N67-22287
Automatic measurement of gain and zero drift characteristics of dc amplifier
[NASA-TN-D-3902] 11 p1840 N67-22293
Test instrument and measurement technique to study electromagnetic shielding properties of vacuum deposited thin metallic films for applications in microelectronic circuitry
[ECOM-2775] 12 p2063 N67-23618
Head restraint device based on vacuum bladder technique for use in vestibular studies
[NASA-CR-83949] 13 p2263 N67-25988
Fatigue testing apparatus for simultaneous application of high frequency, low frequency, and static loading
[USAAVLABS-TR-66-86] 13 p2330 N67-26260
Electromagnetic interference test methods and control requirements for aerospace ground equipment for certain McDonnell aircraft models
[E-300] 13 p2284 N67-26479
Test equipment for hydrodynamic journal bearing, and displacement measurement calibration data
[NASA-CR-72175] 14 p2541 N67-26589
Amplitude measurement of noise-masked periodic waveforms
[NEL-1409] 14 p2486 N67-26979
Test tool to simulate critical portions of Pegasus meteoroid detector electronics
[NASA-CR-84431] 14 p2513 N67-27449
Qualification and development of Gemini escape system
[NASA-TN-D-4031] 16 p2973 N67-29035
Human performance test equipment evaluation
[SMRL-487] 16 p2837 N67-29181
Feasibility of area maintenance concept with self-contained test vehicle for use on low cost instrument landing systems
[RD-66-104] 16 p2973 N67-29469
Dynamic wind tunnel testing system - dynamic tests of F-104 model
[AFFDL-TR-66-153, PT. II]
17 p3043 N67-30566
Accelerated condensation apparatus for corrosion preventative coating evaluation
[RIA-67-906] 17 p3043 N67-30649
Design, construction, and operation of portable, manually operated penetrometer and shear unit for testing soil strength 18 p3270 N67-31289
Planar shock wave test assembly for simulating meteoritic impact on planetary rock surface 19 p3442 N67-33171
Production capability for specific monolithic and hybrid semiconductor circuits and standard test mask incorporating transistor and resistor patterns 19 p3416 N67-33364
Test apparatus to measure mass discharge rate and internal static pressure along axis of 2-micron porous tube 19 p3552 N67-33371
Test prototype gradient magnet for Omnitron with prestressed laminated core and hollow-strap coil
[UCRL-17268] 20 p3619 N67-34196
Static test rig for measuring thrust efficiency and discharge coefficient of propelling nozzle systems
[ARA-WTN-62] 20 p3642 N67-34839
Current concepts in metal fatigue testing and research with summary of results of recent investigations
[ARL/SM-305] 20 p3661 N67-35135
Improvements in technique and apparatus for rapid and accurate determination of inorganic fiber densities
[AFML-TR-67-65] 21 p3875 N67-35996
Portable calibrator to facilitate calibrations of intermediate range pressure transducers
[AFDC-TR-67-83] 21 p3851 N67-36167
Test equipment development for research on substructure effects on irradiation stability of ASTM A302 grade B steel
[GA-7895] 21 p3870 N67-36320
Direct current liquid bridge for determining conductivity of electrolytic solutions for treatment of uranium minerals
[NP-19723] 21 p3798 N67-36321
Drive unit for testing tachometer-generators
[RAE-TR-67121] 22 p4044 N67-36850
Test apparatus for investigation of thermal contact conductance with interstitial materials
[NASA-CR-72122] 22 p4161 N67-37211

Test devices for wind tunnel measurements of aerodynamic derivatives
[TP-389/1967/] 22 p2957 N67-37623
Investigation results and test equipment and apparatus development for organic Rankine cycle technology program
[SAN-651-25] 22 p3002 N67-37928
Electronic systems test equipment nomenclature assignments
[AD-654106] 23 p4222 N67-39129
Nomenclature assignment, abbreviations, and alphanumeric reference list of electronic test equipment
[SETE-210/74, VOL. II] 23 p4226 N67-38720
High rigidity load cells for forces between 1,000 and 50,000 daN
[ONERA-TN-109/1967/] 23 p4256 N67-39371
Experimental apparatus for measuring sessile drop contact angles at elevated temperatures
[AFML-TR-67-152] 24 p4495 N67-39556
Test equipment and instrumentation, and data acquisition for radiant heat facility
[SC-RR-67-438] 24 p4425 N67-39894
Development and in-pile performance of Belgian Engineering Test Reactor /BR3/ irradiation rigs
[EUR-3636.E] 24 p4494 N67-40455

TEST FACILITY
SA LABORATORY
SA ROCKET TEST STATION
SA SIMULATOR
SA TRANSIENT REACTOR TEST /TREAT/ FACILITY
SA WIND TUNNEL
Test facility for measurement of boundary layer flow noise generated by rotating cylinder in water
[REPT.-82] 02 p0251 N67-11890
Steady state operating and dynamic response characteristics of simulated three-loop Rankine cycle space power conversion system of SNAP-8 type
[NASA-CR-635] 03 p0334 N67-12757
Facilities to simulate aerodynamics of charged particles in ionosphere
04 p0527 N67-13846
Description of hypersonic, long run duration, slow compression, and hot shot wind tunnel testing facilities
[TP-371] 04 p0538 N67-14288
Reliability efforts and test facility developments summarized for Deep Space Instrumentation Facility and Surveyor, Mariner, and Voyager projects
[NASA-CR-81190] 06 p0971 N67-15685
Instrumentation and techniques for determining pitch and roll damping derivatives, Magnus force and moment coefficients, and other dynamic stability measurements in wind tunnel facility
[NOLTR-66-23] 06 p0963 N67-16464
Vibration analysis of safety and relief valves in 4-inch steam pipeline of sodium components test installation
[NAA-SR-MEMO-11941] 07 p0999 N67-17586
V/STOL aircraft stability parameters for hovering through transition for improving ground
[FTC-TR-66-29] 07 p0992 N67-17673
Hypersonic air breathing engine research and test facility and instrumentation development
[MEMO-66-4] 08 p1216 N67-18557
Test facility and equipment for evaluation of optical sensors employed in celestial navigation and guidance systems
[NASA-CR-80007] 08 p1263 N67-18698
Support activities for in-pile reactor experiments
09 p1476 N67-19446
Reactor instrumentation program test facility, corrosion study, and test loops
09 p1476 N67-19449
Test facility and equipment for thruster operation and colloidal propellant production in advanced electric propulsion research
10 p1598 N67-20518
Design study for muon and antiproton facility at Stanford linear accelerator
[UR-875-161] 10 p1599 N67-20736
Test facility, program, instrumentation, and data acquisition system for evaluating power conversion loops for organic Rankine cycle
[SAN-650-2] 10 p1556 N67-20749
Test facility to conduct superpressure and explosive studies
[R66SD63] 10 p1695 N67-21864
Dynamic model monorail track for studying dynamic stability and control of helicopters and V/STOL aircraft
[USAAVLABS-TR-66-73] 11 p1855 N67-23606
Safety analysis of fast reactor test facility
[ANL-7168, VOL. 3] 11 p1936 N67-23190
Neutron activation measurements of trace element concentrations in concrete materials for use in NASA Space Propulsion Facility
[NASA-TM-X-1261] 12 p2125 N67-24400
SNAP-8 power conversion system development, and test facilities
[NASA-CR-72190] 12 p2151 N67-24629
Development of computerized high resolution mass spectrometer and gas-liquid chromatographic facility for study of lunar soil samples
[NASA-CR-83871] 13 p2379 N67-25421
Calibration of in situ reflectometer irradiation facility in program for development of space stable thermal control coatings
[NASA-CR-84962] 13 p2426 N67-26323
Facility for testing colloid propellants, using glycerol mixtures
[NASA-CR-54702] 14 p2511 N67-26640
Climatological conditions favoring occurrence of high ambient air temperatures at Yuma Proving Ground, Arizona
[TR-67-42-ES] 14 p2567 N67-27074
Feasibility of constructing high performance aerodynamic impulse facility capable of producing high velocity and Reynolds number environment
[AFFDL-TR-66-129] 15 p2927 N67-28549
Cryogenic techniques for space simulation and rocket test facility purposes
[DGRR/WGLR PAPER-66-043] 15 p2755 N67-28702
Recirculating gas cooled test loop facility for Plum Brook reactor
[NASA-TM-X-1503] 16 p2928 N67-29168
Liquid metal radiator and condenser test facility
[NASA-TM-X-1596] 16 p2872 N67-29169
Shock tunnel test facility for sonic boom simulation
[RAE-TR-66344] 16 p2875 N67-29963
Arc chamber and nozzle design for hotshot wind tunnel
[TP-447] 17 p3045 N67-30805
Zero G test facilities, and two-phase liquid-vapor fuel tank design for satellites
18 p3344 N67-32188
Oak Ridge research reactor experimental facilities for conducting mechanical property tests of instrumented capsules
[ORNL-P-2162] 18 p3296 N67-32410
Small-scale capsule test program on destructive processes and behavior of integral reactor systems under accident conditions, and burst irradiation test facilities
18 p3303 N67-32452
Naval Medical Research Institute deep isolation laboratory
[REPT.-27] 19 p3372 N67-32771
Vibration measurement data reduction techniques applied to Saturn S-II vehicle
19 p3409 N67-32128
Daisy decelerator sled-track facility for biodynamic and equipment impact testing
[ARL-TR-67-3] 19 p3425 N67-32325
Conceptual evaluation of fast reactor test facility
[BNNL-SA-978] 19 p3489 N67-32329
Specimen facilities design for very high voltage electron microscopes
19 p3457 N67-32792
Naval Ordnance Laboratory high Reynolds number hypersonic tunnel for accurate aerodynamic and aerothermodynamic measurements within mach number range of 5 to 10
[NOLTR-67-27] 20 p3618 N67-34067
Parameters of incompressible flow equipment, high speed wind tunnels, hypersonic tunnels, and shock tube facilities
[NPL-AERO-1265] 20 p3500 N67-34498
High speed propeller spinning test facility design and specifications
[ARA-WTN-56] 20 p3429 N67-34433
Whirling arm test facility for studying steady and unsteady aerodynamics of wings in ground effect
[COA-AERO-174] 21 p3636 N67-35059
Mechanical test facility for measuring deformation and fracture stresses in tension of brittle ceramic material
[NASA-CR-80744] 22 p4054 N67-37400
Experimental three-stage hot water ejector facility with fixed mixing tube dimensions
[DLR-FB-67-40] 23 p4233 N67-39084
Aerospace research, development, test, and evaluation facilities summary including charts on environmental test chambers and wind tunnels
[NHB-8800.5, VOL. II] 23 p4234 N67-39085
Summary of aerospace research, development, test and evaluation facilities with summary charts on environmental test chambers and wind tunnels
[NHB-8800.5, VOL. I] 23 p4234 N67-39086
Advanced gas dynamics test facilities and improved wind and shock tunnel performance
[CAL-AD-1716-A-9] 24 p4425 N67-39458

TEST FIRING
Static test firing of 260 inch diameter solid rocket motors for demonstrating feasibility
[NASA-CR-72127] 05 p0755 N67-14907
Test firings to determine safety of Walleye fuse Mk 228 Mod 0 explosive train in SAFE and ARMED positions
[NOLC-671] 10 p1586 N67-20611
Hydraulic-electric system for measuring side thrust components of solid propellant rockets
12 p2158 N67-24396
Test facility and methods for determining thrust vector deviations on solid propellant rockets
12 p2160 N67-24397
Test firings and analytical model used to evaluate chugging instability in subscale experiments with LOX-gaseous hydrogen combustors
[NASA-TN-D-4005] 14 p2622 N67-27227
Subscale and full scale test firings of M-1 injector to improve combustion efficiency
[NASA-TM-X-53899] 14 p2907 N67-27329
Environment test firing of INTELSAT satellite apogee motor in spin mode
[AEDC-TR-67-43] 21 p3705 N67-35752
Test firing data on units for single bridge wire Apollo standard initiator
[NASA-CR-65723] 22 p3905 N67-37361
Normal motor and nozzle performance reported for static test firing of 44-SG-4 motor
[NASA-CR-72287] 22 p4134 N67-37684

TEST METHOD
Method for testing, screening, and lot rejection of integrated circuits for Apollo guidance and navigation computer
01 p0047 N67-10107
Limitations for step stress testing of integrated circuits
01 p0046 N67-10114
Automated test technique for auditory tasks and scoring of multiple choice data
[REPT.-16] 01 p0015 N67-10643
Machine test method for measuring inspired carbon dioxide with self-contained breathing apparatus
[BM-RI-6665] 01 p0025 N67-10645
Algebra of currents for testing validity of elementary particle models
[IC/66/65] 01 p0122 N67-10619
Test method for studying salivation in human taste function
[FTD-TT-65-1015] 01 p0019 N67-11697
Test method for selection and evaluation of edible mouth coolants to alleviate oral discomfort associated with thirst in humans
[FD-51] 01 p0020 N67-11176
Effectiveness of testing complete satellite systems in attaining reliable performance - comparison of simulation and flight results
[NASA-TN-D-3713] 02 p0211 N67-11347
Method for investigating sensory deprivation during prolonged sound chamber tests
02 p0159 N67-11569
Test methods and computer programs for random generators
[IPP-6/47] 02 p0240 N67-11737
Mechanical property test methods for beryllium
[MAB-205-M] 02 p0277 N67-11962
Accelerated life testing of transistors
02 p0245 N67-12113
Rheology conference - continuum theory, stress and strain distribution analysis, polymer fluids and solids, testing techniques, and dispersions
[NASA-CR-80007] 05 p0772 N67-14921
Manned dynamic testing in space station development, inclusion of future analysis capability with space rescue mission, and manned orbiting structures laboratory
[NASA-TM-X-53545] 05 p0772 N67-14923
Computer signal processing approach for Shapiro fourth test of general theory of relativity
[ESD-TR-66-631] 05 p0921 N67-15008
Testing for speech discrimination using consonant nucleus consonant monosyllable

words
[SAM-TR-66-55] 05 p0863 N67-15263
Statistical procedure for testing hypothesis of independence, and application to reliability and maintenance of stochastically failing equipment and neurophysiological experiments
[RM-5134-PR] 06 p0901 N67-15356
Basic criteria, definitions, and test methods for zero liquid and gas leakages
[NASA-CR-81189] 06 p0864 N67-15681
Reliability and validity of counterrolling as functional test of otolith organs investigated by comparing measurements of healthy persons with those of subjects with labyrinthine defects
[NASA-CR-81364] 06 p0863 N67-16092
Absorption cross section measurements of several elements in nuclear reactor using pile oscillator method 06 p0912 N67-16281
Optimal burn-in testing of repairable equipment based on decreasing failure rate models
[TR-23] 07 p1089 N67-17156
Vacuum chamber testing of astronomical instrument mirrors 07 p1089 N67-17180
Test procedure development for high-intensity thermal testing of solar probe spacecraft
[NASA-CR-73068] 07 p1195 N67-17185
Test procedures for program to determine reliability of electronic components in nuclear radiation environment
[NASA-CR-81607] 07 p1058 N67-17995
Pendulum apparatus and method for testing combustion properties of black gunpowder
[TDCK-46451] 07 p1181 N67-18071
Method for studying plastic strain propagation under dynamic loading 08 p1274 N67-18264
Comparative analysis of strain and pressure gauge methods for evaluating relative performance of explosives in rock
[BM-RI-6886] 08 p1275 N67-18313
Single parameter testing of ac and dc amplifiers
[NASA-CR-82006] 08 p1259 N67-18543
Neutron activation and iodine-131 tracer test methods for charcoal filter banks at research reactor facility
[IS-1425] 08 p1311 N67-18584
Cold welding evaluation techniques studied by using beryllium-copper pellets and 321 stainless steel wear plates
[NASA-CR-65593] 08 p1285 N67-18942
Methods for determining iron content in frog embryos and ferritin in rat intestine sections
[NASA-CR-82653] 08 p1239 N67-19102
Techniques and instrumentation for environmental, thermal vacuum, and solar simulation tests
[ESRO-TM-50] 09 p1432 N67-20295
Volume resistivity, Barcol hardness, and acetone extraction measurements of cast polyesters in advanced stages of curing reaction
[RAE-TR-66361] 09 p1412 N67-20334
Sodium mass transfer, and effect of carbon and carbonate additions in sodium test loop
[GEAP-4436] 10 p1658 N67-20850
Theoretical principles and current methods for aircraft flight testing
[NASA-TT-F-442] 10 p1555 N67-21454
Experimental check of theoretical methods of calculating strength
[FTD-MT-66-25] 10 p1766 N67-21737
Methods of testing deployment characteristics of man carrying parachutes
[RAE-TR-66280] 10 p1555 N67-21741
Test methods for assessing hearing impairment effects on receptive communicative efficiency in noise environment and methods of detecting individuals with deteriorated hearing
[AD-645816] 11 p1793 N67-23119
Methods and equipment for fatigue tests of random loading 12 p2219 N67-23527
Design, fabrication, packaging, and test methods used in Echo II satellite
[NASA-TM-X-55764] 12 p2214 N67-23915
Chemical and physical properties and methods for specification testing of unsymmetrical dimethyl hydrazine
[WRE-TN-CPD-107] 12 p2196 N67-23965
Standardized combustion chamber and test method developed in Germany for solid propellants 12 p2197 N67-24307
Test method for measuring burning process of solid propellants in combustion chamber 12 p2199 N67-24399
Identification and characterization of petroleum fuel using temperature programmed gas liquid chromatography
[CCL-218] 12 p2045 N67-24718
Intelligibility test methods and procedures for speech communication system evaluation
[ESD-TR-66-677] 12 p2655 N67-24824
Shock testing with solid propellant powered guns 13 p2413 N67-25170
Ataxia on normal humans and those with vestibular defects and vertigo
[NASA-CR-83815] 13 p2363 N67-25875
Programmed search for locating malfunction element in two digital computer systems, and test method assessment 13 p2397 N67-25729
Test programs for reciprocal control of basic devices of two-computer system 13 p2389 N67-25785
Charpy V notch impact data for steel bars obtained as function of temperature according to NATO method
[M67-95-VDBU/VDK] 13 p2340 N67-26024
Accelerated stress corrosion test for iron and nickel alloys
[NASA-CR-83976] 13 p2340 N67-26161
Extension method of dielectric constant and loss measurements of liquids to 100 MHz with fixed geometry sample holder
[HDL-TR-1332] 13 p2369 N67-26253
Combination statistical design for sensitivity testing
[BM-IC-8224] 13 p2350 N67-26311
Torque test for evaluating quality of aluminum alloy melts
[R-1833] 14 p2542 N67-26713
Air Force supported research for development of methods and techniques applicable to field of chemistry 14 p2479 N67-27186
Philosophy, purpose, and effectiveness of unmanned environment simulation in ground tests of spacecraft reliability
[NASA-TN-D-4000] 14 p2512 N67-27222
Methods for performance testing of electromechanical pressure transducers
[NASA-CR-84445] 14 p2538 N67-27426
New gap sensitivity methods for explosives
[BM-RI-6947] 15 p2310 N67-28818
Test and data analysis techniques for rotary wing hovering and takeoff performance
[AGARD-517] 15 p2642 N67-28878
Methods and results of airborne microminiaturized electronic equipment testing
[AD-656317] 16 p2367 N67-29067
Materials research - diffusion bonding methods, stress corrosion tests, nondestructive testing, material designs for electronic equipment, and nonmetallic material development
[NASA-TM-X-53610] 16 p2906 N67-29381
Nondestructive test methods for detecting and measuring stress corrosion and residual stress 16 p2907 N67-29984
Improved methods of standard and sample preparation for neutron activation analysis 16 p2545 N67-29192
Test series administered to Air Force personnel to determine weather forecaster proficiency
[ESD-TR-67-226] 16 p2925 N67-29488
Effective mass of free carriers in semiconductors as determined from infrared reflectivity measurements
[NOLTR-67-16] 16 p2969 N67-29981
Search reduction tests for combinatorial production sequencing algorithm
[REPT.-98] 16 p2921 N67-29611
Review of methods for studying adsorption of organic compounds on solid metal electrodes
[NRL-6481] 16 p2851 N67-29773
Experimental methods for measuring vibrations using laser interferometer
[TM-0-67] 16 p2965 N67-30020
Nondestructive method for determining residual gas life in charcoal beds 17 p3013 N67-30223
Handbook of biochemical procedures and analytical methods
[REPT.-304] 17 p3001 N67-30311
Criteria and methods for evaluating trainer aircraft effectiveness during training of pilots for fleet fighter and attack type aircraft
[REPT.-2-55100/7R-50972] 17 p2993 N67-30347
Comparison of methods for treating data on tensile strength of thermoplastics
[PA-TR-3527] 17 p3064 N67-30349
Clinical laboratory profiles for healthy male adults
[SAM-TR-66-74] 17 p3001 N67-30357
Measurement of early stages of plastic deformation using capacitance gauge techniques
[AD-651508] 17 p3170 N67-30362
Characterization of materials according to composition 17 p3014 N67-30365
Structural characterization of materials - methods for describing location of atoms within solid 17 p3147 N67-30366
Testing filter and signal to noise ratio effects on transmitted speech perception
[AFCRL-67-0197] 17 p3022 N67-30469
Test method for shear modulus and other elastic constants of filamentary composites
[DOUGLAS PAPER-3670] 17 p3170 N67-30477
Temperature and humidity specification for testing navy ship and shore electronic equipment
[NEL-1490] 17 p3037 N67-30628
Metallurgical methods for detection and analysis of failure mechanisms in microelectronic devices 18 p3241 N67-31366
Microcircuit masking techniques 18 p3242 N67-31574
Desensitizing microcircuits to variations in temperature and performance parameters - computer aided sensitivity analysis 18 p3244 N67-31584
Desensitizing microcircuits to variations in temperature and production spread - tolerance in performance criteria due to production spread of parameters 18 p3244 N67-31585
Flow graph analysis method for examining interactions between thermal and electrical parameters of devices and associated microcircuits 18 p3245 N67-31588
Fast scan infrared microscope for measuring thermal and electromechanical parameters affecting reliability of microelectronic devices 18 p3246 N67-31600
Distribution plots of electrical parameters as means of investigating potential reliability of integrated circuits 18 p3247 N67-31602
Pulse code modulation telemetry data compression evaluation - redundancy removal techniques, and buffer queueing control methods
[NASA-CR-85894] 18 p3236 N67-31840
Test technique for evaluating and optimizing performance of step recovery diode in single stage frequency multiplier 18 p3249 N67-32000
Reliability control and failure probability in accelerated tests of radio components 18 p3276 N67-32213
Literature review on gas chromatographic - mass spectrometric analytical methods
[NRL-6325] 18 p3226 N67-32535
Annotated bibliography of literature on fatigue testing
[AMRA-MS-67-05] 19 p3468 N67-32858
Systems theory and test methods used in analysis of photo-optical systems
[REPT.-352] 19 p3481 N67-32860
Methods for computing total electron content of ionosphere 19 p3491 N67-32984
Simulation of deployment dynamics of spinning spacecraft
[NASA-TN-D-4076] 19 p3539 N67-33047
Test method for determining shear modulus and shear strength of unidirectional fiber-reinforced composites
[AFML-TR-66-372] 19 p3545 N67-33107
Mathematical method for determining signal levels as function of time for communicating or tracking equipment before mission
[NASA-TM-X-53961] 19 p3464 N67-33254
Statistical methods for analyzing stochastic effects influencing design of space vehicle control systems
[NASA-CR-825] 19 p3540 N67-33461
Test method for direct wire monitoring of components during shock application for lunar penetrometer program
[HDL-TM-67-7] 20 p3609 N67-34059
Construction and comparison of nonorthogonal incomplete factorial designs, nonorthogonal designs of even resolution, and saturated sequential factorial designs
[ARL-67-0021] 20 p3666 N67-34665
Numerical method for determining heat transfer characteristics of dilute solid-gas mixture in externally heated tube

[BM-IC-8343] 20 p3743 N67-34071
Polarographic method for determining cadmium in cadmium-tin alloys
[EUR-3494.E] 20 p3589 N67-34159
Frequency modulation method for measuring small rotating angle
[NAL-TR-127] 20 p3613 N67-34417
Use of crack line loading methods for measuring plane strain fracture toughness 20 p3736 N67-34488
Test methods for determining shear modulus of fiber reinforced laminated composites
[AFML-TR-67-23] 20 p3739 N67-34675
Atraumatic methods for monitoring cardiovascular functions
[NASA-CR-87000] 20 p3576 N67-34723
Evaluation of several experimental aviation personnel selection tests
[NAMI-1003] 20 p3585 N67-34938
Gyroscope standard torque-to-balance test and data analysis procedures for rate integrating gyros
[MDC-TR-67-79] 21 p3804 N67-35418
Methods for rapidly determining aircraft paint coating resistance to oxidation and photochemical degradation
[AD-654743] 21 p3874 N67-35795
Test methods for evaluating stress corrosion cracking of high strength aluminum alloys
[NASA-CR-88110] 21 p3869 N67-35986
Development and testing of coatings for tantalum alloy nozzle vanes
[NASA-CR-54529] 21 p3889 N67-36159
Guide for using capacitance-voltage method to investigate metal oxide semiconductor structures
[ECOM-3821] 21 p3819 N67-36163
Development of flying spot digitizer and automatic data processing methods for analyzing spark chamber pictures 21 p3896 N67-36244
Nuclear magnetic resonance method for studying solubility of helium and hydrogen in liquid nitrogen
[NASA-TT-F-10602] 22 p3982 N67-36732
Design and construction of low pressure calibrator for use with transducers at subatmospheric pressures and comparison with shock tube and static calibration methods
[ARC-CP-947] 22 p4044 N67-36882
Structural optimization of flat, corrugated core and web core sandwich panels under in-plane shear loads and combined uniaxial compression and in-plane shear loads
[NAEC-ASL-1110] 22 p4153 N67-37000
Inelastic redundant force method for stress and strength analysis of mechanically fastened joints
[NAEC-ASL-1103] 22 p4154 N67-37101
Helicopter rotor and V/STOL propeller testing system in sonic wind-tunnel
[TP-494/1967/] 22 p4020 N67-37319
Analytical methods in nuclear chemistry
[IN-1063] 22 p3967 N67-37363
Test results of back pressure regulator specimen
[NASA-CR-88621] 22 p4054 N67-37406
Feasibility demonstration of parametric charting portion of material prediction technique - testing of composite materials in hypothetical thermal environment
[NASA-CR-88470] 22 p4078 N67-37525
Calibrated enclosure technique for rapid and accurate determination of leak rates
[NASA-CR-88564] 22 p4021 N67-37647
Comparison of damping-in-pitch parameter in wind tunnel dynamic measuring techniques
[DTMB-2396] 22 p4250 N67-38086
New method for calculating void content in glass reinforced plastics
[NOLTR-67-99] 23 p4269 N67-38118
X-ray television system for use in inspection and evaluation of spacecraft electronic parts
[TG-920] 23 p4251 N67-38236
Shock tests of cantilever beams on floating platform
[DTMB-2191] 23 p4356 N67-38365
Experimental critique of method of constant stimuli and alternative procedures
[NASA-CR-89383] 23 p4187 N67-38423
Natural gamma ray logging method - theory, detectors and measuring circuits, and applications in geophysical surveys
[NEJ-TR-84] 23 p4345 N67-38538
Selection and biasing of field effect transistors for low energy X-ray and gamma ray spectrometers
[UCRL-17528] 23 p4227 N67-38947
Specific surface measurements of sintered uranium oxide samples by BET method using xenon 133
[EURAEC-1963] 23 p4270 N67-39211
Scaling of effort produced by strenuous isometric muscle contractions
[AMRL-749] 24 p4384 N67-39985
Bending tests with plate strip in pure bending and square plate in pure shearing stress, and determination of moduli of elasticity and plate rigidity
[NASA-TT-F-11347] 24 p4545 N67-40139
TEST PROGRAM
Technique for controllable acceleration and prediction of degradation mechanisms of electronic parts 01 p0047 N67-10105
Component quality control and physics of failure programs for improving reliability and identifying failure modes of Minuteman II weapon system 01 p0050 N67-10125
Plutonium subcritical experiment program
[GEAP-5148] 01 p0111 N67-10912
Structural design, analysis, and testing procedures in construction and evaluation of Mariner I space probe 02 p0310 N67-11280
Apollo wind tunnel test program and configuration design developments
[NASA-TN-D-3746] 02 p0340 N67-11300
A hypersonic wind tunnel program to evaluate effects of center of gravity offset on roll damping and roll rate on stability characteristics of small angle sphere cone
[ATPR-5-66] 02 p0173 N67-12031
Fabrication and testing of hydrodynamic journal bearing for spacecraft power system
[NASA-CR-72008] 02 p0266 N67-12095
Compatibility test data on strapdown electrically suspended gyroscope 02 p0284 N67-12103
Application of K-factors for reliability evaluation of test programs
[NAA-SR-11913] 03 p0426 N67-12376
Flight performance, system integration, and test program for Nimbus II and B spacecraft and launch vehicle
[NASA-CR-80347] 03 p0467 N67-12961
Environmental test program for Atmosphere Explorer-B spacecraft
[NASA-TM-X-55436] 03 p0467 N67-13196
Test program to investigate physical and mechanical properties of wood-plastics materials 04 p0564 N67-13385
Steady state power, coupled drum impulse transition, and cascade step transition tests of SNAPTRAN reactor
[IDO-17165] 04 p0576 N67-14057
Nickel-cadmium cell heat sterilization test program
[NASA-CR-80829] 04 p0484 N67-14214
Qualification test program for hermetically sealed fuses used in satellites
[TG-824] 05 p0682 N67-14719
Test program to evaluate polymers for use in sterilized Voyager landing capsule 05 p0725 N67-14794
Applications Technology Satellite solid propellant apogee motor qualification tests 06 p0953 N67-15719
Test program of flexible wing light utility glider
[USAAVLABS-TR-66-3] 06 p0795 N67-15968
Detailed procedures for safe and effective operation of test program 06 p0935 N67-15990
Structural proof test program for lift fan aircraft
[REPT.-126] 06 p0789 N67-16280
Fuel cell asbestos test program
[NASA-CR-72148] 06 p0795 N67-16563
Design considerations and test program for propellant type explosively actuated devices for spacecraft applications 07 p0997 N67-16925
Gemini extravehicular suit pressurization ventilation test program
[NASA-CR-65589] 07 p1020 N67-17292
Test plan for checkout and qualification of Apollo manned space flight network systems 06 p1230 N67-19060
Basic fundamentals applying to evaluation of reliability program effectiveness
[NASA-SP-6501] 08 p1390 N67-19275
Specifications and test data on gyrotheodolites
[ERDL-T-1874-66] 09 p1442 N67-19664
Fast flux test reactor critical experiments program
[BNWL-SA-969] 10 p1677 N67-20656
Testing and evaluation of 3-inch duo-check valve for Saturn IB program
[NASA-CR-83117] 10 p1840 N67-21164
Test program data on thermal insulation composite materials
[ALO-3622-7] 10 p1683 N67-21511
Buckling tests on aluminum honeycomb sandwich compression panels
[S+T-MEMO-16/66] 10 p1787 N67-21754
Test program to determine reliability of integrated circuit amplifiers for Saturn program
[NASA-CR-83530] 11 p1840 N67-22265
Mercury Rankine Program integrated system test - data correlation
[NAA-SR-11945, VOL. II] 11 p1927 N67-22442
Test procedure for temperature-altitude determination of forced air cooled electronic equipment using conventional recirculating chambers
[NADC-AE-6637] 12 p2065 N67-24727
SNAP-19 test report, feasibility, and high enthalpy disintegration of magnesium
[MND-3867-114] 13 p2289 N67-25268
Test program and statistical analysis of setup parameter transferability for inert gas welding
[NASA-CR-83948] 13 p2327 N67-25869
Performance test data for check valve used in ground support equipment
[NASA-CR-84011] 13 p2331 N67-26262
Operation, life, and failure mechanisms of nickel cadmium battery
[NASA-CR-84028] 13 p2282 N67-26339
Test data summarized for pressure switch
[NASA-CR-84664] 15 p2716 N67-28019
Advanced Test Reactor Critical Facility data on startup, shutdown, shim and reactivity effects, and neutron flux and power distribution measurements
[IN-1033] 15 p2749 N67-28474
Low power nuclear test program procedures and data for first core loading of Enrico Fermi fast breeder reactor
[APDA-303] 15 p2749 N67-28475
Fuel cell acceptance, performance evaluation, and reliability testing
[NASA-CR-84626] 15 p2646 N67-28786
Performance evaluation tests on flexible pressure hose in Saturn ground support equipment
[NASA-CR-84842] 15 p2719 N67-28826
Testing of relief valve for air conditioning unit condenser used in Saturn ground support equipment
[NASA-CR-85264] 16 p2800 N67-29056
Test data on elastomeric silicone shielding materials for thermal protection of X-15-2 aircraft
[NASA-CR-85585] 17 p2906 N67-30617
Reliability and failure mode prevention tests for Saturn integrated circuits
[NASA-CR-85865] 17 p3043 N67-31206
Life cycle tests of nickel-cadmium space cell packs
[NASA-CR-85976] 18 p3199 N67-32259
Test program to demonstrate feasibility of assembly/sterilizer facility for spacecraft decontamination and sterilization, and full scale design study of concept
[NASA-CR-85440] 18 p3287 N67-32374
Test program for polymeric products with spacecraft applications
[NASA-CR-85614] 18 p3283 N67-32398
Test program for determining psychological effects from various conditions of boredom and monotony - 7 day stay in totally dark soundproof cubicle
[REPT.-28] 18 p3218 N67-32529
Test evaluation of iron compounds as fuel cell catalysts
[Q-1] 19 p3290 N67-33178
High voltage coaxial cable for transmission lines test program
[LA-DC-8967] 19 p3410 N67-33978
Extensive testing of elevated temperature mechanical and physical properties of beryllide composition 1
[MP-5363-R] 20 p3665 N67-34526
Supersonic combustion of hydrogen in air test program using optical and photographic measuring techniques
[NASA-CR-66390] 20 p3748 N67-34699
Test programs for prototype and flight models of Nimbus high resolution infrared nighttime cloud cover radiometer
[NASA-CR-87923] 21 p3845 N67-35260
Chronology on systems design, test program, and Ranger/Atlas Agena launch vehicle integration
[NASA-CR-88008] 21 p3894 N67-35448
Operational requirements testing of launch complex relief valve for relieving

overpressure in liquid oxygen recycle line
[NASA-CR-89017] 21 p3855 N67-35461
Stack testing of low temperature, acid electrolyte fuel cells
[AD-654822] 21 p3761 N67-35618
Test program for metal flex hose used as LOX supply hose to service module fuel cell
[NASA-CR-88373] 21 p3859 N67-35902
Design and testing of three-stage parachute system for low level deployment up to Mach 1.2
[SC-DR-66-2707] 21 p3757 N67-36005
Scale model tests of parabolic circularly polarized monopulse tracking antenna with dual frequency operation
[WRE-TN-PAD-107] 21 p3801 N67-36151
Test program for relief valve used to prevent over pressurization in pneumatic control systems
[NASA-CR-88118] 21 p3861 N67-36156
Status of Hough-Powell Device /HPD/ programs at Saclay, France 21 p3809 N67-36264
Calibration and test programs for flying spot digitizer system 21 p3809 N67-36267
Hardware and test program development of Munich Hough-Powell Device /HPD/ system 21 p3810 N67-36269
Test program for refrigerant expansion valve used in Saturn launch complex air conditioning units
[NASA-CR-88079] 21 p3862 N67-36301
Test performance data on refrigerant expansion control valve
[NASA-CR-88080] 21 p3862 N67-36389
Physical and ballistic tests of sounding rocket motors
[E57-67] 21 p3927 N67-36430
Saturn IB program to test spacecraft component reliability
[NASA-CR-88556] 22 p4052 N67-36734
Proof pressure, function, flow, surge, low and high temperature, life cycle, and burst tests on nitrogen and helium angle valve
[NASA-CR-88550] 22 p4052 N67-37036
Gemini spacecraft reliability and quality control test program
[NASA-TM-X-60372] 22 p4147 N67-37043
Single stage experimental evaluation of high Mach number compressor rotor blading
[NASA-CR-54582] 22 p4133 N67-37107
Specification testing of one angle valve specimen used in ground support equipment of Launch Complex 34
[NASA-CR-88544] 22 p4054 N67-37304
Evaluation of Hartmann test with consideration to its application to all-reflecting Schmidt telescope
[TR-AE-66-12] 22 p4099 N67-37305
Comparison of laboratory and field noise measurement tests - subjective ratings vs physical noise measure
[DS-67-8] 22 p4099 N67-37386
Optical liquid level sensor for use in liquid hydrogen
[NASA-CR-88885] 22 p4050 N67-37888
Design, development, and tests of explosive space cutting tool
[NASA-CR-88860] 22 p4058 N67-37919
Test program evaluation and modifications for Surveyor radar altimeter and Doppler velocity sensor system
[NASA-CR-88883] 22 p4062 N67-37922
Operations and test program of high flux isotope reactor
[ORNL-TM-1895] 22 p4096 N67-37979
USS Gyatt /DD-712 evaluation of Navy navigation satellite system /NAVSAT/ and very low frequency hyperbolic navigation system /Omega
[IR-67-61] 23 p4282 N67-38113
Liquid sodium test program including corrosion and purification testing
[JAERI-1129] 23 p4290 N67-38904
Technical history of Project Mercury environmental control system
[NASA-TN-D-4136] 23 p4253 N67-39066
Cryogenic valve testing
[LA-DC-8946] 23 p4289 N67-39138
Fabrication of fast reactor fuel pins for test irradiations
[EURFNR-314] 23 p4291 N67-39144
Dispersion strengthened tantalum base alloys - continued development in test program
[NASA-CR-72894] 24 p4464 N67-39593
Infrared heterodyne mixer and preamplifier development program
[NASA-CR-89683] 24 p4462 N67-39785
Test results for valve used in pneumatic supply system of Launch Complex 34
[NASA-CR-89687] 24 p4459 N67-40219
Selection and testing of polymeric products for spacecraft applications
[NASA-CR-89557] 24 p4474 N67-40270
Test and mission operations contractor data package for Voyager spacecraft
[NASA-CR-89710] 24 p4532 N67-40417
Test program, facilities, and procedures for space power test engine
[NASA-CR-89567] 24 p4390 N67-40545
Hydrogen detection calibration system testing and operating procedures
[NASA-CR-89656] 24 p4455 N67-40574
TEST RANGE
SA MISSILE TEST RANGE
Atlas Centaur pad safety report for launch complex 36A and 36B
[NASA-CR-80016] 05 p0690 N67-14820
Wind shear and turbulence data for Western Test Range
[AWS-TR-189] 15 p2741 N67-28391
Labor disputes and work stoppages at Kennedy Space Center and Air Force Eastern Test Range July 1956 through July 1965
[NASA-TM-X-60558] 24 p4553 N67-39756
TEST REACTOR
SA ADVANCED TEST REACTOR /ATR/
SA ENGINEERING TEST REACTOR /ETR/
SA HEAVY WATER COMPONENTS TEST REACTOR /HWCTR/
SA MATERIALS TESTING REACTOR
SA PLUTONIUM RECYCLE TEST REACTOR /PRTR/
Large concentric cylinder fission electric cell experiments in thermal neutron fluxes of nuclear test reactor
[NASA-CR-79940] 02 p0385 N67-11819
Neutronics characteristics of possible driver fuels for fast test reactor
[BNWL-281] 04 p0576 N67-13977
Catalog of nuclear reactors designed for research and testing and power production and breeding
[ANL-7236] 04 p0577 N67-14005
Conference on physics and engineering of experimental reactors 06 p0912 N67-16261
TRA test reactor safety committee working charter of duties, responsibilities, and functions
[IN-1023] 08 p1221 N67-19011
Metallurgical analysis of bellows failure in heat transfer loop of sodium components
[NAA-SR-MEMO-11970] 10 p1679 N67-20966
Radiation studies, development of irradiation devices, and operation of BR 2 test reactor by Belgian EURATOM center in 1965
[EUR-3128.E] 11 p1923 N67-22921
Design problems and solutions on test reactor cladding materials irradiation capsules 18 p3296 N67-32407
Capsule assemblies and engineering test reactor for irradiating high temperature materials under various temperature and high neutron flux conditions 18 p3296 N67-32411
Comparative burnout data on irradiation programs in test reactor and materials testing reactor using calorimetric method and isotopic analysis 18 p3301 N67-32442
Postirradiation calibration data from thermocouples used to monitor sample temperatures of experimental capsules in high flux test reactors 18 p3302 N67-32448
Breeder characteristics of graphite-moderated high temperature spherical pile reactor for thorium 232 - uranium 233 breeding cycle
[JUL-474-RG] 20 p3679 N67-34225
TEST STAND
Photoviscuous technique for fluid flow studies - equipment development
[NASA-CR-79520] 02 p0362 N67-12211
Test stand for testing compressors and turbines
[FTD-HT-66-372] 13 p2301 N67-25457
Test rig for predicting thermal stress cracking in turbine stator or rotor blades
[NASA-CR-54636] 21 p3939 N67-35350
Revised computer program on feasibility of water injection-cooled diffuser for nuclear rocket engine/stage test stands
[NASA-CR-89643] 24 p4425 N67-40065
Design and construction of test stand for industrial aerosol filters 24 p4537 N67-40525
TEST TIME
Test times and boundary layer induced property variations in circular shock tube
[NASA-TN-D-3759] 08 p0892 N67-14480
Mechanical property and heat resistance of alloy HI-437 - plasticity and strength of tungsten
[FTD-MT-65-383] 07 p1099 N67-17891
Plasticity and strength of tungsten during short time tests 07 p1100 N67-17892
Distribution function in operating time to failure analysis for reduced test statistics 18 p3276 N67-32212
TEST TRACK
Mathematical theory and practical considerations for selecting solid rocket motors as track test propulsion
[MDC-TR-67-76] 24 p4534 N67-40343
Layout, design, operation, and aerodynamic problems of hypersonic rocket sleds
[MDC-TR-67-77] 24 p4427 N67-40345
TEST VEHICLE
SA FLIGHT TEST VEHICLE
SA GRAPHITE TEST VEHICLE
Precision variable parameter test vehicles for parametric studies of plane-parallel cesium vapor thermionic converter performance
[NASA-CR-79988] 02 p0175 N67-11843
Design and fabrication of instrumented payload test vehicle and three types of radio frequency transparent, omnidirectional, impact absorbing, landing systems
[NASA-CR-66301] 10 p1765 N67-21178
Construction and operation of experimental wheeled Bevameter for measuring soil strength 18 p3236 N67-31930
TETHERLINE
Solution to tether wrap-up problem for Apollo Applications Program mission-4
[NASA-CR-84430] 14 p2621 N67-27794
Orbital motion of lunar module/Apollo telescope mount tethered to S-IVB orbital workshop
[NASA-TM-X-53643] 22 p4141 N67-37484
TETRACHLORIDE
S CARBON TETRACHLORIDE
S SILICON TETRACHLORIDE
TETRAETHYL
SA ETHANE
Reaction of tetraethyl orthosilicate with fumed silica at various temperatures
[NOLTR-66-97] 01 p0027 N67-10411
TETRAFLUORIDE
SA CARBON TETRAFLUORIDE
SA SULFUR TETRAFLUORIDE
High temperature combustion kinetics in C/F/O reaction system, and apparatus for production of tetrafluoroethylene and carbonyl fluoride
[AFOSR-66-2336] 07 p1207 N67-17218
Direct carbon replication of uranium tetrafluoride films on uranium dioxide
[LA-3705] 23 p4200 N67-38189
TETRAHEDRON
Computer program listings for calculating interstitial geometry in tetrahedral lattices of crystalline hard spheres
[NASA-CR-81750] 07 p1150 N67-18994
Electron spin resonance and optical absorption spectra of transition metal ions, color center defects in laser glass, and molecular structure of tetrahedron
[TR-599-1] 21 p3913 N67-35344
Tetrahedron linkages in rare earth oxides and oxysalt structures 21 p3788 N67-36343
TETROXIDE
Thermodynamic analysis of dissociating nitrogen tetroxide system
[NASA-TT-F-10480] 04 p0585 N67-13833
Synthesis of fluoropolymers for elastomeric bladders for containment of nitrogen tetroxide and hydrazine fuels
[NASA-CR-81645] 07 p1107 N67-18000
Reactivity of titanium and other materials with liquid oxygen and nitrogen tetroxide
[NASA-CR-82949] 09 p1412 N67-20257
Infrared spectroscopic analysis of combustion products released by nitrogen tetroxide disposal unit
[NASA-TN-D-3965] 14 p2510 N67-26544
Mechanism and cause of nitrogen tetroxide attack on polymeric elastomer materials
[NASA-CR-84844] 15 p2663 N67-28028
Reactivity and expansion characteristics of Aerozine-50 and nitrogen tetroxide from vacuum chamber tests
[NASA-CR-85749] 23 p4335 N67-38400
Nonequilibrium combustion effect on propellant performance for hydrazine/nitrogen tetroxide combination
[TR-67-3] 24 p4520 N67-39639
THALLIUM
Superconducting transitions in body-

centered-cubic thallium-indium alloys
[CALT-221-19] 01 p0084 N67-10601
New method of using sodium iodide thallium crystals in detecting high energy gamma rays
[IEA-108] 01 p0124 N67-10664
Thallium isotope production by irradiation of thallium oxide
[DP-1033] 10 p1574 N67-21006
Sodium iodide scintillation counter activated with large thallium crystals for recording gamma radiation from cobalt 60
[NP-16446] 10 p1646 N67-21273
Angular distribution of thallium-232 1.8 MeV neutron fission fragments
[ANL-TRANS-407] 12 p2172 N67-24700
Stopping power of sodium iodide/thallium/ crystal for gamma photons at energies between 0.01 and 10 MeV
[NP-16500] 15 p2760 N67-28301
Phosphorescent characteristics of thallous dimer center in sodium iodide crystals
[TID-23773] 19 p3501 N67-32900
Natural resonance frequency shift for quantum level system of type displayed by ground state hyperfine structure levels of hydrogen or thallium atom in weak external magnetic field
[NBS-TN-346] 20 p3695 N67-34550
Activation analysis from thallium 203 neutron two neutron reaction
[CNAEM-39] 24 p4490 N67-40282

THEODOLITE
SA CINETHEODOLITE
Development and construction of theodolite for satellite observation
[RAE-LIB-TRANS-1178] 03 p0397 N67-12897
Practical field accuracy limits for optical theodolite
[REPT.-30-TR] 05 p0709 N67-15112
Midcourse navigation using statistical filter theory, manual theodolite, and symbolic computer control applied to manned spacecraft
[NASA-TN-D-3875] 07 p1120 N67-17800
Specifications and test data on gyrotheodolites
[ERDL-T-1674-66] 09 p1448 N67-19664
Cinetheodolitic observations of satellites from Malta 13 p2251 N67-29054
Cinetheodolitic observations of satellites from Malta 13 p2251 N67-29055
Cinetheodolitic observations of satellites from Malta 13 p2251 N67-29056
Cinetheodolitic observations of satellites from Malta 13 p2251 N67-29057
Cinetheodolitic observations of satellites from Malta 13 p2251 N67-29058
Cinetheodolitic observations of satellites from Malta 13 p2251 N67-29059
Comparison of automatic tracking pilot balloon wind measuring radar system with double theodolite systems
[ECOM-5121] 21 p3850 N67-36034
Redesign of long range azimuta laying theodolite
[NASA-CR-88276] 21 p3854 N67-36035

THEOREM
S ADDITION THEOREM
S BERNOULLI THEOREM
S EXISTENCE THEOREM
S GAUSS-MARKOV THEOREM
S GREEN THEOREM
S HELLMANN-FEYNMAN THEOREM
S MICHELL THEOREM
S POYNTING THEOREM
S RECIPROCAL THEOREM
S RIESZ THEOREM
S TAUBERIAN THEOREM
S TAYLOR THEOREM
S UNIQUENESS THEOREM
S VON NEUMANN THEOREM

THEOREM PROVING
Small denominators, and representation of circle - theorem proving
[NASA-TT-F-9827] 01 p0092 N67-10300
Boolean algebra used for theorem proofs concerning convex d-polytopes - Gale diagram technique
[AD-650019] 01 p0093 N67-10303
Proofs of generality of martingale convergence theorem
[NASA-CR-79719] 01 p0095 N67-10675
Root locus asymptotes for sum of two polynomials of same degree
[NASA-CR-79764] 02 p0231 N67-13076
Existence of certain linear approximations within chebyshev norm
[NASA-CR-61156] 03 p0417 N67-13097
Counterexamples to theorems for zeros of solutions of second order linear differential equations
[NASA-CR-80841] 04 p0579 N67-14302
Stability theorem based on Liapunov function, and using invariance property of limit sets of solutions to differential equations
[NASA-CR-81060] 05 p0730 N67-15013
Regularity theorems for tangential Cauchy Riemann equations
[AROD-5965-1] 06 p0904 N67-16367
Addition theorem proofs for Abelian groups
[MRC-TSR-681] 09 p1468 N67-19741
Heuristic program for proving theorems of group theory
[MAC-TR-33] 11 p1906 N67-22619
Generalization of orthogonal polynomial concept to obtain refined Szego theorem and analogs 12 p2131 N67-24254
Proofs of martingale convergence theorems using probability and Banach spaces
[NASA-CR-83834] 13 p2348 N67-25745
Stability theorems using invariance properties of difference equation solutions
[NASA-CR-84107] 13 p2350 N67-26460
Realizability of quasi-linear sequential machines
[R-343] 14 p2501 N67-26920
Second order sufficient conditions for weak and strict constrained minima
[AD-650285] 15 p2736 N67-28975
Cathode ray tube aided semiautomatic mathematics
[AFCRL-67-0167] 16 p2920 N67-29512
Proof of expansion theorem for negative Laplacian acting on functions with zero boundary conditions in perturbed semi-infinite cylinder in N-dimensional Euclidean space
[NYO-1480-70] 16 p2980 N67-29770
Theorems on linear programming
[ORL-65-18] 16 p2922 N67-29907
Proof of fundamental algebraic result for vector epsilon algorithm
[MRC-TSR-885] 17 p3091 N67-30441
Martingale version of dominated ergodic theorem for special case of independent identically distributed random variables with mean zero 17 p3092 N67-30735
Theorem and proof of spin-eigenfunctions
[ESD-TR-67-277] 19 p3490 N67-32754
Theorem generalization for asymptotic distribution of transformed normal random variable 19 p3490 N67-33067
Two theorems on solutions of differential difference equations and applications to epidemic theory 19 p3490 N67-33090
Stratification of complex analytic sets 20 p3668 N67-34104
Weakly almost periodic functions on discrete groups
[AD-653894] 20 p3669 N67-34341
Finite versions of axiom of choice
[ALG-1] 21 p3877 N67-35663
Theorem proving simplification of optimal control problems by reduction to conical form 21 p3821 N67-35810
Integration in locally compact spaces by means of uniformly distributed sequences 21 p3879 N67-35945
General theorems applied to topological spaces, fixed points, and coincidence problems
[P-3634] 22 p4082 N67-38981
Angular momentum and Kerr metric
[NASA-TM-X-60376] 22 p4101 N67-39003
Theorem proving for orthogonal systems of functions relative to convergence in mean of series
[NASA-TT-F-11341] 23 p4273 N67-39279
Volterra integral equations with nonnegative integrable resolvents
[NASA-CR-89076] 23 p4277 N67-39349
Difference inequality for operators in Hilbert space 24 p4477 N67-39474
Optimum control of system governed by linear parabolic equation with white noise inputs
[NASA-CR-89588] 24 p4422 N67-39483
Functions of processes with Markovian states - stochastic processes, theorems, statistical processes
[RM-193] 24 p4478 N67-39557
Theorem application to companion matrix of polynomial
[NASA-CR-89879] 24 p4483 N67-40484

THEORETICAL PHYSICS
Source and function expressions for gamma ray production from decays of secondary mesons and hyperons produced in high energy interactions
[SAO SPECIAL REPT.-220] 01 p0147 N67-10439
Mass formulas for particle spin in SU/3/ broken symmetry
[REPT.-386] 01 p0123 N67-10641
Family of sum rules based on algebra of currents
[IC/66/96] 01 p0118 N67-10720
High energy scattering lectures on experimental survey, cross section bounds, nonforward scattering, crossing symmetry, partial wave amplitudes, and dispersion relations
[NP-16231] 01 p0129 N67-10830
Fales source method applied to calculation of heterogeneous kernel for line source asymmetrically placed in moderator of cylindrical form
[JINR-P-2899] 01 p0110 N67-10837
Matrix elements in class 1 representation operators of SL/n/,C group
[IC/66/89] 01 p0117 N67-10840
Collective retardation model for mass 15 nuclei
[LYEN.41/BETA/] 03 p0442 N67-13142
Calculation of quark magnetic moment in potential well, and ratio of axial and vector constants in dynamical quark model
[JINR-E-2827] 03 p0444 N67-13285
Evidence of C violation in eta particle decay
[ORO-3065-10] 03 p0445 N67-13296
S equals O fermion resonance classification as Regge recurrences on three trajectories
[COO-881-77] 03 p0445 N67-13303
Phase shift analysis of nucleon-nucleon scattering at 14.5 MeV
[JINR-P-2742] 03 p0446 N67-13305
Review on pion-proton elastic scattering at high energies
[CERN-68-18] 03 p0446 N67-13306
Properties of cluster expansions of causal S-matrix investigated in framework of Bogoliubov theory - theoretical physics
[JINR-P-2760] 04 p0582 N67-13256
Consistent relativization of SU-6 for two-particle reactions
[JINR-E-2826] 04 p0583 N67-13258
Coefficients of SU-3 and SU-6 mass formulas calculated for normed orthogonal systems of operators
[JINR-E-2771] 04 p0583 N67-13259
Magnetic moments and axial constants of configuration mixing in quark model
[JINR-P-2821] 04 p0587 N67-14006
Phase function method of solving quantum mechanics problems
[JINR-P-2758] 04 p0588 N67-14007
Degenerate representations extended to unitary symplectic groups
[IC/66/77] 04 p0589 N67-14063
Refined solution of two-dimensional model theories
[IC-66/96] 04 p0590 N67-14064
Research reports in theoretical physics, plasma dynamics, spectroscopy, radio astronomy, and communication sciences and engineering
[NASA-CR-80695] 05 p0779 N67-14821
Classification of generalized wave function systems representing subgroup chains of L and M groups
[JINR-P-2765] 05 p0741 N67-14891
Classical unstable particles and long range scalar field
[TH/169] 03 p0741 N67-14848
Regge pole models for bound states and nonrelativistic scattering, and low momentum transfer reactions in crossed channels
[ANL-7173] 06 p0899 N67-16327
Point defect interactions in harmonic cubic lattices 07 p1169 N67-16734
Nucleation of interstitial loops in iron 07 p1169 N67-16735
Small vacancy cluster stability as function of stacking fault energy, dislocation core energy, and surface energy 07 p1170 N67-16740
Theoretical studies dealing with weak and strong interactions of elementary particles
[AEC-TR-6822] 07 p1146 N67-17201
Group theory lectures on SU sub 3 symmetry
[NP-16343] 07 p1148 N67-17417
Theoretical plasma studies for space physics application
[NASA-CR-66969] 07 p1167 N67-17671
Nuclear physics, general physics, neutron

physics, and theoretical physics research summaries
[AECL-2611] 08 p1328 N67-18345
Theoretical physics research on neutron fluxes, linac shunt impedance, slow neutron scattering, silicon 28 structure, phonon frequencies in transition metals, and computation 08 p1329 N67-18250
First forbidden transitions of europium-152, europium-154, and thulium-170 nuclei
[IC/66/118] 08 p1330 N67-18373
Formation and spectrum of molecules formed with quarks
[JINR-P-2871] 08 p1331 N67-18521
Homogeneous functions for unitary representations of symmetry groups
[JINR-P-2886] 08 p1331 N67-18526
Pairing correlation effect on transitions in deformed nuclei of rare earths
[ZFK-PHA-21] 08 p1331 N67-18527
Determination of nuclei rotational spectra by optimum separability condition
[JINR-P-2906] 08 p1331 N67-18528
Dispersion sum rules for annihilation of baryon antibaryon octets into meson octet pairs
[JINR-P-2879] 08 p1332 N67-18531
Dispersion sum rules for electron production by using vector amplitude of Compton scattering on proton
[JINR-E-2865] 08 p1332 N67-18532
Experimental test of delta Q equals delta S rule in neutral leptonik kaon decay
[BNL-10609] 08 p1332 N67-18538
Asymptotic behavior of scattering amplitudes in complex energy plane
[JINR-P-2873] 08 p1332 N67-18539
Infinite-dimensional irreducible representations of Lie algebras of compact unitary groups
[IC/66/101] 08 p1333 N67-18590
Decomposition of most degenerate unitary irreducible representation of arbitrary noncompact rotation group
[IC/66/99] 08 p1334 N67-18619
Single particle realistic shell model Hamiltonian for super heavy nucleus prediction
[UCRL-16843] 08 p1335 N67-18646
Phase defined calculations of mirror transitions in nitrogen 15 mass
[LFEN.61/BETA/] 08 p1345 N67-19270
Formal scattering theory
[ZFK-TPH-39] 09 p1400 N67-20216
Coupling problem for U/p,q/ ladder representations
[IC/66/102] 10 p1699 N67-20761
Baryon decays with Dalitz pair formation
[JINR-P-2823] 10 p1700 N67-20772
Current algebra research
[CALT-68-102] 10 p1701 N67-20784
Effective forces in nuclei from nucleon-nucleon force
[PUC-937-239] 10 p1701 N67-20787
Relativistic quark model as representation of current algebra
[CALT-68-103] 10 p1701 N67-20795
Simultaneous phase shift analysis of nuclear potential and peak to peak data at 18.2 and 9.7 MeV
[JINR-E1-2969] 10 p1703 N67-20812
Theoretical and experimental research in elementary particle physics at Pennsylvania University
[NYO-2171-210] 10 p1703 N67-20817
Numerical construction of space bases for symmetric groups
[JINR-P-2874] 10 p1705 N67-20870
Newly established baryon resonances
[UCRL-16968] 10 p1710 N67-20948
Survey of nonrelativistic elementary magnetohydrodynamic equations for fluids and ionized gases
[JUL-145-TP] 10 p1738 N67-21662
Dispersion sum rule for magnetic moments and spin dependence of photoabsorption cross sections
[JINR-P2-2974] 10 p1717 N67-21461
Degenerate unitary representations of SU/2,2/ group realized in space of homogeneous functions
[JINR-P2-2950] 10 p1717 N67-21462
Research in nuclear, general, neutron, and theoretical physics
[AECL-2610] 10 p1718 N67-21485
Plasma magnetohydrodynamics
[IAE-1168] 10 p1739 N67-21548
Theory of SL/n,C/ group unitary representations
[JINR-P2-2977] 10 p1724 N67-21584
Dispersion sum rules for strong and electromagnetic nucleon interactions in static model
[JINR-P2-2930] 10 p1724 N67-21589
Theoretical analysis of annular plasmas produced by rotating magnetic fields
[CLM-R-65] 10 p1740 N67-21594
Symmetry relations for electromagnetic particle polarizabilities
[JINR-P-2894] 10 p1726 N67-21625
Current-field equal-time commutation relations in SU-6 group
[JINR-E2-3006] 10 p1728 N67-21645
Elementary particle physics research on negative kaon-nucleon interactions
[NYO-3178-3] 10 p1728 N67-21661
Parastatistics
[JINR-E2-3003] 10 p1729 N67-21668
Derivation of Chew-Low equations and origin of cutoff function in static models
[JINR-P2-3054] 10 p1729 N67-21670
Origin of scale constants of physics
[AFOSR-66-2562] 10 p1731 N67-21722
Theoretical and experimental studies on plasma physics in U.S.S.R. 1963 11 p1947 N67-21881
Quasispin formalism and applications to nucleon system and proton-neutron system
[NUP-66-16] 11 p1936 N67-22490
Rigorous lower bound on compressibility of classical system with application of grand canonical formalism and inequality proof
[TH/179] 11 p1929 N67-22933
Baryon antibaryon pair production in quark model
[TH/178] 11 p1938 N67-22938
Analysis of di-pion state when I equals J equals O having inverse scattering amplitude 11 p1940 N67-23005
Dynamical group of scalar SU/3/ symmetric strong coupling theory
[JINR-E2-3044] 11 p1943 N67-23102
Green function equation investigation in nonrenormalized theory
[JINR-P2-3038] 11 p1942 N67-23193
Quantum theory of scalar field with nonstatic source
[JINR-P2-3040] 11 p1943 N67-23194
Experimental and theoretical research activities at university in nuclear and high-energy physics
[COO-1371-36] 12 p2157 N67-23551
Dispersion sum rules connecting high energy scattering parameters with integrals of low energy cross sections - theoretical physics
[JINR-E2-3077] 12 p2160 N67-23582
Deuteron stripping reactions on deformed nuclei
[JINR-P4-3070] 12 p2165 N67-23887
Charge exchange of negative pion on bound hydrogen nuclei
[JINR-P4-3072] 12 p2165 N67-23888
Correlative force effects on Coulomb interaction of nucleons in nuclei
[JINR-P4-2981] 12 p2170 N67-24671
Experimental and theoretical studies in electron scattering
[AD-646244] 12 p2173 N67-24887
Model in which leptons are deeply bound states of combinations of quarks and quirks
[NASA-CR-83743] 12 p2176 N67-25071
Interpolation formulas in angular momentum plane
[TH/180] 13 p2373 N67-25586
Decay probabilities of tungsten nucleus matrix into two negative parity mesons
[JINR-E2-3102] 13 p2376 N67-25913
Local one particle approximations and locally conserved currents constructed for matrix elements
[DESY-66/31] 13 p2378 N67-25988
Research work in fields of elementary particle physics, nuclear physics, solid state physics, and electromagnetic interactions
[168-66/35] 13 p2390 N67-26102
Theoretical and experimental research in solid state physics, nuclear physics, plasma physics, and general physics conducted at Illinois University 14 p2580 N67-26611
Five-dimensional quasispin formalism used to factor out n, T-dependent parts of shell model matrix elements in seniority scheme and derive reduction formulas
[AD-648581] 14 p2585 N67-26675
Theoretical and experimental low energy nuclear physics studies with tandem accelerator
[AFOSR-67-0606] 14 p2586 N67-26869
Research activities in theoretical and experimental nuclear physics
[AD-647915] 14 p2586 N67-26892
Relation between lower bound of large angle scattering amplitude and backward scattering peak widths
[JINR-P2-3129] 14 p2590 N67-27453
Theoretical physics, elementary particles, symmetries in strong interactions, and weak interactions - conference
[CERN-66-29, VOL. 2] 14 p2591 N67-27490
High energy research, cosmic ray research, nuclear physics, theoretical physics, and plasma physics experiments
[UCRL-17282] 14 p2592 N67-27584
Discrete impact parameter representation of scattering amplitude
[TH/189] 14 p2593 N67-27763
Activity of International Centre for Theoretical Physics 15 p2757 N67-27922
Proof of special relativity theory by high energy physics experiments
[BNL-TR-79] 15 p2765 N67-28460
Measurement of negative sigma hyperon polarization in reaction pion, proton-sigma hyperon, kaon
[UCRL-17152] 15 p2766 N67-28480
Theoretical and numerical studies on closed states of two-electron atoms and ions
[AFOSR-67-0899] 16 p2944 N67-29643
Documentation of plasma and theoretical physics with bibliography and indexes
[AED-C-03-04] 16 p2954 N67-29706
Muon catalysis of chain fusion reactions
[CONF-661115-1] 16 p2933 N67-29789
Calculated steady-state injection line for diode with plane-parallel electrodes
[PROM.-3727] 17 p3037 N67-30757
Magnetic susceptibility of classical two-dimensional harmonic solid below critical temperature, and two-dimensional Heisenberg model
[TH/199] 17 p3135 N67-31106
Alternate molecular orbital method for benzene molecule functions 17 p3019 N67-31227
Definition and criteria for open and closed electron shell states in quantum mechanics 17 p3138 N67-31425
Nuclear, neutron, theoretical, and general physics research progress report
[AECL-2687] 17 p3139 N67-31445
Algebraic formulation of dynamic problems
[IC/67/18] 19 p3480 N67-33095
Algebra of current and deviation from delta I equals 1/2 rule in kaon yields three pions decay
[TH/207] 21 p3901 N67-35895
Theoretical and experimental investigation of physics of crystalline surfaces
[NASA-CR-88611] 22 p4125 N67-36963
Theory of epitaxial zirconium - zirconium oxide crystalline film
[AECL-2751] 22 p4071 N67-37359
History of theoretical research on stellar atmospheres, with bibliography
[NASA-CR-88709] 22 p4141 N67-37383
Generalization of Cabibbo-Radicati relation to case of nonminimal electromagnetic interactions 22 p4110 N67-37913
[JINR-E2-3339]
Regge symmetries of 3J symbols of SU-2
[LPTHE-TH-183] 22 p4110 N67-37936
Kinematical singularities and zeros of Regge pole residues
[LPTHE-TH-198] 22 p4111 N67-37958
Semantics and interpretation of scientific terms relating to structures, phenomena, and rules of quantum mechanics
[TH/213] 23 p4298 N67-38200
General analysis of neutral kaon physics
[CERN-67-18] 23 p4299 N67-38315
Experimental and theoretical high energy physics research projects
[TID-4005, PT. 6, REV.] 23 p4300 N67-38344
Core polarization effects in mass 15 and mass 17
[PUC-937-262] 23 p4307 N67-38673
Theoretical and experimental studies on plasma generation and confinement - stellarator design, power electronics and instrumentation systems, and magnetic field induction methods
[MATT-Q-24] 23 p4318 N67-38725
Theoretical investigation of atmosphere of binary stars based on analogy between gas dynamics and shallow water flow
[NASA-TM-X-55939] 23 p4346 N67-38965
General variational equations for ground and time dependent nuclear excited states
[UR-675-317] 23 p4314 N67-38984
Magnetohydrodynamic theoretical analysis of coaxial Hall accelerator

[AFOSR-67-2073] 24 p4506 N67-39535
Dynamic transformation solution of current-current type Lagrangian for weak hadronic decay
[TUEP-67-30] 24 p4506 N67-40600
THEORY
S BENDING THEORY
S BOGOLIUBOV THEORY
S BOHR THEORY
S BORN-INFELD THEORY
S COMMUNICATION THEORY
S CONVOLUTION THEORY
S CROCCO-LEE THEORY
S DECISION THEORY
S DIFFUSION THEORY
S DISTURBANCE THEORY
S DYNAMO THEORY
S EYRING THEORY
S FIELD THEORY
S FLOW THEORY
S FLUCTUATION THEORY /STAT MECH/
S GAME THEORY
S GRAVITATION THEORY
S GRIFFITH FRACTURE THEORY
S GROUP THEORY
S HEISENBERG THEORY
S INFORMATION THEORY
S KINETIC THEORY
S KOLMOGOROFF THEORY
S MANY-PARTICLE THEORY
S MEASURE THEORY
S MEMBRANE THEORY
S MINKOWSKI THEORY
S MOLECULAR THEORY
S MOMENTUM THEORY
S NEWTON THEORY
S NONADIABATIC THEORY
S NUMBER THEORY
S ORTHOGONAL MULTIPLEXING THEORY
S PARTICLE THEORY
S PERTURBATION THEORY
S PISTON THEORY
S PLASMA THEORY
S PLATE THEORY
S POTENTIAL THEORY
S PREDICTION THEORY
S PROBABILITY THEORY
S QUANTUM THEORY
S RELATIVISTIC THEORY
S RELATIVITY THEORY
S SET THEORY
S SHELL THEORY
S SPECTRAL THEORY
S THOMAS-FERMI THEORY
S TRANSPORT THEORY
S VINTI THEORY
S WIGHTMAN THEORY
THERAPY
SA BED REST
SA CHEMOTHERAPY
SA ELECTRONARCOSIS
SA PSYCHOTHERAPY
SA RADIATION THERAPY
SA SURGERY
Physiology of sleep and clinical aspects of sleep therapy
[SAM-TT-G-569-6666] 02 p0216 N67-12281
Therapeutic approach to Arctic survival rations 03 p0340 N67-12449
Problems of radiation sickness prevention and treatment
[JPRS-39391] 04 p0493 N67-14339
Correlations between chromosome aberrations and dose in subjects irradiated for therapeutic purposes
[EUR-3499.I] 23 p4187 N67-38446
THERMAL ABSORPTION
Thermal and ionization economy of ionosphere, ion distribution in F layer, refinement of D layer theory, and other aeronomy studies 05 p0700 N67-14648
Dancoff corrections for square and hexagonal rod lattices
[AE-357] 06 p1222 N67-19201
Thermal absorption in seeded gases
[NASA-CR-811] 16 p2933 N67-29399
Phase change coatings for use as variable thermal control surfaces
[NASA-CR-66394] 21 p3948 N67-36089
Predicted high temperature vapor pressure data for refractory materials with low thermal absorption cross sections
[NASA-TN-D-4147] 24 p4550 N67-39690
THERMAL ACCOMMODATION COEFFICIENT
Calculation of SNAPTRAN-3 temperature coefficient of reactivity
[NAA-SR-9780 /ADDEND. 1/] 23 p4090 N67-37042
THERMAL BATTERY
Separator and copper oxide cathodes for thermal cell
[NASA-CR-72362] 16 p2823 N67-29996
Fibercell sensor used for airborne overheat hazard detection system
[AFAPL-TR-67-63] 20 p3638 N67-34096
Thermal reaction battery electrolytes from pyrolysis of oxime derivatives
[HDL-TR-1351] 22 p3984 N67-36992
THERMAL BOUNDARY LAYER
Karman-Pohlhausen integral method for solving problem of unsteady laminar thermal boundary layer for viscous fluid flow over semi-infinite 02 p0234 N67-11231
Thermal boundary layer and heat transfer in hypersonic regime 06 p1223 N67-19684
Analysis of end-wall thermal boundary layer behind reflected shock to determine thermal conductivity of argon over temperatures 2150 to 9225 K
[NASA-CR-66360] 21 p3950 N67-36419
THERMAL BUCKLING
Computer code for thermal neutron flux induced material buckling in subcritical assembly
[INR-659/IXA/RP] 01 p0105 N67-10474
Thermal bending plus twist of thin-walled cylinder of open section with application to gravity gradient booms
[NASA-TN-D-4069] 20 p3670 N67-34807
THERMAL CONDUCTION
Thermal conductivity values of uranium dioxide for use in superheater design
[ORNL-TM-1450] 03 p0475 N67-13339
Kinetic theory of thermal conduction in collisionless gas
[ARL-66-0114] 06 p0981 N67-16145
Metal films in superconductive and normal phases, and thermal conductivity of films
[ECOM-00821-F] 07 p1174 N67-16936
Surface-plateauing techniques, and flexible surface membranes for improved thermal conductance of mechanical joints in vacuum
[NASA-CR-61712] 07 p1095 N67-16050
Thermal conductivity of soft vulcanized natural rubber
[TR-66-49-PR] 06 p1205 N67-18298
Radial temperature distribution and current density in infinite cylindrical conductor heated by direct current 06 p1382 N67-18553
Charged particle temperatures and electron thermal conductivity in upper atmosphere
[NASA-CR-83455] 06 p1279 N67-19134
Analysis of heat transfer in three-layer slab - constant flux on one surface and zero flux on other surface
[REPT.-1002] 09 p1541 N67-19695
Automatic self-integrating thermal conductivity method for simultaneous determination of carbon, hydrogen, and nitrogen in organic compounds
[TIL/T-5629] 09 p1413 N67-20255
Thermal conductivity of ceramic nuclear fuel at high temperatures
[KFK-415] 15 p2166 N67-23286
Thermal conductivity of liquid metal heat exchanger layer adjacent to wall
[JPRS-41695] 17 p3177 N67-30620
Solution of nonhomogeneous thermal conduction equation for multilayered bodies 18 p3355 N67-32285
Thermal conductivity data on various metals, nonmetallic solids, liquids, and gases
[NSRDS-NBS-8] 20 p3745 N67-34492
Thermal conductivity data on nuclear oxide fuels
[WAPD-TM-566, REV.] 21 p3947 N67-35791
Heat conduction in cylindrical bodies
[ARL-67-0068] 22 p4159 N67-38785
Multilayer insulation systems evaluation for 300 to 700 degrees K temperatures
[NASA-CR-907] 24 p4542 N67-39686
THERMAL CONVECTION
Static and thermal convection loop tests for refractory alloy corrosion in lithium 09 p1458 N67-19586
Mathematical model and computer program for convection in tropical precipitation and cloud kinematics
[ECOM-01218-1] 11 p1913 N67-23570
Mercury corrosion and evaluation of corrosion products found in separators of three chromium molybdenum alloy boiling thermal convection loops
[NASA-CR-72399] 11 p1922 N67-23960
Atmospheric thermal convection model for cumulus cloud by solving hydrodynamic and thermodynamic equations
[RM-5316-NRL] 18 p3291 N67-32549
Linear stability of quiescent three-dimensional rectangular box of fluid heated from below
[RM-5251-PR] 19 p3552 N67-32222
Short power surge effects on hydraulic and thermal performance in swimming pool reactor channel - out-of-pile experiments on power excursions
[ANL-TRANS-467] 21 p3930 N67-36519
Dynamic model for numerical simulation of cumulus thermal convection 24 p4486 N67-39812
THERMAL CURRENT
Collisionless heating and wave amplification through interaction with diamagnetic current
[REPT.-6396.3-P] 16 p2954 N67-29673
Formation and development of thermal low over southwest China and related weather forecasting
[EMM-66-141] 24 p4489 N67-40297
Ionic thermal current method of determining dipolar imperfections in lithium fluoride 24 p4530 N67-40511
THERMAL CYCLING
High temperature storage, thermal cycling, and mechanical environmental stress testing of high reliability microcircuit modules
[HSER-3149] 01 p0051 N67-10227
Importance of fission product chains on high burnup thermal reactor fuel cycles - assessment of inaccuracies introduced by errors in fission yields
[EUR-3119.E] 02 p0207 N67-11089
Low cycle fatigue strengths of dissimilar welds and superimposed fatigue-thermal cycling effects in simulated reactor conditions
[SWRI-1228-4-30] 04 p0579 N67-14007
Thermal cycling of prismatic, viscoelastic rod 05 p0769 N67-14427
Isothermal flow calorimeter developed to measure thermal characteristics of batteries undergoing orbital cycling
[NASA-CR-61250] 06 p0795 N67-16099
Compatibility of explosively bonded refractory austenitic bimetal composites after isothermal and cyclic thermal exposure
[NASA-CR-72150] 08 p1291 N67-18742
Irradiation tests of Experimental Breeder Water Reactor prototype fuel rods, fabrication of plates to test Phoenix fuel concept, and ultrasonic examination of thermally cycled tubes 06 p1234 N67-19034
Oxidation, thermal cycling, and irradiation effects on silicon carbide coated graphite
[BNWL-343] 10 p1669 N67-20723
Sintering-extrusion prepared uranium rods subjected to thermal cycling
[CEA-R-3972] 10 p1675 N67-20782
Strength of bonded single-lap metal joints at low and high temperatures and after temperature cycling
[RAE-LIB-TRANS-1189] 10 p1648 N67-21744
Continuous charge-discharge cycling effects on hermetically sealed nickel-cadmium battery
[RAE-TR-66045] 11 p1796 N67-22712
Austenitic grain growth of manganese-molybdenum and manganese-nickel-molybdenum steels during heat cycle simulating vertical slag welding conditions
[EUR-3869] 11 p1899 N67-23184
Thermal and strain cycling effects on fracture toughness of welded steel plates
[AD-647906] 14 p2552 N67-28580
Plastic deformation of aluminum during thermal cycling
[INR-706/XIV/PS] 14 p2556 N67-27690
Rapid thermal cycling of integral coverslipped solar cells, and tests on high vacuum sputtered silicon dioxide cells
[NASA-CR-66229] 15 p2648 N67-28977
Thermal testing and structural response of expandable solar collector
[AFFDL-TR-66-122] 15 p2902 N67-28894
Spectral response and thermal cycling tests on solar cells with integral contacts
[AFAPL-CONF-67-8] 16 p2830 N67-29130
Bond strength, temperature cycling, vibration, and infrared testing of aluminum to aluminum diffusion bonds
[RADC-TR-67-42] 17 p3026 N67-30461
Reactions of metal-metal couples during thermal cycling and static testing
[BNWL-421] 22 p4071 N67-37472
Thermal cycling, life tests, degradation rates, and reactant flow distributions of fuel cell stacks
[NASA-CR-66227] 22 p3967 N67-37921

THERMAL DECOMPOSITION
Thermal decomposition of plutonium peroxide
[CONF-660806-13] 01 p0031 N67-10772
Atomic oxygen production by thermal decomposition of dry ozone
[BRL-R-1333] 03 p0234 N67-11297
Literature search on deposition of molybdenum, tungsten, and rhenium by thermal decomposition of their carbonyls
[BMWF-FBK-66-09] 03 p0361 N67-13377
Thermal decomposition kinetics of silver oxalate under conditions of photographic darkness
[NASA-TT-F-10415] 04 p0503 N67-13788
Electron, fast neutron, and gamma radiolysis of terphenyls - thermal decomposition of terphenyls
[AECL-2641] 06 p1321 N67-19178
Thermal decomposition of high boiling residue from in-pile radiopyrolysis of OM-2 compared with that of pure m-terphenyl
[EUR-3150.E] 06 p1340 N67-19164
Particle size, additive, and radiation effects on thermal decomposition of ammonium perchlorate
[TIL/T-5597] 09 p1412 N67-20309
Boron filament preparation on fused silicon oxide substrate by diborane thermal decomposition
[R66SD45] 10 p1575 N67-21147
Removal of SNAP-8 lubricant/coolant fluid from chromium-molybdenum steel
[NASA-CR-72223] 11 p1812 N67-22880
Effect of additives on thermal decomposition of ammonium perchlorate
[NASA-TM-X-53483] 11 p1816 N67-23401
Thermal decomposition at imperfection regions of sodium bromate crystal
[TR-3] 12 p2048 N67-24934
Cobalt 60 radiation effects on kinetics of thermal decomposition of potassium permanganate
[NASA-TT-F-481] 14 p2474 N67-26596
Kinetics of thermal decomposition of ortho, metal and para terphenyl in presence of Attapulgus clay
[EUR-3281.E] 14 p2480 N67-27258
Thermal decomposition characteristics of sodium superoxide, sodium peroxide, and lithium peroxide and magnetic susceptibility of calcium superoxide
[NASA-CR-84469] 14 p2482 N67-27504
Thermal decomposition kinetics and ignition process studied for molten silver azide
[AERDL-1893] 16 p2842 N67-29043
Metastable phases in uranium alloys with low niobium content and their thermal decomposition
[RT/MET/66/2] 16 p2910 N67-29812
Thermal decomposition kinetics of ammonium perchlorate
[ERDL-T-1904-67] 17 p3015 N67-30616
Electrochemical oxidation of zinc and thermal decomposition of silver oxides in zinc-silver and cadmium-silver batteries
[NASA-CR-86987] 18 p3196 N67-33092
Internal friction peaks associated with coherency of decomposition products of high carbon and low carbon martensites 19 p3470 N67-33216
High temperature properties and decomposition of inorganic sulfates
[NSRDS-NBS-7] 20 p3507 N67-34027
Thermal decomposition of uranium oxides in vacuum
[JPRS-42561] 22 p3991 N67-37800

THERMAL DEGRADATION
Thermal degradation effects on nonstationary deterioration of glass fiber reinforced plastics 01 p0069 N67-10051
Thermal degradation of styrene and methyl methacrylate copolymers with pure m-divinylbenzene and p-divinylbenzene isomers
[TID-23264] 02 p0362 N67-13321
Thermal degradation of polyethylene
[FTD-TT-65-1691] 05 p0669 N67-15902
Thermal optical distortion in neodymium doped glass that is induced by pump radiation
[MDE-1196] 06 p0699 N67-15353
Thermogravimetric analysis of ablating polymers to determine kinetic parameters describing mass loss due to thermal degradation
[NASA-TN-D-3919] 11 p1801 N67-22298
Thermal life ratings of polymers used in electric cable and wire insulation
[AD-646548] 14 p2569 N67-26504
Thermal degradation of amine-cured epoxy resin
[COA-NOTE-MAT-10] 16 p2853 N67-29968
Lunar orbiter operation, performance, and thermal degradation
[NASA-CR-848] 19 p3538 N67-33720
Thermal degradation of polymers with aryl rings in chain studied in oxygen by weight loss method
[RAE-TR-66353] 20 p3684 N67-34414
Thermal degradation of polyphenylene and perfluoropolyphenylene sulphides
[RAE-TR-66400] 20 p3594 N67-34666
Constructive thermal degradation of epoxide resins cured with several bridged Diels-Adler anhydride adducts
[NOLTR-67-46] 21 p3874 N67-35678

THERMAL DIFFUSION
Thermal diffusion of hydrogen in finned Zircaloy 2 pressure tubes
[AECL-2634] 06 p1323 N67-19256
Ceramic fuel researches dealing with thermal diffusivity of fuel plates, stoichiometric gradients in oxide fuels, thermal expansion of Pu fuels, phase studies, and induction heating 06 p1324 N67-19331
Gaseous thermal electron reactions
[UCRL-17171] 09 p1411 N67-20206
Thermal conductivity of La-Gd measured to determine superconductivity changes due to magnetic impurities
[IS-1453] 10 p1748 N67-20743
Stable gaseous isotope separation and purification by thermal diffusion and chromatography
[MLM-1352] 10 p1705 N67-20647
Certain diffusion constants determined by neutron single scattering experiments
[JUL-88-NP] 10 p1716 N67-21206
Thermal diffusivity of pyrolytic graphite discs and hollow cylinders measured from 25 to 1900 deg C by flash technique
[LA-DC-8307] 10 p1773 N67-21597
Soret and concentration diffusion coefficients for thermal diffusion columns, determined by unsteady state method 11 p1997 N67-22048
Thermal diffusion separation process intensified in Clusius-Dickel column using perforated barrier 11 p1997 N67-22049
Thermal diffusivities of solid boron nitrate, and liquid sodium nitrate and lithium fluoride 11 p1998 N67-22162
Thermal diffusion column shape factors based on Lennard-Jones /6-12/ intermolecular force model and transport coefficients for binary gas mixture
[K-1679] 12 p2157 N67-23555
System of differential equations that reflects interrelationships of deformation, diffusion, and thermoconductivity used to study stress concentration around holes in elastic body 12 p2237 N67-24529
Silver diffusion in cuprous oxide and cupric oxide by radioactive silver 110 isotope
[NASA-TT-F-10642] 13 p2270 N67-25802
Evaluation of fog seeding experiments in thermal diffusion chamber
[NASA-CR-83854] 13 p2353 N67-25838
Thermal diffusion measurements on normal and irradiated beryllium oxide and iron specimens
[GEMP-452] 13 p2434 N67-25903
Thermal diffusivity and conductivity of polymers and variation in temperature and structure
[NT-154] 13 p2344 N67-26205
Diffusion kinetics of beta, gamma, and epsilon intermetallic phases in copper-zinc system
[NASA-TT-F-10942] 15 p2734 N67-28283
Diffusion of heat from instantaneous point source in turbulent boundary layer over wind tunnel flood
[CER66-67DK45] 17 p3176 N67-30300
Infrared radiation method for thermal diffusion, heat capacity and thermal conductivity of solids
[NAL-TR-128] 20 p3746 N67-34648
Thermal diffusion in tungsten-beryllium system
[NASA-TM-X-60326] 22 p4061 N67-37024
Thermal diffusivity of carbons and graphites in temperature range 1800 to 2300 deg K
[TR-1001/9250-02/-2] 22 p4078 N67-37443
Stable gaseous isotope separation and purification studies
[MLM-1390] 22 p4106 N67-37870

THERMAL DISSOCIATION
Thermal dissociation and lattice energy calculations for samarium and gadolinium hydrides
[AWRE-O-31/66] 01 p0030 N67-10691
Reactions of aromatic sulfides and sulfoxides and thermal dissociation of coordination compounds
[AFOSR-66-1932] 05 p0664 N67-14714
Ionization potential and thermal dissociation of aromatic imides under electron impact
[RAE-TR-66254] 09 p1413 N67-20333
Nitrogen injection effects on boundary layer of graphite surface in high-temperature dissociated airflow
[NASA-TN-D-4060] 17 p3179 N67-31285
Unimolecular thermal dissociation of gases composed of small molecules 23 p4205 N67-38682
Thermal dissociation source, automatic tunning, and atomic trajectories for hydrogen maser
[NASA-CR-89275] 23 p4262 N67-39353

THERMAL EFFECT
Thermal and dilatometric effects during annealing of deformed zirconium
[FTD-TT-65-1488] 01 p0087 N67-11071
Structural engineering to control thermal problems in spacecraft design 02 p0310 N67-11387
Thermal design evaluation of meteoroid detector panels, louver system, and service module adaptor for Pegasus satellite
[NASA-TN-D-3842] 02 p0313 N67-11566
Thermal effect influence on machine tool industry, and improvement of automatic control
[UCRL-14944] 03 p0406 N67-13254
Effect of 1000 hour thermal exposures on tensile properties of refractory metal alloys
[NASA-CR-92095] 06 p0695 N67-16564
Mathematical and experimental studies of thermal initiation of explosion
[AD-640145] 07 p1207 N67-17260
Thermal analysis on SNAP-10A reactor core during atmospheric reentry with core melting and fuel element release
[NAA-SR-MEMO-11847] 10 p1677 N67-20675
Effects of electron thermal motion on propagation of longitudinal plasma oscillations 11 p1949 N67-21895
Thermodynamics, thermal effects, and dilation of natural rubber
[PIBAL-931] 11 p1903 N67-22441
Steady thermal field effect on stress state of infinite elastic plane with circular hole 12 p2228 N67-24519
Thermal electromotive force change during plastic deformation 13 p2421 N67-26429
Temperature effects on strength of phenol formaldehyde, phenol phosphorus, melamine formaldehyde, and organosilicon resins
[NASA-TT-F-10934] 15 p2731 N67-28280
Thermal distortion analysis of wavefront in large laser rods and disks
[RD-701-580, VOL. 1] 18 p3276 N67-32690
Thermal effects on precision of machine tool manufacturing process
[UCRL-50194] 19 p3464 N67-33149
Electron microscopy and X-ray analysis indicating that initial molecular structure of crystalline polyacrylonitrile does not change with thermal treatment 19 p3477 N67-33483
Thermal history influence on phase transformation behavior and hardness in maraging steel
[UCRL-50307] 20 p3631 N67-34437
Modeling criteria for transient thermal test of spacecraft structures in space environment simulation
[NASA-CR-87447] 20 p3743 N67-35262
Dilatometric aging and surface hardening effects in thermally treated titanium alloys 22 p4063 N67-37132
Approximate method for determining concentration field in turbulent gas jet
[TG-230-T537] 23 p4236 N67-38433
Overall problem of thermal effects errors in machine tools and metrology
[UCRL-50285] 24 p4457 N67-39913
Instrumentation unit thermal conditioning heat sink concepts - wick boiler module tests, and panel designs
[NASA-CR-89618] 24 p4551 N67-40292

THERMAL EFFICIENCY
Thermal and thrust power efficiencies measured for low pressure hydrogen plasma arc jet
[FR-696-1573] 11 p1970 N67-23366

Tests and analysis of experimental assembly of nuclear fuel with sintered uranium dioxide cores in zirconium alloy jackets with maximum uranium burnup
[IAE-1181] 12 p2145 N67-23724
Efficiency improvement of magnetohydrodynamic power plant
[RAE-LIB-TRANS-1195] 15 p2773 N67-37900
Description and mathematical analysis of thermal control aspects of spacecraft louvers
[NASA-CR-88876] 22 p4168 N67-38054

THERMAL EMISSION
Fluid dynamics and heat transfer in channel with turbulizers on heat emitting surface 02 p0323 N67-11225
Radar studies of moon - theory of thermal emission, radiometric data analysis, input ephemeris accuracy, output mapping display, and progress on 8-mm radar system
[NASA-CR-80660] 02 p0306 N67-12071
Microwave thermal emission properties of materials examined with superheterodyne radiometer 04 p0550 N67-13529
Directional characteristics and brightness temperatures of thermal lunar emission
[NASA-CR-82402] 06 p1366 N67-18973
Passive method of obtaining low level atmospheric temperature profiles using ground based measurements of radiation
[TR-66-11] 10 p1619 N67-20548
Thermal emission characteristics of transition metals, alloys, and compounds with nonmetals
[FTD-HT-66-178] 11 p1967 N67-22725
Statistical model of lunar surface roughness, shadow, and thermal emission
[NASA-CR-84117] 13 p2405 N67-26450
Evaporation rates of thermal cathodes made of zirconium carbide, uranium carbide, and solid solutions
[JPRS-40060] 14 p2604 N67-27385
Metallooceramic thermoemissive converters for conversion of solar radiant energy 21 p3780 N67-35472
Emittance testing of calcium titanate and iron titanate coated stainless steel tubes and thermal cycling tests of iron titanate coated niobium-zirconium tubes
[NASA-CR-72294] 22 p4162 N67-37318
Charge transport in thin polymer films based on field emission or thermal emission
[NASA-CR-88843] 22 p4129 N67-37665
Lunar thermal emission theory, and instrumentation for radar observations of moon
[NASA-CR-88478] 22 p4145 N67-37952
Thermal and field desorption of cesium from fluorinated tungsten surface - cathode electron emission characteristics
[NASA-CR-89463] 24 p4516 N67-39712
Bibliography on flame spectroscopy covering period from 1800 to 1966 and emphasizing analytical applications
[NBS-MISC.-PUBL.-281] 24 p4396 N67-39956

THERMAL ENERGY
Solidification in thermal energy storage systems with axisymmetrical heat transfer
[NASA-TN-D-3763] 03 p0472 N67-12816
Large scale applications of radioisotopes for thermal energy production 05 p0737 N67-14644
Observed characteristics and calculations of solar ejection and flare
[NASA-TT-F-9697] 06 p0958 N67-16622
Spectral analysis of mechanisms and kinetics of thermal energy reactions of long-lived energetic helium species with simple molecules
[TR-20] 09 p1487 N67-19455
Elastic scattering in velocity-selected molecular beams at thermal energies
[CALT-532-4] 10 p1724 N67-21599
Stream velocity and thermal energy variations of plasma oscillation at onset of cyclotron instability 11 p1951 N67-21909
Collision of fast plasma streams in transverse magnetic field with thermalization of motion energy 11 p1955 N67-21936
Band structure model for thermal conductivity of zirconium and niobium carbides
[NASA-TT-F-11118] 17 p3019 N67-31326
Thermal method for measurement of neutral particle flux using junction temperature effect
[CEA-R-3094] 19 p3506 N67-33518
Computer program for calculating neutron spectra and average cross sections in high energy region
[GA-7189] 23 p4304 N67-38972
Thermal energy molecular beam measurements of atom-atom scattering cross sections 23 p4307 N67-38991
Thermal energy molecular beam measurements of inelastic scattering cross sections for rotational quantum transitions 23 p4307 N67-38992

THERMAL ENERGY STORAGE
Thermophysical properties of potential thermal energy storage materials for design of TES thermionic systems for long duration space flights
[NASA-CR-80058] 02 p0176 N67-12043

THERMAL ENVIRONMENT
SA HIGH TEMPERATURE ENVIRONMENT
Thermal environment factors affecting electronic canister design for Pegasus satellite 02 p0312 N67-11383
Log-normal model for microbial survival in heat sterilization
[NASA-CR-80973] 03 p0346 N67-12997
Thermal scale modeling in simulated space environment
[NASA-CR-80372] 03 p0473 N67-12998
Analytical models for prediction of thermal environment of booster rocket altitude abort
[SC-CR-66-2047] 07 p1196 N67-17302
Techniques and instrumentation for environmental, thermal vacuum, and solar simulation tests
[ESRO-TM-50] 09 p1432 N67-20295
Heat sink, solar, and earth radiation effects on thermal environment of space satellite
[ESRO-TM-49] 09 p1544 N67-20296
Dynamic response of curved composite sandwich panels in thermal environment
[NOR-66-336] 10 p1764 N67-20572
Pad-abort thermal flux model for liquid rocket propellants
[SC-RR-66-577] 11 p1921 N67-22359
Elastic equilibrium in isotropic plate in stationary thermal field, and bending due to temperature stresses 12 p2234 N67-24505
Conceptual mechanization for horizon definition spacecraft structures and thermal subsystem - spin-stabilized, hexagonal cylinder for launch of two-stage Improved Delta /DSV-3N/
[NASA-CR-66300] 18 p3341 N67-32007
Thermal, weightlessness, and corpuscular radiation environments, meteoritic damage, and vacuum equipment for spacecraft testing - conference
[ESRO-SP-13] 18 p3343 N67-32181
Solar radiation, albedo, and terrestrial radiation contributions to spacecraft thermal environment 18 p3344 N67-32184
Soak test and solar simulation programs in thermal environmental testing of spacecraft 18 p3257 N67-32185
Physiological adaptation of human body to intense thermal conditions
[FTD-MT-65-493] 19 p3372 N67-32799
Test apparatus for investigation of thermal contact conductance with interstitial materials
[NASA-CR-73122] 22 p4161 N67-37212
Feasibility demonstration of parametric charting portion of material prediction technique - testing of composite materials in hypothetical thermal environment
[NASA-CR-88470] 22 p4078 N67-37335

THERMAL EXPANSION
Microstructure and thermal expansion influence on transverse strength of crystallized glass
[AD-636236] 01 p0091 N67-10907
Expansion of cutting tool during chip removal
[UCRL-14737] 06 p0887 N67-16389
Papers on heat exchangers, thermal expansion, flow theory, and cascades delivered at conference on fluid mechanics
[FTD-TT-65-1366] 08 p1265 N67-18421
Ratio of heat transfer to hydraulic resistance in biangular channel with local expansion of conduit cross section 08 p1282 N67-18422
Prandtl number dependence on hydrodynamic flow characteristics of biangular channels with and without local expansions 08 p1282 N67-18423
Performance characteristics of bundle controlled expansion concept in carbide-fueled fast breeder reactor
[WCAP-3589-3] 08 p1313 N67-18647
Sodium chloride crystal as thermal standard for X-ray diffraction analysis of substances at varying temperatures
[NASA-TT-F-11062] 14 p2539 N67-27567
Core stress, fission gas pressure, reactivity coefficient, fuel pellet thermal expansion, and temperature distribution data for low enriched PM replacement core
[HIT-3363-43, VOL. II] 16 p2829 N67-29231
Numerical method for determining free thermal expansion of finite cylinders of different length to diameter ratios having radially parabolic temperature distribution
[AECL-2660] 17 p3093 N67-30947
Expansion theorems, radial time functions, and other solutions of radial heat equation
[NASA-CR-87809] 20 p3746 N67-34703
Post foam expansion in Saturn S-IC electric distributors
[NASA-CR-88511] 22 p4012 N67-38087
X-ray diffraction measurement on thermal expansion of zinc sulfide wurtzite phase
[ARL-67-0123, PT. I] 24 p4515 N67-39789

THERMAL EXPANSION COEFFICIENT
High temperature vacuum dilatometric investigation of linear expansion coefficient of metallic titanium and sintering kinetics of compressed titanium powder 02 p0271 N67-11774
Thermal expansion coefficients of alpha zirconium
[WAPD-TRANS-45] 16 p2980 N67-29829
Glass transition temperatures and thermal cubical expansion coefficients determined for new galactose-derived acrylate and methacrylate polymers
[RAE-TR-67041] 20 p3662 N67-34002
Phase diagrams and thermal expansion coefficients of titanium-oxygen system 22 p4062 N67-37123
Physical properties of aluminum nitride, and measurements of thermal expansion and heat conductivity coefficients, permissivity, and dielectric losses 24 p4473 N67-40073

THERMAL FATIGUE
Method for estimating high temperature low cycle fatigue behavior of materials
[NASA-TM-X-52370] 07 p1203 N67-17830

THERMAL INSTABILITY
Approximation method for estimating thermal instability effects on convective heat transfer coefficient for spherical bodies in flow at small Reynolds numbers 01 p0324 N67-11232
Thermal electromotive force drift of high temperature thermocouples in helium and argon 09 p1448 N67-19828
Thermal electromotive force drift of refractory metal thermocouples in pure and contaminated helium atmospheres 09 p1449 N67-19827
Quasi-linear approximation of velocity and temperature instabilities in charged particle beam interaction with plasma 11 p1951 N67-21908
Thermal instability in spherical fluid region heated from below
[P-3516] 13 p2422 N67-25422
Effect of natural convection on melting rate of ice
[CRREL-RR-211] 14 p2521 N67-26909
Thermal instability resulting from synchrotron radiation
[CSUAC-68] 17 p3143 N67-30953
Bubble formation and thermal turbulence in large bubble chamber 17 p3048 N67-30953
Basic instability of superconducting magnet wires
[MIT-2700-3] 17 p3130 N67-31230
Existence of approximate solution for critical slab hot-spot size for entire range of practical thermal explosion problems 19 p3502 N67-33270
Flame structure of hydrazine droplet burning in nitrogen tetroxide vapor
[NASA-CR-72361] 19 p3884 N67-33449
Mathematical model representing low temperature instability and phase transition in anharmonic chain
[LA-3670] 20 p3598 N67-35219
Oxidative thermal stability of fiber reinforced borane based resin composites
[TR-30] 22 p4070 N67-37609

THERMAL INSULATION
SA ASBESTOS
SA HEAT SHIELD
Fibrous thermal insulation materials for radioactive isotope power supply system
[ALO-3620-1] 01 p0110 N67-10027
Approximate method for calculating thermally insulated layer in system radiating heat to ambient medium
[TG-220-T4th] 01 p0108 N67-10042

Applications of heat-insulation honeycomb plastic
[FTD-HT-66-348] 01 p0091 N67-11170
Qualification testing of polyurethane elastomeric material for Saturn IB and Saturn V launch vehicles
[NASA-TM-X-57998] 02 p0279 N67-12229
Hermetic sealing and thermal insulation in construction of ventilation-type and regeneration-type pressurized cabins 03 p0332 N67-13499
Reduction of heat leak rate into stored cryogenic propellants by multilayer insulation systems
[NASA-CR-54929] 03 p0405 N67-13190
Gain in thermal insulation due to air flow through material studied in relation to air ventilated suit
[FPRC/1233] 04 p0497 N67-13650
Thermal performance of self evacuated multilayer radiation shield insulation of lightweight prefabricated panels for space vehicle cryogenic propellant tanks
[NASA-TM-X-53266] 06 p0976 N67-16046
Candidate materials evaluated for use in lightweight insulated footwear
[TR-67-23-CM] 06 p0814 N67-16147
Thermal insulation effectiveness in installation designed for production and retention of high temperature plasmas
[MATT-TRANS-35] 07 p1167 N67-17563
Mechanical property evaluation, and functional tests of thermal insulation for liquid hydrogen tank of nuclear engine for rocket vehicle
[NASA-CR-83450] 08 p1321 N67-19129
Temperature distribution along profile of cooled turbine blade with heat-insulated edges 09 p1540 N67-19489
Vacuum pressure measurement beneath and within battens of high performance insulation on cryogenic storage tank
[NASA-CR-82938] 09 p1543 N67-19928
High temperature fibrous insulation for radioisotope power systems
[ALO-3633-3] 10 p1660 N67-20735
Thermal insulation efficiency of plasma - kinetic energy
[IAE-1154] 10 p1736 N67-20918
Test program data on thermal insulation composite materials
[ALO-3632-7] 10 p1663 N67-21511
High temperature vacuum foil insulation for radioisotope power systems
[NYO-3634-3] 10 p1766 N67-21571
Forward gas stream ejection for thermal insulation in hypersonic flight
[ARC-CP-752] 11 p1999 N67-22795
Exposure of high-temperature gas-cooled reactor candidate core plates and thermal insulation materials to impure helium
[GAMD-7377] 12 p2114 N67-23587
Thermal conductance tests on cabin wall insulation assemblies for supersonic transport
[ARC-CP-910] 12 p2235 N67-24037
Combination chemical heat release and fabric insulation system for preventing excessive loss of body heat of downed pilots in ocean
[TM-67-1] 12 p2032 N67-24375
Rocket motor chamber insulation with rubber
[NASA-CR-72228] 12 p2300 N67-24631
Turbulent heat transfer in thermal entrance of perfectly insulated pipe
[ARL-66-0179] 14 p2530 N67-26494
Compatibility tests of lead telluride formulations and fibrous insulation candidates for higher temperature silicon-germanium systems for radioisotope power systems
[ALO-3633-3] 15 p2723 N67-28219
Thermal insulation - material testing of refrasil quartz fiber paper, metal foil, quartz cloth composite, and metal foil glass fiber paper composite
[ALO-3633-11] 15 p2804 N67-28418
Surface temperature measurement technique application to thermal insulators under transient, radiant heat inputs - literature survey
[RAE-TN-STRUCT-340] 18 p3353 N67-31523
Calorimetric measurements performed in tests of multilayer insulation system for liquid nitrogen tank
[NASA-CR-85856] 18 p3354 N67-31734
Temperature control of encapsulated irradiation specimens, based on capsule design and thermal insulation dependence on gas filling pressure 18 p3299 N67-32429
Processing tests, offgassing rates, and gaseous compositions for thermal insulation materials
[ALO-3632-14] 19 p3555 N67-33700
Fibrous insulation for radioisotope power systems
[ALO-3633-4] 19 p3474 N67-33887
Thermal insulation of metal foil for circular pipe flow
[NAL-TR-129] 20 p3745 N67-34564
Handbook of thermal design data and information on thermophysical properties of high performance insulation materials for spacecraft thermal control surfaces
[NASA-CR-87484] 20 p3746 N67-34625
Thermal conductivity measurements on carbon felt
[DLR-FB-67-29] 20 p3748 N67-35065
Tests and analyses to select materials and techniques for thermal insulation of planetary spacecraft
[NASA-CR-88009] 21 p3873 N67-35552
Ceramic composite thermal insulations for launch vehicle radiant heating environments
[NASA-TM-X-53646] 21 p3875 N67-35961
Subdividing shields for improving thermal insulation properties of annular gap, and use of carbon dioxide at high pressures 21 p3892 N67-36547
High temperature thermal insulation development for radioisotope power systems
[ALO-3634-5] 22 p4096 N67-38012
Vacuum foil-type insulation for radioisotope power systems
[ALO-3634-84] 23 p4362 N67-38543
Thermal insulation systems for cryogenic storage and high temperature protection
[NASA-SP-5027] 23 p4363 N67-38580
Cabin air conditioning and insulation evaluated on simulated Mach 2.2 transport aircraft cabin
[RAE-TR-66118] 24 p4375 N67-40253

THERMAL NEUTRON
Effect of colbalt 60 gamma radiation and of thermal neutrons of high-resistivity P and N silicon - possibility of obtaining nuclear compensation for P-type silicon
[CEA-R-2918] 01 p0123 N67-10652
Integral neutron thermalization
[GA-7091] 01 p0165 N67-10677
Development of standing neutron waves through interference in nearly perfect single crystals and influence on interaction of neutrons with nuclei
[ZFK-RN-22] 01 p0140 N67-10737
Thermal neutron source for calibration of neutron radiation meters in diffuse flow
[REPT.-7] 01 p0074 N67-10821
Large concentric cylinder fission electric cell experiments in thermal neutron fluxes of nuclear test reactor
[NASA-CR-79940] 02 p0285 N67-11819
Knock-out coefficient of sintered uranium dioxide wafers following thermal neutron irradiation
[EUR-3058.E] 02 p0286 N67-11905
Thermal neutron induced fission of thorium 229 03 p0432 N67-12543
Resonance scattering of thermal neutron capture gamma rays 03 p0433 N67-12552
Thermal neutron spectra in reactor lattices 03 p0424 N67-12603
Ratio of capture to fission cross sections of uranium 235 and plutonium 239
[AECL-2618] 03 p0441 N67-12896
Numerical analysis of effective neutron temperature of given thermal neutron spectrum
[RISO-33] 04 p0593 N67-14184
Features reviewed of gamma ray spectra accompanying capture of slow thermal neutrons - new spectrometers 06 p0932 N67-15641
Investigation of Cd 113-Cd 114 reaction for thermal neutrons 06 p0933 N67-15644
Absolute thermal neutron density measurements by activation method using liquid scintillators 06 p0937 N67-16279
Absolute beta activity measurements of thermal neutron activation cross-sections of phosphorus, iodine, and indium in relation to sodium and manganese using liquid scintillators 06 p0938 N67-16280
Silicon detectors of thermal neutrons 06 p0938 N67-16284
Neutron diffusion parameters in water determined from thermal neutron mean lifetimes using fast chopper 06 p0913 N67-16296
Pulsed neutron experiments in moderating assemblies 07 p1123 N67-17653
Rise portion of pulsed neutron curves investigated by two-group theory to measure Fermi age 07 p1124 N67-17655
Plutonium recycling - neutron study on plutonium in thermal neutron reactors
[EUR-2853.F] 07 p1126 N67-17118
Measurement of thermal neutron fluxes in simulated intense neutron generator target using manganese and gold foils and small boron trifluoride detector
[AECL-2635] 07 p1158 N67-17944
Elastic scattering apparatus for thermal neutron scattering experiments
[AERE-R-5259, PT. 1] 07 p1137 N67-18066
Spectrometers for neutron inelastic scattering studies
[AERE-R-5259, PT. 2] 07 p1137 N67-18067
Computer program for calculation of thermal neutron flux and currents, energy, and gamma dose on axis of graphite carbon dioxide reactor channel
[ORNL-TR-1374] 08 p1312 N67-18614
Sensitivity of reactor multiplication values to thermal neutron cross sections 08 p1313 N67-18786
Polyethylene double differential inelastic scattering cross sections for epithermal neutrons 08 p1314 N67-18790
Deuterium oxide moderated reactor sensitivity to thermal neutron scattering law 08 p1315 N67-18793
Thermal neutron ratio for lithium 6 and uranium 235 fission cross sections 08 p1340 N67-18842
Measurement of electron-neutron interaction by asymmetrical scattering of thermal neutrons by rare gases 09 p1487 N67-19475
Linear accelerator project, germanium and silicon electrons, and mass spectrometer to measure thermal neutron cross sections of francium 187 and samarium 147
[RPI-338-68] 10 p1709 N67-20937
Inelastic scattering of thermal neutrons from pressurized ethane 10 p1714 N67-21041
Density expansion of self-correlation function for thermal neutron scattering in dilute systems 10 p1715 N67-21048
Statistical evaluation of elastic scattering data with application to thermal neutron scattering in liquid argon 10 p1715 N67-21050
Neutron flux measurements in cylindrical core of paraffin
[JUL-140-RX] 10 p1685 N67-21218
Thermal neutron diffusion parameters of epoxy resin measured by pulsed neutron method
[INR-731/IXA/R] 11 p1923 N67-22907
Computer code for calculating thermal neutron scattering kernels in moderators
[GA-7417] 12 p2170 N67-24676
Design, calibration, and use of absolute thermal neutron fluxmeter 13 p2319 N67-25466
Radiometric methods for determining boron distribution in steel during irradiation with thermal neutrons
[SGAE-IB/IA-13/1966] 13 p2272 N67-26118
Thermal neutron flux measurement in Portuguese reactor thermal column
[LFEN.23/ALPHA/] 13 p2363 N67-26306
Thermal neutron induced defects in cadmium sulfide and cadmium telluride
[NASA-CR-84064] 13 p2394 N67-26321
Activation, and reactor technology at SORIN nuclear research center
[SORIN-105] 14 p2480 N67-27247
Thermal neutron capture gamma-ray spectra measured using NaI/Tl/ scintillation detectors
[IITRI-878P11-53, VOL. 1-2] 14 p2589 N67-27346
Thermal neutron depth dose dependence on beam and phantom size for incident collimated beams of fast neutrons
[PG-776/CC/] 14 p2592 N67-27554
Quantum mechanical treatment of thermal neutron multiple scattering
[IN-1045] 14 p2592 N67-27581
Gas detectors for thermal neutron at high counting rates
[CEA-R-2962] 15 p2744 N67-27919
Thermal neutron capture gamma rays using lithium drifted germanium spectrometer
[MITNE-80] 16 p2944 N67-29076
Spatially dependent thermal neutron spectra in slab and rod geometries
[GA-7508] 16 p2932 N67-29730
Method for estimating fission and thermal neutron flux dosages in irradiated pieces of

nickel and cobalt wire
[AERE-R-5314] 17 p3127 N67-30418
Equipment for polarization of thermal and resonance neutrons
[UJV-1563] 17 p3063 N67-30904
Sensitivity and precision of apparatus used in continuous measurement thermal neutron flux of gaseous circuits
[CONF-651154-5] 17 p3112 N67-31091
Measurement of thermal neutron spectrum from neutron chopper
[IS-1449] 17 p3136 N67-31184
Spectral differences of gamma rays during radiation capture of thermal neutrons and of neutrons with reactor spectrum 17 p3116 N67-31369
Neutron beam characteristics associated with thermal, epithermal, and fast neutron fluxes measured in high flux beam reactor
[BNL-11345] 19 p3498 N67-33752
Polar substorm model on auroral effects, algebra of fermi-dirac operators applied to many-body problems, and dynamitron accelerator as thermal neutron source 20 p3634 N67-34777
Neutron polarimeter for thermal neutron separation
[EUR-3291.E] 20 p3643 N67-34974
Relative spectral intensities of light charged particles associated with thermal neutron fission of uranium 235
[INR-765/IA/PL] 20 p3703 N67-35126
Integral neutron thermalization and angular scattering in water, on zirconium hydride, and on cryogenic beryllium metal
[GA-7673] 21 p3886 N67-35433
Energy level structure of osmium 190 determined by thermal neutron capture by osmium 189
[BNL-11426] 21 p3906 N67-36525
Thermal neutron capture gamma ray technique for lunar and planetary surface analysis
[NASA-CR-66485] 22 p4126 N67-36772
Thermal neutron flux distribution and diffusion length in standard graphite block 22 p4069 N67-36957
Absolute measurement of standard thermal neutron flux using gold detector activation
[CEA-R-3166] 22 p4110 N67-37937
Capture gamma ray spectra for lunar and planetary surface analysis
[NASA-CR-66503] 22 p4145 N67-37973
Magnetic small angle scattering of thermal neutrons in unmagnetized iron
[BMWF-FBK-67-37] 23 p4301 N67-38418
Material buckling in reactor theory beginning with monoenergetic diffusion theory
[KR-117] 23 p4287 N67-38797
Codes for calculating thermalization of neutrons in water moderated reactor
[EUR-3610.F] 24 p4492 N67-39939
Literature survey on methods of calculating and measuring thermal neutron spectra and review of spectral measurements techniques
[GA-7691] 24 p4501 N67-40349
Multiple elastic scattering of thermal neutrons by polycrystalline lead
[ARE-M-1911] 24 p4505 N67-40499

THERMAL NOISE
Noise temperature calibrations of Venus Deep Space Station radio frequency cone antenna 06 p0672 N67-14443
Improved radio frequency calibration techniques - refinement of daily system noise temperature calibration technique 06 p0635 N67-15060
Improved calibration techniques - weekly noise temperature calibrations for Mars and Venus Deep Space Stations 06 p0638 N67-15910
Low noise receivers - traveling wave maser development 06 p0638 N67-15913
Effects of thermal and shot noise on performance of oscillator
[ECOM-2772] 07 p1650 N67-17233
Thermal, shot, random, and impulse noise reduction in amplifiers
[ECOM-2776] 10 p1584 N67-29631
External noise and antenna noise temperature calculations for 136 and 400 MHz satellite frequency bands
[DLR-FB-67-12] 14 p2490 N67-27260
Microwave research - optical maser improvement, and generation of domain in cadmium sulfide by injected acoustic noise
[ML-1491] 13 p2323 N67-32189

THERMAL PLASMA
IMP-II measurements of thermal plasma within magnetosphere
[NASA-TM-X-55591] 02 p0355 N67-11369
Heat transfer from dense thermal plasma to solid surface with and without electric current 05 p0746 N67-15235
Interaction between low energy cesium ion beam and thermal cesium plasma
[NASA-CR-81340] 06 p0644 N67-16618
Formalism for wave reflection of slowly varying spatially inhomogeneous thermal plasma described by Vlasov equation
[IC/66/93] 11 p1965 N67-23392
Space charge effects by nonthermal ions in magnetized plasma
[REPT.-67-01] 11 p1965 N67-23398
Construction of Q machine for studying plasma instabilities
[ORO-3495-10] 13 p2177 N67-23774
Effects of magnetic shear on oscillations and diffusion in thermally ionized potassium plasma
[MATT-523] 14 p2596 N67-26995
Mathematical model used to investigate mode synchronization phenomena in universal plasma instabilities
[BN-487] 16 p2952 N67-29045
Conduction of electric current between cold electrodes in shock ionized air plasmas
[ARL-66-0182] 16 p2953 N67-29449
Investigation of plasma instabilities and description of thermal plasma device, or Q machine
[APR-3] 16 p2955 N67-29743
Thermodynamic and gas dynamic parameters of thermal plasma on shock tubes
[FTD-MT-65-526] 19 p3519 N67-33937
Quantitative measurements of negative ion density in thermally ionized alkali plasma 23 p4230 N67-38760
Analysis of model of inverse population produced by inelastic collisions of thermal plasma with cold gas atoms
[JPRS-43891] 23 p4234 N67-39044

THERMAL POWER
Estimating integrated thermal power produced in nuclear power reactor as potential photovoltaic monitoring system
[NP-16188] 01 p0107 N67-10635
Reliability analysis of thermal vacuum prototype power conditioning and control system for ion engine
[NASA-CR-66516] 03 p0456 N67-13199
Computer codes for thermal design of multiple tube potassium condensers and boilers
[NASA-CR-72141] 04 p0962 N67-16570
Advanced electric propulsion research, thermal power augmentation, thrustor operation, and colloidal propellant production
[NASA-CR-82094] 10 p1754 N67-29560
Electric propulsion system performance gains using thermal power augmentation 10 p1755 N67-30513
Electrostatic, electrothermal thrustors in electric propulsion system augmented with thermal power 10 p1755 N67-30514
Distribution equipment for high voltage thermal powar plants 11 p1836 N67-22988
Economic and technological characteristics of several regenerative solar stills driven by solar thermal power as compared to solar stills of hotbed type 15 p2644 N67-28168
Thermal study on power increase in Silos and el-23 fuel element
[NP-16497] 17 p3111 N67-31072
Optical and calorimetric tests of nickel mirrors for use as power source for thermionic generators
[NASA-CR-85750] 17 p3123 N67-31436
Calorimetric tests of reflector for solar water lifting unit for design of semiconductor thermogenerators 21 p3943 N67-35474

THERMAL PROPERTY
Scientific data and results of lunar surface exploration by Surveyor I spacecraft
[NASA-CR-79190] 01 p0150 N67-10061
Mechanical and thermal properties of tungsten and molybdenum alloy sheets for aerospace applications
[REPT.-7545-1479-RU1] 01 p0683 N67-10500
SET program developments, and four-converter thermionic generator thermal analysis and performance characteristics 02 p0170 N67-12192
Influence of environmental conditions on thermal performance of low density charring ablater
[NASA-TN-D-3735] 02 p0472 N67-12786
Simultaneous solution of heat balance and heat transfer equations to calculate thermal characteristics of heat exchangers 02 p1262 N67-19486
Thermal structure of upper Mars atmosphere
[NASA-TM-X-57227] 02 p1263 N67-19533
Thermal properties, and improvement of organic resins for aerospace application 02 p1290 N67-19679
Analytical technique for predicting physical, thermal, and optical properties of composite material constituents used in radiant and/or radiant/convective heating environment
[NASA-CR-83425] 02 p1290 N67-19185
Approximations of heating capacity and thermal properties of nonstationary field of insulated plate 02 p1540 N67-19697
Thermal properties of gas jet control system using propane stored as liquid for Black Arrow satellite
[RAE-TR-66301] 09 p1297 N67-26020
Spectral sensitivity and thermal properties of photoelectric transducers and effective ranges of application 10 p1555 N67-26094
Thermal and mechanical properties of cellular plastic materials
[RAE-TN-CPM-54] 11 p1903 N67-22701
Thermal properties of structural reinforced plastics
[RAE-TN-CPM-48] 11 p1903 N67-22702
Thermal and mechanical properties of elastomers and sealants
[RAE-TN-CPM-52] 11 p1903 N67-22711
Thermal properties of polymers used as protective films and paints
[RAE-TN-CPM-51] 11 p1904 N67-22717
Whole organ freezing and thawing heat transfer and thermal properties
[GLR-50] 11 p1921 N67-23740
Induction coupled plasmatron design
[INR-726/XVIII/PP] 11 p1956 N67-22914
Photon physics measurements of thermal and infrared properties of solids
[NYO-2291-41] 11 p1943 N67-23290
Fast scan infrared microscope to determine thermal and electromechanical parameters affecting reliability of microelectronic components 12 p2063 N67-23675
Thermal performance of Nimbus B/SNAP-19 materials and mechanical joints
[MND-3697-112] 12 p2144 N67-23689
Thermodynamic principles of rheology, and thermal and mechanical processes in medium 12 p2221 N67-23792
Density, hardness, and thermal conductivity evaluated in production of uranium oxyarbide and oxycarbonitride specimens by powder techniques 12 p2117 N67-23857
Thermal properties of thin walled, reinforced cylindrical shells
[FTD-TT-65-2041] 12 p2220 N67-24713
Electron heavy particle thermal nonequilibrium in dense subsonic argon arcjet plasma
[REPT.-763] 13 p2186 N67-24855
Thermal distribution and conductivity of electrons in argon molecular gas mixtures
[AFCRL-66-943] 13 p2188 N67-24919
Electric, magnetic, and thermal properties of single crystal semiconductors, and crystal structure 13 p2309 N67-25124
Contaminant effects on high temperature properties of carbide-graphite composites
[LA-3618-MS] 13 p2330 N67-25484
Correlation between thermal and mechanical properties of extraterrestrial materials
[NASA-CR-66805] 13 p2402 N67-25909
Economic and technical evaluation of carbothermic, metallothermic, and electrolytic methods of producing magnesium
[BM-RI-6946, PT. 2] 13 p2532 N67-26249
Combined passive and active methods for thermal control of manned orbital space stating to reduce heat flux on space radiators
[NASA-TN-D-3905] 14 p2402 N67-26951
Time-temperature characteristics of thin skinned models as affected by thermocouple variables
[NASA-CR-84580] 14 p2584 N67-27057
Steady thermal state of semiconductor thermocooling devices 15 p2688 N67-27932
Thermal properties of gases at high

temperatures, magnetogasdynamics, and radiation effects on gas flow
[AD-642397] 15 p2690 N67-29084
Polyurethane resins for structural laminate systems possessing simultaneous high thermal and mechanical properties
[NAEC-AML-3593] 15 p2650 N67-28234
Interrelationship of thermal, optical, and electric properties of silver
[AMRA-TR-67-02] 15 p2755 N67-28715
Mechanical, thermal-hydraulic, and nuclear characteristics of low enriched PM replacement core
[HIT-3563-43, VOL. I] 16 p2930 N67-29539
Pressure, volume and temperature properties in high molecular weight aromatic hydrocarbons
[TID-23757] 16 p2849 N67-29702
Thermal and electric properties of cryogenic linear accelerator
[HEPL-389] 17 p3044 N67-30639
Qualification test to determine thermal and mechanical properties of two base heat shield panels
[NASA-CR-84857] 17 p3173 N67-30886
Deflection and thermal analyses of main shaft seals for advanced air breathing propulsion systems
[NASA-CR-85068] 17 p3073 N67-31128
Thermal properties, electrical and oxidation resistance, tensile strength, hardness, and workability of niobium and tantalum alloys
[BM-RI-6964] 17 p3081 N67-31195
Mechanical and thermal properties and oxidation resistance of high temperature niobium base alloys
[BM-RI-6968] 17 p3083 N67-31375
Flow graph analysis method for examining interactions between thermal and electrical parameters of devices and associated microcircuits 18 p3245 N67-31388
Thermal properties of amphiboles as function of alkali content determined by differential thermal analysis
[T-R-634] 19 p3439 N67-32901
Ruby laser thermal distortion effects from intense flash of optical pump energy
[TR-5] 19 p3467 N67-33634
Monte Carlo method for calculation of radiant heat exchange
[NASA-CR-87256] 19 p3551 N67-33232
Engineering geocryology principles - control of thermal and mechanical interactions between structures and ground in permafrost regions
[NRC-TT-1276] 19 p3442 N67-33281
Thermal properties of gold-silicon binary alloy near eutectic composition
[TR-523] 19 p3534 N67-33351
Cryogenic properties of liquid and gaseous helium 3 and helium 4
[RHEL/R-138] 19 p3556 N67-33911
Solar absorptance and transmittance, total hemispherical emittance, and effective thermal conductance of space suit materials
[NASA-CR-65678] 20 p3582 N67-34330
Thermodynamics of magnesium silicate/magnesium silicon oxygen vapor system
[RM-5337-PR] 20 p3745 N67-34527
Handbook of physical and thermal property data for hydrogen in region between triple point and critical point for study of hydrogen slush and/or hydrogen gel utilization
[NASA-CR-87856] 20 p3716 N67-34912
Electromechanical weighted-area integrator, radiation configuration factors, and thermal similarity of models
[NASA-CR-90135] 21 p3849 N67-36017
Development and testing of coatings for tantalum alloy nozzle vanes
[NASA-CR-54529] 21 p3869 N67-36139
Transient heat transfer and thermal hydrodynamics of pool-type pulse reactors
[SC-RR-67-19] 22 p4092 N67-37496
Television observations, soil sampling, lunar surface mechanical properties, lunar temperature and thermal characteristics, and other scientific results from Surveyor III mission
[NASA-CR-88062] 25 p4341 N67-38161
Warm-up characteristics of inertial components, and development of thermal error model equation used for predicting errors in system alignment and gyrocompassing
[NADC-AM-6721] 25 p4283 N67-38196
Strain energies and thermal properties of globular and polynuclear aromatic molecules
[COO-1149-93] 23 p4207 N67-38907
Hypersonic wind tunnel for thermal and aerodynamic measurements of rarefied gases
[REPT.-67-3] 23 p4234 N67-39347
Pendulum steering attitude stabilization for thermal probes or coring drills in glaciers
[CRREL-SR-116] 24 p4436 N67-39434
Silicon oxide-silicon interface states at 77 degrees K
[NASA-CR-89741] 24 p4510 N67-39661
Acoustic wave density in ionosphere
[SR-304] 24 p4445 N67-40149
Mathematical model for thermal properties of decomposing lead azide between 210 C and 243 C
[AD-656757] 24 p4551 N67-40349

THERMAL PROTECTION

Dielectric property screening tests, and temperature range tests for determining ablation material effects on Apollo model antennas - simulation of thermal protection system
[NASA-CR-65561] 05 p0675 N67-14903
Reentry and abort trajectory analyses, and thermal protection requirements for lifting body entry vehicles
[NASA-CR-73043] 08 p1281 N67-18276
Weight estimates of thermal protection systems for lifting body reentry vehicle suitable for near earth missions
[NASA-CR-73042] 08 p1281 N67-18276
Terrestrial radiation environment, and degradation to thermal protection surfaces from low energy charged particles
[NASA-TM-X-57338] 08 p1356 N67-18353
Fire test of thermal protection afforded by lead shielding to cask
[DP-1070] 12 p2236 N67-24570
High viscosity tungsten-silica thermal protection materials
[NOLTR-66-213] 12 p2126 N67-24909
Protective cooling of insulated plane surface by gas injection into turbulent boundary layer of incident flow through slot system
[NASA-TT-F-10643] 14 p2630 N67-28572
Performance and thermal response of Gemini extravehicular space suit tested in simulated environment
[NASA-CR-65617] 14 p2473 N67-27233
Test data on elastomeric silicone ablating materials for thermal protection of X-15-2 aircraft
[NASA-CR-85565] 17 p3086 N67-30817
Thermal protection system for cryogenic spacecraft propulsion module
[NASA-CR-54879, VOL. I] 21 p3936 N67-36076
Technical data for cryogenic spacecraft propulsion module thermal protection design
[NASA-CR-54879, VOL. II] 21 p3936 N67-36077
Solar energy simulation techniques for testing spacecraft thermal performance
[NASA-CR-73099] 21 p3950 N67-36489
Optical system for radiative heat transfer for thermal protection of reentry vehicle
[NASA-CR-73123] 22 p4159 N67-36736
Space suit design concept for passive thermal control tested under simulated space conditions
[NASA-CR-86546] 22 p3976 N67-36834
Sunshield solution to thermal bending problem of spacecraft extendible booms
[TG-915] 23 p4353 N67-38063

THERMAL RADIATION

SA INFRARED RADIATION

Thermal radiation effects in upper atmosphere
[NASA-TT-F-8412] 01 p0044 N67-10182
Effect of radiation temperature on thermoluminescence of lithium fluoride /TLD-100/
[COO-1105-118] 03 p0455 N67-12363
Medical research on ocular effects of chorioretinal burns produced by thermal radiation
[AD-636642] 04 p0546 N67-13401
Photocoagulator used to study chorioretinal burns in rabbits and primates 04 p0547 N67-13402
Threshold data for production of chorioretinal lesions by thermal radiation 04 p0484 N67-13404
Evaluation system for classification of remote objects and materials identified by solar and thermal radiation emission
[NASA-CR-80724] 04 p0551 N67-13908
Thermal radiation shielding from metal foils
[ALO-3632-4] 04 p0561 N67-14023
Iterative method to solve nonlinear problem for flow of radiating gas past corner
[PIBAL-901] 05 p0702 N67-14739
Radiative transport effects in corner flow - solution to diabatic flow problem found as perturbation on adiabatic Prandtl Meyer solution
[TR-134] 06 p0980 N67-15414
Thermally excited infrared beam laser using carbon dioxide, nitrogen oxide, and hydrocyanic acid molecular energy levels
[ATD-66-102] 06 p0689 N67-15769
Review and evaluation of studies concerning emission of infrared and thermal radiation from rocket exhaust plumes
[PIBAL-904] 06 p0955 N67-16454
Experimental study of equilibrium air total radiation
[NASA-CR-81255] 06 p0982 N67-16513
Thermal radiation studies of ablating bodies in ballistic range
[NASA-TN-D-3741] 06 p0983 N67-16666
Transmissivity of atmosphere for thermal radiation from nuclear weapons
[USNRDL-TR-1066] 07 p1070 N67-17152
Thermal radiation from inhomogeneous plasma layer 07 p1163 N67-17304
Limb darkening of planetary atmospheres in thermal infrared
[NASA-TM-X-57350] 08 p1360 N67-18280
Water and carbon dioxide precipitation technique for manned spacecraft cabin atmosphere using thermal radiation principles
[AMRL-TR-66-118] 08 p1231 N67-18282
Spectrometer measurements made from jet aircraft and Nimbus II satellite of reflected solar and emitted thermal radiation from earth from 1.6 to 5.4 microns
[NASA-TM-X-55662] 08 p1305 N67-18691
Transient strain and temperature distributions in long circular cylinders cooled by emission of thermal radiation
[SC-DC-66-1517] 10 p1770 N67-20942
Chemical reaction products from nuclear transformation of iridium IV hexachloro-complexes for thermal and gamma radiation curing
[JUL-181-RC] 10 p1574 N67-21061
Thermal radiation from gas not in thermodynamic equilibrium
[NASA-TM-X-52377] 10 p1772 N67-21395
Radiant heat flux computed for high pressure axially symmetric air arc column
[AEDC-TR-66-246] 10 p1772 N67-21437
Review of lunar surface thermal infrared emission measurements
[D1-82-0586] 11 p1977 N67-22731
Radiative heat transfer in solid with simultaneous transmission, absorption, and re-radiation
[FS66-2] 11 p2000 N67-23137
Base heating by radiation from wakes of ablating vehicles, and thermal analysis program to compute solar heating effects 12 p2234 N67-23680
Velocity of small perturbations and existence of weak shock waves in radiating gas taking into account radiation pressure
[FTD-MT-65-234] 12 p2088 N67-24719
Relative line intensity computations for hydrogenic spectrum in thermodynamic equilibrium
[NONR-562/35//17] 12 p2238 N67-24811
Energy transfer by radiative processes in thermal equilibrium gases
[NONR-562/35//16] 12 p2239 N67-24812
Nitrogen line spectrum classification and thermodynamic intensity calculation
[NONR-562/35//18] 12 p2239 N67-24814
Radiant heat transfer computations for vicinity of stagnation point of blunt body
[APL-TG-230-T503] 13 p2422 N67-25330
Fundamentals of thermal radiation
[NASA-TT-F-10809] 14 p2630 N67-26577
Transient interaction of thermal radiation with gas, flow field, and other modes of energy transfer
[AROD-4362-7-E] 14 p2631 N67-26747
Thermal design of navigational satellites for attaining balance between external and internal heat inputs and heat output by radiation from external surfaces
[APL-TG-845] 14 p2618 N67-26819
Analytical formulation derived for computing local radiation equilibrium temperatures in diffusely reflecting semigray cavities
[RR-17] 15 p2804 N67-26939
Oxygen concentration and pressure effects on cellulose fuel ignition by thermal

radiation
[USNRDL-TR-67-25] 16 p2923 N67-29000
Predicting distance at which thermal radiation from nuclear detonations will be hazardous to unprotected human eye 16 p2839 N67-29255
Thermal radiation properties of emittance and reflectance for refractory materials
[NBS-TN-392] 16 p2904 N67-29416
Computer program used in effectiveness study of chemically induced clouds and application of radiant energy to fire spread
[RACIC-TR-57] 16 p2886 N67-29481
Incident thermal flux distribution measurements in arc imaging furnace
[AMRA-TR-66-39] 16 p2905 N67-29992
Inviscid radiating flow over blunt body
[SUDAAR-278] 16 p2878 N67-29612
Production of chorioretinal burns in pigmented rabbits by thermal radiation
[SAM-TR-66-105] 17 p3003 N67-30445
Geometrical model for calculation of planet reflected solar thermal fluxes
[NASA-CR-84656] 17 p3155 N67-30621
Absorption and emission lines, continuous emission of thermal radiation, and continuous nonthermal emission of interstellar spectra 17 p3162 N67-31031
Ellipsoidal mirror reflectometer, interferometer spectrometer, and rotating cylinder procedure for thermal radiation property measurements
[NASA-CR-86127] 17 p3089 N67-31120
Thermal radiation from liquid and solid propellant rocket exhausts
[NASA-TM-X-53579] 17 p3153 N67-31300
Vibration and thermal radiation effects on filter wedge infrared spectrometer used in spacecraft studies of planetary atmospheres
[NASA-CR-85797] 17 p3070 N67-31316
Multifluid theory and fundamental equations for radiation magnetogasdynamics
[ISAS-408, VOL. 32, NO. 1] 17 p3146 N67-31292
Fourier transform spectrometer for measurement of atmospheric thermal radiation
[NASA-CR-85492] 17 p3089 N67-31484
Thermal radiation effect on laminar, flat plate boundary layer flow
[AD-652365] 18 p3357 N67-32683
Thermal radiation flux motion in troposphere
[FTD-MT-65-569] 19 p3443 N67-33403
Computer program for calculating radiation diffusion and hydrodynamic motion used for describing explosion, shock wave, nuclear fireball, and other dynamics problems
[RM-5187-PR] 20 p3822 N67-34009
Qualitative evaluation of combustible materials based on temperature and radiation measurements
[ISL-T-21/66] 20 p3801 N67-34349
Thermal equilibrium properties of air
[LMSC-3-37-67-1, VOL. 2] 20 p3746 N67-34651
One-dimensional unsteady flow for radiating gases
[PIBAL-990] 20 p3824 N67-34673
Energy transfer model for characterizing general atmospheric circulation and relation to arctic thermal radiation regime 20 p3673 N67-34846
Kirchhoff law used for calculation of thermal radiation in mesosphere in 15 micron band of carbon dioxide
[P-3597] 20 p3636 N67-34929
Thermal radiation properties of polyethylene, mylar, and other polymer thin film balloon fabrics
[C-62944] 21 p3873 N67-35482
Low temperature communications satellite cooled by passive radiative heat transfer
[RADC-TR-67-128] 21 p3935 N67-35640
Simulated space environment effects on thermal radiation characteristics of black coatings
[NASA-TN-D-4116] 21 p3946 N67-35729
Instrumented fuel assembly used to measure incore thermal and hydraulic characteristics of JPDR reactor
[JAERI-1136] 21 p3889 N67-36144
Digital computer program for calculating time-temperature histories and predicting injury to skin exposed to thermal radiation
[NADC-MR-6623] 22 p3967 N67-36683
Summary of results of investigations into radiative transfer theory, radiation properties, and radiating flows
[AD-656766] 23 p4094 N67-36943
Tables of thermal radiative properties of air
[DASA-1971-3] 23 p4104 N67-37540
Differential equation approximation in radiative gas dynamics
[NOLTR-67-23] 23 p4104 N67-37553
Thermal radiation of high temperature combustion products
[AFOSR-67-0951] 23 p4165 N67-37556
Transient radiation and conduction in slotted slab and hollow cylinder
[NASA-CR-905] 23 p4235 N67-38268
Aerial photographic and infrared surveys of areas of geothermal interest in California and Washington
[NASA-CR-79136] 23 p4249 N67-38313
Nongray radiative transfer effects on radiating stagnation region shock layer and stagnation point heat transfer
[NOLTR-67-104] 24 p4549 N67-38437
Radiative heat flux and frequency averaged absorption coefficients calculated for plane parallel radiating gas slab
[RIAS-TR-67-9C] 24 p4549 N67-38538
General expressions derived for radiation from nonisothermal gases in terms of spectral line width
[AFCRL-67-0464] 24 p4559 N67-38634

THERMAL SHOCK
Physical properties thermal-shock test of spacecraft thermal control coatings 11 p1901 N67-22146

THERMAL SIMULATION
Effect of test chamber pressure level on accuracy of deep space heat transfer simulation
[NASA-TM-X-1355] 07 p1299 N67-17513
Geometries, construction, materials, and other criteria derived for thermal models 12 p2237 N67-34643
Analog-to-digital device for simulating nonstationary thermal conductivity
[FTD-HT-66-712] 19 p3490 N67-32736
SNAP reactor reentry ablation and disintegration tests in hyperthermal wind tunnel
[NAA-SR-12362] 23 p4285 N67-38341

THERMAL STRESS
Failure modes associated with thermally induced mechanical stress in Minuteman semiconductor devices 01 p0050 N67-10127
Electromagnetic method for studying residual thermal stresses in ceramics
[FTD-TT-65-1965] 01 p0162 N67-11152
Plastic tensile and compressive deformation of metals under cyclic thermal loading 04 p0617 N67-13707
Analytical and numerical solutions for heat generated stresses in infinite flat plates
[UCRL-50116] 06 p0977 N67-16390
Theory of propagating surfaces of discontinuity used to study one-dimensional stress waves in viscoelastic media that conduct heat
[TR-66-5] 07 p1209 N67-17015
Test procedure development for high-intensity thermal testing of solar probe spacecraft
[NASA-CR-73066] 07 p1195 N67-17185
Theoretical technique for predicting thermal stresses in thick walled ablating sphere of low conductivity material subjected to point symmetric aerodynamic thermal and pressure load
[PIBAL-990] 07 p1208 N67-17659
Thermal conditions, operating methods, and temperature safety margins for welding of very thick steel vessels
[EUR-3640.F] 08 p1294 N67-19192
Temperature stresses and displacements in reinforced cylindrical shell heated axisymmetrically 09 p1523 N67-20040
Linear equations for longitudinal-transverse bending of nonsymmetrical sandwich plates with rigid filler, allowing for thermal stresses 09 p1524 N67-20044
Influence of transverse diaphragm rigidity on temperature stresses in thin walled bars and shells of closed and open profile 09 p1521 N67-20099
Thermal stresses due to temperature field in infinite orthotropic cylindrical vault 09 p1527 N67-20123
Thermal stresses in cellular concretes during hydrothermal processing 11 p1934 N67-22609
Magnetic analysis of transformations in AMMO steel during heat cycles simulating welding cycle
[EUR-3311] 11 p1930 N67-22819
Structural design concepts for ballistic and lifting reentry vehicles to avoid thermal stress
[AGARD-547] 12 p2221 N67-33688
Temperature stresses in thin rectangular elastic plate with heat source acting on plate contour
[FTD-HT-66-307] 12 p2239 N67-34649
Thermal stress in shells of revolution in nonaxisymmetric temperature field
[FTD-TT-65-2044] 12 p2239 N67-34711
Tensile properties of aluminum alloy when thermal stress relieved after solution treatment and prior to aging
[NASA-CR-84481] 14 p2866 N67-27513
Various facets of thermal testing of space vehicles in cold vacuum chambers, with and without solar simulation
[AEDC-TR-67-38] 16 p2889 N67-28907
Computer program for solving thermal stress problems in right circular cylinders by finite differences
[TG-676] 16 p2977 N67-29654
Electronic analog computer to calculate response of man to thermal stress
[AMRL-TR-66-197] 16 p2904 N67-29132
Polymeric materials for spacecraft application tested after curing and thermal vacuum exposure for weight loss and mechanical properties
[NASA-CR-83381] 16 p2917 N67-29070
Conference papers on mechanical properties and thermal stability of cobalt and other high temperature alloys for aerospace application
[DLR-MITT.-66-11] 16 p2913 N67-29113
Steady state thermal stresses in cylindrical fuel pins due to axial variations in internal heat generation rate
[ANL-7343] 17 p3171 N67-30632
Thin film and semiconductor microelectronics, radar scattering, radiative thermal stress, boundary layer phenomena, guided missile parts, turbulent mixing, antenna systems, and plasma dynamics
[NASA-CR-87661] 19 p3507 N67-32881
Computer determinations of convergent series and continuous functions in main-body thermal stress solution for radomes of interceptor missiles during hypersonic flight 19 p3547 N67-32909
Alumina sandwich cone testing to develop theoretical values of internal temperature distribution and thermal stress 19 p3542 N67-32794
Statistical and thermodynamic equations for quench testing thermal stress resistance of spherical ceramic fuel elements for nuclear reactors
[AAEC/E165] 20 p3670 N67-34319
Fortran IV program for temperature and thermoelastic stress in homogeneous spherical fuel element due to axisymmetric heat transfer variation over surface
[AAEC/TM366] 20 p3682 N67-34478
Structural and temperature stress tests on radioisotope source capsules
[ORNL-4082] 20 p3683 N67-34670
Test rig for predicting thermal stress cracking in turbine stator or rotor blades
[NASA-CR-54826] 21 p3869 N67-35269
Solution of axially symmetric plane strain problem for thick-walled hollow viscoelastic cylinder subject to axially symmetric but otherwise arbitrary temperature field
[TR-1] 21 p3943 N67-35906
Thermal stresses in thick-walled cones subjected to axisymmetric thermal gradients by finite difference equations
[TG-914] 21 p3943 N67-35970
Thermal sterilization effects and application parameters determined for connector cup joints soldered with tin and antimony
[NASA-CR-66992] 21 p3981 N67-36194
Solder cracking of printed circuit boards from induced stress in soldered connections
[NASA-TM-X-53265] 22 p4010 N67-36703
Thermal strain fatigue damage of nickel under two strain-block cycling history
[AROD-4116-1-E] 22 p4132 N67-36911
Creep behavior and thermal stability of titanium alloys at 900 degrees Celsius 22 p4066 N67-37150
Transient thermal stresses in heat-generating plates and hollow cylinders caused by sudden changes in environmental temperature
[ANL-7396] 22 p4158 N67-37297
Failure mechanisms in passivated p-n junctions under temperature and bias stress 22 p4204 N67-38479
Specific heats and heats of transformation

measured for Zircaloy-2 and low-nickel Zircaloy-2
[BMI-1803] 23 p4364 N67-39669
Computer method of measuring the thermal stresses in finite length sandwich cylinder with thin faces and isotropic core
[TG-903] 24 p4543 N67-39768
THERMIONIC CATHODE
High temperature liquid mercury cathodes for ion thrusters - thermal design analysis
[NASA-CR-87500] 20 p3718 N67-34088
Life expectancies of thermionic cathodes
[NASA-CR-84499] 22 p3963 N67-36922
THERMIONIC CONVERSION SYSTEM
Parametric analysis of radioisotope thermionic generators
[NASA-TM-X-1313] 02 p0284 N67-11326
Thermoelectric flat plates, thermionic systems, and uncooled silicon solar cells for solar direct-energy conversion
[NASA-TN-D-3788] 07 p0999 N67-17623
Thermionic cell for nuclear thermal energy conversion into electricity
[LA-TR-66-33] 06 p1312 N67-18641
Boiling alkali metal corrosion research for Rankine cycle and thermionic power conversion systems 09 p1460 N67-19011
Bibliography listing works on thermionic cells in reactors and related use of high temperature fuel elements
[JUL-BIBL-1] 11 p1923 N67-23922
Collector-radiator fabrication and brazing materials evaluation in solar thermionic generator development
[NASA-CR-83886] 13 p2349 N67-25876
Adsorption cesium reservoir development
[NYO-3642-4] 16 p2823 N67-29764
Direct conversion device using thermally accelerated, charged colloidal particles 23 p3963 N67-36943
Design modifications for six converter solar thermionic generator
[NASA-CR-84497] 22 p3965 N67-37470
THERMIONIC CONVERTER
Direct conversion of electricity from atomic energy by use of magnetohydrodynamic thermoelectric, and thermionic devices in conjunction with nuclear reactor heat sources
[RISO-M-399] 01 p0100 N67-10715
Structural design of nuclear-fueled thermionic converter
[BMWF-FBK-66-06] 01 p0110 N67-10638
Precision variable parameter test vehicles for parametric studies of plane-parallel cesium vapor thermionic converter performance
[NASA-CR-79366] 02 p0175 N67-11843
SET program developments, and four-converter thermionic generator thermal analysis and performance characteristics 02 p0176 N67-12163
Fabrication and test of solar thermionic converters
[NASA-CR-80135] 02 p0177 N67-12169
Solar energy thermionic generator
[NASA-CR-80690] 03 p0334 N67-12963
Experimental research on thermionic energy conversion
[NASA-CR-80625] 03 p0336 N67-13216
Radioactive sources survey for thermoelectric and thermionic converters
[CEA-R-2788] 03 p0438 N67-13302
Reservoir materials and geometrics studied for application to adsorption cesium reservoir for thermionic converter
[NYO-3642-3] 04 p0483 N67-13655
Capillary emitter of cesium ions, and application to thermionic converters 04 p0483 N67-13694
Thermionic energy conversion and propulsion 04 p0483 N67-13694
Vacuum magnetic triodes, cesium diodes, and rare gas triodes - thermionic converter studies 04 p0489 N67-13695
Current density limitations in thermionic converter
[REPT.-25205] 05 p0636 N67-14730
Optimum electrode cavity-collector diode designed for thermionic energy converters
[TE-15-67] 06 p0792 N67-15977
Solar-energy thermionic converter model fabrication and generator performance analysis
[NASA-CR-61646] 07 p1001 N67-17977
Production and investigation of carbide heaters for thermionic converter operating with nuclear energy
[BMWF-FBK-66-20, PT. I] 10 p1669 N67-21689
Cesium vapor heat conduction in thermionic energy converters, space charge distribution in neutral plasma, and titanium oxide thin films 12 p2017 N67-23643
Advanced solar energy cesium vapor thermionic converter and generator
[NASA-CR-83800] 13 p2348 N67-25484
Series VII solar energy thermionic converter design, fabrication, and testing
[NASA-CR-88794] 13 p2349 N67-25485
Emitter crystal structure studied to determine methods for obtaining high performance thermionic converters
[NASA-CR-83827] 13 p2393 N67-25663
Solar energy thermionic converter development
[NASA-CR-83843] 13 p2349 N67-25755
Heat pipe thermionic converter
[NASA-CR-83930] 13 p2350 N67-25896
Thermionic converter research - electrode materials evaluation and theory of vacuum double diode
[NASA-CR-84004] 13 p2351 N67-26176
Effects of cesium fluoride in thermionic converters investigated with thermionic scanner
[NASA-CR-84148] 14 p2448 N67-26516
Thermionic converter with self-contained self-regulating high temperature adsorption reservoir for automatic cesium pressure control
[NYO-3642-3] 14 p2450 N67-27727
Computer program, radioisotope thermoelectric converter shielding, and thermionic energy conversion for spacecraft power supply systems 16 p2821 N67-29144
Sound velocity in liquid helium, boundary trapping in unipolar space charge limited current, superconductivity applications, and enhanced electron emission in thermionic converter 16 p2926 N67-29148
Heat transfer simulation by radiation from reactor surface to thermionic converters
[BMWF-FBK-67-06] 19 p3556 N67-33900
Approximate diffusion theory of thermionic converters
[JPRS-42212] 20 p3569 N67-34363
Spacecraft power supply evaluation of solar cells, and thermionic energy conversion systems 20 p3569 N67-34764
Output characteristics of thermionic converter arrays under partial failure condition
[UCRL-70282] 21 p3759 N67-35482
Fabrication and testing of solar thermionic converter and generator
[NASA-CR-88013] 21 p3760 N67-35552
Metallographic and X-ray analysis of failure in heat pipe models - leakage testing and wall temperatures of heat pipes for thermionic converters
[NASA-CR-88119] 21 p3764 N67-35552
Cesium fluoride and argon plasma additive effects in thermionic converters
[NASA-CR-89493] 24 p4376 N67-39400
Ttermionic converter performance, electron emission and work functions of vapor-deposited rhenium samples, and electron emission microscope design and micrographs
[NASA-CR-89691] 24 p4376 N67-39490
Solar thermionic converter testing with electron bombardment filament
[NASA-CR-89554] 24 p4377 N67-39749
THERMIONIC DIODE
Thermionic diode-controlled spacecraft power supply system
[NASA-CR-642] 01 p0008 N67-10752
Cesium reservoir control units for thermionic diodes
[NASA-CR-80189] 03 p0373 N67-12938
Effect of simulated fission products in inter-electrode spacing of thermionic diode
[AE-3] 09 p1396 N67-19641
Numerical analysis for thermionic diode optimization
[LA-DC-8178] 12 p2064 N67-23885
THERMIONIC EMISSION
SA SCHOTTKY EFFECT
Thermionic emission from planar monocrystalline tungsten
[NASA-CR-80879] 04 p0491 N67-14064
Comparison of capacity for ion formation of silicagel, aluminum silicagel, and zirconium silicagel used in mass spectrometry
[JPRS-39035] 06 p0749 N67-15175
Surface ionization of cesium and thermionic emission from planar single crystals of tungsten
[UCRL-11887] 07 p1178 N67-17586
Mechanisms of thermionic emission, recurrence algorithms of pattern recognition, underground electromagnetic wave propagation, and effect of magnetic field on gas laser 12 p2155 N67-24312
Fundamental mechanisms of thermionic emission based on surface layer work function and volume work functions 12 p2155 N67-24313
Schottky data used in analysis of metal-vacuum surface barrier for thermionic emitters - rhenium
[SR-1] 17 p3146 N67-30218
Lithium ion source development as practical application of thermionic emission
[LYCEN-6707] 17 p3129 N67-30666
Schottky barrier heights for semiconductor-metal thermionic emission cathodes
[AFCRL-67-0296] 19 p3520 N67-32703
Charged particle emission after ruby laser irradiation of transparent dielectric materials
[TR-7] 21 p3866 N67-35695
Thermionic emission from silicate and aluminosilicate ion exchangers
[NASA-TT-F-11367] 24 p4399 N67-40197
THERMIONIC REACTOR
Thermal scattering cross section determinations and predictability of neutron spectra in thermal reactor systems
[GA-7073] 01 p0109 N67-10767
High temperature tests on tungsten coated uranium oxide-molybdenum cermets for thermionic nuclear fuel elements
[BMWF-FBK-66-08] 03 p0427 N67-13266
Chemical reactions of carbides and oxides suitable for construction of nuclear fueled thermionic emitter
[BMWF-FBK-66-07] 03 p0363 N67-13317
Parameters in production of plutonium 238 from irradiation of neptunium 237 in thermal reactors 05 p0735 N67-14824
Low power thermionic reactor development for unmanned spacecraft applications 06 p0912 N67-15726
Stability and control of space in-pile thermionic reactor power plant 06 p0912 N67-15727
Nuclear energy in aerospace technology - space power reactor developments, thermionic energy conversion techniques, and emitter materials
[DLR-MITT.-66-07] 06 p1307 N67-18221
Design study of nuclear thermionic power plant for space vehicle 06 p1307 N67-18223
Zirconium hydride, yttrium hydride, and beryllium hydride moderator thermionic reactor systems for space vehicle power supply 06 p1308 N67-18224
Transition metal hydrides as moderator material in neutron thermalization process 06 p1308 N67-18225
Development of inpile nuclear thermionic energy converter 06 p1308 N67-18226
Design, weight, and performance of new thermionic reactor concept 06 p1308 N67-18227
Emitters with carbide fuel for nuclear thermionic converters 06 p1308 N67-18228
High temperature effects on tungsten coated uranium oxide-molybdenum cermets for thermionic reactor 06 p1308 N67-18229
Reactor shielding at minimum weight for nuclear thermionic space power plant 06 p1309 N67-18232
Design of thermionic reactor power source for unmanned spacecraft
[BMWF-FBK-66-20] 13 p2362 N67-25936
Thermionic reactors as power supply systems for space vehicles - conference
[DGRR/WGLR PAPER-66-093] 13 p2364 N67-26464
Temperature and gamma radiation effects on electric breakdown of polycrystalline alpha phase aluminum oxide ceramic insulators used in nuclear thermionic reactors
[NASA-CR-85774] 17 p3668 N67-30934
Liquid magnetohydrodynamic power conversion, thermionic reactors, enthalpy measurements, and flow visualization studies 20 p3717 N67-34770
Neutron and gamma ray shielding, heat transfer problems and physics theory for thermionic reactors as power supply for spacecrafts
[BMWF-FBK-67-46] 22 p4096 N67-37907
Temperature coefficients of reactivity due to Doppler broadening of resonances in materials for in-pile thermionic reactor materials
[NASA-CR-85356] 23 p4286 N67-38536

THERMIONICS
Applications of thermionics for space power systems 01 p0105 N67-10270
Thermionic and electric properties of solid and liquid elements and compounds - tables [NASA-TM-X-52363] 06 p0819 N67-16043
Failure analysis of thermionic emitters 12 p2149 N67-24358
Magnetohydrodynamic thermoelectric and thermionic devices with nuclear reactors or radioisotopes as heat sources, for direct production of electricity from atomic energy [NASA-TT-F-10850] 21 p3889 N67-36239
THERMISTOR
SA RADIOSONDE THERMISTOR
Thermistor mount for dc potentiometer insertion loss test set 08 p1245 N67-18340
Physical properties of various thermistors for upper atmosphere measurements [DLR-FB-66-72] 08 p1284 N67-19286
Accuracy of miniature bead thermistors in measuring upper atmospheric temperatures [AFCRL-66-775] 10 p1672 N67-20653
Air humidity measuring devices using thermistors 11 p1675 N67-22015
Thermoelectric sensors for temperature fluctuation of sea water, and technology for multijunction radiation scattered by water 11 p1680 N67-22370
Probes for measuring thermal conductivities of soils and insulating materials [CRREL-TR-182] 11 p1870 N67-22531
Time constant of and radiation effects on bead thermistor from high altitude environmental testing [AD-645050] 15 p2716 N67-28961
Thermistor used to obtain temperature and velocity measurements of gas flow 18 p3260 N67-32286
Heat transfer characteristics of spherical bead thermistors in stratospheric and mesospheric environments [ECOM-5125] 22 p4036 N67-37007
Thermistorized ebulliometry system for determining molecular weights of fluorocarbon compounds [K-1690] 22 p3989 N67-37671
Upper atmosphere temperature corrections to bead thermistor [PAD-121] 23 p4241 N67-38144
Pressure gauge using thermistors for high altitude balloons 23 p4255 N67-39271
THERMO-PHOTOVOLTAIC CONVERSION
Germanium devices studied for use in thermophotovoltaic converter [ECOM-02543-1] 18 p3252 N67-32650
Germanium solar cells for thermo-photovoltaic conversion with increased energy conversion efficiency [ONERA-TP-478/1967/] 19 p3369 N67-33332
Phenomena affecting voltage and collection efficiency of p-i-n germanium thermophotovoltaic converter diodes [ECOM-01978-2] 23 p3963 N67-36909
Germanium web crystal growth and p-n junction formation techniques for thermo-photovoltaic cell construction [ECOM-02543-1] 23 p4182 N67-38495
Conversion efficiency evaluated of p-i-n thermo-photovoltaic diode [TR-EE67-13] 24 p4418 N67-39747
THERMOBALANCE
Differences in thermobalance measurements analyzed based on pyrolysis data, volumetric standards, and solid state reactions [NASA-TT-F-10381] 02 p0361 N67-12009
THERMOCHEMISTRY
SA AEROTHERMOCHEMISTRY
Thermochemical analysis of vapor plating process which involves diffusion, adsorption, desorption, and chemical reaction [ORNL-TM-1454] 01 p0029 N67-10621
Intermolecular bonding of metals and alloys by thermochemical vapor deposition [NASA-CR-80721] 04 p0559 N67-13971
ONERA thermochemistry techniques of protection and assembly of steel and refractory metals 06 p1385 N67-18676
Thermochemical constants of elements and compounds - Tables [NASA-CR-83718] 12 p2044 N67-24580
Optimization thermochemical deposition of tungsten to improve texture and other properties 13 p2335 N67-25357
Thermochemical deposition processes to prepare fuel compounds and refractory alloys from volatile halides 13 p2354 N67-25380
Vapor deposition of rhenium and rhenium-tungsten composites by thermochemical reduction of rhenium hexafluoride with hydrogen [BM-RI-6915] 13 p2273 N67-26308
Heat release rate of ammonium perchlorate fuel or catalyst as function of temperature [PU-3473] 15 p2803 N67-28182
Prediction of absolute entropies from gas chromatographic retention data [NRL-6539] 15 p2807 N67-28955
Thermochemical method using mass spectrometry to obtain well depth for weak intermolecular potentials [AD-653214] 18 p3230 N67-31513
Vapor species identification, structural data, thermodynamics, and chemical properties of gaseous ternary salts of alkali metals [AROD-006-24-C] 19 p3397 N67-32869
Condensed phase reactions to ignition and deflagration of ammonium perchlorate propellants [SRI-PU-3573] 19 p3527 N67-32992
Bibliography on high temperature chemistry and physics of materials in condensed state [NP-16584] 19 p3396 N67-33731
Isentropic flow solutions for reacting gas mixtures in thermochemical equilibrium [NASA-TN-D-4114] 22 p4026 N67-37374
Reactions of sulfur hexafluoride with electrically exploded metals to form sulfur tetrafluoride and metal fluoride [TR-1001/2210-10/-4] 23 p3967 N67-37377
Mathematical model and rate coefficient measured for iron ore reduction in blast furnace [BM-RI-7031] 22 p3986 N67-37417
Thermochemical separation and spectrographic determination of impurities in rhenium [UCID-15153] 22 p3993 N67-37989
Thermochemical behavior of SNAP fuel material in hyperthermal wind tunnel [NAA-SR-12062] 23 p4285 N67-38343
Heats of formation of lithium, sodium, and potassium fluoborates [R-163/SR.3] 24 p4393 N67-39424
Heat of formation and transition temperatures of solid lithium hexafluoroaluminate [R-163/SR.3] 24 p4395 N67-39627
Thermochemistry of water at high temperatures and pressures [RM-4969-PR] 24 p4396 N67-39739
THERMOCONDUCTIVITY
Thermal conductivity and heat capacity of biological fluids and tissues - freezing and thawing of stored organs [GLR-46] 01 p0022 N67-10292
Steady-state-coupled fluid flow and heat conduction analysis of heat-generating solid, as applied to reactor design [NASA-CR-79869] 01 p0112 N67-10920
Solution of steady state heat conduction problem with mixed boundary conditions for external surface of cylinder by conformal mapping and dual integral equations [TG-220-T492] 01 p0168 N67-11189
Gas flow velocity measurement in inflammable medium and zonal method of calculating asymmetric radiative heating of infinite plate [FTD-MT-65-184] 02 p0234 N67-11301
Zonal method of calculating asymmetric radiative heating of infinite plate 02 p0234 N67-11302
Cooling rates in splat cooling [DSR-7618] 02 p0234 N67-11313
Ion energy balance equation analysed in study of thermal conduction and ion temperatures in ionosphere [NASA-CR-79594] 02 p0235 N67-11734
Apparatus for measuring thermoconductivity of liquid organic coolants used in nuclear reactors [AEET-345] 03 p0472 N67-12434
High temperature gas transport properties of argon and nitrogen [NASA-CR-80649] 04 p0589 N67-13536
Computer analysis of thermal characteristics of liquid hydrogen storage vessel on moon - thermal conductivity of insulation, solar absorptance and emittance ratio, and vessel characteristics [NASA-TN-D-3785] 05 p0774 N67-14927
Viscosity and thermal conductivity coefficients for dilute nitrogen and oxygen [NASA-CR-81130] 08 p0897 N67-19214
Thermal conductivity of pure and impure indium antimonide at low temperatures [TR-19] 06 p0949 N67-16270
Conductive heat transfer in porous carbonaceous chars of degraded phenolic nylon sample [NASA-CR-81298] 06 p0962 N67-16556
Measurements of thermal conductivity and electric resistivity of platinum from 373 to 1373 deg K [AFOSR-66-2484] 07 p1175 N67-17182
Electric conductivity of liquid tin, liquid lead, and liquid bismuth, and thermal conductivity of inorganic solid and liquids - Liquid aluminum oxide window, and liquid tungsten carbide [RITU-1966-18] 07 p1038 N67-17565
Thermal conductivity of ZTA graphite in temperature interval 23 deg to 2700 deg centigrade [LA-DC-8163] 07 p1209 N67-17962
Thermal conductivity studies of high polymers [NASA-CR-81782] 07 p1166 N67-18125
Physiological response related to heat conduction problems [NASA-CR-81794] 07 p1211 N67-18127
Evaluation of method for calculating thermal conductivities of metals [NASA-CR-83479] 08 p1284 N67-19060
Thermal conduction effects on ion energy balance equation and ion temperature profile of ionosphere [A-49-1966] 08 p1276 N67-19066
Heat conductivity, electrical conductivity, and viscosity calculated for thermic argon and nitrogen plasmas [DVL-569] 08 p1350 N67-19180
Solving problems of thermoconductivity for bodies of revolution [FTD-HT-66-453] 09 p1541 N67-19516
Thermal conductivity of rhenium and problem notes in chemistry, electricity, aluminum alloy fracture toughness, metallurgy and ceramics, nuclear and atomic physics, and optical physics [PB-173549] 09 p1486 N67-19923
Electron and ion temperatures and electron thermoconductivity in the upper atmosphere [A-48-1966] 09 p1442 N67-19977
Crystal structure, thermoconductivity, and nuclear characteristics of graphite [BNWL-SA-669] 10 p1678 N67-20623
Thermoconductivity of exothermic bodies and temperature fields around partial and complex heat sources 11 p1966 N67-22042
Probes for measuring thermal conductivities of soils and insulating materials [CRREL-TR-182] 11 p1870 N67-22531
Mathematical models for estimating thermal conductivity of cermet fuel materials used in nuclear reactor [NASA-TN-D-3898] 11 p1923 N67-22966
Mechanical, electric, and other properties of metallic molybdenum and molybdenum alloys 12 p2117 N67-22973
Thermal conductance tests on cabin wall insulation assemblies for supersonic transport [ARC-CP-910] 12 p2235 N67-24027
Assessment of convection, conduction, and evaporation in nucleate boiling [NASA-TN-D-3943] 12 p2236 N67-24470
Propellant leakage flow rates detection, fluid simulation of oxidizer and fuel, and materials compatible with thermal conductivity [NASA-CR-85618] 12 p2108 N67-24632
Thermoconductivity of coating materials used on space radiators 12 p2207 N67-24643
Tensor Green functions of Maxwell equations, heat conduction and nonlinear oscillation equations for anisotropic bodies, and wave propagation in elastic nonuniform media 13 p2342 N67-25215
Thermal conductivity of single and polycrystals of silicon, lanthanides, and some irradiated specimens 13 p2309 N67-25249
Viscosity and thermoconductivity coefficients of dilute neon, krypton, and xenon [NASA-CR-83239] 13 p2435 N67-25961
Electron thermoconductivity in ionosphere [A-45-1966] 13 p2314 N67-26026
Thermal diffusivity and conductivity of polymers and variation in temperature and structure [NT-154] 13 p2344 N67-26265
Relationship between contact and convective-conductive heat flux components

during particle heating in fluidized bed 13 p3427 N67-36425
Structure of shock waves in gas with thermoconductivity and viscosity [NASA-TT-F-10623] 14 p2516 N67-24565
Mathematical models used to determine thermal and electrical behavior of composite superconducting magnets [NASA-CR-84456] 14 p2582 N67-27544
Electrical conductivity, radiation source strength, thermal conductivity, and viscosity of argon plasmas at high temperatures deduced from arc data [TR-29] 14 p2600 N67-27769
Spherical calorimeter for determining gas and liquid thermoconductivity 15 p2711 N67-28128
Thermal conductivity of aluminum oxide [AFML-TR-67-12] 15 p2804 N67-28338
Melting phenomena to simplify measurement of thermoconductivity [RAE-TR-66328] 15 p2806 N67-28806
Assembly for measuring thermal conductivity coefficient, thermal electromotive force, and specific electrical resistance of cermet materials [NASA-TT-F-11057] 16 p2891 N67-29019
Thermal conductivity of heavily phosphorus doped silicon at high temperatures [TR-21] 16 p2960 N67-29677
Thermoconductivity in metals, alloys, and semiconductors, as well as in contacts and junctions [ECOM-2799] 17 p3175 N67-30190
Thermal conductivity of magnesium stannide [IS-T-149] 17 p3175 N67-30242
Rapid determination of carbon in uranium carbon alloys by thermoconductivity [CEA-R-3155] 17 p3015 N67-30667
Thermal conductivities of ordinary and deuterated gaseous hydrogen fluoride and their equimolar mixture [NASA-TN-D-4056] 17 p3129 N67-30681
Variational methods for solving heat conduction problems [NASA-CR-85816] 17 p3180 N67-31495
Superconducting coil performance and non-linear behavior of liquid helium bath with respect to heat flux [NASA-CR-86615] 18 p3315 N67-31518
Lunar surface layer structure determination based on effective thermal conductivity coefficient [NASA-TT-F-11071] 18 p3326 N67-31851
Equilibrium thermal conductivity of partially ionized argon calculated to test particle transport equations of laminar boundary layer [NASA-CR-85974] 18 p3259 N67-31854
Density, viscosity, surface tension, electrical resistivity, thermoconductivity, enthalpy, specific heat, and vapor pressure thermophysical properties of potassium [NASA-TN-D-3130] 18 p3279 N67-31910
Thermal conductivity techniques and measurements for determining whole organ freezing and thawing, heat transfer, and thermal properties [GLR-54] 18 p3213 N67-32303
Equation for describing heat conduction in moist porous media [CRREL-RR-213] 19 p3549 N67-32798
Thermoconductivity coefficient of cesium plasma [FTD-MT-65-529] 19 p3516 N67-33266
Mathematical model of contact between two surfaces for calculating infacial thermal conductivity [NASA-CR-87316] 19 p3553 N67-33395
Background effect, and nitrogen and para hydrogen concentration factors effect on accuracy of thermal conductivity coefficient measurements of multilayer insulations [JINR-P6-3236] 19 p3556 N67-33079
Analog-to-digital device for simulating nonstationary thermal conductivity [FTD-HT-66-712] 19 p3460 N67-33936
Solving heat conduction boundary problems of vertical finned reactor fuel elements [UJV-1622] 19 p3496 N67-33940
Solar absorptance and transmittance, total hemispherical emittance, and effective thermal conductance of space suit materials [NASA-CR-85678] 20 p3562 N67-34336
Qualitative evaluation of combustible materials based on temperature and radiation measurements [ISL-T-21/66] 20 p3591 N67-34349
Reduction behavior, thermoconductivity, rupture modulus, dielectric constant, and other properties of alumina-ceria compositions [RE-297] 20 p3664 N67-34424
Mathematical model, using thermoconductivity and heat budget equations, to predict sea ice thickness and temperature 20 p3634 N67-34850
Thermoconductivity of propellant tank insulants, satellite communication ground station, and twenty-four hour satellite motion stability 20 p3734 N67-35021
Thermoconductivity, specific heat, and density of insulants for liquid hydrogen propellant tanks 20 p3748 N67-35022
Temperature dependency of electrical conductivity, thermal electromotive force, and heat conduction in indium bismuthide 20 p3715 N67-35140
Heat conduction in hemispherical shell with applications to aerodynamic heating in hypersonic vehicles [HSA-124] 20 p3749 N67-35211
Thermoconductivity, corrosion behavior, phase fields, eutectic points, and other properties of uranium plutonium carbon titanium alloys [CEA-R-3301] 21 p3568 N67-35635
Steady heat flow out of solids with temperature dependent conductivity [NIJS-R-497] 21 p3947 N67-35912
Surveyor thermal switch for thermoconductivity control on lunar surface 21 p3937 N67-36215
Analysis of end-wall thermal boundary layer behind reflected shock to determine thermal conductivity of argon over temperatures 3150 to 9225 K [NASA-CR-82366] 21 p3950 N67-36419
Thermal conductivity measurements on magnesium oxide, beryllium oxide, thorium oxide, thorium uranium oxide, and aluminum uranium oxide [ORNL-4121] 22 p4163 N67-37420
Performance of heat pipe in earth orbit zero gravity field [LA-3714] 22 p4165 N67-37590
Anisotropy in thermoelectric force and thermal conductivity of pure tungsten in transverse magnetic field [NASA-TT-F-11079] 22 p4130 N67-38020
Transient heat conduction in finite slabs with position dependent heat generation [NASA-TM-X-1442] 23 p4363 N67-38361
High temperature thermal conductivity and diffusivity standards [AFML-TR-66-415] 23 p4363 N67-38507
Primary shock wave reflection in shock tunnel and, surface temperatures and thermoconductivity rates 23 p4364 N67-38689
Nonstationary thermal conduction and optimum parameters of sandwich plates 23 p4360 N67-39177
Solution to nonstationary problem in theory of thermal conduction in circular hollow cylinder 23 p4366 N67-39184
Temperature field for system of bodies with low thermoconductance 23 p4368 N67-39185
Thermal conductivity of excitonic insulators [TR-48] 23 p4334 N67-39241

THERMOCONDUCTIVITY GAUGE
Fabrication, calibration, and operation of thin film heat transfer gauges for determining surface temperatures and heat transfer rates of shock tube walls 07 p1077 N67-16966
Upper atmosphere pressure measurements by parachute suspended thermoconductivity gauges released from Arcas rockets [ECOM-5110] 15 p2705 N67-28696

THERMOCOUPLE
SA COUPLING
SA PYROMETER
SA SEEBECK EFFECT
SA TEMPERATURE MEASUREMENT
Electrochemical corrosion and current relation in thermocouple [JPRS-38648] 02 p0226 N67-11830
Transient radiation effects on power reactor thermocouples determined at various levels of nuclear radiation [NASA-CR-81233] 06 p0915 N67-16622
Temperature sensors, and improved thermocouples in process instrumentation development program 09 p1445 N67-19436
In-pile performance of platinum-rhenium and tungsten-rhenium thermocouples exposed to long term irradiation at high temperatures 09 p1477 N67-19623
Metallographic observations of hot junction systems of commercial thermocouples exposed to reactor irradiation 09 p1445 N67-19624
Smoothed thermocouple tables of extended significance for use in precision thermometry 09 p1541 N67-19625
Thermal electromotive force drift of high temperature thermocouples in helium and argon 09 p1446 N67-19626
Thermal electromotive force drift of refractory metal thermocouples in pure and contaminated helium atmospheres 09 p1446 N67-19627
Thermoelectric stability of thermocouple materials in helium and graphite environment 09 p1468 N67-19628
High temperature, high vacuum thermocouple drift tests 09 p1446 N67-19629
Influence of carbon monoxide and carbon dioxide environments on calibration of Chromel-P-Alumel thermocouples 09 p1446 N67-19630
Refractory oxide insulated thermocouples for measuring fast reactor fuel pin temperatures 09 p1478 N67-19634
Insulation and sheath material failure of thermocouples used in high temperature environments 09 p1447 N67-19635
Instability of noble and refractory metal thermocouples at high temperatures 09 p1447 N67-19636
Thermocouple systems for monitoring temperatures inside nuclear reactors 09 p1478 N67-19638
Thermocouple development for high temperature applications 09 p1447 N67-19641
In-pile performance of refractory metal thermocouples 09 p1478 N67-19642
Shunt effects and sheath integrity of thermocouples for reactors of Project Rover 09 p1479 N67-19643
Stability of rhenium-graphite thermocouple 09 p1448 N67-19646
Dynamic thermocouple for measurement of plasmas in 3000 to 4000 deg temperature range [FTD-MT-65-528] 09 p1492 N67-19750
Design and testing of six iridium versus iridium-40 rhodium thermocouples [NASA-CR-82853] 09 p1451 N67-20255
Effects of pickup and screening on energy measurement of plasmoid with thermocouple probe 11 p1952 N67-21917
Miniature electronic devices for use with bolometers and thermocouples to simplify field measurements of heat radiation 11 p1874 N67-21995
Automatic dew point hydrometers with semiconductor thermoelements for humidity transducers 11 p1912 N67-22011
Thermoelectric temperature sensors for anisotropic turbulent air stream measurements in atmospheric ground layer 11 p1875 N67-22016
Thermoelectric properties of Mo-Ru alloys and W-Re alloy studied in development of high temperature thermocouples and electrical and electronic materials for reactors 11 p1920 N67-22098
Fast-response thermocouple for measuring temperature transients of materials subject to pulsed neutron flux [UCRL-14509] 11 p1878 N67-22327
Thermoelectric sensors for temperature fluctuation of sea water, and technology for multijunction radiation scattered by water 11 p1880 N67-22370
Probes for measuring thermal conductivities of soils and insulating materials [CRREL-TR-183] 11 p1870 N67-22851
Black body model, and calibration of thermopiles 11 p1999 N67-22768
Digital computer logging of output data from on-line thermocouples [AERE-R-5306] 11 p1831 N67-22917
Platinum alloy thermocouple composition changes due to neutron bombardment in thermal reactors [EUR-3156.E] 11 p1926 N67-23093
Transient radiation effects on reactor thermocouples [NASA-CR-83079] 11 p1927 N67-23485
Out of pile evaluation of tungsten rhenium thermocouple systems for use in measuring plutonium oxide and uranium oxide fuel temperatures [GEAP-5168] 12 p2098 N67-23587
Thermocouple instrument standards for

use in fluid flow measurement
[AD-644371] 12 p2100 N67-23840
Manufacture of materials testing reactor thermocouple fuel plates
[AERE-M-1040] 12 p2148 N67-24000
Electromotive force deviation of Chromel-Alumel thermocouples caused by neutron irradiation
[EUR-3257.E] 12 p2102 N67-24585
Superheater fuel thermocouple calibration tests and radiation cooling tests
[ACNP-66570] 13 p2359 N67-25523
Preparation and heat content of uranium, plutonium and neptunium containing microspheres for use as intrinsic thermocouple flux probes
[BMI-X-10175] 13 p2359 N67-25529
Reactor technology developments in high temperature thermocouple and electrical materials 14 p2575 N67-26992
Time-temperature characteristics of thin skinned models as affected by thermocouple variables
[NASA-CR-84500] 14 p2634 N67-27667
Analyzer of thermocouple curve when thermocouple used as temperature measurement probe
[INR-705/III/E] 14 p2540 N67-27686
Thermocouple measurements of rapidly changing temperatures 15 p2707 N67-27829
Exchange current measurements on nickel-nickel II couple in molten fluorides
[ORO-3518-3] 16 p2851 N67-29632
Noble and refractory metal thermocouples in experimental irradiation equipment 18 p3302 N67-32447
Postirradiation calibration data from thermocouples used to monitor sample temperatures of experimental capsules in high flux test reactors 18 p3302 N67-32448
Thermocouple development for use in measuring oxide fuel temperatures in-pile above 4000 deg F 18 p3303 N67-32450
Experiments to study radiation effects on thermocouples
[RT/ING/66/14] 19 p3493 N67-33738
Decalibration of tungsten-tungsten 25 percent rhenium thermocouple in neutron flux by determining change in thermoelectric emf
[LA-3663] 20 p3679 N67-34313
Thermocouple failures during irradiation in graphite rigs
[EUR-3491.E] 20 p3681 N67-34384
Error sources and failure mechanisms in sheathed nickel alloy thermocouples 21 p3853 N67-36548

THERMOCOUPLE GAUGE

Effect of pressure on electromotive force of molybdenum and molybdenum-rhenium thermocouples
[UCRL-14993] 07 p1666 N67-17582
Temperature measurement errors, and errors due to thermocouple electrode heat removal 15 p2711 N67-28126

THERMOCOUPLE PYROMETER

High temperature thermocouples used in gas cooled reactor irradiation tests of encapsulated fuel materials 09 p1477 N67-19623
Calibration drift effects in nickel alloy thermocouples
[TRG-1510/R/] 22 p4051 N67-38608

THERMODYNAMIC COUPLING

Closed-form solution for stratification of subcooled fluids in containers subjected to heating, and for liquid-ullage vapor coupling
[NASA-CR-80472] 03 p0474 N67-13109

THERMODYNAMIC EFFICIENCY

Maximum collection efficiency prediction method for paraboloid solar collector
[NASA-TM-X-1323] 02 p0176 N67-11945
Thermodynamic and structural design of LOX-HYDROGEN engine for use in ELDO B launch vehicle 04 p0886 N67-14390
Computer program for calculating thermodynamic performance of Brayton cycle space power systems
[NASA-TM-X-1339] 06 p0796 N67-16488
Thermodynamic evaluation of cooling systems and energy transfer in Molten-Salt Reactors
[JUL-422-RG] 11 p1923 N67-22928
Analysis and correlation of thermodynamic cycles for spacecraft power systems using maximum cycle irreversibility concept and second law of thermodynamics 12 p2135 N67-24273

THERMODYNAMIC EQUILIBRIUM

Structural changes in niobium base alloys induced by exposure to titanium interstitial sink at elevated temperature
[NASA-CR-81140] 05 p0719 N67-15250
Production of equilibrium cesium plasma in container maintained at high temperature
[LMSC-2-78-66-1] 06 p0944 N67-16486
Reacting gas system measured as passing from state of thermodynamic equilibrium to chemical nonequilibrium by flowing through nozzle 07 p1064 N67-17290
Solubility of calcium sulfate in high temperature and supercritical stream
[AERE-TRANS-1058] 07 p1031 N67-17942
Thermal radiation from gas not in thermodynamic equilibrium
[NASA-TM-X-52377] 10 p1772 N67-21395
Spectroscopic plasma diagnostics involving studies of ionized gases and phenomena occurring under thermal equilibrium conditions
[NP-16443] 12 p2178 N67-23778
Relative line intensity computations for hydrogenic spectrum in thermodynamic equilibrium
[MONR-562/35//17] 12 p2238 N67-24811
Thermodynamic equilibrium in prebiological atmospheres, and inorganic origin of organic compounds
[NASA-SP-3040] 14 p2480 N67-27295
Analytical formulation derived for computing local radiation equilibrium temperatures in diffusely reflecting semigray cavities
[RR-17] 15 p2804 N67-28339
Local thermodynamic equilibrium and nonequilibrium values for bound state populations of hydrogenic ions in steady state
[UCRL-50135] 16 p2950 N67-29880
Stellar atmosphere models that assume interior energy sources, thermodynamic and mechanical equilibrium, and absorption of radiant energy only in continuous spectrum 17 p3161 N67-31025
Approximate formulas for calculating thermodynamic characteristics and equilibrium constants of chemical reactions
[NASA-TT-F-1168] 19 p3553 N67-33420
Conditions for empirical and thermodynamic equilibria between solid and liquid phases 21 p3777 N67-35500
Empirical and thermodynamic equilibria of sodium chloride-cesium chloride-water-ethyl acetate system 21 p3777 N67-35501
Thermodynamic equilibrium of NaCl-AgCl-ethyl acetate-water system 21 p3777 N67-35502
Photometric measurements on deviations from equilibrium state in burnt flame gases
[TR-22] 21 p3949 N67-36135
Presence of thermodynamic equilibrium in arc and glow discharges
[NASA-TT-F-10622] 21 p3950 N67-36502
Thermodynamic analysis of binary vapor liquid equilibria
[NASA-TT-F-11365] 22 p4168 N67-38004
Thermodynamic equilibrium curves from spectral radiation intensities emitted by free-burning argon arc plasma
[ARL-67-0060] 23 p4315 N67-38127
Thermal equilibrium departure between dispersed liquid phase and vapor at high quality during film boiling in vertical tube
[TR-75212-44] 23 p4364 N67-38238

THERMODYNAMIC PROPERTY

Thermochemical properties of gases, thermodynamic properties of Be and alkali metal halides, and thermochemical mass spectrometry - bibliography
[ORNL-TM-980, SUPPL. 1] 01 p0030 N67-10634
Vibrational spectra, normal modes, and dynamic and thermodynamic properties of disordered harmonic lattices
[LA-3510] 02 p0294 N67-11715
Thermodynamic properties of silver chloride, sodium chloride, and lead chloride system 02 p0355 N67-12377
Thermodynamic characteristics of dichlorides and trichlorides of rare earth elements 03 p0356 N67-12385
Thermodynamic properties of carbon tetrachloride, and enthalpy-entropy diagram 05 p0950 N67-15845
Thermodynamic analysis of dissociating nitrogen tetroxide system
[NASA-TT-F-10460] 04 p0606 N67-13623
Thermodynamic properties of amino acids plus furan and urea, and inorganic and organic compounds
[NASA-CR-80838] 04 p0607 N67-14215
Thermodynamic properties of several solid phases of indium antimonide
[TR-1] 05 p0751 N67-15003
Thermodynamic properties of propellant combustion products, and vaporization heat data on lithium
[QLR-66-4] 05 p0775 N67-15655
Thermodynamic properties of polybutene-1 and butene-1
[NOLTR-66-171] 06 p0828 N67-16352
Kinetics of reactions in solid state - bulk thermodynamic properties, diffusion in metals and alloys, nucleation, growth in solids, evaporation, dislocations, and polymer structure
[AD-640434] 06 p0890 N67-16419
Thermodynamic and turbine characteristics of gas turbine-driven hydrogen fueled open cycle auxiliary space power systems
[NASA-TM-X-1327] 06 p0796 N67-16679
Rubidium and cesium thermodynamic and transport properties for space power systems
[AGN-8167] 07 p1269 N67-17589
Relations between viscosimetric and thermodynamic properties of moderately concentrated solutions of vinyl aromatic polymers
[NASA-CR-81606] 07 p1107 N67-17984
Forecast of aerospace thermodynamic properties above Cape Kennedy
[DAC-59171] 08 p1363 N67-18657
Zero pressure thermodynamic properties of nitrogen gas
[BM-IC-8319] 08 p1384 N67-19003
Thermodynamic properties and chemical composition of argon in chemical equilibrium, including second virial corrections from 2400 deg to 35,000 deg K - Tables
[AEDC-TR-66-248] 09 p1543 N67-20009
Thermodynamic and transport properties of liquid cesium and rubidium viscosity
[AGN-8192, VOL. 3] 09 p1544 N67-20211
Optical methods for remote sensing of local thermodynamic properties and turbulence in model flows or atmosphere 09 p1544 N67-20224
Thermodynamic properties of uranium trichloride dissolved in molten alkaline chlorides
[EUR-3158.F] 09 p1413 N67-20238
Thermodynamics of borides, carbides, nitrides, and oxides of 21 elements in temperature range of 0 deg to 6000 deg K
[AD-642550] 10 p1760 N67-20627
Thermodynamic and transport properties of cesium, rubidium, lithium, and sodium
[AGN-8202] 10 p1773 N67-21518
Specific heat ratios and isentropic exponents for constant volume combustion of stoichiometric mixtures of hydrogen-oxygen diluted with helium or hydrogen
[UTIAS-TN-102] 10 p1773 N67-21724
Determination of thermodynamic state of relaxing hypersonic gas flows by electron beam technique
[DLR-FB-66-63] 10 p1773 N67-21751
Preparation and thermal characterization of metal carbamate compounds
[REPT.-3778] 11 p1892 N67-22127
Structures, thermal stability, and reactions for dimethyl carbamates of transition metals
[REPT.-3783] 11 p1892 N67-22128
Nuclear and atomic physics, thermodynamic properties of matter, and radiation and plasma physics
[UCRL-14744] 11 p1894 N67-22130
Thermodynamic properties of matter 11 p1895 N67-22133
Thermodynamic properties of nitrogen-oxygen-argon gas mixture - statistical mechanical theory of calculation
[SC-RR-66-354] 11 p1898 N67-22310
Thermodynamic properties of interstitial elements in refractory metals
[NASA-CR-83391] 11 p1898 N67-22439
Thermal detectors and dynamic calibration techniques for mapping local thermodynamic properties and turbulent flow characteristics
[NASA-CR-751] 11 p1894 N67-22770
Thermodynamic properties of plutonium oxides
[LA-DC-8268] 11 p1901 N67-22911
Computer program for calculating equilibrium thermodynamic properties of diatomic gas mixtures
[NASA-TN-D-3921] 11 p1882 N67-23088
Tables for thermodynamic properties of equilibrium air
[AEDC-TR-66-247] 12 p2134 N67-23670
Thermodynamics of drops in vapor cooled

circuits
[KFK-410] 12 p2234 N67-33754
Correlation of thermodynamic data with binary eutectic-type phase diagrams
[IS-T-123] 13 p2041 N67-33700
Hypersonic nonequilibrium flow at reentry of space vehicles and thermodynamic relations 12 p2211 N67-34200
Thermodynamic properties of compressed gases - Tables
[AFOSR-67-0640] 12 p2236 N67-34370
Thermodynamic properties of liquid metal solutions in sodium-mercury system at high temperature
[NASA-TN-D-3951] 12 p2043 N67-24476
Thermodynamic data in condensed media obtained by shock wave techniques - Tables and graphs
[UCRL-50108, VOL. 1] 13 p2156 N67-34567
Critical field of superconducting aluminum as function of pressure and temperature
[AROD-3771-13] 12 p2194 N67-34681
Thermodynamic properties of indium antimony tellurides, indium antimonides, and indium tellurides
[TR-3] 12 p2049 N67-34970
Thermodynamic properties of Wustite phase
[ANL-7250] 13 p2422 N67-25424
Calculated thermodynamic functions of various uranium and thorium nuclear compounds
[ORNL-TM-1596] 13 p2423 N67-25501
Digital computer subroutine for thermodynamic and transport properties of liquid, vapor, and supercritical water
[WAPD-TM-568] 13 p2423 N67-25559
Wiener integral application to thermodynamic limit problem in quantum statistical mechanics 13 p2367 N67-25569
Thermodynamic properties for compounds of the elements carbon, hydrogen, nitrogen, oxygen, phosphorus, and sulfur
[NASA-CR-83075] 13 p2370 N67-25564
Equations for calculating thermodynamic properties of fluids including properties in two-phase region from empirical state equation
[BM-RI-6924] 13 p2426 N67-26320
Defect structure, mechanical behavior, electrical and optical properties, magnetic, thermodynamic, and thin film properties of solid materials and crystals
[NASA-CR-84070] 13 p2395 N67-26375
Dissipation of instantaneously heated material and determination of its equation of state by pressure and impulse 13 p2427 N67-26389
Thermodynamics of calcium-oxygen vapor phase over wide temperature range
[RM-5348-PR] 14 p2632 N67-26899
Hydrometeorological and thermodynamic processes, ice formation, snow accumulation, and history of glaciers in Polar Urals region of U.S.S.R. 14 p2323 N67-27141
Thermodynamic principles and algorithms applied in calculations of complex chemical equilibria
[NASA-TM-X-52303] 14 p2490 N67-27240
Thermodynamic property effects of water and ethyl alcohol on cavitation processes in venturi tube
[NASA-TT-F-10913] 14 p2519 N67-27523
Dynamic and thermodynamic structure of water determined from cold neutron scattering data
[INP-501/PS] 15 p2756 N67-27676
Thermodynamic properties of high-temperature air in equilibrium and in equilibrium regime behind shock
[DLR-FB-67-06] 15 p2805 N67-28672
Thermodynamic properties of deuterium
[NASA-CR-84873] 15 p2664 N67-28936
Soil thermodynamics at freezing point depression, and heat capacity at or below freezing point
[CRREL-RR-222] 15 p2706 N67-28966
Thermodynamic properties of hcp iron and iron ruthenium alloys
[TR-13] 16 p2906 N67-29061
Thermodynamic properties of liquid water at one kilobar
[NOLTR-66-217] 16 p2915 N67-29455
Electronic structure method from standpoint of inhomogeneous electron gas used for determining mechanical and thermodynamic properties of metallic alloys and compounds
[TR-44] 16 p2944 N67-29633
Thermodynamics of solid and liquid gold-tin alloy and high temperature measurements of heat content of gold and tin
[UCRL-17401] 16 p2851 N67-29835
Digital computer solution of thermodynamic behavior of storable or cryogenic fluid tankage systems
[NASA-CR-85582] 16 p2967 N67-30164
Properties of Chapman-Jouget detonations in stoichiometric hydrogen-oxygen mixtures diluted with helium and hydrogen
[UTIAS-TN-104] 17 p3169 N67-30304
Thermodynamic and electromagnetic properties of superconductors with nonmagnetic transition element impurities
[TUEP-67-12] 17 p3148 N67-30543
Thermodynamic properties of solution of mercury metal
[IS-T-119] 17 p3177 N67-30646
Tabulated data of atmospheric density, pressure, and temperature from rocket and optical probes during period 1947 to 1965
[NASA-CR-85565] 17 p3055 N67-30696
Partial derivatives of fundamental thermodynamic functions in terms of temperature and pressure variables
[NASA-TT-F-11089] 17 p3180 N67-31383
Two-dimensional computer program for thermodynamic behavior analysis of boiling liquid
[CEA-R-3141] 17 p3118 N67-31466
Design guide for pressurized gas systems for spacecraft - thermodynamic and physical property data
[NASA-CR-86590] 18 p3198 N67-32147
Thermodynamics of water interaction with ground and unground beta-cyclotetramethylene tetranitramine
[PA-TR-3565] 18 p3236 N67-32499
Thermodynamic property correlations and high pressure experiments on boron antimonide, boron nitride, and aluminum nitride
[SR-1] 19 p3388 N67-32902
Nitrogen thermodynamic data in Mollier diagram form
[NOLTR-67-32] 19 p3550 N67-32961
Theoretical and experimental research on radiation and plasma physics, hydrodynamics, thermodynamic property of matter, and nuclear structure
[UCRL-50001-66-3] 19 p3498 N67-33206
Particle theory, and thermodynamic properties of matter 19 p3551 N67-33300
Thermodynamic-transport and related property data for para-hydrogen - tables
[LA-3689] 19 p3551 N67-33235
Thermodynamic properties of ethylenimine, organic fluorine compounds, and aliphatic diamines
[AD-653986] 19 p3392 N67-33230
Thermodynamic properties of Van der Waals fluid in two-phase region
[BM-RI-6960] 19 p3554 N67-33578
High temperature properties and decomposition of inorganic sulfates
[NSRDS-NBS-7] 20 p3567 N67-34027
Thermodynamic properties determined for alpha and beta spodumene and beta eucryptite
[BM-RI-7001] 20 p3743 N67-34040
Thermodynamic and transport properties of cesium and rubidium pressure volume temperature properties
[AGN-8192, VOL. 1] 20 p3743 N67-34070
Thermodynamic properties of three Martian model atmospheres for calculating equilibrium flow fields for real gases - tables
[ATDM-66-1] 20 p3724 N67-34135
Configurational enthalpy of polystyrene calculated from heat of combustion measurements of atactic and isotactic polystyrene
[REPT.-66-C-391] 20 p3744 N67-34207
Vibronic transitions in spectra of gadolinium and negative hydrogen ion pair in calcium fluoride crystals
[AFCRL-67-0278] 20 p3712 N67-34248
Heat capacity data analysis and molal thermodynamic properties of C-8 to C-16 hydrocarbons and tetraphosphorus decasulfide
[NASA-CR-87995] 21 p3774 N67-35345
Computer programs for thermodynamic and transport properties of hydrogen
[NASA-CR-89086] 21 p3945 N67-35527
Thermodynamic properties of azeotropic Freon 22 and Freon 115 mixture
[FTD-HT-66-453] 21 p3946 N67-35646
Thermodynamic investigation of graphite-carbon vapor system at temperatures to 6000 deg K and pressures to 1000 atm
[RM-3336-2-PR] 21 p3946 N67-35691
Computed thermodynamic property data for potassium from melting point to 2100 Kelvin
[NASA-TN-D-4165] 21 p3947 N67-35776
Preparation, characterization, and thermodynimic properties of lanthanum oxide carbide
[COO-716-027] 21 p3789 N67-36349
Calculation of reduced thermodynamic potentials for some carbides and nitrides
[NASA-TT-F-11117] 21 p3950 N67-36443
Thermodynamic and transport properties of potassium for alkali metals evaluation program
[AGN-8194, VOL. 2] 21 p3951 N67-36503
Nitrogen solid solubility in stainless steel as function of temperature and stress corrosion
[EURAEC-1836] 21 p3872 N67-36529
Calculation methods for phase diagrams of binary oxyde systems from thermodynamic data
[TUBIK-3] 21 p3876 N67-36647
Thermodynamic properties of self-diffusion in alpha-uranium 22 p4160 N67-36699
High and low temperature calorimetry and heat and free energy data for cuprous and cupric oxides
[BM-RI-7026] 22 p3987 N67-37414
Partial molar free energies, enthalpies, and entropies of carbon dissolved in solid molybdenum, tungsten, niobium, and tantalum
[NASA-CR-88326] 22 p4128 N67-37421
Critical review of published information of physical and thermodynamic properties of liquid oxygen difluoride and liquid diborane
[NASA-CR-88510] 22 p4131 N67-37539
Handbook on thermodynamic properties of metallic elements and binary alloys 22 p4071 N67-37562
Equilibrium thermodynamic properties of high temperature air
[DASA-1971-1] 22 p4165 N67-37569
Establishment of thermodynamic and transport properties for parahydrogen
[NASA-CR-88857] 22 p4167 N67-37975
Thermodynamic and transport properties of rubidium, cesium, and potassium, and alkali metals evaluation for heat pipe applications
[AGN-8223] 22 p4168 N67-38006
Preliminary collation of thermodynamic and transport properties of saturated liquid and vapor cesium
[NASA-CR-88967] 22 p4168 N67-38037
Equilibrium thermodynamic properties of high-temperature nitrogen - alkali metal vapor mixture
[NASA-TN-D-4186] 23 p4300 N67-38379
Thermodynamic properties and volatility measurements of plutonium carbides
[LA-DC-8012] 23 p4365 N67-39079
Thermodynamic theory and small perturbations in flows beyond equilibrium
[REPT.-67-4] 23 p4367 N67-39258

THERMODYNAMICS
SA AEROTHERMODYNAMICS
SA CHEMICAL RELAXATION
SA ENTHALPY
SA ENTROPY
SA FLUID MECHANICS
SA HEAT TRANSFER
SA PLASMA PHYSICS
Thermodynamics and differential equations for molecular transfer in generalized charged flux
[NASA-TT-F-10518] 01 p0163 N67-16220
Fortran computer program for transient thermodynamics of pressurizers
[WAPD-TM-545] 01 p0165 N67-16689
Thermodynamics and dynamics of diatomic gas mixtures with two rate processes
[AD-636731] 02 p0235 N67-11908
Pseudo-sonic velocity and pseudo-Mach number concepts in two-phase liquid-vapor flow
[NASA-TN-D-3734] 02 p0251 N67-11967
Thermodynamics of ferrous oxide examined through EMF measurements of galvanic cells 02 p0256 N67-12382
Bibliography on heat 02 p0471 N67-13625
Indian Institute of Science Journal articles on bacteriology, thermodynamics, actinomycetes isolation, wave propagation, and transport processes 03 p0477 N67-12943
Thermodynamic approach to fatigue failure in linearly viscoelastic materials
[NASA-CR-80378] 03 p0415 N67-13009

Flight test results for XV-5A aircraft on thermodynamics, stability and control, and systems performance
[REPT.-166, VOL. II] 03 p0333 N67-13051

Thermally induced flow oscillations in wear critical and supercritical thermodynamic region
[NASA-CR-80800] 04 p0822 N67-13534

Extrapolating experimental thermal data to high pressures, and specific volume data for liquids and gases
[NASA-TT-F-10386] 04 p0822 N67-13769

Thermodynamic processes and products in low temperature oxidations of hydrogen and carbon compounds, hydrocarbons, antiknock fuel additives, and pyrolyses of organic compounds
[AGARDOGRAPH-86] 04 p0503 N67-13821

Biological model studies of thermodynamic limitations underlying living processes
[NASA-CR-80765] 04 p0492 N67-13841

Nonisothermal deformation of viscoelastic medium based on thermodynamics of irreversible processes 04 p0619 N67-13861

Printouts and graphs of rocket winds, radiosonde observations and/or thermodynamics of February 1966 firings of Meteorological Rocket Network
[NASA-CR-80854] 04 p0571 N67-13905

Documentation-orientated technical journal on thermal processes
[AD-636751] 04 p0626 N67-13912

Long John Thermogasdynamic Test Facility
[UCRL-14841] 04 p0528 N67-14060

Computer program to calculate high temperature thermodynamic functions, using least squares method
[ORNL-TM-1599] 04 p0624 N67-14040

Thermodynamic measurements on cesium and rubidium, and vaporization of sodium and lithium
[AGN-8198] 04 p0624 N67-14054

Thermodynamic introduction to irreversible phenomena in continuous flow system
[REPT.-66-7] 04 p0624 N67-14187

Analysis of convergent spherical shock wave in heat conducting gas
[ONI-TRANS-2064] 05 p0695 N67-14967

Deformation of body described using first and second laws of thermodynamics and invariance considerations
[TR-18] 05 p0739 N67-14991

Equilibrium composition of gas phase and weight of silicon deposited calculated for silicon tetrachloride-hydrogen mixture and trichloro silane-hydrogen mixture
[ERDE-6/M/66] 07 p1026 N67-17231

Fortran 7094 computer program for calculation of design point performance of turbojet and turbofan engine cycles, and thermodynamic equations
[NASA-TM-X-1840] 06 p1253 N67-18399

Steam-driven free-piston air compressor for submarine shipboard applications
[MEL-158/66] 06 p1265 N67-19148

Thermodynamic equations for describing real gas influences in gas dynamical problems
[DVL-544] 06 p1269 N67-19172

Aqueous system chemistry - thermodynamics, ion exchange, solubility, hydrolysis, and salt solutions 06 p1243 N67-19946

Transient temperature response of infinite flat plate with unsymmetrical boundary conditions
[AEDC-TR-66-166] 09 p1518 N67-19459

Temperature and mass flow rate variation of gas determined in system consisting of storage bottle, pressure regulator, and flow choke
[AFWL-TR-66-160] 09 p1395 N67-19722

Bioenergetics research on biological energy changes, thermodynamics and life, entropy and information in biological bodies, and energy barriers and entropy barriers
[FTD-TT-65-1496] 09 p1491 N67-19778

Thermodynamic development of elastic-plastic continua for nonpolar media
[AM-66-10] 10 p1764 N67-20063

Thermodynamic analysis of beryllia ablative material for use in reentry vehicles
[RM-5151-PR] 10 p1570 N67-20649

Density effect model, nonlinear equations, and mechanism for oscillatory behavior of heated channels
[CEA-R-3049, PT. I] 10 p1769 N67-20750

Thermodynamic origin of hysteresis in superconductors and equivalence to phase equilibria
[BNL-9029] 10 p1752 N67-21529

Dynamic theory of mixtures
[AM-66-13] 10 p1696 N67-21721

Thermodynamic and ballistic fundamentals for solid propellant rocket engine design
[FTD-MT-65-191] 10 p1756 N67-21842

Thermodynamics, thermal effects, and dilation of natural rubber
[PIBAL-931] 11 p1903 N67-22441

Studies in electronics, optics, thermodynamics, and nuclear physics, and related instrumentation
[FTD-MT-64-178] 12 p2152 N67-22561

Dissociation pressures, related thermodynamic functions, and phase equilibria of americium oxides
[BNWL-CC-838] 12 p2037 N67-22544

Applied mechanics research on cyclic plastic strain effects on metal fatigue, and thermodynamic principles of rheology
[FTD-TT-65-1375] 12 p2221 N67-23790

Thermodynamic principles of rheology, and thermal and mechanical processes in medium 12 p2231 N67-23792

Thermodynamic, aerodynamic, mechanical, and systems studies of lift fan concepts for V/STOL transport and supersonic fan-in-wing fighter aircraft
[NASA-CR-761] 12 p2016 N67-25046

University research in nuclear physics, lasers, thermodynamics, hydrodynamics, radiation physics, and programming
[UCRL-50001-66-1] 13 p2233 N67-25480

Continuous method for numerical approximation solutions of heat equation
[APL-TG-863] 13 p2422 N67-25410

Facilities and instrumentation for low temperature chemical thermodynamics
[TPR-4] 13 p2368 N67-25585

Resistance change, thermoelectric force, and superconductivity data for transition metal carbides and nitrides
[NASA-TT-F-10847] 13 p2393 N67-25810

Combustion thermodynamics of aluminum for design of colloid particle generator
[NASA-CR-83965] 13 p2425 N67-26064

Thermodynamic tables for solid and liquid rocket propellants by small and medium digital computers
[DLR-FB-66-79] 13 p2435 N67-26063

Mechanical and industrial engineering programs to study gas dynamics, transport properties, hypervelocity, wind tunnel testing and other problems 14 p2542 N67-26609

Thermodynamics of air separation in air-breathing boosters for space vehicles
[DLR-FB-66-90] 15 p2706 N67-26664

Low frequency flow oscillations at near critical and supercritical pressures
[NASA-CR-84091] 15 p2690 N67-26778

Thermodynamics, kinetics, and mass transport research projects 16 p2346 N67-26469

Axiomatic foundation for continuum thermodynamics
[REPT.-67-3] 16 p2705 N67-26586

Thermodynamic fluctuations of equilibrium order parameter in type II superconductors
[TR-19] 16 p2669 N67-26690

Classification of basic relations from hydrodynamics and thermodynamics for application to two-phase flow studies
[EUR-3459.E] 17 p2647 N67-26509

Atmospheric thermodynamic models 17 p2683 N67-26577

Thermodynamic properties of certain biological materials for application to space program
[NASA-CR-85847] 17 p2608 N67-21483

Selected abstracts on space vehicle reentry, aerodynamics and thermodynamics studies
[ATD-67-9] 17 p2650 N67-21497

Thermodynamic properties of forsterite and serpentine
[BM-RI-6983] 18 p2279 N67-21601

Engineering physics articles on thermodynamics, fluid mechanics and aerodynamics
[FTD-MT-65-329] 18 p2359 N67-22281

Calculation method for evaluation process of gas volume based on thermodynamic equations 18 p2355 N67-22383

Thermodynamic analysis of power phat cycles with two-phase systems 18 p2199 N67-22389

Equilibrium specific heats and specific heat ratios, isentropic exponents and equilibrium speeds of sound for constant-volume combustion of stoichiometric mixtures of hydrogen-oxygen
[UTIAS-TN-102] 19 p2549 N67-22712

Differential equations for thermodynamics of nonlinear materials with internal state variables
[TR-67-15] 19 p2559 N67-22829

Time dependence of amplitude of waves propagating into homogeneous regions at equilibrium
[TR-67-14] 19 p2432 N67-23109

Thermodynamics of two-phase diabatic flow and related instabilities
[RT/ING/66/20] 19 p2555 N67-23710

Thermodynamic and gas dynamic parameters of thermal plasma on shock tubes
[FTD-MT-65-336] 19 p2519 N67-23827

Compact pyrochemical processes, fluidization and volatility processes, materials chemistry and thermodynamics, chemical and energy transfer in reactors, and energy conversion
[ANL-7225] 20 p2587 N67-24079

Thermodynamics of earth-storable liquid propellant combustion products and gaseous fuel/oxidizer combination for propellant simulation
[HFD-PS-67-5] 20 p2715 N67-24203

Role of metastable neutral electronically excited species in atmospheric deionization and reaction kinetics of important atmospheric constituents
[R67SD30] 20 p2630 N67-24349

Contact diffusion interaction of materials with cladding
[NASA-TM-X-55158] 20 p2697 N67-24374

Irreversible thermodynamics of liquid-vapor phase change process
[NASA-CR-87478] 20 p2745 N67-24529

Earth atmosphere behavior simulation by six-layer numerical model based on integration of water vapor conservation, thermodynamic, and hydrodynamic equations 20 p2655 N67-24538

Fortran IV program for calculating thermodynamic functions, fitting them to empirical equations, and calculating heats of formation and equilibrium constants
[NASA-TN-D-4097] 20 p2606 N67-25182

Thermodynamic and geometrical characteristics of pulse jet
[REPT.-37] 20 p2719 N67-25249

Calculation problems of heat exchangers with internal heat sources and sinks
[FTD-HT-66-436] 21 p2945 N67-25545

Statistical thermodynamic models for estimating clustering effects on equilibrium concentration of vacancies in binary alloys
[UCRL-17462] 21 p2916 N67-25656

Phase migration in monothermal field - nonequilibrium process of forced vaporization of water, carbon tetrachloride, chlorobenzene, and butanol
[ITTRI-C213-11] 21 p2782 N67-26479

Nuclear science research on thermodynamics, radiation damage, and kinetics
[AEC-TR-6646/2] 22 p4169 N67-26964

Thermodynamic aspects of sintering kinetics 22 p4181 N67-26968

Transient heat transfer and thermodynamic analysis of Apollo service module propulsion system
[NASA-CR-85679] 22 p4182 N67-27222

Solution heats of various elements in liquid tin
[DRI-314] 22 p4072 N67-27696

Gas turbine cycle calculations - differential methods for equilibrium operation analysis
[NRC-9966] 23 p4199 N67-28185

Dynamics and thermodynamics of viscoelastic media including construction of experimental measuring apparatus
[AD-656943] 23 p4203 N67-28241

Gas dynamics and thermodynamics of shock waves in high temperature gas environment
[FTD-HT-66-363] 23 p4287 N67-28761

Thermodynamics of ion exchange on colloidal materials with applications to silicate materials
[TID-23908] 23 p4306 N67-28132

Collection of articles on aerodynamic characteristics of aircraft, gas turbines, flight vehicles, flight mechanics, and thermodynamics
[FTD-MT-64-288] 23 p4309 N67-28169

Differential equations for thermal state of turbine blade 23 p4309 N67-28181

Heating calculation for two layered infinite slab 23 p4366 N67-39183
Thermodynamics of cation exchange of alkali metals on sulfonic and phenol sulfonic resins
[INR-P-810/VIII/C] 24 p4393 N67-39417
Holmium and terbium trichlorides heats of formation
[BM-RI-7045] 24 p4400 N67-40302
Covariant thermodynamics
[LNF-67/60] 24 p4551 N67-40323
THERMOELASTICITY
SA AEROTHERMOELASTICITY
Thermoelastic stress in epitrochoidal cylindrical nuclear fuel elements
[AAEC-TM-312] 01 p0166 N67-10692
Steady state, axisymmetric thermoelastic problems in bispherical coordinate system
[DRI-2327] 01 p0160 N67-10846
Equilibrium equations and power series expansion to determine thermoelasticity of nonhomogeneous, anisotropic shells
[R66SD60] 05 p0772 N67-15002
Strength and bearing capacity, heat resistance, thermoelasticity, thermoplasticity, rheology, construction mechanics, and stress concentration of materials
[JPRS-39233] 05 p0773 N67-15168
Shell and plate theory conference with emphasis on stability and nonlinear problems, plasticity, thermoelasticity, creep, and structural dynamics and mechanics
[NASA-TT-F-341] 09 p1520 N67-20021
Thermoelasticity of thin shells subjected to external load in nonstationary temperature field 09 p1524 N67-20116
Variational principles derived for boundary value problem of fully coupled linear thermoelasticity for inhomogeneous anisotropic continuum
[REPT.-66-21] 12 p2222 N67-23925
Steady stress state and temperature field in thin thermoelastic plate weakened by circular hole 12 p2229 N67-24543
Nonstationary problems of thermoelasticity for circular plate and cylindrical shell 18 p3352 N67-32284
Two axisymmetric steady-state thermoelasticity problems for analyzing stress in transversely isotropic solids used as fuel element models
[ANL-7277] 19 p3545 N67-33044
Temperature effects and thermoelastic stress in spherically symmetric fuel elements with varying material properties
[AAEC/TM371] 20 p3681 N67-34328
Thermoelastic stress wave generation by impulsive electromagnetic radiation determined in elastic half-space
[TR-11] 23 p4355 N67-38193
THERMOELECTRIC CONVERSION SYSTEM
Chemical and nuclear space power systems 01 p0007 N67-10262
Isotope properties, thermoelectric conversion systems, and space missions using isotopic power 01 p0007 N67-10265
Dynamic method of measuring output power characteristics of radioisotope thermoelectric generator
[NASA-TM-X-55603] 02 p0285 N67-11377
Radioactive sources survey for thermoelectric and thermionic converters
[CEA-R-2788] 03 p0428 N67-13302
Application of radioisotope heat source interior to tubular thermoelectric generator 05 p0736 N67-14838
Heat transfer in design of large radioisotope heat sources in thermoelectric generators 05 p0737 N67-14840
Development of radioactive isotope powered thermoelectric generators 05 p0737 N67-14841
Synchronization of redundant low input voltage conversion and regulation systems for use with satellite energy conversion sources
[NASA-CR-81305] 07 p0994 N67-16729
Techniques and hardware for low input voltage converter-regulator system
[NASA-CR-81315] 07 p0994 N67-16730
DRUTES code to determine design points of unmanned, direct-radiating, thermoelectric power system utilizing SNAP-8 and SNAP-10B reactors and thermoelectric converters
[NAA-SR-MEMO-11819] 07 p1122 N67-17496
Thermoelectric flat plates, thermionic systems, and uncooled silicon solar cells for solar direct-energy conversion
[NASA-TN-D-3788] 07 p0999 N67-17823
High temperature fibrous insulation for radioisotope power systems
[ALO-3633-2] 10 p1660 N67-20725
Reliability and efficiency of low input voltage inversion/conversion from radioisotopic thermoelectric generator power sources
[NASA-TM-X-55727] 10 p1558 N67-21398
Rollup solar array, thermoelectric failure mode testing, sterilizable battery, and surface potential of silver electrodes - spacecraft power 11 p2017 N67-23644
Bonding study to determine optimum length of thermoelectric arms in thermoelectric power generator
[AD-647812] 12 p2018 N67-24495
SNAP-21 program - deep sea radioisotope-fueled thermoelectric generator power supply system
[MMM-3691-12] 14 p2576 N67-27060
Computer program, radioisotope thermoelectric converter shielding, and thermionic energy conversion for spacecraft power supply systems 16 p2821 N67-29144
Development, manufacturing, and flight testing of SNAP-10A thermoelectric pump for NaK circulation
[NAA-SR-11879] 17 p3108 N67-30631
Ground handling and support equipment for 250 watt radioactive isotope thermoelectric power supply system
[GEMS-2048-I, VOL. III] 17 p3046 N67-31074
Silicon germanium thermoelectric generator with multifuel ultrasonic atomizing burner as heat source
[ECOM-02444-F] 21 p3761 N67-35716
Optimization of solar cells and radioisotope thermoelectric generators for satellite power supply systems
[NASA-CR-898] 22 p3964 N67-37223
Deep sea strontium 90 thermoelectric power supply system - SNAP-21 program
[MMM-3691-8] 22 p4091 N67-37232
SNAP-21 program deep sea radioisotope-fueled thermoelectric conversion system
[MMM-3691-17] 22 p4091 N67-37376
Design, fabrication, and test of thermoelectric converter for SNAP-23A terrestrial radioisotope power supply system
[MMM-3824-9006] 22 p4091 N67-37418
Solar cells and thermoelectric generators for scientific exploration of solar system
[NASA-CR-89744] 24 p4378 N67-40069
THERMOELECTRIC COOLING
Thermoelectric cooling advantages and physical principles using Peltier effect on semiconductor devices
[FTD-TT-65-1762] 10 p1769 N67-20595
THERMOELECTRIC MATERIAL
Thermocouple wire tested and thermoelectric measurements verified in cryogenic temperature range
[NASA-CR-80343] 03 p0298 N67-12985
Responsivity improvement in deposited bismuth antimony and bismuth tellurium thin film infrared thermopile detectors used in horizon scanners 06 p1280 N67-18317
Thermoelectric stability of thermocouple materials in helium and graphite environment 09 p1488 N67-19628
Magnesium antimonide and magnesium bismuthide evaluated as thermocouple material for thermoelectric power generation
[NASA-CR-82949] 09 p1502 N67-19950
Oxygen reaction with alkaline earth oxides in vacuum and thermoelectric emission
[NASA-TT-F-11130] 17 p3018 N67-31068
Thermoelectric properties of yttrium monoarsenide, yttrium monoantimonide, and other yttrium binary and ternary compounds and systems
[RI-7025] 21 p3917 N67-36143
THERMOELECTRICITY
SA SEEBECK EFFECT
SA THERMOCOUPLE
Systems design analysis of tubular thermoelectric module for two-loop liquid metal system
[NASA-CR-80198] 03 p0235 N67-13017
Thermoelectric force during plastic deformation 04 p0696 N67-13539
Thermoelectric properties of copper-antimony - tellurium sub two - tin-tellurium system
[FTD-TT-65-1993] 05 p0753 N67-15301
Thermoelectric powers of silver-gold and silver-germanium alloys
[NASA-CR-81639] 07 p1179 N67-17826
Thermoelectric power and Fermi surface in silver-gold alloys 08 p1350 N67-18322
Thermoelectric properties of Mo-Ru alloys and W-Re alloy studied in development of high temperature thermocouples and electrical and electronic materials for reactors 11 p1920 N67-22093
Thermoelectric materials engineering, plasma physics, and electrochemistry for direct energy conversion systems
[NASA-CR-83320] 11 p1784 N67-22161
Thermoelectric power and electric conductivity of semiconductor compounds containing copper, cadmium, indium, and tellurium 11 p1965 N67-22163
Thermoelectric sensors for temperature fluctuation of sea water, and technology for multijunction radiation scattered by water 11 p1880 N67-22370
Modernization of Yanishevsky thermoelectric balancemeter by application of massive receptor plates 14 p2536 N67-27115
Aluminum bonded lead telluride couples for use in space thermoelectric power supplies
[NASA-CR-85794] 17 p2999 N67-31372
Spectral characteristics of photoelectric cells, thermoelectricity, and parameters of solar concentrators, collectors, and reflectors
[JPRS-41144] 21 p3760 N67-35470
Thermoelectric power and thermoconductivity of iron disulfide and aluminum antimonide monocrystals of p and n type over large temperature range 21 p3945 N67-35475
Magnetohydrodynamic thermoelectric and thermionic devices with nuclear reactors or radioisotopes as heat sources, for direct production of electricity from atomic energy
[NASA-TT-F-10850] 21 p3889 N67-36229
Reactor pile radiation effects on thermoelectric properties of compound semiconductors
[USNRDL-TR-67-83] 24 p4518 N67-40203
THERMOGRAM
SA BATHYTHERMOGRAPH
Thermogram for brain of animals subjected to influence of accelerations 02 p0194 N67-11539
Combustion energy and differential thermograms of organic azides
[TR-1001/2210-10/-5] 24 p4394 N67-39502
THERMOGRAVIMETRY
Thermal decomposition of plutonium peroxide
[CONF-660606-13] 01 p0031 N67-10772
Thermogravimetric analysis of ablating polymers to determine kinetic parameters describing mass loss due to thermal degradation
[NASA-TN-D-3919] 11 p2001 N67-23236
Tritium tracer and thermogravimetric analysis used to investigate reactions of zinc-silver and cadmium-silver batteries
[NASA-CR-84215] 13 p2267 N67-25332
Kinetic parameters for constant heating rate thermogravimetry of phenol formaldehyde polycondensates
[AFML-TR-65-346] 13 p2272 N67-26219
Empirical kinetic parameters for phenol formaldehyde polycondensate materials
[AFML-TR-65-246, PT. II] 18 p3236 N67-32528
Differential thermal analysis and thermogravimetry applied to examination of explosives
[TIL/T-5719] 19 p3392 N67-33261
Analysis of impurities in magnesium oxide materials by mass spectrographic, chemical, thermogravimetric, vacuum-fusion furnace, quartz tube graphite crucible furnace techniques
[NASA-CR-88493] 22 p3961 N67-36892
THERMOLUMINESCENCE
Thermoluminescent emission spectra of various materials by means of quartz-prism spectrography
[NRL-6406] 01 p0113 N67-10291
Thermoluminescent dosimeters
[DP-MS-66-29] 01 p0024 N67-10671
Effect of radiation temperature on thermoluminescence of lithium fluoride /TLD-100/
[COO-1105-118] 03 p0455 N67-13263
Effect of radiation quality on thermoluminescence of lithium fluoride /TLD-100/
[COO-1105-117] 03 p0455 N67-13264
Thermoluminescent dosimeters used to measure number of particles, particle distribution, and beam shape of 12.5 BeV external proton beam of synchrotron
[ANL-7196] 04 p0551 N67-13629
Establishment of correlation between solid state structure of lithium fluoride and thermoluminescence produced by interacting

with ionizing radiation
[UCRL-TR-1067] 05 p0753 N67-15277
Thermoluminescent spectral analysis on ultraviolet irradiated calcite
[BNL-10561] 08 p1351 N67-19642
Influence of shock or stress events induced by underground nuclear explosions on low temperature thermoluminescence of halite 09 p1439 N67-19390
Lithium fluoride thermoluminescent dosimeter with memory effect
[CLOR-56/D] 10 p1685 N67-21407
Comparison of two thermoluminescent dosimetry systems with film badges in routine personnel monitoring
[AD-645901] 13 p2030 N67-23680
Photoluminescence and thermoluminescence of LiF with Ti and Mg impurities 13 p2390 N67-25463
Construction of ionizing radiation dosimetry unit having thermoluminescent phosphor detector 13 p2324 N67-26397
Thermoluminescent phosphors for radiation dosimetry
[CLOR-59/D] 15 p2660 N67-28495
Dosimetry technology - thermoluminescent, neutron, solid state particle, and plutonium detectors, criticality incident alarms, and gamma radiation and small chamber exposure rate instruments
[BNWL-339] 17 p3002 N67-30675
Thermoluminescence of halite samples exposed to unusual shock load or stress histories 19 p3443 N67-33173
Charge-to-pulse converter for photomultiplier viewing light emitted by thermoluminescent material during heating
[CLOR-64/D] 20 p3642 N67-34893
THERMOMAGNETISM
Quantum theory of thermogalvanomagnetic phenomena in metals and semiconductors
[NASA-TT-F-11156] 21 p3917 N67-36176
Stress relaxation in steel, nickel alloys, and iron alloys - thermomagnetic effects on metal friction, heat treatment and work hardening, and loading curves for steel joints
[FTD-MT-65-262] 24 p4468 N67-40111
Thermomagnetic effects on internal friction and shear modulus of Permalloys 24 p4468 N67-40112
THERMOMECHANICS
Derivation of explicit form of dissipation function associated with thermomechanical phenomena of viscoelastic solids
[TR-1] 06 p0974 N67-15412
Strengthening mechanisms of ultrahigh strength austenitic steel - aging temperatures, mechanical processing, and deformation effects on yield and tensile strengths
[UCRL-16923] 07 p1103 N67-17699
Hot pressing of thermomechanical processed titanium alloys
[FTD-HT-66-213] 07 p1094 N67-17916
Calorimetric and thermomechanical measurements for identification of temperature transition regions in various rubbery polyurethanes
[NASA-CR-81749] 07 p1108 N67-18692
Thermomechanical treatment of steel - combined high temperature plastic deformation and quench hardening - austenite
[AERE-TRANS-1071] 20 p3654 N67-34047
Nonlinear thermomechanical oscillator studies
[NASA-TM-X-60382] 22 p4099 N67-37373
THERMOMETER
SA BOLOMETER
SA RESISTANCE THERMOMETER
Air temperature and humidity measurement errors of psychrometers having bulb thermometers 11 p1875 N67-22913
Sounding thermometer design with induction pressure sensor and two-coordinate recorder for temperature and depth measurements of sea water 11 p1880 N67-22368
Copper resistance thermometer as sensor for measuring sea water temperature 11 p1880 N67-22369
Irradiation embrittlement of steel using gamma thermometer to measure gamma heating in periphery of Saxton reactor core 18 p3502 N67-32444
Acoustical thermometer for graphite matrix nuclear fuel element
[GA-7413] 19 p3495 N67-32908
THERMOMETRY
SA TEMPERATURE MEASUREMENT
Compensation for nonlinear effects due to high heat flux in thin-film thermometry
[NASA-CR-80482] 03 p0474 N67-13131
Precise airborne radiation thermometry for sea surface observations 04 p0538 N67-13526
Conference on high temperature thermometry
[WASH-1067] 09 p1477 N67-19621
High temperature thermometry research 09 p1447 N67-19637
High temperature thermometry for nuclear reactor applications 09 p1478 N67-19639
High temperature thermometry for nuclear reactor applications - instrumentation development 09 p1478 N67-19640
High temperature thermometry for nuclear engine for rocket vehicle reactor 09 p1479 N67-19644
Hot gas thermometry for nuclear engine for rocket vehicle reactor applications 09 p1479 N67-19647
Ultrasonic temperature measuring device
[NASA-CR-72157] 09 p1449 N67-19914
THERMONUCLEAR ENERGY
Plasma instability, burnout plasma density for high power input, and plasma boundary stabilization by reactive end walls
[ORNL-3989] 03 p0451 N67-13319
High current dc ion beams for use in thermonuclear research
[ORNL-P-3911] 16 p2949 N67-29819
THERMONUCLEAR EQUIPMENT
Water cooled modular design of 200 kW dc power supply for thermonuclear system
[UCRL-70017] 10 p1556 N67-20760
Production of fermium and mendelevium nuclides by thermonuclear device
[LA-DC-8103] 10 p1710 N67-20949
Copper tubing failure under thermonuclear conditions, development of lead alloys with increased lithium content, ant tungsten probes using thermochemical deposition processes 13 p2357 N67-25978
THERMONUCLEAR EXPLOSION
Neutron capture cross sections for nucleosyntheses in stars and in thermonuclear explosions 08 p1337 N67-18815
Cosmos III measurements of radiation particles trapped in Earth geomagnetic field after 1962 thermonuclear test at Johnston Island 10 p1617 N67-20401
Physical pattern of artificial radiation belt formation after thermonuclear explosion above Johnston Island - gamma radiation glow
[NASA-CR-84089] 13 p2398 N67-26417
Operational plan for emergency medical command and communication system for use in post-nuclear attack environment
[TR-44-67-1] 18 p3233 N67-32474
THERMONUCLEAR PHENOMENON
Phenomena and technology of contained /nonexcavation/ nuclear explosions for industrial applications
[UCRL-14756] 04 p0579 N67-14081
THERMONUCLEAR REACTION
SA FUSION
Neutron production rate of fusion reaction in deuterium plasma calculated by non-Maxwellian average
[NRL-6391] 05 p0749 N67-15259
Thermonuclear experiment involving injection of molecular ions at 600 KeV, dissociation by multiple passes through arc, and exponentiation on resulting trapped atomic ion population
[ORNL-4011] 07 p1166 N67-17449
Loading of enriched oxide core, and control rod and transient rod reactivity measurements for Spert III reactor
[IDO-17206] 10 p1677 N67-20889
Plasma physics studies of thermonuclear reactions
[FTD-TT-65-1565] 11 p1959 N67-22556
Atomic bomb, hydrogen atom fusion, thermonuclear reaction, and atomic nuclear reaction pile research in China
[FTD-HT-66-421] 11 p1945 N67-22356
Plasma physics and controlled nuclear fusion conference papers
[AEC-TR-6760] 12 p2180 N67-24181
Interaction of high frequency waves and plasma in Doita 2 12 p2181 N67-24170
Interaction of plasma with magnetic field 12 p2183 N67-24182
Joule heating of plasma in toroidal Tokamak 3 12 p2183 N67-24184
Higher mode instabilities in Tokamak device 12 p2183 N67-24185
Electron density in Tokamak devices studied by microwave method 12 p2184 N67-24186
Toroidal discharge in alternating longitudinal magnetic field 12 p2184 N67-24188
Turbulent heating of plasma by direct current discharge 12 p2185 N67-24189
Plasma instability and nuclear fusion
[NASA-CR-82957] 13 p2365 N67-25681
Shock wave effects in various detonation systems 21 p3945 N67-35635
Multiple channel analog tape recorder for high energy systems of thermonuclear research 23 p4252 N67-38779
THERMOPHYSICAL PROPERTY
Theoretical temperature calculations compared with lunar surface thermal data obtained by Surveyor I spacecraft 01 p0135 N67-10865
Thermophysical properties of potential thermal energy storage materials for design of TES thermionic systems for long duration space flights
[NASA-CR-80056] 02 p0178 N67-12943
Dependence of specific resistance, absolute thermoelectromotive force, and Hall coefficient on carbon content in samples of zirconium monocarbide
[NASA-TT-F-10448] 06 p0944 N67-15845
Tabular and graphical data on thermophysical properties of selected gases below 300 degrees Kelvin
[BM-IC-8317] 08 p1384 N67-18219
Thermophysical properties of argon, oxygen, and nitrogen at cryogenic temperatures
[NASA-CR-82961] 09 p1504 N67-19907
Diffuse X-ray scattering measurements from nickel-palladium single crystals to determine relation between physical and thermal properties and local atomic arrangements
[NASA-CR-83928] 13 p2338 N67-25690
Data collection, evaluation, and processing methods and techniques for preparing handbook on thermophysical properties of high temperature solid materials
[AFML-TR-66-265] 14 p2551 N67-28757
Photographic brightness pyrometer for recording thermophysical measurements 15 p2708 N67-27851
Chemical, thermophysical, optical, and electric properties of stable Freon E series liquid fluorocarbons
[EL-SA] 16 p2917 N67-30079
Thermophysical properties of nondegraded and thermally degraded low density phenolic-nylon ablating material
[NASA-CR-599] 18 p3262 N67-31586
Thermophysical properties of ablative materials - phenolic resins
[NASA-CR-65545] 18 p3383 N67-32581
Thermophysical properties of some multilayer insulations in cryogenic temperatures
[JINR-PS-3227] 19 p3555 N67-33878
Handbook of thermal design data and information on thermophysical properties of high performance insulation materials for spacecraft thermal control surfaces
[NASA-CR-87494] 20 p3746 N67-34625
Thermophysical properties of nondegraded and thermally degraded phenolic-carbon fiber composite material
[NASA-CR-886] 22 p4094 N67-38017
Surveyor III data on lunar surface temperatures, thermophysical characteristics, and spacecraft thermal performance on lunar surface 22 p4343 N67-38186
Bibliography on thermophysical experiments and analyses for Mars
[NASA-TM-X-60552] 24 p4529 N67-39988
THERMOPHYSICS
Thermophysics of silicon epitaxial power transistors 01 p0048 N67-10115
Thermophysics, emissivity physics, thermal similitude, ultraviolet interactions with control surface materials, Pegasus satellite measurements, and infrared instrumentation
[NASA-TM-X-53557] 12 p2182 N67-24041
Geometries, construction, materials, and other criteria derived for thermal models 12 p2227 N67-24043
Space environment effects on emissivity and optical absorption of thermal control surfaces 12 p2227 N67-24044
Ultraviolet interactions with zinc oxide type pigmented thermal control coatings used on spacecraft 12 p2227 N67-24045
Environmental effect sensor data and albedo measurements for several thermal

control coatings on Pegasus satellite - thermophysics 12 p2237 N67-34646
Thermophysics research on space environment, thermal control, infrared physics, and thermal flight experiments 17 p3155 N67-39556
THERMOPLASTIC
Dynamic compression testing of shock mitigating materials - casting resins, rubber, thermoplastics, and thermosetting compounds
[NOLTR-66-39] 01 p0091 N67-11031
Fusing of gutta-percha crystals during microscope observation 03 p0414 N67-12374
Suitability of thermoplastic rubbers as binder for composite solid propellant 06 p0697 N67-15721
Composite thermoplastic-glass filament reinforcement developed for buoyant submarine cables and antennas
[IR-3] 06 p0899 N67-16128
Electrostatic properties of conductive transparent thermoplastic materials evaluated by use of charging and grounding test procedure
[PR-2] 06 p0899 N67-16215
Pressed film technique and infrared spectra catalog for identification of thermoplastics
[NAFI-TR-911] 07 p1093 N67-17646
Combustion behavior of thermoplastic polymer spheres burning in quiescent air atmospheres
[FS66-1/U/] 12 p2237 N67-34709
Comparison of methods for treating data on tensile strength of thermoplastics
[PA-TR-3527] 17 p3084 N67-36349
Numerical analysis procedure for screw extrusion of polymer melt
[SF/TN/8] 20 p3667 N67-35208
THERMOPLASTIC FILM
Optical reading and writing on magnetic metal films, phototropic media, and thermoplastic materials for use in high information packing density tape recording systems
[AERE-R-5085] 15 p3714 N67-28359
THERMOPLASTICITY
Strength and bearing capacity, heat resistance, thermoelasticity, thermoplasticity, rheology, construction mechanics, and stress concentration of materials
[JPRS-39223] 05 p0773 N67-15168
Network density of filled composites, nitroso compound reactions with hydrocarbons, cryogenic bladder bag materials, thermoplastic rubbers as binders, and other polymer research studies 12 p2123 N67-33654
Polymers of germanium and tin derivatives of o, m, and p-carborane
[TR-37] 19 p3390 N67-33153
THERMOREGULATION
S BODY TEMPERATURE REGULATION
THERMOSETTING
Dynamic compression testing of shock mitigating materials - casting resins, rubber, thermoplastics, and thermosetting compounds
[NOLTR-66-39] 01 p0091 N67-11031
Preparation and polymerization of alkenyl substituted imides and epoxy derivatives in structure-property study of thermosetting resin systems
[SC-RR-67-316] 23 p4204 N67-38640
THERMOSPHERE
COSPAR reference atmosphere models of variations in atmospheric properties of thermosphere and exosphere at different heights and times for ten levels of solar activity
[NASA-TM-X-57249] 06 p1276 N67-18452
Open ion source mass spectrometer used with omegatron mass spectrometer to measure atmospheric gas density and composition in thermosphere probe experiment
[NASA-CR-83901] 13 p2313 N67-25943
Physics from stratosphere to lower thermosphere - reaction between ozone and oxygen
[A-37-1965] 13 p2317 N67-26469
Neutral air waves in thermosphere - eigenvalues of characteristic waves
[NASA-TM-X-55901] 21 p3839 N67-35911
Variations in data with season and latitude of density, temperature, and composition in lower thermosphere
[AFCRL-67-0161] 21 p3841 N67-36164
Monte Carlo computer analysis of free molecular flow characteristics of thermosphere probe
[NASA-TM-X-53641] 21 p3842 N67-36302
Model atmospheres for latitude and seasonal variations in thermosphere
[AFCRL-67-0330] 22 p4033 N67-36752
Measuring particle density and temperature of lower thermosphere by sounding rocket and satellite
[NASA-TM-X-55950] 23 p4249 N67-39335
THERMOSTABILITY
Effect of phosphorus diffusion in thermal oxides on high temperature stability of metal oxide semiconductor structures 01 p0137 N67-10123
Thermal stability of silicon having structural modifications due to radiation
[NASA-TT-F-10378] 01 p0137 N67-10230
Thermostability of glass-reinforced plastics
[FTD-TT-65-1916] 01 p0091 N67-11098
Heat resistance, creep, and thermostability of titanium alloy 02 p0274 N67-11789
Macromolecular chlorocarbons of high thermal and chemical stability
[ARL-66-0060] 03 p0356 N67-12397
Organic substances in nature and their thermal stability in geological environments 03 p0341 N67-12722
Molecular structure effect on thermal stability and other physical characteristics of polyaryloxysilanes and related monomeric compounds
[NASA-TM-X-53536] 06 p0819 N67-16049
Synthesis of carborane siloxane elastomers
[RMD-5065-Q7] 06 p0831 N67-16641
Oxidized bovine insulin and tobacco mosaic virus protein used to determine hydrolysis specificity of thermolysin
[NASA-CR-70649] 07 p1015 N67-17880
Thermal stability and I retention of particulate filter materials, determination of fission products in samples, and dissolution of melted fuel 08 p1235 N67-18385
Effect of sulfurous compounds on thermostability and corrosive properties of fuels for turbojet engines
[FTD-TT-65-1276] 09 p1504 N67-19675
Thermal stability of oxadiazoles
[RAE-TR-66331] 09 p1413 N67-20054
Thermal stability of metallosiloxane compounds
[ZB/105/04] 09 p1413 N67-20371
Preparation and analysis of mercaptides of mercury, cobalt, nickel, copper, zinc, and titanium - thermal stability and tendency to act as coordination polymers 10 p1569 N67-20502
Thermostabilization of polyamide fiber by grafting n-formyl amidoacrylic acid to fibers and treating with copper or calcium acetate
[FTD-HT-66-89] 10 p1660 N67-20622
Chemical and thermal stability of beryllium oxide-base fuel system in oxidizing environment
[CONF-661003-8] 10 p1571 N67-20767
Thermal stability of sulfocationite KU-2 resin in tertiary amylenes 11 p1803 N67-22157
Thermostability and high temperature mechanical properties of polymer materials
[RAE-TN-CPM-34] 11 p1904 N67-22716
Quantitative aspects on thermal stability of organic compounds
[AFOSR-67-0523] 12 p2048 N67-24863
Thermostability of JP-6 jet fuels after one-year storage
[AFAPL-TR-66-66] 13 p2195 N67-25156
Thermal stability of chemically cross linked polyethylene insulated conductors
[AD-646549] 14 p2560 N67-26805
Effects of hydrogen content and isothermal annealing on thermal stability of titanium alloy with 2 percent molybdenum 14 p2554 N67-27029
Thermostability of stilbene spectrometer used to measure neutron and gamma ray spectral distribution and intensity
[BRL-MR-1808] 15 p3713 N67-28684
Methods for predicting temperature composition stability of binary systems of refractory transition metal compounds
[AFML-TR-67-108] 17 p3078 N67-30716
Spacecraft cabin atmospheres, tropospheric radio propagation, glass fiber laser, thermal stability of polymers, and biologically active organotin and organolead compounds and polymers 18 p3256 N67-31672
Stability of polybenzimidazoles, polyoxadiazoles, polypyromellitimide, polyamides, and polyethers and attempted stabilization by additives or incorporation of heteroatoms into backbone 18 p3282 N67-31676
Thermostability and heat sink capacity of diborane, pentaborane, and ethyl decaborane fuels for jet aircraft
[NASA-MEMO-10-7-58E] 18 p3319 N67-31872
Radiation effects on mechanical properties of reactor cladding materials and stainless steel thermostability 18 p3295 N67-32356
Synthesizing thermally stable elastomeric carborane-siloxane polymers
[RMD-5065-F] 19 p3475 N67-32727
Relationship between Minex heat exchanger and helium driven modified coker in measurement of jet fuel thermostability
[AFAPL-TR-67-17] 19 p3527 N67-32760
Synthesis of high molecular weight thermostable polymers 19 p3393 N67-33485
Thermostable material of high isotopic hydrogen content, and fabrication of new target for neutron production in accelerators
[EUR-3474.F] 20 p3664 N67-34364
Effect of structural factors on thermostability of metal chelates of 8-quinolinols
[AD-654735] 21 p3776 N67-35485
Thermostability of high temperature fluids and fluid intermixtures at 750 deg F - polyphenyl ether and phenyl methyl polysiloxane
[RIA-TR-67-1105] 21 p3945 N67-35594
Thermostability of aluminum containing titanium alloy at 300 and 400 degree Celsius 22 p4068 N67-37157
High temperature stable carborane adhesives
[NASA-CR-65734] 24 p4470 N67-39393
THERMOSTAT
SA CRYOSTAT
Thermostat for high temperature measurements of neutron cross sections
[NP-497/PS] 04 p0574 N67-13599
Development of accurate thermostat for densitometric isotopic float analysis 06 p0823 N67-16255
Phase transformation for accurate temperature control, and thermostatic control methods for gravimeters
[NASA-TT-F-467] 12 p2099 N67-23788
THERMOSTRUCTURE
Methods for analyzing vertical thermal structure of atmosphere from satellite remote radiation soundings 12 p2139 N67-24363
Feasibility of Scout launched small lifting reentry vehicle for testing materials and thermostructures of full scale reentry vehicles
[NASA-CR-66397] 17 p3168 N67-31444
THERMOTROPISM
Thermophototropic response of films and solutions containing copper bromide studied for preventing flash blindness
[NRA-854] 11 p1810 N67-22564
THERMOVISCOELASTICITY
Photothermoviscoelastic theory of plane stress determination in viscoelastic model using birefringence pattern 05 p0788 N67-14485
Realistic propellant nonlinearities in structural analysis of idealized solid rocket grains under slow cooling and ignition pressurization conditions
[AA+ES-66-6] 22 p4131 N67-37668
THETA PINCH
Proposed straight theta-pinch devices energized by energy storage supply of toroidal Scyllac device
[LA-3553-MS] 03 p0448 N67-12965
Stable and unstable behavior of preheated hydrogen plasma in linear and cusp theta pinches 03 p0448 N67-13043
Theory and experiments in plasma and particle acceleration, theta pinch, magnetic field, and related physics subjects
[JUL-264-PP] 03 p0450 N67-13341
Theory and experiments in plasma acceleration, theta pinch, and related physics subject
[JUL-361-PP] 03 p0450 N67-12342
Chalice system performance - diagnostics, improvements in bank system, suppression of RF noise, magnetic fields, snowplow model for fast pinch, and collective coordinates for plasmas
[SIT-2562-19] 07 p1166 N67-17539
Fast high voltage Z-preionization of megajoule theta pinch
[CLM-R-62] 08 p1350 N67-19212
Continuum radiation of theta pinch plasma measured for investigation of electron heating
[JUL-413-PP] 10 p1737 N67-21080

Plasma stabilization and engineering experiments performed on Scylla IV device [LA-2596] 10 p1740 N67-21585
Microwave and spectroscopic analyses of epithermal microwave radiation emitting from theta pinch plasma 11 p1937 N67-21956
Low energy theta pinch and light scattering measurements [ORO-3393-2] 12 p2177 N67-23775
Absolute measurements on continuum intensity of theta-pinch plasma in visible and X-ray regions [NP-TR-1489] 12 p2179 N67-23822
Engineering aspects of toroidal theta-pinch machine [LA-DC-8066] 19 p3429 N67-33688
Magnetohydrodynamics energy principle used to examine stability of linear bumpy theta pinch [IPP-6/57] 20 p3706 N67-34123
Dynamic behavior of collisionless theta pinch plasma with respect to anomalous energy dissipation [IPP-1/61] 20 p3706 N67-34167
Twelve channel Doppler profile spectrophotometer for plasma scattered laser light [AWRE-O-42/67] 20 p3658 N67-34178
Toroidal theta pinch with azimuthal magnetic field in m and s equilibrium configuration [IPP-1/63] 20 p3710 N67-34782
Preliminary experiments to determine feasibility of measuring temperature in argon theta pinch tube using two-line ratio method [BRL-MR-1847] 21 p3909 N67-35679
Computer simulation of straight cylinder thetha pinch 22 p4119 N67-37748
Numerical solution to problems of theta pinches and solar flares in strong magnetic fields 22 p4130 N67-37751
Theta pinch shock implosion calculations by computer simulation of collisionless ion Vlasov equation 22 p4130 N67-37752
Plasma diagnostic methods for high temperature plasma research, including infrared maser combined with interferometer to investigate plasma and shock in 30 kilojoule theta pinch [ARL-67-0062] 24 p4506 N67-39527
Ion-ion and ion-electron collision effects on relaxation of anisotropic plasma in theta pinch [IPP-1/67] 24 p4512 N67-40392
Radiation emission intensities of dense thetatron plasma near plasma frequency [IPP-1/65] 24 p4513 N67-40534

THIAMINE
Effect of vitamin B1 on activity of salivary and intestinal glands in anoxia conditions [FTD-TT-65-1647] 01 p0019 N67-11075

THICK FILM
SA THIN FILM
Piezoelectrically active cadmium sulfide thick films for tuning devices in monolithic integrated circuits [QR-3] 15 p2683 N67-28973
Feasibility of fabricating thick film, insulated gate field effect transistor using integrated screened circuit technology 18 p3343 N67-31577

THICK WALL
Theoretical technique for predicting thermal stresses in thick walled ablating sphere of low conductivity material subjected to point symmetric aerodynamic thermal and pressure load [PIBAL-836] 07 p1302 N67-17659
Gammagraphy and ultrasonic flaw detection to maintain quality control in welded joints of thick-walled vessels 10 p1641 N67-21230
Integral transforms used to calculate dynamic vibrations of thick walled elastic anisotropic cylinders and spheres with internal damping 14 p2636 N67-27070
Optimization of shield against mixed radiation [ORNL-TR-1490] 16 p2941 N67-29230

THICKENER
Water repellent antistatic coatings, multi-purpose fluid thickeners, and thermally stable elastomeric polymers [AD-647072] 13 p2127 N67-34966
Synthesis of metal phosphinate and silicone carbonane polymers, high temperature and fluid resistant elastomers and aircraft protective coatings, and grease thickeners [NAEC-AML-2571] 21 p3675 N67-36011
Shear stability of polymer-thickened hydraulic fluids under several gas atmospheres and at pressures greater than atmospheric [RIA-67-1954] 24 p4471 N67-39497

THICKNESS
S AIRFOIL THICKNESS
S FILM THICKNESS
S OPTICAL THICKNESS
S TARGET THICKNESS

THICKNESS RATIO
Ice cover thickness profile of central regions of eastern Antarctica 04 p0545 N67-14220
Determination of optimum thickness of layers in multisectional packed heat exchangers 11 p1998 N67-22056
Thickness control of stroke of ball point pen by ultrasonic process [REPT.-6485.166] 13 p2239 N67-25042
Slant thickness calculations between successive quadric surface representations of space vehicle and shield configurations [RM-345] 13 p2430 N67-26355
Propeller blade thickness and appendage asymmetry effects on propeller-appendage interaction [REPT.-66-34] 16 p2980 N67-29863
Buckling characteristics of elastic complete spherical shells of high radius-to-thickness ratio [SUDAAR-301] 19 p3544 N67-32954
Ultrasonic method for measuring thickness of nose cone annuli 20 p3648 N67-34482

THIETHYLPERAZINE
Cerebellum site and mode of antivertigo action of thiethylperazine [NASA-CR-85902] 17 p3008 N67-31492

THIN AIRFOIL
Thin supersonic airfoil in presence of weak moving shock wave 01 p0001 N67-10044
Wind tunnel model tests on airfoils of small aspect ratio [RAE-TN-AERO-1767] 13 p2243 N67-26215
Velocity distribution of compressible flow past symmetrical circular arc thin airfoil at subsonic speeds [LGR-ER-8941] 19 p3364 N67-33973

THIN FILM
SA MAGNETIC FILM
SA THICK FILM
Surface wave development on thin films of variable viscosity under hot gas flow 01 p0059 N67-10053
Accelerated aging and failure mode analysis of thin tantalum film RC networks 01 p0048 N67-10110
Lateral ion migration of sodium in insulating glass substrate for thin film microcircuits using autoradiographic techniques 01 p0050 N67-10124
Conventional and thin-film solar cells for space power application 01 p0007 N67-10264
Vacuum deposition techniques for thin film tunneling device [ECOM-2718] 01 p0052 N67-10453
Phosphate films evaluated for use as protective coating for metal surfaces [M-66-656] 01 p0038 N67-10544
Properties of thin gold films on oxide substrates [MT-66-1] 01 p0139 N67-10600
Electronic electrophotographic system capable of producing near-real time images simultaneously with exposure [RADC-TR-66-361] 01 p0075 N67-11045
Energy band studies and crystal structure of thin films bismuth-tellurium-sulfur material 01 p0142 N67-11114
High molecular compounds - double bond polymers containing pyridine rings, polymer film electric conductivity, and polymerization of quinoline, 4-chloropyridine, and aromatic compounds [FTD-TT-65-767] 02 p0234 N67-11573
Conductivity of polymer tetracyanoethylene films on various metal substrates 02 p0234 N67-11575
Thin film silicon monoxide capacitor vacuum deposition and intact removal from substrate to study breakdown characteristics [NASA-CR-79025] 02 p0243 N67-11955
Titanium oxide thin film capacitor with large temperature dependence for detecting infrared radiation 02 p0264 N67-12195
Noise measurements as tool developing electronic devices - noise suppression in thin film diodes and in space charge limited field emission cathodes - light and electron emission [ECOM-66224-F] 02 p0272 N67-12272
Interference ring method used to check thickness of transparent thin films on surfaces with relatively large curvature 03 p0429 N67-12789
Backward and forward photoemission quantum yields from evaporated KBr films measured as function of film thickness [NASA-CR-80149] 03 p0453 N67-12975
Castable polyurethane and thin film forming conformal coating materials compared and evaluated for use as environmental protective coating [NASA-TM-X-59180] 03 p0415 N67-12110
Compensation for nonlinear effects due to high heat flux in thin-film thermometry [NASA-CR-80422] 03 p0474 N67-13131
Osmium dispenser cathodes, microfractography of thin films, and grease lubricated spiral bearing for straight through shaft 04 p0525 N67-13721
Microfractography of thin films 04 p0599 N67-13723
Thin polyethylene and polypropylene film extrusion [NASA-CR-72051] 04 p0555 N67-13782
Performance improvement of thin film thermoelectric infrared detection devices [NASA-CR-80788] 04 p0520 N67-13877
Low energy electron transmission of thin indium and magnesium films [ORNL-TM-1565] 04 p0609 N67-14042
Electrodeposition of beryllium film on copper and silver electrodes [BMWF-FBK-66-10] 04 p0597 N67-14053
Techniques for fabrication of thin film polycrystalline cadmium sulfide solar cells on plastic and metal foil substrates [RAE-LIB-TRANS-1162] 04 p0494 N67-14540
Electronic contribution to 9 GHz ultrasonic attenuation studied in thin tin films at low temperatures 05 p0750 N67-14622
Interference microscopic study of thin fluid films on metal surfaces for corrosion prevention [RIA-66-2048] 05 p0725 N67-14676
Feasibility of forming thin film resistors and capacitors by cold substrate deposition [NASA-CR-80002] 05 p0712 N67-14618
Vacuum diffusion of indium antimonide and indium arsenide thin semiconducting films on glass and ceramic supports [ERDL-T-1877-66] 06 p0845 N67-15468
Controlled evaporation of gallium arsenide, and substrate temperature effect on optical and electrical properties of thin film gallium arsenide 06 p0852 N67-16025
Capacitance, dissipation, formation voltage, current leakage, and voltage breakdown of anodized thin film hafnium capacitors [ECOM-2758] 06 p0832 N67-16302
Characteristics of titanium dioxide thin film diodes [RADC-TR-66-467] 06 p0855 N67-16376
Thin dielectric films for thermo-dielectric energy conversion [NASA-CR-81256] 06 p0880 N67-16510
Cadmium sulfide photovoltaic thin film solar cells [NASA-CR-72144] 06 p0795 N67-16562
Ellipsometric studies on mechanism and kinetics of thin oxide films on silicon in air [NASA-CR-81324] 06 p0821 N67-16621
Thin film, heat flux probe for measuring gas velocities in unstable rocket combustor [NASA-TM-X-1233] 06 p0882 N67-16670
Fabrication process for thin film gallium arsenide photovoltaic solar energy cells [NASA-CR-81314] 07 p0894 N67-16723
Defect structures from bombardment of copper and gold thin films with heavy particles 07 p1169 N67-16723
Fabrication, calibration, and operation of thin film heat transfer gauges for determining surface temperatures and heat transfer rates of shock tube walls 07 p1077 N67-16866
Experiments and test results on thin film resistors and cross over networks, and statistics of thin film production methods [NAFI-TR-825] 07 p1030 N67-17120
High performance thin film capacitors for microcircuit networks [CR-66-565-21] 07 p1061 N67-17251
Mechanism of cadmium sulfide film cell [NASA-TM-D-3949] 07 p1177 N67-17527
Pressed film technique and infrared spectra catalog for identification of thermoplastics [NAFI-TR-811] 07 p1092 N67-17648
Thin film heat transfer gauge for use in hypersonic shock tunnel - contour,

calibration of thin film sensors, and cost reduction
[NASA-CR-81716] 07 p1087 N67-18004
Mechanisms of charge carrier mobility in thin polycrystalline film junctions
[NASA-CR-66271] 07 p1189 N67-18051
Responsivity improvement in deposited bismuth antimony and bismuth tellurium thin film infrared thermopile detectors used in horizon scanners 08 p1200 N67-18517
Growing of silicon nitride films, and radiation induced etch rate enhancement in silicon nitride films
[NASA-CR-83020] 08 p1350 N67-18414
Thin film large area cadmium sulfide solar cells
[NASA-CR-72189] 08 p1222 N67-18632
Superconducting niobium thin film production
[NASA-CR-72174] 08 p1351 N67-18689
Thin film resistors as source followers in summing resistor network module of communication system
[NASA-CR-65591] 08 p1347 N67-18729
High vacuum approach for high dielectric constant thin film capacitor fabrication to reduce microcircuit size
[NASA-CR-65597] 08 p1256 N67-18946
Optical transmission data for thin aluminum films
[CLM-R-64] 08 p1338 N67-19214
Thin-film polycrystalline field effect triode
[REPT.-8] 09 p1425 N67-19621
High energy density primary battery - film formation on cupric fluoride cathodes discharged in organic electrolytes
[NASA-CR-72169] 09 p1395 N67-19913
Nuclear method for detecting sulfur in thin films, atmospheric absorption by oxygen dimer complex, and problem notes in chemistry, metallurgy and ceramics, radio communications, and mechanics
[PB-175468] 09 p1486 N67-19964
Condensation and nucleation processes of single crystal thin films
[AFML-TR-66-326] 10 p1744 N67-20494
Nucleation and moving mask experiments in single crystal thin film research program 10 p1744 N67-20495
Nucleation and crystal growth of thin film and equilibrium two-dimensional liquid gas phases 10 p1745 N67-20497
Path probability method, and theory of nucleation and growth of thin film 10 p1745 N67-20498
Method for studying galvanomagnetic interactions in ferromagnetic resonance and application to thin films of nickel and Permalloy
[PIBMRI-1237-66] 10 p1745 N67-20520
Skin friction, separation, and transition with thin film heated element
[ARC-R+M-3445] 10 p1613 N67-21184
Solid lubricant film performance at high humidity
[RAE-TR-65847] 11 p1890 N67-22797
Gaseous precision etching of patterns in molybdenum thin films
[AD-645201] 11 p1816 N67-23372
Instabilities in pyrolytically deposited silicon dioxide films at room temperature
[ECOM-2779] 12 p2188 N67-23610
Test instrument and measurement technique to study electromagnetic shielding properties of vacuum deposited thin metallic films for applications in microelectronic circuitry
[ECOM-2775] 12 p2063 N67-23618
Permeability of thin macromolecular plastic films and foils to gases, vapors, and liquids
[REPT.-1965-16] 12 p2041 N67-23986
Physical properties of thin films of solid state materials
[AFCRL-67-0061] 12 p2192 N67-24491
Sputtering system to develop high performance thin films for microcircuits
[ECOM-01230-6] 12 p2064 N67-24498
Thin film RC networks for silicon integrated circuits
[J-24] 12 p2065 N67-24654
Design, testing, heat transfer theory, and layout of thin film circuits for microelectronic modules
[NAFI-TP-218] 12 p2111 N67-24990
Fluorescence of erbium and titanium thin films for accelerator targets
[NP-14501] 13 p2391 N67-25847
Computer-aided electronic circuit design and conduction processes in thin films
[NASA-CR-83810] 13 p2296 N67-25890
Evaluation of thin electrodeposited films of calcium and magnesium hydroxides for use as separators in silver-cadmium cells
[NASA-CR-84063] 13 p2350 N67-26175
Solar cells using polycrystalline films of gallium arsenide
[NASA-CR-84014] 13 p2394 N67-26265
Fabrication of fast response, thick and thin film, insulated gauges for measuring heat flux
[BRL-TN-1629] 14 p2532 N67-26812
Low energy accelerated ion vapor film deposition technique
[RFP-686] 14 p2542 N67-26834
Thin film interfacial connections and microcircuit insulating crossovers
[ECOM-01482-F] 14 p2505 N67-26881
Radiation effects on thin film microelectronics
[ECOM-01467-F] 14 p2505 N67-26905
Dual cathode sputtering technique for thin cermet films
[RADC-TR-66-783] 14 p2506 N67-27006
Optical properties of metal, semiconductor, and dielectric thin films - plasma oscillations in silver film
[SAR-14] 14 p2003 N67-27009
Vacuum deposition methods for placing soft, thin metal gold film on metal surfaces for lubrication purposes - vapor deposition, sputtering, and ion plating
[NASA-TM-X-52305] 14 p2544 N67-27319
Superconducting thin film for detection of nuclear particles
[AD-634684] 15 p2709 N67-27962
Rechargeable battery of silver iodide pellets carrying thin silver and platinum film
[AD-634626] 15 p2643 N67-27977
Infrared spectra of elastomer thin films
[NRL-6503] 15 p2731 N67-28331
Pulse distortion due to nonlinear elastic behavior in cadmium sulfide, ultrasonic attenuation inf cadmium sulfide, and thin film vacuum evaporated piezoelectric transducers
[ARL-66-0225] 15 p2781 N67-28337
Thin film production by sputtering and ultrahigh vacuum deposition
[UCRL-TRANS-10663] 15 p2718 N67-28463
Optical properties of epitaxial PbS films in energy range 2 to 6 eV
[HP-17] 15 p2727 N67-28616
Radiation effects on thin film integrated circuit elements
[C7-439/501] 15 p2685 N67-28690
Compatibility of polymeric films with liquid oxygen
[NASA-CR-72134] 15 p2732 N67-28755
Deposition of hafnium films by sputtering system for use with microcircuits
[ECOM-01230-7] 15 p2681 N67-28905
Thin film refractory substrate combinations for producing high current density in cathodes
[RADC-TR-66-656] 15 p2683 N67-28944
Thin film resistors for silicon integrated RC circuits
[REPT.-2] 15 p2682 N67-28968
Apparatus for measuring and controlling thickness of thin film deposited on quartz in vacuum
[NASA-TT-F-10461] 16 p2891 N67-29001
Bulk material and thin film structures and phase transformations 16 p2846 N67-29468
Gate circuitry for thin film polycrystaline field effect triode transistors
[REPT.-3] 17 p3037 N67-30656
Radioactive tritium isotope used to measure thin oil film in ultrahigh vacuum systems
[SGAE-PH-53/1967] 17 p3109 N67-30693
Marshall Space Flight Center thin film microcircuit development program 18 p3242 N67-31568
New apparatus for depositing thin film electrical components and related microcircuitry 18 p3242 N67-31569
Improved spatterproof vacuum evaporation source for use in depositing thin solid films on substrate 18 p3242 N67-31570
New thin film microdeposition unit for operating with various combinations of substrates, masks, and evaporation sources 18 p3242 N67-31571
Properties of vacuum deposited thin film nichrome resistors for microelectronic circuit applications 18 p3242 N67-31573
Fabrication of thin film transistors compatible with passive components 18 p3243 N67-31578
Thin film capacitor research and development - deposition of materials for capacitor dielectrics, and materials compatibility with integrated circuits 18 p3243 N67-31580
Thin film personal communication system for Apollo astronaut use during extravehicular assignments 18 p3244 N67-31581
Design, fabrication, and testing of inverter module for closed loop advanced control signal processor - thin film circuit, and conformal coating and encapsulation
[NASA-CR-85972] 18 p3248 N67-31822
Three-input NAND gate circuit design in thin film polycrystalline field effect triode study
[REPT.-3] 18 p3251 N67-32480
High-packing-density binary information storage mosaics consisting of regular array of elements of about micron size
[SRI-5444] 19 p3468 N67-32726
Laser damage threshold of aluminum oxide thin films
[QR-4] 19 p3386 N67-32732
Photoconductivity and electric conductivity of polycrystaline zinc oxide thin film under low intensity irradiation
[NASA-CR-67157] 19 p3521 N67-32746
Performance characteristics of thin metal film portable sensor used for detecting low concentrations of nitrogen tetroxide, fluorine, and unsymmetrical dimethyl hydrazine propellants
[TRW-6302-6001-R0000] 19 p3380 N67-32874
Thin film interconnect patterns developed for three hybrid satellite resistor, diode, and transistor circuit applications 19 p3416 N67-33262
Hybrid assembly processes for packaging of thin film and semiconductor microelectronic devices 19 p3416 N67-33363
Gallium arsenide thin film switching diode development 19 p3416 N67-33422
Anomalous stripe domain structures in thin ferromagnetic films
[F-B3463] 19 p3526 N67-33925
Thin film and dielectric film fabrication, crossed-film cryotron as logical and memory storage unit, and associative memory design and programming technique
[TRW-00003-6001-R000] 20 p3606 N67-34006
Spectrophotometric analysis of thin antimony/arsenic alloy films
[AERE-M-1886] 20 p3590 N67-34310
Calculations and measurements of radiation induced charge in thin aluminum film deposited on 0.032 inch insulating substrate
[REPT.-7] 20 p3611 N67-34530
Guidance and control research on solid state triodes, evaporated thin film cadmium sulfide photodectors, and reduction of plasma maintenance voltage with magnetic field 20 p3612 N67-34785
Electroluminescent characteristics of evaporated zinc sulfide layer and doped zinc sulfide crystals 20 p3715 N67-35190
Thermal radiation properties of polyethylene, mylar, and other polymer thin film balloon fabrics
[C-62944] 21 p3673 N67-35482
Fabrication of thin film hafnium-dioxide capacitors and P channel Metal Oxide Semiconductor /MOS/ transistors with hafnium dioxide gate insulators
[ECOM-01230-8] 21 p3814 N67-35491
Annotated bibliography on preparation, properties, applications, and theory of semiconducting thin films
[NOLC-712] 21 p3916 N67-35988
Plane wave shielding effectiveness of vacuum deposited thin metal films
[ECOM-2798] 21 p3818 N67-35960
Optical and electrical properties of ytterbium thin films 21 p3922 N67-36373
Electrical conduction and dielectric breakdown in rare earth oxide thin films 21 p3822 N67-36374
Fatigue tests on pressurized flexible thin membranes of polyethylene terephthalate for high energy physics apparatus
[RHEL/R-140] 21 p3876 N67-36488
Changes in electric resistance of gold thin films measured after argon ion bombardment 22 p4134 N67-36790
Orientation relations in thin film substrate combinations
[TR-6] 22 p4125 N67-36865
Vacuum evaporated thin film resistors
[NASA-CR-86468] 22 p4011 N67-36927

Equipment and techniques for preparing thin plutonium films for transmission electron microscopy
[RFP-899] 22 p4062 N67-37111
Tunneling between metal and silicon separated by thin polymer film insulator
[NASA-CR-88716] 22 p4127 N67-37339
Charge transport in thin polymer films based on field emission or thermal emission
[NASA-CR-88843] 23 p4129 N67-37665
Electrospraying device for producing thin films from rod dissolver and plutonium solutions
[AECL-2666] 22 p4058 N67-37904
Charge transport mechanism in thin silicon nitride films
[NASA-CR-88856] 22 p4130 N67-37944
Hole mobility and electric properties of thin film diodes, gallium arsenide, and zinc telluride semiconductor devices
[S-67-1165] 23 p4223 N67-38139
Micron size field emission diode development including efforts to form asperities on molybdenum areas at base of micron diameter cavity
[ECOM-01766-6] 23 p4222 N67-38237
Reflection of polarized light from film covered surfaces
[UCRL-17128] 23 p4293 N67-38298
Spin wave spectra and surface effects in nickel thin films deposited in ultrahigh vacuum
[ORO-2430-39] 23 p4328 N67-38384
X-ray diffraction analysis of stress in thin gold films
[ORO-2430-38] 23 p4328 N67-38406
Stress analysis to determine reliability of Cr-SiO cermet thin films used in fabrication of microminiature resistors 23 p4223 N67-38463
Aging mechanisms in thin film resistors - use of vacuum deposited chromium films to study various gas-metal interaction stages during oxidation 23 p4329 N67-38469
Migration of gold and nickel ions in thin films of silicon dioxide 23 p4329 N67-38475
Eddy current free switching of permalloy thin magnetic film, and large-angle flux reversal measurements
[NASA-CR-89204] 23 p4331 N67-38569
Health physics applications of thin silicon detector
[AECL-2766] 23 p4196 N67-38633
Basic equations for turbulent thin liquid films for liquid-metal lubricated journal bearings
[RS-502] 23 p4260 N67-39023
Procedures for use of ellipsometer for measuring corrosion and corrosion inhibition in thin films - light polarization
[RIA-67-1859] 24 p4449 N67-39562
Spin wave resonance in ferromagnetic gadolinium thin films
[AFOSR-67-1961] 24 p4514 N67-39581
Semiconductive properties of lipids and relation to electrical conductivity of lipid bilayers
[TR-1] 24 p4382 N67-39650
Techniques for measuring Hall effect in high resistivity thin films of cadmium selenide
[NAFI-TR-1666] 24 p4519 N67-40346
Vacuum evaporation of thin film nuclear targets
[AWRE-O-32/67] 24 p4504 N67-40492
THIN FILM TRANSISTOR /TFT/
S FIELD EFFECT TRANSISTOR /FET/
THIN LAYER CHROMATOGRAPHY
Thin layer chromatographic separation of some ketones obtained by pyrolysis of lithium carboxylates
[CNEA-195] 10 p1576 N67-21156
Thin layer chromatography for identification of aircraft engine oil components
[NRL-6465] 12 p2040 N67-34990
THIN PLATE
Transient radiative heat exchange calculated for arrays of cubes and thin parallel plates
[D1-82-0547] 01 p0107 N67-11048
High density zirconium carbide thin plates by rolling and pressing methods, with subsequent high temperature baking
[JPRS-38834] 02 p0305 N67-11831
Sign of mass difference between two kaons determined by using one or more very thin plates 07 p1146 N67-17310
Systems of equations defining bending occurring in finite isotropic elastic thin plate supported by rigid or yielding columns 09 p1530 N67-20085
Algorithm for rigorous allowance of compressibility influence on bending of elastoplastic plates 09 p1531 N67-20092
Qualitative analysis of membrane solution to circular thin plate problem 09 p1532 N67-20102
Stress concentrations in thin plates weakened by elastic-plastic strains due to infinite number of holes on X-axis 09 p1537 N67-20126
Smooth surface interpolation technique applied to finite-element displacement method for analyzing thin plate bending
[ASRL-TR-136-2] 11 p1965 N67-22299
Structural dynamics, and results of finite element modelling of thin plates 11 p1966 N67-22753
Bending moment analysis for both thin plates and moderately thick plates 11 p1990 N67-22919
Plane stress analysis of elastic-plastic states in vicinity of straight crack tip in thin plate
[NASA-CR-773] 11 p1995 N67-23308
Mu-meson scattering in thin copper and iron plates 12 p2157 N67-23510
Traveling surface waves in system of mechanical oscillators moving over elastic surface and in gas flow over finite elastic surface with thin plate 12 p2191 N67-24149
Slip bands in elastic, isotropic, thin plates with rectilinear slits developed under simple tension 12 p2234 N67-24509
Critical load for thin plate weakened by elliptic hole that causes macroscopic equilibrium cracks 12 p2235 N67-24518
Temperature stresses in thin plates reinforced by rings 12 p2236 N67-24519
Concentration of moments at holes in thin plates whose material follows nonlinear law of elasticity 12 p2227 N67-24522
Steady stress state and temperature field in thin thermoelastic plate weakened by circular hole 12 p2229 N67-24543
Bending moments of swept cantilever thin elastic plates
[TN-SA-7-66] 13 p2418 N67-26128
Microcuvettes for growing cultures and observation under microscopes and manufacture of thin glass strips, plates, and cover glasses
[NASA-TT-F-10728] 14 p2467 N67-26578
Approximation method for calculating temperature field in infinite plate heated simultaneously by radiation and convection
[NASA-TT-F-10960] 14 p2833 N67-27212
Influence of bandwidth restriction on signal-to-noise performance of PCM/NRZ signals
[ESRO-TM-16] 20 p3684 N67-34945
Creep stress concentration of circular hole in thin plate plates
[PIBAL-926] 24 p4548 N67-40509
THIN WALL
Fabrication of thin walled boron absorption tubes uses as hollow cathode discharge tube for spectrographic applications
[ANL-7104] 01 p0072 N67-10532
Manufacturing thin walled castings from high structural, weldable high strength steels 02 p0403 N67-12814
Small-diameter, thin-wall tungsten tubing by hot extrusion over floating mandrel
[NASA-TN-D-3772] 02 p0405 N67-12173
Local buckling and column buckling stability of thin walled bars subjected to centrical loading
[DLR-FB-66-64] 09 p1379 N67-19195
Automatic calculation of strengths of force transmitting components of thin-walled aircraft structures 09 p1387 N67-20135
Temperature field of thin wall satellite surfaces in radiant heat transfer 10 p1767 N67-23293
Thulium 170 as gamma source for flaw detection in thin-walled welded and cast articles of steel and light alloys 10 p1641 N67-21218
Thin-walled tube used for continuous measurement of carbon activity in sodium
[UNC-5100] 13 p2699 N67-25757
Techniques for fabricating small diameter, thin wall tungsten and tungsten rhenium alloy tubing
[ANL-7151] 12 p2111 N67-25967
Thermal bending plus twist of thin-walled cylinder of open section with application to gravity gradient booms
[NASA-TN-D-4069] 20 p3670 N67-34307
Production of thin-walled high density thorium oxide ceramic bodies by slip-casting
[WAPD-TRANS-61] 22 p4066 N67-37639
Experimental investigation of thin walled cylinder radial displacements
[NASA-CR-924] 24 p4544 N67-39914
THIN WALLED SHELL
Nonlinear analysis of structural thin walled shell under unsymmetric loading
[ADR-02-11-65.2] 01 p0159 N67-10436
Numerical procedure for solution of nonlinear equations governing large axisymmetric deflections of thin shells of revolution
[AMRA-TR-66-11] 01 p0160 N67-10681
Fortran IV listing and flow chart of computer program for static and dynamic small deflection analysis of axisymmetric thin shells of revolution
[NASA-CR-81739] 07 p1295 N67-18995
Creep calculations on pressurized thin spherical shell with sealed opening
[NONR-562/20//51] 08 p1375 N67-19291
Linearized set of equations developed for infinitesimal vibration and buckling of axisymmetrically prestressed thin shells of revolution
[NASA-TN-D-3821] 08 p1376 N67-19537
Green function approach to vibration problem of thin spherical shells
[NASA-CR-82507] 08 p1378 N67-19691
Dynamic stability of thin isotropic circular cylindrical shells in elastic range with time dependent end conditions - approximate solution of coupled nonlinear partial differentials
[DVL-556] 08 p1379 N67-19191
Probability methods and mathematical statistics for theory of plates and shells 09 p1531 N67-20022
State of stress and strain in thin walled stiffened cylindrical shells 09 p1527 N67-20068
Stress concentration about nonreinforced circular hole in thin elastic domelike spherical shell 09 p1538 N67-20071
Accuracy of mathematical models in determining stresses and strains in limiting states of thin walled structures 09 p1529 N67-20072
Influence of transverse diaphragm rigidity on temperature stresses in thin walled bars and shells of closed and open profile 09 p1531 N67-20098
Thermoelasticity of thin shells subjected to external load in nonstationary temperature field 09 p1534 N67-20118
Limiting stress calculated for thin walled shapes in biaxial bending with torsion 09 p1527 N67-20121
Approximation methods used in design of thin walled shells for hydroelectric power plant arch dams 09 p1538 N67-20149
Strain components on middle surface of thin shells determined by variational principles of linear moment theory 09 p1538 N67-20141
Initial deviations effect on load carrying capacity of thin circular cylindrical shells under uniform axial compression
[SUDAAR-282] 10 p1764 N67-20962
Axisymmetric deformations and stresses in thin shells of revolution used in submarine pressure hulls
[DTMB-2264] 11 p1986 N67-22726
Vibrations of elastically restrained thin cylindrical shells subjected to viscous damping
[ONERA-TN-101/1966/] 11 p1989 N67-22978
Thermal properties of thin walled, reinforced cylindrical shells
[FTD-TT-65-2041] 12 p2229 N67-24712
Radioisotope propulsion technology program involving creep analysis in axisymmetric shells
[STL-517-0049, VOL. IIA] 13 p2416 N67-25959
Computer program for finite difference solutions of linear asymmetric bending of elastic thin shell of revolution under arbitrary loading
[NASA-TN-D-3226] 13 p2417 N67-25781
Stress and stability of thin-walled conical shells for axisymmetric loads
[NASA-TM-X-53576] 13 p2420 N67-25827
Stress transmission to thin walled shell over limited contact region
[NASA-TT-F-10742] 14 p2827 N67-27284
Fracture time of thin walled shells under creep conditions 14 p2829 N67-27731
Large deflection behavior of thin shells of revolution subjected to load

[AD-634624] 15 p2708 N67-27975
Vibration of thin anisotropic cylindrical shells
[WVT-6717] 16 p2977 N67-33999
Theoretical analysis of response of thin cylindrical shell to random vibratory loading
[NASA-CR-85977] 16 p3350 N67-31716
Numerical method for calculating equilibrium state in postbuckling region of thin wall cylindrical shells subjected to longitudinal load and radial pressure
[DLR-FB-67-35] 19 p3548 N67-33439
Stresses around elliptic hole in cylindrical shell
[NAL-TN-3] 20 p3735 N67-34817
Modification and simplified application of Vlasov torsion theory for thin-walled rectangular tubes 20 p3738 N67-34597
Stability of duraluminum thin-walled cylindrical shells under creep conditions for compression and pure bending 20 p3739 N67-34751
Triangular finite sandwich element for direct stiffness matrix determination of bending in plates and shells
[NASA-CR-85357] 23 p4258 N67-38852
Free vibration and damping of thin walled cylinders
[NASA-CR-89749] 24 p4548 N67-40540
THIN WING
Load distribution on thin elastic wing in subsonic flow
[FFA-105] 03 p0331 N67-13041
Ground proximity effect on subsonic longitudinal characteristics of thin delta wing of aspect ratio 1.616
[RAE-TR-66179] 20 p3563 N67-35128
Calculation of warp to produce load and pressures on thin slender wings in supersonic flow
[ARC-R+M-3471] 22 p3957 N67-37837
THIRD STAGE
SA MISSILE
SA PAYLOAD
SA SATELLITE
Load factors for Kick Stage /third stage/ boosted by Atlas/Centaur launch vehicle
[NASA-CR-72167] 06 p1369 N67-18417
Design, construction, and assembly of third stage of ELDO launch vehicle 06 p1370 N67-18423
Performance of FW-4 third stage solid propellant rocket engine of Delta launch vehicle
[NASA-TM-X-55777] 14 p2606 N67-28569
In-flight performance of solid propellant rocket engine for Delta launch vehicle
[NASA-TN-D-4056] 17 p3154 N67-31489
Delta launch vehicle flight failure
[NASA-TM-X-55968] 24 p4537 N67-40193
THIXOTROPIC PROPELLANT
Hysteresis loop method used to study thixotropic suspensions
[NRL-6486] 12 p2199 N67-24960
THIXOTROPY
Viscosity of thixotropic suspensions at medium and large shear rates 05 p0734 N67-14552
Thixotropy and dilatancy in complex multiphase emulsions and suspensions - microrheological classification 05 p0735 N67-14555
THOMAS-FERMI THEORY
Free electron density in dense plasmas at high pressures, calculated with Thomas-Fermi statistical model
[LGI-66-6] 03 p0449 N67-13048
THOMSON EFFECT
SA PELTIER EFFECT
SA SEEBECK EFFECT
Lasers and resonant scattering used to determine velocity distribution in plasma
[ARL-66-0234] 16 p2902 N67-29646
THORAX
Mathematical model for dynamic response of mammal thorax to environmental pressure changes
[DASA-1857] 21 p3769 N67-36656
THORIUM
Physics of thorium recycle in heavy water moderated reactors
[AEET-252] 02 p0285 N67-11736
Amperometric titration of thorium by thoron 03 p0256 N67-12356
Thermal neutron induced fission of thorium 229 03 p0422 N67-12543
Temperature dependent multigroup capture cross section of thorium 03 p0424 N67-12606
Averages of interferometric measurements of thorium lines - tables
[ANL-7200] 04 p0501 N67-13633
Analyses and techniques to determine mechanical and chemical properties of uranium, thorium, aluminum oxide, and magnesium fluoride metals and compounds
[NLCO-920] 05 p0664 N67-14438
Synthesis and evaluation of thorium thin film thermionic electron emitter
[REPT.-388-1F] 05 p0684 N67-15099
Protactinium extraction from solution of thorium chloride in hydrochloric acid by partition chromatography 06 p0823 N67-16353
Crossed-progeny fuel cycles for combining advantages of thorium and uranium fuel cycles
[BNWL-289] 07 p1129 N67-17406
Physical concepts, comparisons, and description of plutonium, uranium, thorium assembly reactivity code /PLUTHARCO/
[EUR-3141.E] 08 p1322 N67-19179
Theoretical evaluation of high temperature thorium reactor development
[JUL-362-RG] 09 p1482 N67-20900
Purification of natural thorium scrap materials using solvent extraction process
[MCW-1512] 10 p1572 N67-20794
Friction tests between thorium and uranium alloys and Zircaloy 4
[KAPL-3166] 10 p1678 N67-20930
Optimization of physical properties of thorium thoria cermet 11 p1885 N67-22290
Thorium fuel elements evaluated for heavy water organic cooled reactor
[BAW-383-7] 11 p1921 N67-22333
Evaluation of thorium fuel cycles for fast breeder reactor systems
[JUL-276-RG] 11 p1925 N67-23032
Thorium utilization studies dealing with fuel characterization, fuel testing during radiation, and fabrication processes for fuel protopes used in power reactors 13 p2356 N67-25373
Calculated thermodynamic functions of various uranium and thorium nuclear compounds
[ORNL-TM-1596] 13 p2423 N67-25501
Preparation and purification of thorium, ytirium, vanadium, and refractory metal systems for reactor materials
[IS-RD-8] 13 p2382 N67-25907
Policy, criteria, and outlook of First Target Program for European Atomic Energy Community - uranium and thorium supplies, economic markets for electric and nuclear energy
[EUR-2773.E] 14 p2579 N67-27551
Vaporization kinetics of thorium, uranium, americium, plutonium, and curium - possible atomic reactor fuels
[NASA-TT-F-10008] 15 p2657 N67-28234
Chemistry and nuclear chemistry of heavy elements
[COO-347-38] 16 p2850 N67-29714
Bibliography on arc, spark, and grating spectra of iron, band spectra of metallic oxides, thorium spectra, and atomic spectra in vacuum ultraviolet 17 p3017 N67-30696
Computer program for integrating burnup equations for thorium and uranium fuels
[AECL-2693] 17 p3150 N67-30925
Breeder characteristics of graphite-moderated high temperature spherical pile reactor for thorium 232 - uranium 233 breeding cycle
[JUL-474-RG] 20 p3679 N67-34225
Comparison of resonance absorption theory used in GYMEA and PEAS codes with exact solutions for resonances in thorium 232, uranium 235, and plutonium 240
[AAEC/TM363] 20 p3692 N67-34277
Utilization of thorium in nuclear power reactors
[AEET-269] 20 p3682 N67-34487
Effective resonance integral and Doppler coefficient of uranium 238, thorium 232, and plutonium 240 using code complex LUBRA
[AAEC/E168] 20 p3683 N67-34682
Self-shielded cross sections of thorium 232, uranium 238 and 235, and plutonium 239 for representing correct values in multigroup analysis of reactors
[AEET-272] 20 p3703 N67-35157
Core physics calculations and economics of water moderated thorium - uranium epithermal breeder reactor
[BNL-11463] 22 p4093 N67-37779
Determination of thorium in thorium-dioxide tungsten mixtures
[UCID-15162] 23 p4304 N67-38624
Effective neutron resonance integral of 36-mil thorium wire relative to integral at infinite dilution
[WAPD-TM-622] 23 p4306 N67-38644
Shrinkage measurements of thoria compact-DT containing added impurities
[TID-23082] 23 p4270 N67-38715
Ternary fission of uranium 238 and thorium 232 nuclei by 2.9 MeV neutrons
[INP-547/PL] 24 p4561 N67-40699
THORIUM ALLOY
Cathode process mechanism in preparing thorium zinc alloys in fused salt 06 p0821 N67-16234
Metallurgy research in high temperature carbides, powder techniques, furnace equipment, spin casting, thorium, uranium, and tungsten alloys
[USBM-RC-1349] 12 p2107 N67-23953
Thorium alloys studied for effects of submicron thoria additions and temperature on mechanical, electrical, and corrosion properties 12 p2117 N67-23963
Effect of carbon on strength of thorium
[IS-T-148] 19 p3474 N67-33941
High melting point carbides, thorium alloy systems, UC-UN-UO for high temperature reactor fuel production, and W-Re-Mo alloys
[USBM-RC-1288] 22 p4074 N67-37951
THORIUM COMPOUND
Uniform lattice experiments with thorium-uranium fuel in heavy and light water moderators 03 p0423 N67-12601
Direct spectrometric determination of rare earths in high purity thorium dioxide
[MCW-1495] 07 p1027 N67-17474
Glove box for preparation of thorium-boron sources
[UUIP-517] 19 p3427 N67-33736
Preparation of thorium dicarbonate, uranyl carbonate, and sesquicarbonates of lanthanum, cerium, praseodymium, terbium, and yttrium from corresponding anhydrous acetates 21 p3788 N67-36348
Absorption spectra of single crystal and polycrystalline thorium dioxide
[BNWL-457] 24 p4516 N67-39908
THORIUM OXIDE
High temperature creep behavior of recrystallized nickel-thorium oxide alloys studied with vacuum constant-stress creep conditions
[NASA-CR-54639] 01 p0085 N67-10757
Electron spin resonance measurements of dysprosium doped thorium oxide and cesium oxide single crystals
[ORNL-P-2466] 04 p0589 N67-14049
Formation of uranium, zirconium, and thorium oxide microspheres by ammonium hydrolysis of sols
[ORNL-TM-1508] 07 p1028 N67-17563
Flow properties, sedimentation, and caking of thorium oxide suspensions for test reactor
[NP-16348, PT. 1] 08 p1311 N67-18596
Oxide spherule preparation for thorium or thorium uranium oxide cycling 09 p1408 N67-19513
Effect of submicron thoria particles on hardness, tensility, and electric resistivity of thorium
[USBM-RC-1345] 10 p1653 N67-20895
Sol-gel preparation of lanthanum oxide microspheres, and characterization of sols and gels of lanthanide hydroxides, thoria, urania, and plutonia
[ORNL-TM-1592] 10 p1573 N67-20899
Compressive-creep deformation modes of thorium oxide, densification kinetics of sintering powder compacts for metal oxides, and mathematical model describing sintering 13 p2342 N67-25348
Measurement of effective resonance integral and Doppler coefficient of thorium oxide rods
[WAPD-TM-637] 15 p2747 N67-28360
Sintering uranium and thorium oxides
[WAPD-TRANS-41] 15 p2731 N67-28461
Sintered thorium oxide-uranium oxide ceramic fuel
[WAPD-TRANS-42] 15 p2749 N67-28462
Measurement and calculation of lattice parameters in thorium dioxide blanket regions as function of distance from seed regions in seed blanket slab cores
[WAPD-TM-615] 16 p2931 N67-29723
One-module, two-module, and three module cores, containing highly enriched uranium dioxide seeds and thorium dioxide blankets, studied to compare design calculations with measured core parameter
[WAPD-TM-631] 17 p3110 N67-30911
Fractional factorial experiment in

fabricating thoria fuel pellets
[WAPD-TM-589] 17 p3117 N67-31297
Cold working effects on dispersion strengthened nickel alloys containing thorium dioxide
[NASA-CR-72240] 19 p3468 N67-33816
Neutron leakage effects on fast advantage factor in thorium oxide seed-blanket assembly
[WAPD-TM-638] 19 p3492 N67-33657
Fabrication of uranium dioxide plutonium dioxide and thorium dioxide plutonium dioxide fuel elements
[AECL-2675] 21 p3889 N67-36185
Precipitation-peptization method for preparation of mixed thoria-urania sols
[ORNL-TM-1782] 21 p3785 N67-36295
Tripositive europium fluorescence in thorium oxide and other non-rare earth oxide hosts 21 p3920 N67-36531
Production engineering for cylindrical seed and blanket type nuclear fuel pellets
[WAPD-TM-578] 21 p3890 N67-36397
Thermal conductivity measurements on magnesium oxide, beryllium oxide, thorium oxide, thorium uranium oxide, and aluminum uranium oxide
[ORNL-4121] 22 p4163 N67-37420
Production of thin-walled high density thorium oxide ceramic bodies by slip-casting
[WAPD-TRANS-61] 22 p4056 N67-37590
Irradiation behavior of uranium oxide-plutonium oxide and thorium oxide-plutonium oxide fuel assemblies
[AECL-2674] 22 p4094 N67-37875
Grain growth and density change in thoria gel
[TR-33] 23 p4270 N67-38537
Sintering and grain growth of thoria gels with calcium oxide impurities
[TID-23683] 23 p4270 N67-38570
Mass spectrometric study of zirconium, hafnium and thorium dioxides vaporization
[NASA-TT-F-11396] 23 p4210 N67-39346
THORIUM 228
Tabulation of thorium 228 total neutron cross sections for 1.9 and 7.5 eV resonances
[IN-1040] 12 p2169 N67-34560
THORON
Amperometric titration of thorium by thoron 03 p0356 N67-12586
Seasonal variations in concentration of airborne radon and thoron daughters 13 p2311 N67-25470
THREE-BODY PROBLEM
Charged sigma production reactions in two-body and three-body decays
[TR-559] 01 p0122 N67-10633
Application of Krylov-Bogolubov method to solution of stellar three-body problem
[NASA-TN-D-3710] 01 p0155 N67-10791
Three-body systems through factorable potentials 03 p0435 N67-12565
Periodical solutions of three-body problem
[NASA-CR-80010] 04 p0611 N67-13530
Theory on probability of capture in three-body problem and binary stellar evolution 04 p0611 N67-13642
Treatment of three quark interactions based on nonrelativistic three-particle Hamiltonian
[INR-732/VII/PH] 04 p0584 N67-13646
Mathematics of satellite orbital motion and three-body problem - conference
[NASA-CR-80074] 05 p0758 N67-14410
Poincares method for three-body problem applied to lunar orbital motion 05 p0759 N67-14414
Regularization of relative many-body equations of celestial mechanics and relative three-body equations in case of binary collisions 05 p0727 N67-14415
Orbital motion in restricted three-body problem 05 p0759 N67-14418
Qualitative methods in three-body and many-body problems 05 p0758 N67-14420
Equations of motion and integrals of motion derived for Sundman regularization of three-body problem
[NASA-TM-X-55636] 05 p0763 N67-14919
Linearization for certain earth-moon trajectories in restricted three-body problem
[TRW-9863-6065-R000] 06 p0964 N67-15779
Trojan orbits - restricted three-body problem for Sun-Jupiter system
[D1-820564] 07 p1169 N67-17156
Restricted three-body problem for motion analysis of planetoid orbiting around triangular equilibrium point 07 p1190 N67-17323
Long-period librations of Trojan planetary orbits in rotating three-body coordinate system 07 p1191 N67-17324
Nonperiodic motions near long-period librations about equilateral points of restricted three-body problem 07 p1191 N67-17325
Librational motion analysis for elliptical restricted three-body problem 07 p1191 N67-17326
Numerical analyses for series of polynomials in three-body problems
[NASA-CR-81795] 08 p1359 N67-18301
Numerical integration of periodic orbits in elliptic restricted three-body problem 08 p1360 N67-15511
Method for solving three-body problem by using Sturm-Liouville functions
[JINR-P-3625] 08 p1333 N67-18599
Stability of periodic and equilibrium solutions of restricted three-body problems - measure preserving mappings, normal form of Hamiltonian, and Poincare recurrence theorem
[NASA-CR-83489] 08 p1301 N67-19029
Rotating emission ring in terms of stability of periodic orbits in restricted three-body problem for binary systems
[NASA-CR-83476] 08 p1307 N67-19034
Stability of periodic orbits of restricted three-body problem
[NASA-CR-82921] 09 p1513 N67-19999
Soluble three-body model of deuteron stripping
[UCD-CNL-68] 10 p1702 N67-20799
Approximation method with expanded wave functions for solving three-nucleon problem with central interaction
[JINR-P-2890] 10 p1702 N67-20963
Three-body scattering amplitude equations for analysis of pion-pion interaction parameters during decay modes
[UCR-34P107-35] 10 p1709 N67-20943
Calculation of matrix elements in quantum mechanical problem of three bodies interacting according to Coulomb law
[JINR-P4-3011] 10 p1721 N67-21537
Influence of three-body forces in tritium problem using nonlocal factorizing potential
[JINR-P4-2929] 10 p1724 N67-21589
Analytical perturbation theory for three-body problems using regulating variables
[REPT.-9772] 11 p1974 N67-22100
Mass ratio stabilities analyzed in triangular equilibrium positions of three-body problem
[D1-82-0580] 11 p1978 N67-22565
Doubly symmetric orbits about collinear Lagrangian points
[D1-82-0673] 11 p1978 N67-22157
New Lie series method for numerical integration of ordinary differential equations, and restricted three-body problem application
[NASA-TN-D-3857] 11 p1999 N67-22285
Closed collision paths in plane circular restricted three-body problem
[NASA-TT-F-464] 11 p1978 N67-22369
Double hypernucleus of helium 6 studied with three-body model based on results for He-10
[IC/66/113] 11 p1948 N67-22393
Selenodesy experiment, data compression, Mars and Venus mass data, Earth-Moon mass ratio, orbits for three-body problem, and unbraked impact time for lunar landing mission - systems analyses 12 p2388 N67-23642
Periodic solutions for restricted three-body problem of celestial mechanics
[NASA-CR-765] 12 p2129 N67-23719
Regularization of three-dimensional Kepler motion and generalized Birkhoff transformation for three-body problems
[REPT.-3016] 13 p2491 N67-25603
Numerical and analytical methods for orbit computation in celestial mechanics during and beyond collision by introduction of regularized coordinates
[NASA-CR-84256] 13 p2481 N67-25672
Analytical perturbation theory in three-body problem by regularization of variables, and series expansion convergence 13 p2481 N67-25700
Instability of periodic motions near collinear points of libration in plane restricted three-body problem examined with Liapunov theory
[NASA-TM-X-59461] 13 p2493 N67-26283
Finite time stability of periodic solutions of Hamiltonian systems
[PR-8] 14 p2613 N67-27175
Approximation method for integration of celestial three-body problem
[NASA-TT-F-450] 14 p2613 N67-27277
New methods for calculating celestial mechanics
[NASA-TT-F-451] 14 p2614 N67-27278
Integral invariant method for calculations on celestial mechanics
[NASA-TT-F-452] 14 p2614 N67-27279
Transition amplitude calculation for rearrangement collisions using Faddeev three-body formulation
[IC/67/15] 15 p2756 N67-27666
Interrelationship of asteroids, meteorites, comets, and meteoric particles in solar system determined by magnitude of constant of Jacobi integral in limited circular three body problem
[NASA-TT-F-10965] 15 p2789 N67-28235
Convergence of two-particle disintegration in three-body problem
[JINR-P4-3154] 15 p2764 N67-28435
Three-body and four-body strange particle final states from 8 GeV/c proton-proton interaction
[COO-119-5-72] 15 p2764 N67-28436
Complete system for each value of total angular momentum in three-body problem with wavefunction of three particles depending on two vectors
[AEC-TR-6835] 15 p2769 N67-28563
Trojan manifold of periodic orbits in system earth-moon
[D1-82-0694] 15 p2783 N67-28951
Elliptic orbits in three-body problem, error analysis for Mariner Mars celestial mechanics experiment, and mathematics for sample point spacing and nonlinear system dispersions 16 p2966 N67-29143
Bound state three-body problem approach for application to helium-like atom, and method of formulating total wave function
[AFCRL-67-0185] 16 p2940 N67-29264
Mathematical models to approximate functions, bounds and power series for three-body problems, satellite orbit theories, and other aspects of trajectory analysis and guidance theory
[NASA-SP-141] 16 p2967 N67-29270
Rejection to infinity in three-body problem when total energy is negative 16 p2968 N67-29274
Algorithm and recursion formulas for series expansion of three-body problem 16 p2968 N67-29276
Ground state three-body correlation function in dilute boson gas with hard sphere interaction 17 p3137 N67-30891
Numerical methods and integration for solution of restricted three-body problem 17 p3091 N67-30907
Celestial mechanics, and perturbation theory in deriving perturbed precessing elliptic orbits 17 p3139 N67-30908
Three-dimensional generalizations of Birkhoff regularization for spatial three-body problem
[DIBS-3016] 17 p3180 N67-30939
Schroedinger equation for three particle problem in internal coordinate sets for body axes motion
[NASA-CR-86899] 17 p3819 N67-31284
Regions of motion impossibility defined for three bodies for certain conditions
[NASA-CR-86963] 18 p3365 N67-31749
Regge poles and three-body problem
[UCRL-17250] 19 p3510 N67-32944
Regge trajectories of elementary particles, eta meson decay, current algebras, and three-body problem
[AD-652966] 20 p3697 N67-34643
Three families of integrals arising in some three-body problem with Coulomb pair potentials
[AFCRL-67-0823] 21 p3979 N67-35439
Solution of three-body problem by convergent series
[NASA-TT-F-10877] 22 p4128 N67-36781
Computer program for analyses of three dimensional frameworks and pipeline systems
[TRG-1400/R/] 22 p4098 N67-37214
Classification of periodic orbits in dynamical systems with two degrees of freedom
[D1-82-0822] 23 p4344 N67-38062
Numerical integration of periodic and nonperiodic solutions of planar restricted three-body problem
[D1-82-0635] 24 p4387 N67-38822
THREE-DIMENSIONAL BOUNDARY LAYER
Geometric discontinuities in elastic solids

[TR-3] 01 p0161 N67-11026
Local similitude method for approximate solution of three-dimensional boundary layer with pressure gradient 06 p0866 N67-15927
Plane and three-dimensional cracks in elastic bonds and layers 12 p2224 N67-34503
Method for solving equations representing three-dimensional compressible laminar boundary layers on yawed infinite cylinders
[LB-33706] 20 p3361 N67-34734
THREE-DIMENSIONAL FLOW
Turbulent friction and heat flux in two-dimensional flows and three-dimensional flows
[TP-151/1964/] 01 p0164 N67-10554
Nonequilibrium flow and three-dimensionality effects on shock reflection coefficient behavior
[BRL-MR-1775] 05 p0695 N67-15001
Calculating supersonic flow of ideal gas over blunt body
[TG-230-T506] 05 p0697 N67-15115
Three-dimensional flow past elliptical cones
[NASA-TT-F-10480] 06 p0785 N67-15559
Flutter analysis of flat rectangular panels based on three-dimensional supersonic unsteady potential flow
[NASA-TR-R-256] 06 p0789 N67-16675
Computation and experimental results compared for three-dimensional flow around blunt cones 08 p1266 N67-18559
Three-dimensional effects in shock separated flow regions ahead of lateral control jets issuing from slot nozzles of finite length 08 p1274 N67-19262
Shock wave-laminar boundary layer interaction 08 p1218 N67-19263
Analytic solutions for two and three-dimensional steady state diffusion problems with constant coefficients
[PMR-TM-66-7] 10 p1626 N67-21224
Turbulent flow through axial turbomachines, and three-dimensional flow theory
[NAL-TR-113] 10 p1552 N67-21415
Three-dimensional viscous disturbances, shock structure of helium-argon mixtures, and magnetohydrodynamic experiments with large interaction parameter 12 p2065 N67-23658
Differential calculations for three-dimensional supersonic gas flow around smooth body
[NASA-TT-F-10627] 12 p2067 N67-24449
Magnetic field code for three-dimensional computer calculations on current-carrying elements of arbitrary geometry
[UCRL-7744, REV. 2] 13 p2285 N67-25510
Characterization of turbulence and flow of liquid films on inclined walls using motion equation
[REPT.-36] 13 p3425 N67-36110
Quasi three-dimensional compressible flow analysis to determine aerodynamic velocity distribution on turbine blades
[NASA-TM-X-1204] 14 p2519 N67-27572
Behavior of separation and attachment in three-dimensional turbulent boundary layers on ellipsoids and annular wings
[AD-650963] 16 p2879 N67-29614
Method for calculating characteristic parameters of three-dimensional turbulent boundary layers based on assumption of third degree polynomial for temperature polar
[AD-650963] 16 p2879 N67-29615
Theoretical predictions of weak shocks and Prandtl-Meyer expansions in unsteady flow and three-dimensional steady supersonic flow
[NASA-TM-X-53079] 17 p2992 N67-30906
Uniqueness proof of parallel three-dimensional shear flow in channel with arbitrary cross section
[IMM-355] 22 p4634 N67-37807
THREE-DIMENSIONAL MOTION
Three-dimensional structure of Santa Ana winds - California
[PSW-39] 05 p0723 N67-15317
Plasma computer experiments in three dimensions - code for guiding center fluids
[IPPJ-65] 11 p1963 N67-23965
Regularization of three-dimensional Kepler motion and generalized Birkhoff transformation for three-body problems
[REPT.-3816] 13 p2401 N67-25683
Three-dimensional dynamic elasticity analysis for transverse isotropic cylinder 13 p2630 N67-26826
Fortran program for solving transient three-dimensional heat transfer problems
[GAMD-7346] 16 p2906 N67-29787
Three-dimensional linear coding and decoding techniques for increasing interference stability of moving images in low frame rate television system 18 p3232 N67-32231
THRESHOLD
SA NOISE THRESHOLD
Influence of borders on increment thresholds and retinal adaptation
[PLR-17A] 01 p0017 N67-10925
Threshold data for production of chorioretinal lesions by thermal radiation 04 p0484 N67-13404
Threshold studies of phase lock loop systems - effect of phase comparator on overall performance and threshold phenomena
[NASA-CR-80844] 04 p0523 N67-14240
Cortical control of eye movements exhibited through studies of visual threshold for light flashes
[TDCK-46512] 07 p1023 N67-18069
Differential cross section for eta photoproduction in region from threshold to 940 MeV
[HEPL-465] 09 p1489 N67-19780
Charge sensitivity of tunnel diode voltage threshold discriminator used in time differences measurements
[UCRL-14936-T] 10 p1592 N67-20737
THRESHOLD DETECTOR
Fast neutron spectroscopy methods using threshold probes evaluated for accuracy
[JUL-414-RX] 11 p1943 N67-23091
Fast neutron flux measurement by threshold activation detectors
[UJV-1712] 15 p2747 N67-28405
Threshold Cerenkov counter with Perspex radiator
[JINR-P13-3328] 23 p4253 N67-32969
THRESHOLD GATE
Method for synthesizing networks of threshold gates 08 p1259 N67-19448
Transistor threshold logic gate power dissipation and transition characteristics
[TR-23] 11 p1849 N67-23368
THRESHOLD LOGIC
System for checking threshold properties of logical functions based on Carver theorem 03 p0578 N67-12770
Network synthesis of cascaded threshold elements
[RADC-TR-66-518] 09 p1427 N67-19454
Differential linearity of analog-to-digital converters improved by numerical correction method to value of threshold
[NP-TR-1427] 10 p1593 N67-20011
Software for threshold gate network research and automated design aid systems for computer systems design
[AFCRL-66-868] 11 p1833 N67-23352
Realization of Boolean function of n variables by means of network of threshold elements with n inputs 20 p3614 N67-34554
Analysis and synthesis of multithreshold threshold logic
[TR-EE67-5] 21 p3830 N67-35562
Research projects on threshold logic, sequential switching network designs, shift registers, and relevant computer programs
[DSR-76631] 23 p4239 N67-38139
THRESHOLD SHIFT
Induced hearing loss relationship to physical characteristics of inducing stimuli, and temporary threshold shift measurements
[AMRL-729] 18 p3214 N67-32624
THROAT
SA THYROID
Numerical solution of flow field in throat region of nozzle
[NASA-CR-82861] 06 p1275 N67-19255
Application of pyrolytic graphite in construction of nozzle throats
[TIL/T-5720] 15 p2720 N67-27786
THROMBIN
High pressure absorption spectrophotometer cell application to enzyme reaction
[REPT.-33] 05 p0853 N67-15069
THROTTLING
Throttle for regulating flow of compressible gas studied under laws of gas dynamics
[JPRS-39495] 05 p0697 N67-15176
THRUST
SA JET THRUST
SA MICROTHRUST
SA NOZZLE THRUST COEFFICIENT
SA ROCKET THRUST
Thrust-lift integration in air breathing aircraft engine using single air flow simultaneously deviated and accelerated
[TP-366] 04 p0569 N67-14197
Calculation of viscosity effects, thrust, mass flow rate in supersonic nozzles
[TP-466] 04 p0607 N67-14360
Control of space vehicle with low thrust engine on accelerating segment in absence of information on present velocity vector 05 p0783 N67-14864
Optimization of dynamic and aerodynamic properties of blades for improved efficiency of rotors designed to provide lift and thrust 05 p0830 N67-15182
Supersonic rocket nozzle design for optimum thrust with chemically reacting gas flows
[NASA-CR-84159] 14 p2606 N67-26505
Large scale low speed wind tunnel tests of delta winged supersonic transport model to determine aerodynamic effects of forward and reverse thrust
[NASA-TM-X-1017] 18 p3194 N67-32141
THRUST AUGMENTATION
Transient and steady performance of ion rocket thrust augmentor
[NASA-CR-70561] 07 p1163 N67-17771
Feasibility study to determine thrust augmentation effects on interplanetary swing-by, and Mars launch opportunity computed using Fortran IV program
[NASA-CR-83518] 08 p1267 N67-19081
Bibliography and study of flow compressibility, losses, and forward speed in thrust augmentation by jet ejectors
[DCR-219] 17 p3151 N67-30431
THRUST BEARING
Empirical method for considering entrance effects in computing flow rates and load capacities of circular thrust bearings
[NASA-CR-80111] 03 p0404 N67-13011
Steam lubrication, low kinematic viscosity fluids, and bearing materials for naval machinery applications
[MTI-66TR50] 07 p1089 N67-16884
Gas-lubricated bearing system design consisting of two tilting pad journal bearings with spiral groove main thrust bearing for 50,000 rpm Brayton cycle turbine compressor
[NASA-CR-802] 21 p3869 N67-36043
Design requirements, types and applications of bearings for power transmission machinery 23 p4261 N67-39562
Design requirements and types of rolling bearings for power transmission machinery 23 p4261 N67-39564
THRUST CHAMBER
S COMBUSTION CHAMBER
S ROCKET CHAMBER
THRUST CONTROL
Experimental analysis of digital fluidic amplifiers for proportional thrust control 10 p1610 N67-21114
Optimal programming of thrust direction of moving ballistic rocket
[FTD-TT-65-1753] 15 p2794 N67-28263
Thrust history of rocket engine that produces maximum altitudes for two-stage sounding rocket launch vehicle
[P-3490] 23 p4335 N67-38103
THRUST EFFECT
Influence of variable cross wind and thrust misalignment on flight path of unguided rocket 06 p0783 N67-15571
Game theory for optimal parameter control of payload delivery by limited thrust engine space flight
[NASA-TT-F-10728] 14 p2565 N67-27575
Thrust lift integration and economy of space flight at high speed for air breathing engine
[TP-366/1966/] 17 p2994 N67-30909
Low-thrust orbit raising in continuous sunlight during satellite thrusting in plane perpendicular to earth-sun line
[NASA-TN-D-4104] 19 p3536 N67-33581
THRUST MEASUREMENT
Hydraulic-electric system for measuring side thrust components of solid propellant rockets 12 p2198 N67-24396
Causes and methods for determining side thrust force components on solid propellant rocket engines 12 p2198 N67-24396
Test facility and methods for determining thrust vector deviations on solid propellant rockets 12 p2198 N67-24397
Cruise fuel consumption, horizon scan platform requirements, and calibration of nozzle thrust measuring techniques for spacecraft control 18 p3216 N67-32145

Thrust and mass flow rate determination for supersonic nozzle without internal separation
[TP-408/1966/] 17 p3153 N67-31358
Static test rig for measuring thrust efficiency and discharge coefficient of propelling nozzle systems
[ARA-WTN-63] 20 p3642 N67-34839
Thrust and blade spindle torque measurements of 5 variable pitch propellers for minesweeper
[DTMB-2325] 22 p4132 N67-36857
THRUST POWER
Theory and examples of thrust and drag with heat addition to supersonic flow
[RAE-LIB-TRANS-1161] 09 p1393 N67-20814
Thermal and thrust power efficiencies measured for low pressure hydrogen plasma arc jet
[FR-906-1573] 11 p1970 N67-32566
Impulsive solution used to solve optimum trajectory problems with bounded thrust magnitude
[NASA-TN-D-4059] 17 p3159 N67-30682
THRUST PROGRAMMING
SA OPTIMUM THRUST PROGRAMMING
Mathematical demonstration of optimal control and application to thrust programming using maximum principle 17 p3158 N67-30383
THRUST TERMINATION
Propellant impact loading on tank bulkheads induced by maneuvering or docking of spacecraft in low gravity environment, and thrust termination in atmosphere 06 p0976 N67-15895
THRUST VECTOR CONTROL /TVC/
Proportional hot gas secondary injection thrust vector control system for high energy solid propellant rocket motor
[NASA-CR-637] 03 p0455 N67-12758
Probability solution and statistical thrust vector analysis of engine cluster problem
[NASA-CR-63017] 08 p1354 N67-18412
Thrust vector deflection angle requirements for controlling solid propellant launch vehicle
[NASA-TM-X-52376] 08 p1373 N67-18966
Storage unit, omnidirectional antenna, and thrust vector control tests for ATS, and propellant combustion in ballistic system 16 p2961 N67-29151
Solid propulsion technology development for altitude, velocity, and thrust vector control 17 p3151 N67-30658
Integration of pulsed plasma electric thruster system into satellite payload
[FHR-3449] 18 p3314 N67-33536
Mathematical model equations used in optimization of hydraulic thrust vector control systems of Saturn launch vehicles - computer program formulated from model equations
[NASA-CR-85596] 20 p3569 N67-34235
Mathematical model for space vehicle thrust vector control system
[NASA-CR-87448] 20 p3723 N67-34613
Solid propellant engineering, binder curing reactions, ATS engine development, pintle nozzle thrust vector control, and low pressure combustion 20 p3717 N67-34768
Mission planning, orbit determination, thrust vector control, and configuration management program for Voyager project - summary
[NASA-CR-89733] 24 p4538 N67-39762
Liquid insertion thrust vector control system for Voyager project
[NASA-CR-89734] 24 p4522 N67-39767
THRUST-WEIGHT RATIO
Electric propulsion phases of lunar mission profiles evaluated for thrust-to-mass ratios
[NASA-CR-81742] 07 p1184 N67-18098
Relative mass of fuel and thrust/weight ratio for flight vehicle according to prescribed motion law 23 p4179 N67-39174
THRUSTOR
SA PROPELLANT ACTUATED DEVICE
Charging submicron carbon powder for colloidal particle thrustors
[NASA-TN-D-3657] 01 p0113 N67-10235
Pulsed coaxial plasma gun accelerators in space thrustor development
[NASA-CR-54710] 01 p0145 N67-10759
Onset of anomalous diffusion in electron-bombardment ion thrustor
[NASA-TN-D-3731] 01 p0145 N67-10796
Thrustor and conditioner designs for reaction control systems using cryogenic propellants
[NASA-CR-79704] 01 p0089 N67-10895
Langmuir and current probe measurements of ion thrustor beam, and resulting transverse and longitudinal profiles of electron and ion densities
[NASA-TN-D-3761] 03 p0447 N67-12800
Low power magnetoplasmadynamic arc thrustor performance
[NASA-TM-X-52256] 03 p0456 N67-13008
Development status of cesium contact ion engine 04 p0695 N67-13888
Electron interaction in low density plasma beams of electrostatic thrust engines 04 p0695 N67-13891
Potential electric propulsion thrustors for interplanetary spacecraft
[TP-394] 04 p0696 N67-14183
Electron cyclotron plasma thrustor for orbit corrective missions 05 p0756 N67-15246
Ammonia fueled resistojet thruster system for three-axis attitude control and two-direction station-keeping of stable platform type satellite
[NASA-CR-72104] 06 p0953 N67-15677
Subsystem component design and development, and system performance of ammonia fueled resistojet thrustor for spacecraft inversion maneuvers
[NASA-CR-72123] 06 p0953 N67-15678
Design, development, and fabrication of ammonia fueled resistojet thrustor system for attitude and orbit control of satellites in 500 to 1000 lb class
[NASA-CR-54688] 06 p0954 N67-15847
Thermodynamics of nozzle flow in physical model of mixed flow colloid thrustor to improve particle formation efficiency
[NASA-TM-X-52365] 06 p0955 N67-16045
Performance tests of single ceramic protected metallic accelerator grid for direct current electron bombardment thrustor
[NASA-TM-X-1342] 07 p1182 N67-17513
Two subliming solid propellant thrustor systems for spacecraft attitude control
[NASA-TN-D-3641] 07 p1182 N67-17628
High temperature liquid mercury cathode for ion thrustors
[NASA-CR-81690] 07 p1184 N67-18033
Parametric analysis for steady state performance of attitude control thrustor 08 p1222 N67-18215
Updated bipropellant and advanced thrustor systems for Manned Orbital Research Laboratory, and comparison of integrated propulsion/reaction control systems
[NASA-CR-66393] 08 p1371 N67-18580
Permanent magnet designed for use with magneto plasma dynamic arc thrustor fabricated and tested
[NASA-CR-54690] 09 p1486 N67-19998
Advanced electric propulsion research, thermal power augmentation, thrustor operation, and colloidal propellant production
[NASA-CR-83034] 10 p1754 N67-30569
Radioisotope heating of ionizers in contact ionization thrustor in primary electric propulsion systems 10 p1755 N67-30511
Electrostatic, electrothermal thrusters in electric propulsion system augmented with thermal power 10 p1755 N67-30514
Aluminum colloid formation by homogenous nucleation for electrostatic thrustor propellant 10 p1755 N67-30515
Colloid particle production from organic macromolecules for electric thrustor propellant 10 p1500 N67-30517
Test facility and equipment for thrustor operation and colloidal propellant production in advanced electric propulsion research 10 p1500 N67-30518
Comparison of porous ionizer materials for cesium contact-ionization thrusters
[NASA-TN-D-3997] 15 p3725 N67-32290
Design and transient performance of resistance jet thrustor for space vehicle attitude control and station-keeping
[NASA-CR-84533] 15 p3764 N67-32782
Cathode durability tests in mercury electron bombardment ion thruster
[NASA-TN-D-4055] 17 p3183 N67-31224
Breadboard models of power conditioners used for converting output of solar cell array into voltage and current requirements of electron bombardment, cesium-ion thruster
[NASA-CR-54672] 17 p3500 N67-31240
Magnetoplasmadynamic arc jet thrustor
[AVSSD-0161-67-RR] 17 p3184 N67-31488
Aerospace nuclear safety analysis of nuclear heat source for radioisojet thruster
[NASA-TM-X-55644] 18 p3294 N67-32111
Optimal control applications for electrothermal multijet systems for attitude control and station keeping of 24-hour synchronous satellite
[NASA-TM-X-53869] 19 p3370 N67-33421
Use of foot balancing reflex for extravehicular maneuvering of free-floating astronauts
[NASA-CR-73165] 20 p3585 N67-34889
Radioisotope heated thruster development and evaluation
[NASA-TM-X-55883] 20 p3718 N67-35189
Design and performance characteristics of several electrothermal microthrust systems for spacecraft
[NASA-TM-X-55697] 21 p3898 N67-35835
Specific impulse, and propulsion system optimization with electrothermal thrustors 22 p4132 N67-36944
Fundamental plasma processes in electron bombardment thrustor ionization chambers 22 p4132 N67-36945
Electric circuits and ion thrustor ground test hardware for efficient, reliable, lightweight power conditioning
[NASA-CR-72179] 24 p4376 N67-39080
Monopropellant hydrazine thrustor system
[NASA-CR-85670] 24 p4521 N67-39723
Precision flow measurement techniques for low thrust auxiliary propulsion liquid rockets
[NASA-TM-X-55967] 24 p4522 N67-39725
Dynamic characteristics of electron-bombardment mercury ion thrustor
[NASA-TN-D-4304] 24 p4523 N67-40107
THULIUM
Particle decay, and beta-gamma scintillation technique to investigate thulium 174 03 p0438 N67-12304
Particle decay of thulium 170 and energy level of ytterbium 170 03 p0438 N67-12305
First forbidden transitions of europium-152, europium-154, and thulium-170 nuclei
[IC/66/118] 06 p1250 N67-18273
X-ray fluorescence spectrometric determination of thulium in plutonium-thulium alloys
[LA-3549] 08 p1239 N67-19964
Collective level systems in thulium to erbium decay
[JINR-P-2230] 10 p1705 N67-30072
Thulium 170 as gamma source for flaw detection in thin-walled welded and cast articles of steel and light alloys 10 p1641 N67-31238
Kinetics of thulium oxidation by oxygen and water vapor
[IS-T-121] 10 p1579 N67-31544
Nuclear matrix elements of first forbidden beta transitions in rhenium 186, rhenium 189, and thulium 170
[IC/66/111] 11 p1966 N67-32268
Solubility of thulium in liquid potassium
[LA-3623] 12 p2042 N67-34151
Metallography of scandium, thulium, and erbium targets before and after irradiation 12 p2148 N67-34268
Chill casting procedure and dash pot stirring unit used to prepare plutonium thulium alloy on multikilogram scale
[LA-3621] 12 p2130 N67-34539
High field magnetic moment measurements in single crystals of europium, samarium, and thulium 21 p3822 N67-36276
Electrical resistivity and Seebeck effect of thulium single crystals 21 p3822 N67-36279
Neutron resonance in platinum, silver, and thulium nuclei of spin 1/2 determined by capture and transmission experiments
[CEA-R-3077] 23 p4280 N67-38888
Hyperfine structure and magnetic moment of silver 110m and nuclear spin of thulium 163
[UCRL-17469] 23 p4280 N67-38941
Radiation characteristics, chemical, mechanical, and thermophysical properties of thulium metal and thulium oxide
[DP-1114] 24 p4481 N67-39277
THULIUM COMPOUND
Heats of formation for ytterbium and thulium trichlorides
[BM-RI-6962] 09 p1342 N67-19849
Mossbauer effect study of crystal field potential in intermetallic compounds of thulium
[IS-T-104] 12 p2130 N67-33899
THULIUM 171
Experimental data on magnetic properties of ground state rotational band of thulium

171 nucleus analyzed in terms of effective spin g-factors
[REPT.-482/PL] 01 p0119 N67-10056
Recovery process for chemical separation of reactor produced thulium 171 and erbium 05 p0666 N67-14835
Nuclear radiation in X-ray fluorescence spectrometry, and application to identifying minerals 16 p1577 N67-21307
Radiation hazards of thulium-170, thulium-171 oxide as fuel for thermoelectric generators
[SC-RR-66-2679] 19 p3277 N67-33543
THUNDERSTORM
Sferics pulse sensor detection of atmospheric electricity and thunderstorm development
[REPT.-2967] 01 p0100 N67-10298
Three-dimensional growth characteristics of orographic thunderstorm system studied by aerial photography
[SMRP-RP-61] 01 p0102 N67-11049
Techniques for estimating thunderstorm penetrations of tropopause
[AFCRL-66-556] 04 p0572 N67-14318
Motion, heights, and circulation of thunderstorms
[NASA-CR-81439] 07 p1116 N67-16895
Development and movement of tornadic storms over Oklahoma on 27 May 1965 07 p1116 N67-16896
Motion and intensity characteristics of severe thunderstorms studied by weather radar 07 p1116 N67-16897
Cloud photographs of severe storms in Oklahoma by U-2 aircraft 07 p1117 N67-16898
Aircraft recording of thunderstorm lightning 07 p1069 N67-16991
Turbulence in clear air near thunderstorms
[NSSL-30] 08 p1304 N67-18253
Atmospheric turbulence in clear air above thunderstorms and relationship to weather radar pictures 08 p1304 N67-18254
Atmospheric turbulence encountered by Canberra aircraft over storms in Oklahoma 27 May 1965 08 p1304 N67-18255
Disturbance lines, scattered and local thunderstorms, dry season, and harmattan dust haze - mesoscale meteorological phenomena in Nigeria and West Africa 10 p1671 N67-20430
Meteorological satellite data application to thunderstorm research 12 p2137 N67-24290
Pilot physiological response to severe weather flying
[AM-66-41] 12 p2034 N67-24834
Thunderstorms in Southeast Asia
[TS-11] 16 p2924 N67-29116
Doppler radar vertical incidence observations of turbulence in thunderstorm
[AFCRL-67-0015] 16 p2925 N67-29605
Ability of position azimuth range spectrum analyzer modified by addition of image storage tube electro-optical triangulation computer to detect and track thunderstorms
[AFCRL-67-0163] 17 p3060 N67-30613
Thunderstorm circulation and atmospheric turbulence from aircraft and radar data
[IERTM-NSSL-32] 19 p3289 N67-31662
Atmospheric turbulence and associated radar echo characteristics during F-100 aircraft penetration of Oklahoma thunderstorms 18 p3290 N67-31663
Morphology and dynamics of isolated severe right-moving cumulonimbus by instrumented aircraft and radar 18 p3290 N67-31664
Morphology and circulation of intense thunderstorm with motion substantially to left of ambient winds
[IERTM-NSSL-31] 18 p3290 N67-31714
Correlation between atmospheric field strength and thunderstorm activity over European U.S.S.R.
[T-R-574] 19 p3483 N67-32736
Radio direction finder data as backup source for meteorological detection of thunderstorms and related atmospherics centers
[T-R-573] 19 p3483 N67-32841
Doppler radar measurements of severe thunderstorms
[RRE-TN-713] 20 p3673 N67-34736
Correlation of rainfall distribution and drop size with climatic regions and type of rain
[FA-F-1851] 21 p3882 N67-35414
Thunderstorm and lightning activity, and frontal passages over Hawaiian Islands - synoptic climatology
[HIG-67-9] 21 p3882 N67-36522
Monthly and diurnal thunderstorm and lightning distributions for airport stations on Hawaiian Islands 21 p3883 N67-36524
THYMUS
Immunization sensitivity to chemotherapy, neonatal thymectomy, hyperbasophilic cell transformations, and theory of immunologically competent cells
[EUR-3060.F] 03 p0344 N67-12830
Homeostatic mechanism regulating thoratic duct lymphocyte output in thymectomized animals 06 p0901 N67-15047
Thymus and recirculating lymphocyte pool 14 p2457 N67-26767
THYRATRON
Magnetic field effects in hydrogen thyratrons
[SLAC-193] 01 p0057 N67-10626
Design modification and construction of miniaturized, ruggedized, high power deuterium thyratron with improved life characteristics
[B-3419] 02 p0244 N67-11883
Statical frequency changer for feeding asynchronous motor with voltage of reduced and adjustable frequency
[T-1868-66] 04 p0520 N67-13738
Deuterium tetrode thyratron for improved operation of Astron thermonuclear reactor
[UCRL-70015] 10 p1600 N67-20661
Probability discrete automata for signal control, using thyratrons
[FTD-HT-66-646] 10 p1597 N67-21844
THYRISTOR
Radio interference produced by recurrent thyristor switching of ac supplies
[RAE-TR-67013] 20 p3569 N67-34734
Harmonic commutation of static inverter and application to brushless direct current motor
[RAE-TR-67048] 22 p3965 N67-37449
Voltage blocking capability of silicon thyristors and breakdown phenomena in p-n junctions 22 p4014 N67-37697
THYROID
Characteristics of adrenal and thyroid glands and higher nervous activity under prolonged action of sound in rats 02 p0183 N67-11437
Role of adrenal and thyroid glands in gradual acclimatization to hypoxia at high altitudes 02 p0191 N67-11506
Fortran IV program for computer reduction of data on thyroid uptake and effective half-life of radioiodine ingested in different mammalian species and in same species with different diets
[UCLA-12-592] 03 p0348 N67-13251
Quantitative human iodine metabolism and thyroid function in cold weather
[AAL-TR-66-7] 05 p0659 N67-15329
THYROXINE
S HORMONE
TIDAL OSCILLATION
Mathematical models and equations for bodily tide and free oscillations of earth derived and analyzed for accuracy 01 p0092 N67-10070
Deep water current measurements in Atlantic Ocean
[WHOI-REF-66-9] 03 p0387 N67-12362
Measurements of upper atmosphere tidal oscillations
[AFCRL-67-0131] 21 p3838 N67-35753
Nonlinear wave effects on tide gauges
[HEL-16-3] 22 p4047 N67-37427
TIDE
SA ATMOSPHERIC TIDE
SA LUNAR TIDE
Dynamic effects of liquid earth core in diurnal earth tides 01 p0063 N67-10036
Growth cycles in fossil pelecypod shells and relationship to tidal cycles in earth-moon system
[NASA-CR-80485] 03 p0347 N67-12128
Tides and currents over continental-shelf due to winds blowing at angle to coastline
[SN-134-13] 11 p1915 N67-22610
Tidal periods and temperature fluctuations in deep water internal waves
[REPT.-2984] 22 p4035 N67-38923
TIG
S TUNGSTEN INERT GAS /TIG/ WELDING
TILT-WING AIRCRAFT
Longitudinal aerodynamic characteristics of large semispan V/STOL tilt-wing configuration with single propeller rotating in both left and right directions
[NASA-TN-D-3754] 07 p0999 N67-17622
Wind tunnel tests to determine longitudinal aerodynamic characteristics of large scale semispan V/STOL tilt-wing configuration with single propeller
[NASA-TN-D-3884] 12 p2009 N67-23792
Ground proximity and ground-plane boundary layer effects on aerodynamic characteristics of four-propeller tilt-wing V/STOL configuration
[NASA-TN-D-3958] 12 p2013 N67-23820
Longitudinal aerodynamic characteristics of large scale semispan V/STOL tilt-wing configuration having single propeller
[NASA-TN-D-4030] 20 p3563 N67-35208
TILTING ROTOR
Rotary wing helicopter configurations evaluated by range, speed, endurance, and lift/drag ratios 05 p0633 N67-15199
Weight standardization, tilt and stopped rotor optimization, and noise sensitivity analysis of V/STOL concepts for short-haul transport aircraft
[NASA-CR-73111] 18 p3195 N67-32478
TIME
S ELECTRON DECAY TIME
S FLIGHT TIME
S LAUNCH TIME
S LIFETIME
S PULSE DURATION
S PULSE TIME MODULATION /PTM/
S REACTION TIME
S REAL TIME
S RELAXATION TIME
S REVERSE TIME
S TEST TIME
S TRANSIT TIME
S UNIVERSAL TIME
TIME CONSTANT
Pneumatic digital optimizing device designed for controlling processes with large time constants 10 p1610 N67-21116
Numerical integration of control equations, and problem of small time constants
[NASA-TN-D-3907] 11 p1905 N67-21980
Variable time constants of filters in logarithmic periodmeters
[CEA-R-2940] 11 p1887 N67-23378
D-region time constants for electron cooling and electron density profiles from phase or amplitude wave interaction measurements
[SR-288] 14 p2522 N67-27016
Time constant of and radiation effects on bead thermistor from high altitude environmental testing
[AD-645050] 15 p2716 N67-28961
TIME DELAY
SA CHRONOTRON
Time delay and service at satellite tracking station 04 p0569 N67-13502
Time delay and study of UIM 21 measuring device 04 p0569 N67-13503
Survey and approaches to stability of motion of systems described by differential equations with aftereffect or time delay - Liapunov functions
[NASA-TT-F-10488] 06 p0916 N67-15686
Computer model of fluid transmission line using digital technique to simulate transport delay associated with pressure wave propagation along fluid line 06 p0794 N67-16065
Wideband array antenna using intermediate frequency time delay steering
[RADC-TR-66-239] 06 p0843 N67-16406
Friction, liquid compression and leakage, and delay time in valve-hydrocylinder system 07 p1091 N67-17285
Time delay, flow velocity, and pressure drop in hydraulic drive with throttle adjustment 07 p1091 N67-17286
Relay track drive switching element and time delay 07 p1091 N67-17291
Effective resolving time in coincidence measurements on cyclotron beam
[JINR-E13-2926] 10 p1721 N67-21543
Airport crisis in commercial aviation involving noise, congestion, and delays 11 p2002 N67-22263
Design of 20-cps to 20,000-cps passband analog correlator with continuously adjustable time delay
[TN-103/1966/] 11 p1881 N67-23472
Equalization of dispersive channels using decision feedback, and state variable estimation of sonar or seismic data in presence of pure delay 11 p1830 N67-23660
Supersonic wind tunnel measurements of ignition delay using shock induced combustion
[D1-82-0609] 18 p3426 N67-33313

Time-lapse color photography to determine military implications of seasonal environmental changes
[AD-634676] 15 p2697 N67-27955
Ionospheric irregularities over Europe, and computer program for calculating time delays between similar fades at spaced aerials
[AGARD-554] 16 p2886 N67-29471
Fortran program for determining frequency responses for linear systems with time delays
[AEEW-R-492] 17 p3029 N67-30415
Seasonal climatic changes revealed by time-lapse photography
[TR-67-34-ES] 18 p3268 N67-33684
Operator for time delay induced by scattering 19 p3502 N67-33941
Network design to compensate for time delay distortion
[NASA-CR-87279] 19 p3421 N67-33233
Time delay magnetic damping of spacecraft librations in near synchronous equatorial orbits
[TG-916] 22 p4138 N67-36787
Radio wave propagation experiments for measurements of extended solar corona 22 p4157 N67-37823
Apache subroutine for generating Pade circuits for fixed and variable time delays
[EUR-3559.E] 23 p4219 N67-38364

TIME DEPENDENCY
SA HELMHOLTZ EQUATION
Time dependent multigroup diffusion code /SWANTIME/ for IBM 7030 for following response to neutron pulse injected into system with short prompt neutron lifetime
[AWRE-O-3/66] 01 p0126 N67-10707
Computer programs for processing and analyzing nickel-cadmium battery and time-dependent data
[NASA-TM-X-55619] 03 p0372 N67-13164
Cauchy integral used to determine time dependence of solutions of Liouville equation in infinite limit
[USNRDL-TR-1066] 04 p0568 N67-13915
Studies and experiments to determine time dependency of plasma density, high frequency electron-phonon interactions in magnetic fields, and operation of stuffed-cusp plasma facility 06 p0744 N67-14630
Time dependent compression properties of aluminum alloy 2024-0 at 500 deg F
[ARA-290-4] 05 p0719 N67-15340
Time dependent solutions of transport and Poisson equations for layerlike field inhomogeneities 06 p0945 N67-15356
One-dimensional calculation of time dependent conductivity of gases with strong variable source of ionization
[UCRL-14914] 06 p0939 N67-16392
Physical effects due to viscosity introduced by numerical scheme in making Navier-Stokes time-dependent second-order difference analysis of one-dimensional relaxing flow 07 p1062 N67-16851
Geodetic error effects on time dependence of satellite tracking data as received by surface tracking station 07 p1191 N67-17329
Analog solution for heat flux using time dependent source temperature
[VKI-TN-33] 07 p1210 N67-17924
Magnitude of kaon mass difference measured by time dependence of strangeness produced by neutral kaons originating from positive kaon reaction with deuteron
[BNL-10668] 10 p1704 N67-20629
Time-dependent attachment of thin two-dimensional turbulent jet to adjacent parallel flat plate
[A3] 10 p1614 N67-21278
Time dependent perturbation theory used to determine output boundedness and stability of nonlinear reactor system
[ANL-7180] 11 p1930 N67-23305
Time synthesis approach to solution of time dependent diffusion problems
[WAPD-TM-641] 12 p2162 N67-23756
Fortran Monte Carlo program treating time dependent neutron and photon transport
[UNC-5187] 12 p2174 N67-24981
Time dependent neutron transport from point isotropic source at high altitude
[DASA-1830-II] 13 p2370 N67-25177
Time moment and fundamental decay constant of neutron pulse in thermalizing medium described by time dependent Boltzmann equation
[EUR-3275.E] 13 p2379 N67-26090
Time dependent neutron transport from point isotropic source at altitude of 80,000 feet
[DASA-1830-I] 14 p2322 N67-26971
Finite time stability of periodic solutions of Hamiltonian systems
[PR-8] 14 p2613 N67-27175
Birkhoff normalization process digital computer program for analyzing finite time stability of equilibrium points of time independent Hamiltonian systems
[AFOSR-67-0123] 14 p2612 N67-27176
Time dependent neutron transport from point isotropic source at altitude of 50,000-ft using Monte Carlo transport code
[DASA-1830-III] 14 p2327 N67-27486
Time-dependent measurements of spectral line intensities performed on rod plasma gun
[INR-719/XVIII/PP] 15 p2774 N67-28488
Plane strain dynamic response of cylindrical shell under nonaxisymmetric, time-dependent lateral loads
[REPT.-32] 16 p2978 N67-29133
Time dependent extraction of hydrogen and peroxide ions from aqueous solution by crystalline ferric oxide precipitates
[TR-3] 16 p2848 N67-29641
Stability of nonlinear time-dependent networks
[ERL-67-1] 17 p3040 N67-30460
Time dependent mechanical strength of fully oriented solids
[NASA-CR-85767] 17 p3173 N67-31005
Latitude - local time dependence of low energy cosmic ray cut-offs in realistic geomagnetic field
[NASA-CR-85600] 17 p3156 N67-31201
Age, weight, and parental longevity effects on trends in systolic blood pressure in thousand aviator cohort over 24 year period
[NASA-CR-85973] 18 p3216 N67-31643
Space and time variations in outer belt electron spectra 18 p3234 N67-31791
Time dependence of amplitude of waves propagating into homogeneous regions at equilibrium
[TR-67-14] 19 p3432 N67-33109
Long period, time dependent wave motion in Arctic Ocean 20 p3635 N67-34864
Computer tape recording of dynamic data characterized by time varying frequency spectrum
[NASA-TN-D-4161] 21 p3803 N67-35592
Predictive horizontal temperature gradient model of upper 750 feet of ocean
[NEL-1445] 22 p4025 N67-36925
Numerical solutions for time-dependent Navier Stokes equation for two-dimensional flow of dissociating gas over circular cylinder 22 p4081 N67-37614
Temperature and time dependence of hardness in iron and nickel
[ORNL-TM-1861] 23 p4264 N67-38526
Two-dimensional, time-dependent heat conduction program /TOODEE/ written in Fortran IV and MAP languages
[IDO-17227] 23 p4264 N67-38607
Rate augmented digital-to-analog converter for computed time-dependent data
[NASA-TN-D-4207] 24 p4414 N67-39789

TIME DISCRIMINATION
Effects of one-month confinement on verbal learning, group cohesiveness, motivation, and time estimation 07 p1013 N67-17812
Charge sensitivity of tunnel diode voltage threshold discriminator used in time difference measurements
[UCRL-14930-T] 10 p1582 N67-20727
Fast amplitude and time pulse discrimination analyzing system for use with semiconductor detectors
[NP-TR-1582] 22 p4051 N67-36026

TIME DIVISION MULTIPLEX
Multiple access techniques for communications satellites - digital modulation, time division multiplexing, and related signal processing
[NASA-CR-79748] 01 p0039 N67-10081
Multiplex transmission system operating on basis of time division
[CERN-66-36] 02 p0234 N67-11743
Sampled data function and staircase function described in telemetry time-division multiplexing devices
[DLR-MITT.-66-13] 04 p0611 N67-13760
Conference on aerodynamic measuring techniques in Germany - multiplex telemetry of free flight test data, analog-to-digital data conversion, and automatic data processing systems and methods
[DLR-MITT.-66-04] 05 p0678 N67-14581
Time division multiplex telemetry for onboard data transmission to earth station 05 p0674 N67-14685
Frequency and time division multiplexing telemetry of analog free flight test data and digital conversion technique 05 p0679 N67-14673
Time modulation multiplex digital communication systems for determining tropospheric scattering 07 p1035 N67-16063
Flight prototype equipment of addressable telemetry systems with all multiplexers interconnected to addressing and monitoring sources by one address cable and one data cable
[NASA-CR-81738] 07 p1043 N67-18162

TIME DOMAIN REFLECTOMETER
S REFLECTOMETER

TIME FACTOR
Repeatable method of opening metal diaphragm by explosive cemented in diaphragm grooves - applicable where timing is important factor
[NOLTR-66-77] 01 p0077 N67-10281
Effect of reduction in training time on knowledge of basic airborne electronics
[STB-67-3] 01 p0035 N67-10971
Stability of time-force reactions in various body positions encountered by astronaut 02 p0191 N67-11288
Emission and absorption time correlation of exchange photons
[JINR-P-2791] 03 p0446 N67-13218
Formulation for solution of light time problem 05 p0671 N67-14426
Nonlinear and time-varying models in relation to manual control problems of human operator 06 p0899 N67-15859
Time-of-flight method for neutron diffraction crystal structure studies 06 p0943 N67-16227
Time of flight analyzer with magnetic memory based on digital computer techniques 06 p0981 N67-15310
Time required to perform various chemical analyses - Table 06 p1235 N67-15890
Time history analysis for polar cap absorption of solar flare in July, 1966
[NASA-TM-X-55720] 09 p1443 N67-19967
Time phasing of lunar events - logistic savings in lunar missions and facility 10 p1708 N67-20415
Noise analyzing techniques in nuclear reactor - finite measuring time effect
[RCN-64] 15 p2852 N67-30472
Time-temperature characteristics of thin skinned models as affected by thermocouple variables
[NASA-CR-84500] 14 p2634 N67-27857
Fracture time of thin walled shells under creep conditions 14 p2639 N67-27731
Quality improvement of digital data smoothing filters with limited transient time 15 p2883 N67-28199
Formal system for logical analysis of temporal relationships between time intervals
[RM-5279-PR] 15 p2736 N67-28700
Influence on trajectory determination of error in tracking station location and station time and frequency synchronization
[NASA-TM-X-55736] 15 p2782 N67-28797
Comparison of effects of chronic and acute gamma irradiation by cobalt 60 and influence of time factor on higher nervous activity of white rats 19 p3500 N67-33855
Chronic gamma radiation effects on vestibular apparatus of guinea pigs and role of time factor in radiation reactions of nervous system 18 p3260 N67-33856
Compression algorithm and computer program for planning and controlling large management projects
[NASA-CR-85644] 18 p3260 N67-33866
Distribution of time between successive axis-crossings obtained by stochastic process
[AD-652304] 19 p3280 N67-33865
Regional differences in travel times of shear and dilatational waves
[AFCRL-67-0263] 19 p3426 N67-33868
Analysis of travel times of S-waves from earthquakes
[AFCRL-67-0264] 19 p3427 N67-33869
Time decay calculations of cyclotron harmonic signal and application to Alouette satellite 19 p3513 N67-33866
Invariant surfaces of ordinary differential equations with and without time lag

[UCRL-17335] 21 p3880 N67-36057
Differential equations for analyzing minimax of time-to-encounter of tracking and tracked control movements
[JPRS-42440] 22 p4015 N67-37119
Fission chambers using time-of-flight techniques to measure differential energy spectrum of neutrons as well as neutron cross sections
[UCID-15055] 23 p4020 N67-37234
Multimode time synthesis approximation to space-time reactor kinetics - appraisal of finite differencing methods
[WAPD-TM-635] 23 p4095 N67-37894
Formative time of crossed-field gas breakdown by primary electron avalanche
[UCRL-17448] 22 p4122 N67-37950
Establishment of stable time and frequency standards based on communication and tracking system characteristics
[NASA-CR-88990] 23 p4213 N67-38533
Maximum exposure temperature and time of exposure effects on plutonium oxide properties
[RFP-927] 23 p4306 N67-38706
Time factors in opening combination locks, and statistical probabilities and implications 24 p4456 N67-39470
Stability of linear time-varying networks
[RADC-TR-67-326] 24 p4494 N67-39735
Control of time temperature relationships by impingement of carbon dioxide jets in weld vicinity during welding operation for improving weldments in aluminum plate
[NASA-CR-89621] 24 p4459 N67-40194

TIME FUNCTION
Impact strength of titanium unaffected by heating time during vacuum heating 02 p0275 N67-11796
Analog method for measuring statistical correlations in time applied to turbulent flow and stray signals in electrocardiograms
[TP-361/1966/] 02 p0280 N67-11917
Gamma-ray angular correlation experiment of time reversal invariance
[NASA-CR-89122] 02 p0291 N67-12178
Analytical representation of secular variation of earth magnetic field and its dependence on time
[NASA-CR-81272] 06 p0676 N67-16517
Time characteristic calculations for pneumatic flow chambers 07 p0995 N67-16889
Relationship of perigee motion of satellite orbit to latitude and local time
[NASA-TM-X-53703] 06 p1365 N67-18763
Computer program used to generate Doppler shift of electromagnetic signal from orbiting satellite as function of time
[TG-849] 09 p1415 N67-19614
Time correlations of medium and high frequency signal short samples received at separated stations
[AFCRL-66-696] 11 p1826 N67-22350
Generalized function of time distribution in radioelectronic equipment failure
[FTD-HT-66-524] 12 p2053 N67-24489
Synthesis of time-varying passive networks
[SEL-66-099] 12 p2073 N67-24969
Mathematical statement and computer simulation of low thrust guidance problem - minimum time solutions
[NASA-CR-88956] 13 p2353 N67-25997
Electronic measurement of correlation functions of periodic signals 17 p3040 N67-30643
Stability of linear nonautonomous systems described by differential equations with time varying coefficients
[NASA-CR-86335] 18 p3286 N67-32635
Tapped delay line simulation of randomly time-variant channels
[NASA-CR-87162] 19 p3396 N67-32758
Expansion theorems, radial time functions, and other solutions of radial heat equation
[NASA-CR-87389] 20 p3746 N67-34703
Survey and analysis of techniques for providing synchronous time information for tagging recorded data
[NASA-CR-89359] 23 p4214 N67-38636
Physical meaning and relative time of Bethe-Salpeter solutions
[NP-16967] 23 p4294 N67-38638

TIME MEASUREMENT
Determination of artificial earth satellite orbit from measured data taken over long time interval 05 p0782 N67-14562
Time synchronization experiments with Deep Space Network Stations 06 p0839 N67-15918
Mechanical resonance neutron velocity selector system operating on time of flight measurement principle 06 p0913 N67-16313
Conference presentations on time measurement and frequency standards 07 p1080 N67-17363
Chronotron alpha meter development
[EGG-1183-1285] 10 p1630 N67-20900
Functional and operating characteristics of time measuring devices
[UCRL-13256] 13 p2319 N67-25511
Radioactive contamination, time measuring techniques, nucleic acid structure, and other topics discussed at conference on physics, of Instituto Superiore di Sanita
[ISS-66/29] 13 p2359 N67-26095
Electron beam oscillograph for measuring pulse and release work values in electronic time measuring devices with magnetoelectric drive 15 p3711 N67-28125
Review of literature on reflected shock pressure time profiles for air, oxygen, nitrogen, argon, carbon dioxide, and acetylene
[ARC-R+M-3446] 16 p2939 N67-30056
Dust particle sensor data on mass distribution and time variations in flux of small interplanetary dust particles 18 p3333 N67-32966
High powered scintillation counter for improved time measurements
[LNF-67/31] 20 p3643 N67-34958
Radiation dosimeter with time readout for space experiments and personnel protection
[RE-293] 22 p4047 N67-37426

TIME OPTIMAL CONTROL
Time optimal reactor xenon shutdown on xenon boundary layer
[BNWL-186] 03 p0425 N67-12867
Torque adaptive and time optimal control logic for spacecraft attitude control 07 p1055 N67-16989
Optimal nuclear rocket engine control for minimization of propellant consumption 07 p1123 N67-17049
Closed loop approximately time optimal control method 07 p1123 N67-17052
Learning techniques for pattern classifiers and derivation of synthesis technique for time optimal controller through off-line training
[DAC-59322] 08 p1260 N67-19152
Sufficiency theory based on Hilbert independence integral for least time problem of optimal control
[MRC-TSR-654] 09 p1468 N67-19721
Dynamic programming techniques applied to discrete time variational problems
[RM-5159-PR] 11 p1845 N67-22580
Computational algorithms and techniques for solving variable time optimal control problems
[NASA-CR-84510] 14 p2510 N67-27670
Lexicographical order, range of integrals, and extension of bang-bang principle
[NASA-CR-85696] 17 p3095 N67-31415
Time required for leading and following movements in differential game encounter problems
[JPRS-41351] 19 p3482 N67-33733

TIME RESPONSE
Finite difference integration applied to spherical indentation problem for viscoelastic material time response function 05 p0768 N67-14492
Temperature response of sensor bonded to metal strip measured after pulse heating by capacitor discharge
[UCRL-12484, REV. 2] 07 p1080 N67-17425
Response times of typical transducer tube configurations for measurement of pressures in high speed wind tunnels
[ARC-CP-913] 10 p1631 N67-21304
Circus digital computer program for transient analysis of electronic circuits - time domain response of electronic circuit 11 p1846 N67-22838
Matrix formulation for time response of time invariant linear systems to discrete inputs
[RAE-TR-66038] 11 p1908 N67-22703
Computation of dynamic response time histories of system using matrix iterative technique 11 p1891 N67-22836
Time responses and parameter estimation of nonlinear control systems
[EDL-M954] 13 p2068 N67-23871
Short time response stagnation temperature probe for measuring mainstream and boundary layer maximum temperatures and temperature-time histories in hypersonic gun tunnel
[ARC-CP-909] 13 p2304 N67-26150
Response times in decision making tasks
[AFCRL-66-633] 16 p2840 N67-28652
Time-channel response function for time of flight spectrometer to measure monoenergetic secondary neutrons in 2 to 100 MeV energy region
[NASA-CR-87805] 20 p3702 N67-35018
Discontinuous rate compensated analog simulation of time-optimal response of feedback control systems
[NASA-CR-867] 22 p4017 N67-37479
Fortran IV/63 program package for calculating time channel response function in neutron time-of-flight spectroscopy
[NASA-CR-88878] 22 p4006 N67-37934

TIME SCALE
Considerations in selecting optimum forecast method for various length and time scales of cloudiness
[TN-17] 21 p3883 N67-36175

TIME SERIES
Prediction of noise distorted multivariate nonstationary signal from sequence composed of signal and stationary noise
[TR-19] 06 p0843 N67-16336
Empirical nonlinear prediction and polyspectra
[AROD-2025-18] 06 p0905 N67-16851
Discrete linear time series models and dynamic models for forecasting and optimal control
[TR-76] 09 p1473 N67-19672
User manual for digital time series analysis program
[NASA-CR-66315] 09 p1422 N67-19908
Time-series length necessary for long term estimation of sea surface temperature
[NEL-1439] 14 p2522 N67-26913
Procedure for estimating mean square prediction error for stationary Gaussian time series of unknown covariance 14 p2492 N67-27404
Abstracted technical reports on time series statistical tests, spectral characterization of nonstationary processes, and time-varying spectral estimates
[R-6984] 16 p2918 N67-29051
Convergence and truncation error study in time series expansion
[NASA-CR-65616] 16 p2919 N67-29170
Computer programs to implement harmonic analysis of stationary time series data by digital technique
[RM-362] 17 p3030 N67-30533
Estimates of linear trend parameters for univariate time series using Hodges-Lehmann method
[TR-107] 19 p3478 N67-32781
Stochastic models for forecasting seasonal time series
[TR-104] 19 p3494 N67-33094
Linear stochastic model for representing time series
[TR-103] 19 p3485 N67-33842
Statistical nonparametric tests used to determine nature of time series - wind speed and direction
[ECOM-5122] 21 p3877 N67-35647
Discrete finite Fourier transforms
[NRL-6557] 22 p4084 N67-37458
Application of non-stationary time series analysis to oceanography
[HEL-16-3] 23 p4241 N67-38178

TIME SHARING
On-line time sharing data processing and computer analysis techniques, and acceleration effects on cardiovascular and respiratory systems
[NASA-CR-79913] 02 p0211 N67-11845
Allocations of servicing periods to minimize average delay for N time-shared traffic streams
[ORC-66-38] 03 p0417 N67-12951
Security problems in processing classified information, and in time sharing computer environment
[SP-3440/000/01] 07 p1043 N67-16940
On-line computer use for extended continuous period in time sharing system 07 p1045 N67-17110
On-line simulation in on-line process synthesizer, an iterative system for use in time sharing environment 07 p1045 N67-17111
Time-shared program system for solution of stability problem for parallel flows over rigid or flexible surfaces
[ASRL-TR-116-4] 09 p1426 N67-20198
Interfacing, and programs for time sharing operation of on-line computer-based nuclear data acquisition system
[CONF-660913-2] 10 p1707 N67-20920

Supervisor program for multiprogramming of several jobs
[ESD-TR-67-14] 16 p2864 N67-29401
Operating systems in multiprocessing, multiprogramming, and time sharing digital computers
[NRL-6531] 17 p3030 N67-30470
Absolute calibration of vibration generators with time sharing computer as integral part of system 19 p3452 N67-33137
Display and time sharing systems for on-line communication
[ECOM-95829-1] 19 p3413 N67-33964
Computer with on-line remote devices for use in time sharing system 19 p3413 N67-33965
Reference manual for use of computer with on-line remote devices /CORD/ time-sharing system from teletype terminal 19 p3413 N67-33966
User performance in time sharing computer systems
[SP-2846] 21 p3803 N67-35584
Time sharing operations of Purdue University SMP measuring system for bubble chamber film analyses 21 p3807 N67-36252
On-line programming system for algebraic manipulation
[MAC-TR-35] 23 p4219 N67-38195
Economic considerations for use of on-line communication system to support time sharing access to computers
[AFOSR-67-2018] 24 p4412 N67-39436
Development and operation of graphic tablet display computer with time sharing system
[SP-2835/000/01] 24 p4415 N67-39883
TIME SIGNAL
Inexpensive 128 channel pulse height analyzer equipped with time digitizer
[TID-23392] 05 p1282 N67-18620
Magnetic tape recording of large cosmic ray air showers based on continuous transmission of time signals
[AD-640871] 09 p1415 N67-19661
Methods for synchronizing remotely located clocks
[NASA-CR-738] 09 p1448 N67-19896
Century coded timing signal format for missile range instrumentation
[RAE-TR-65249] 11 p1823 N67-22781
Optimization, synthesis, and sensitivity of discrete time systems with control signals of variable amplitude and pulse width
[USCEE-205] 21 p3830 N67-35406
Time code generation and distribution techniques used in tracking stations and missile test ranges
[NASA-CR-89281] 23 p4215 N67-38859
Coding of time signals - oscillators used on satellites and ground for signal production
[ESRO-TM-46] 24 p4406 N67-40081
TIMING
Computer-aided optimization using Monte Carlo techniques for digital systems timing
[NASA-CR-80848] 04 p0519 N67-14255
Timing data and real time orbit determination computer program 05 p0670 N67-14434
Error analysis of resistance capacitance timing circuits
[HDL-TR-1323] 05 p0684 N67-15047
Timing channel circuit reliability in static inverter
[NASA-CR-83976] 09 p1436 N67-19985
Time code generation and distribution techniques used in tracking stations and missile test ranges
[NASA-CR-89261] 23 p4215 N67-38859
TIMING APPARATUS
SA ACCELEROMETER
SA ATOMIC CLOCK
SA CHRONOTRON
SA CLOCK
SA PENDULUM
SA TACHOMETER
Terminal timing and frequency control equipment for satellite communication systems
[TN-1966-33] 01 p0036 N67-10280
Reliable interval timer for reactor runs
[ORNL-TM-1559] 04 p0577 N67-14048
Solid state wide range low power timer for shutter of rocket or satellite-borne camera
[NASA-TN-D-3756] 04 p0553 N67-14101
Electromechanical remote position sensor for setting timer
[SC-TM-65-289] 10 p1630 N67-20004
Precision 10-Hz clock for pulsing counting circuit in electronic timer for artillery fuzes
[HDL-TM-66-17] 11 p1863 N67-22568
Digital system for accurate time sector division of spin stabilized vehicle as used on Pioneer space probes
[NASA-CR-83950] 13 p2400 N67-25067
Time setting for automatic diaphragm of Dutch-made TA-7M camera system
[TDCK-47768] 13 p2222 N67-26033
Digital time sorter for improved resolution of nuclear detectors 17 p3066 N67-30965
Integrated circuit control and timing system of high altitude rocket radar 18 p3345 N67-31591
Up-down counter for synchronization of instrumentation used with pressure driven shock tube
[HDL-TM-67-5] 19 p3450 N67-33355
Mathematical model of permanent magnet motor used as timing device
[REPT.-66-C-430] 20 p3570 N67-34968
High precision remotely settable electronic timer system
[HDL-TM-66-18] 21 p3848 N67-35928
Timing apparatus for determination of arrival directions of cosmic ray showers
[BMWF-FBK-67-40] 23 p4353 N67-38914
TIN
Deformation processing of anisotropic metals - superplasticity in aluminum-copper, zirconium, titanium, and magnesium alloys, and in electroplated lead and tin composites
[AD-639214] 03 p0409 N67-12873
Tension testing of electroplated lead and tin composites - microstructural grain size effect on superplasticity 03 p0410 N67-12876
Yield characteristics, emission spectrum, and angular and energy distributions studied with photoprotons from Sn114 and Sn124 06 p0932 N67-15637
Electric conductivity of liquid tin, liquid lead, and liquid bismuth, and thermal conductivity of inorganic solid and liquids - Liquid aluminum oxide window, and liquid tungsten carbide
[RITU-1966-18] 07 p1038 N67-17585
Disintegration of radioactive tin 113
[LR-10] 09 p1488 N67-19666
Quasiparticle second Tamm-Dancoff theory applied to study of even-parity states of even tin isotopes
[IC/67/5] 10 p1731 N67-21764
Interstitial diffusion of gold and silver in tin single crystals
[ARPA-23] 11 p1816 N67-23471
Purification of irradiated tin with anion exchange columns and precipitation by thioacetamide or phenylarsonic acid
[IA-1058] 17 p3136 N67-31156
Crystal potential for grey tin 19 p3523 N67-33961
Stannate immersion bath operating limits
[CCL-230] 20 p3649 N67-34644
Room temperature hardness tests on indium, tin, and lead under load
[ORNL-TM-1771] 21 p3872 N67-36021
Nuclear spin and hyperfine structure measurements of indium 110, rubidium 82, and tin 121
[UCRL-17472] 23 p4306 N67-39850
TIN ALLOY
Resonance absorption of gamma quanta by tin nuclei in germanium studies to investigate electrical activity 01 p0136 N67-10072
Heat resistance testing of titanium aluminum tin alloys by centrifugal bending method 02 p0273 N67-11787
Low temperature specific heat of tin and tin-indium alloys
[AROD-2771-13] 02 p0276 N67-11862
Mechanical properties and corrosion behavior at high temperatures of zirconium niobium tin alloy used for cladding in water cooled reactors
[EURAEC-1735] 13 p2116 N67-23689
Temperature and notch radius effects on mechanical properties of titanium alloyed aluminum, vanadium, tin, and zirconium
[AMRA-TR-66-36] 13 p2130 N67-24653
Ultrasonic radiation effects on electrodeposition of copper zinc, copper cadmium, and copper tin alloys from cyanide electrolyte baths
[BM-RI-6936] 14 p2480 N67-27390
Thermodynamics of solid and liquid gold-tin alloy and high temperature measurements of heat content of gold and tin
[UCRL-17661] 16 p2851 N67-29238
Effect of test bar design on mechanical properties in cast lead-tin bronze
[RIA-67-535] 17 p3078 N67-30874
Polarographic method for determining cadmium in cadmium-tin alloys
[EUR-3494.E] 20 p3589 N67-34189
Rate sensitive plastic deformation and superplasticity in lead-tin alloys
[REPT.-66-C-270] 20 p3600 N67-34985
Creep of alloys in titanium zirconium aluminum tin system 22 p4067 N67-37182
Solution heats of various elements in liquid tin
[DRI-214] 22 p4072 N67-37566
TIN COMPOUND
Reaction of tin with 1-bromobutane in radiation field and radiation induced reaction relative to production of organotin compounds
[BMI-1753] 03 p0850 N67-12662
Organotin compounds used in plankton growth control
[JPRS-39392] 05 p0658 N67-15169
Polymers of germanium and tin derivatives of o, m, and p-carborane
[TR-37] 19 p3520 N67-33153
Vapor pressures measured of selected mixtures in binary system stannous chloride-zinc chloride
[RI-7023] 21 p3792 N67-35476
TIN OXIDE
Seebeck effect and electrical conductivity of stannic oxide as function of temperature and ambient pressure
[NASA-CR-89345] 23 p4233 N67-38967
TIN TELLURIDE
Formation heat, microhardness, and lattice parameters measured of tin and lead telluride solid solutions
[TR-4] 23 p4227 N67-38171
TIP CONTROL
S WING TIP CONTROL
TIP SPEED
Flapping behavior of helicopter rotor at high tip speed ratios
[ARC-CP-877] 10 p1550 N67-21185
TIP VORTEX
Tip vortex core thickening for application to helicopter rotor noise reduction
[R-403A] 11 p1781 N67-23692
TIRE
SA AIRCRAFT TIRE
Modeling method for determining operating qualities of automobile tires - fiber diameter, tire pressure, stress in fiber, and cord angle
[RAE-LIB-TRANS-1198] 15 p2800 N67-28710
Pressure distribution curves applicable to pneumatic tires
[NASA-CR-754] 16 p2977 N67-29668
Fore-and-aft stiffness characteristics of pneumatic tires
[NASA-CR-869] 23 p4357 N67-38584
Derivation and solution of equations of hydrodynamic flow in tires
[NASA-CR-89224] 23 p4380 N67-39165
TIROS III SATELLITE
Tiros III radiation data for Southeast Asia 06 p1206 N67-16650
TIROS IV SATELLITE
Tiros VII electrostatic probe measurements of ionospheric electron density on quiet and disturbed days
[NASA-TM-X-53846] 06 p0976 N67-18548
Global satellite measurements of thermal radiation from tropospheric water vapor
[NASA-TM-X-55686] 08 p1305 N67-19729
Variations of radiation with large scale circulation and possible feedback of radiative heating on circulation 12 p2138 N67-24389
TIROS VII SATELLITE
Atlas of stratospheric mean isotherms derived from Tiros VII observations
[NASA-TM-X-55827] 08 p0822 N67-11265
Sea surface temperature determination from Tiros VII satellite data 04 p0527 N67-12499
Methods used in deriving stratospheric temperatures from Tiros VII measurements of carbon dioxide emission bands 12 p2130 N67-24390
Potentiality of satellite radiometric measurements in carbon dioxide emission band for synoptic representation of stratosphere temperature patterns 12 p2130 N67-24389
Comparison of Tiros VII 15-micron band radiometer temperature measurements with data from radiosonde measurements 12 p2130 N67-24392

Synoptic world weather analysis of Tiros VII radiation data
[NASA-TN-D-3787] 16 p2924 N67-29357
Circulation features of stratosphere derived from radiometric temperature measurements with Tiros VII satellite
[NASA-TM-X-55859] 19 p3443 N67-33409
TIROS VII data on diurnal variations in cloud cover over Indonesia and Malaysia 24 p4487 N67-39824
TIROS VIII SATELLITE
Long period perturbations in motion of small eccentricity satellites and analysis of Alouette I and Tiros VIII satellites - zonal harmonics
[NASA-TM-X-55647] 06 p0648 N67-16549
TIROS IX SATELLITE
Synoptic relationship between concurrent radar precipitation patterns and Tiros IX cloud photographs
[AD-649003] 16 p2925 N67-29671
TIROS OPERATIONAL SATELLITE SYSTEM
Data handling plan for Tiros operational satellite system 03 p0387 N67-12949
Proposed uses of operational meteorological satellite data in weather analysis 13 p2137 N67-24291
Weather bureaus meteorological satellite program objectives, and studies for improving TIROS operational satellite system 12 p2140 N67-24306
TIROS SATELLITE
SA ESSA SATELLITE
Tiros satellite photographs used in numerical weather prediction for Pacific Ocean area
[REPT.-67424-1-T] 03 p0420 N67-13115
Error reduction in synoptic infrared radiation data as filed on meteorological tapes from Tiros satellite 04 p0570 N67-13498
Design technique for cloud pattern recognition applied to Tiros photographs
[NASA-CR-80063] 05 p0708 N67-14897
Intensity of light reflected and scattered from Earth determined from Tiros data
[TN-1966-53] 07 p1073 N67-17742
Production and maintenance of large scale cloud systems, and relationship between calculated fields of large scale vertical motion and Tiros cloud photography 13 p2138 N67-24292
Potentiality of satellite radiation data for synoptic analysis 13 p2138 N67-24293
General atmospheric circulation and importance to global heat balance 13 p2138 N67-24297
Methods used to infer atmospheric water vapor content from Tiros satellite measurements in absorption band of water vapor 13 p2139 N67-24301
Adaptative predictor studies based on Tiros cloud picture video data, and relative merits of linear and Markov prediction data compression techniques 14 p2492 N67-27405
Conditional expectation predictor applied to data compression, and computer simulation of Tiros cloud cover picture data 14 p2493 N67-27406
Photogrammetric satellite attitude determination system
[NASA-CR-65343] 16 p2896 N67-30003
Dual-channel horizon scanner and encoder for Tiros attitude data acquisition
[NASA-CR-65061] 17 p3033 N67-31206
ESSA and TIROS satellite data input to numerical weather analysis and forecasting 24 p4486 N67-39607
TISSUE
SA ADIPOSE TISSUE
SA CONNECTIVE TISSUE
Photosynthesizing plant tissues as nutritious food for gas exchange in space travel
[FD-52] 01 p0019 N67-11069
Irradiation experiments on tissue and plant cultures using ion accelerators 02 p0197 N67-11563
Disturbances of tissue respiration under conditions of increased gravitation 02 p0200 N67-11567
Rheological disturbances following tissue injury 05 p0645 N67-14585
Visual particle velocity measurement of blood flow in live tissue 05 p0646 N67-14595
Behavior of blood plasma and corpuscles in tissue capillaries 05 p0647 N67-14597
Effect of plague toxin on blood proteins and incorporation of methionine-S35 in tissue proteins
[TRANS-1712] 06 p0905 N67-16433
Cholinesterase containing nerves in ocular and orbital tissue of rats, rabbits, and guinea pigs
[AFOSR-66-2072] 06 p0907 N67-16650
Molecular aspects of control mechanisms in differentiated tissues, and isolation of pure chromosomal material 07 p1007 N67-16791
Galactic radiation during quiet sun and expected tissue dosage in space systems of low shielding
[NASA-CR-82018] 08 p1357 N67-18510
Resistance to freezing of intertidal mollusks and of mollusk tissue
[NASA-CR-82005] 08 p1235 N67-18544
Energy dissipation characteristics in tissue for ionizing radiation in space
[NASA-CR-82932] 09 p1402 N67-19935
Blood circulation and iodine 131 tissue depuration studies
[CNEA-174] 10 p1563 N67-21143
Molecular anatomy of cells and tissue in man
[ORNL-3978, SPEC.] 11 p1789 N67-22312
Tissue dose equivalent rates from cosmic ray neutrons and in low level environment of reactor
[PG-734] 12 p2021 N67-23754
Toxicology of boron hydrides - alterations in tissue amines by toxic decaborane-14 and pentaborane-9 modified by hydrazines and propynylamines
[SAM-TR-66-112] 14 p2461 N67-27017
Amino acid and amino sugar in calcified tissues of portunid crabs
[NASA-CR-84429] 14 p2465 N67-27707
Synthesis of alkyl cyanopropionates and measurement of spreading coefficients on aqueous casein and water
[TR-6701] 15 p2862 N67-28690
Synthesis of tissue proteins in rats during hypodynamia 16 p2927 N67-29215
Spontaneous weak light quanta emission of animal tissues
[NASA-TT-F-11803] 17 p3005 N67-31069
Linear energy transfer and quality factor of radiation imparted to tissues determined by recombination methods
[INR-786/XIX/D] 18 p3210 N67-31678
Soft tissue thicknesses of human chest measured by ultrasonics
[AKEW-R-493] 21 p3765 N67-35845
Ultrastructure of gastric glandular tissue of ferret for studies of physiological and pharmacological response of mammalian gastric mucosa
[NASA-CR-73136] 22 p3973 N67-37640
Initial data on galactic radiation levels for tissue damage inside supersonic transport
[NASA-CR-88502] 22 p3974 N67-37924
Distribution of dithizone detectable zinc in cells and tissues of Vicia faba during growth
[CNAEM-42] 23 p4196 N67-39320
TITAN III LAUNCH VEHICLE
Vibration, acoustic, and shock data for Titan III flight vehicle
[NASA-CR-66204] 02 p0311 N67-11321
Matrix-Holzer analyses for predicting free vibration modes of clustered launch vehicle configurations including Titan IIIC and uncoupled Saturn I cases
[NASA-CR-592] 03 p0471 N67-13178
TITAN LAUNCH VEHICLE
Project Gemini - spacecraft, space suits, astronaut selection and training, Gemini-Titan and Atlas-Agena launch vehicles, Gemini missions, and brief outline of Project Apollo
[NASA-TM-X-59048] 01 p0153 N67-10742
Vibration analysis, and eigenvalue solution of Titan III twenty percent dynamic model characteristics 11 p1992 N67-22837
Ground wind-induced oscillations of Gemini-Titan air vehicle and erector 13 p2340 N67-31695
TITANATE
SA BARIUM TITANATE
SA STRONTIUM TITANATE
Single cells with potassium titanate matrices for improved cycle life performance of hydrogen-oxygen regenerative fuel cells
[NASA-CR-66627] 03 p0336 N67-12214
Space simulation tests on temperature control, inorganic and silicone coatings, zinc titanate pigment synthesis and evaluation, and silicone photolysis
[NASA-CR-63901] 08 p1296 N67-18517
Superconductive properties of ceramic mixed titanates
[NASA-CR-83657] 08 p1352 N67-19118
Hydrogen-oxygen regenerative fuel cell - single cell tests, membrane fabrication, matrix screening test, and potassium titanate analytical tests
[NASA-CR-84147] 14 p2448 N67-28517
Emittance testing of calcium titanate and iron titanate coated stainless steel tubes and thermal cycling tests of iron titanate coated niobium-zirconium tubes
[NASA-CR-72294] 22 p4162 N67-37318
Hydrox regenerative fuel cell testing of single cells with matrix structures of potassium titanate and Teflon
[NASA-CR-69753] 24 p4380 N67-40475
Hydrox regenerative fuel cell testing of single cells with matrix structures of potassium titanate, Teflon, and asbestos
[NASA-CR-69754] 24 p4380 N67-40506
TITANIUM
Orientation of secondary neck in anisotropic titanium sheet tensile specimens
[AMRA-TR-66-17] 01 p0063 N67-10282
Recrystallization parameters of niobium and tungsten - Titanium and molybdenum effects on recrystallization temperature and hardening of niobium alloys
[FTD-MT-65-412] 02 p0268 N67-11251
Titanium and molybdenum effect on recrystallization temperature and hardening of niobium alloys 02 p0269 N67-11253
Conference on titanium reaction with metals and gases and titanium alloy structure, corrosion, mechanical, and technological properties
[NASA-TT-F-362] 02 p0269 N67-11761
High temperature vacuum dilatometric investigation of linear expansion coefficient of metallic titanium and sintering kinetics of compressed titanium powder 02 p0271 N67-11774
Oxidation kinetics of pure titanium in air at high temperatures 02 p0271 N67-11775
Calculation of oxygen dissolution kinetics in titanium 02 p0272 N67-11776
Kinetics of hydrogen evolution in vacuo from titanium and titanium alloys 02 p0272 N67-11782
Electrochemical behavior of titanium and titanium alloys during electrolysis of chloride solutions 02 p0273 N67-11783
Corrosion resistance and electrochemical behavior of titanium and titanium alloys in solutions of inorganic acids containing oxidation agents 02 p0273 N67-11785
Impact strength of titanium unaffected by heating time during vacuum heating 02 p0275 N67-11796
Separation of titanium, niobium, and tantalum through liquid-liquid extraction 03 p0358 N67-12840
Low field mobility of positive and negative ions in liquid helium
[COO-1196-364] 04 p0506 N67-14016
Structural changes in niobium base alloys induced by exposure to titanium interstitial sink at elevated temperature
[NASA-CR-81140] 05 p0719 N67-15250
Intermediate layers of chromium, nickel, and iron sputtered on titanium substrates to improve adhesion of electrodeposited chromium
[SA-TR18-1097] 09 p1461 N67-19811
Stabilized precipitate method for preparing nickel base alloy containing dispersed chromium, titanium, and aluminum
[NASA-CR-54523] 09 p1465 N67-19875
Effect of titanium, aluminum, carbon, and boron on structure and phase composition of nickel base alloy
[FTD-TT-65-1412] 10 p1651 N67-20685
Optimization of operation of Ti getters
[UCRL-70028] 10 p1647 N67-21498
Getter-ion pump efficiency, and superiority of titanium as getter material
[AEET-249] 10 p1719 N67-21502
Grazing-incidence spectrometer and low inductance spark source used to study lines of high degrees of ionization of Sc, Ti, and V
[NASA-TM-X-55734] 11 p1931 N67-23080
Adhesion-friction tests on annealed copper, titanium, and tungsten
[NASA-CR-66279] 11 p1897 N67-23884
Titanium stress corrosion in nitrogen tetroxide
[NASA-TM-X-59615] 11 p1900 N67-23277
Spectral analysis of titanium from 2000 to 9000 angstroms 11 p1816 N67-23442
Edgewise compressive properties of titanium and nickel-base sandwich constructions at elevated temperatures
[FPL-68] 12 p2219 N67-23498

Energy level structure angular distribution of alpha particles in scandium 48 from titanium 50 scandium 48 nuclear reaction [INP-491/PL] 12 p3150 N67-33574
Titanium abundance in solar atmosphere 12 p3201 N67-34324
Fluorescence of erbium and titanium thin films for accelerator targets [NP-16501] 13 p3291 N67-35547
Effect of titanium, zirconium, and hafnium on heat resistance of molybdenum-carbon alloys [NASA-TT-F-10850] 14 p3550 N67-36579
Mechanical properties and microstructure of titanium containing oxygen and hydrogen 14 p3564 N67-37030
Phase behavior, crystal structure, and vaporization of titanium vanadium oxygen system [COO-1140-152] 15 p3655 N67-37911
Mutual diffusion characteristics and phase diagram of titanium tungsten mixtures at high temperatures [NASA-TT-F-11010] 15 p3724 N67-38237
Phase diagram of titanium vanadium carbon system in high temperature environment [NASA-TT-F-11012] 15 p3724 N67-38238
Anisotropy of Knoop hardness in unalloyed titanium sheet [AMRA-TR-67-04] 15 p3727 N67-38621
Reaction of titanium with hydrogen - stressed experiments in glass system and pressure experiments in pressure balance system [NASA-CR-65638] 16 p3845 N67-39425
SPERT XVIII E core experiments relating to reactor kinetics behavior [IDO-17207] 16 p3935 N67-39873
Aluminum, silicon, and titanium additive effects on mechanical properties of neutron irradiated iron [SORIN-83] 16 p3913 N67-39097
Titanium as detector of fast integrated neutron flux [NP-16630] 17 p3129 N67-30669
Lubrication of titanium machinery components in marine environment [NSRDC-138/67] 19 p3462 N67-32969
Stabilization of niobium 40 percent titanium in high current density 50 kG superconducting solenoid [AVCO-EVERETT RES. REPT.-270] 19 p3469 N67-32997
Physicochemical determination of interaction between titanium and phosphorus in mixture containing up to 45 atomic percent phosphorus - phase diagram of titanium phosphorus system [NASA-TT-F-11162] 19 p3395 N67-33648
Mechanical properties of large engine compressor disk in IMI titanium 679 19 p3839 N67-33963
Chemical composition and heat treatment effect on aqueous stress corrosion of titanium [REPT.-492] 20 p3655 N67-34284
Ultrasonic crack depth estimation in high strength steel and titanium structural weldments 20 p3647 N67-34471
Electrochemical measurements and anodic film growth on iodide bar titanium [ORNL-TM-1883] 21 p3776 N67-35443
Hydrostatic and cyclic testing of glass-reinforced pressure hull models with titanium hemispherical end closures [DTMB-2402] 21 p3940 N67-35658
Stress rupture tests on titanium bearing stainless steel rods at high temperatures [ORNL-TM-1807] 21 p3870 N67-36293
Corrosion resistance of titanium in hot chloride solutions [NASA-TT-F-11177] 21 p3872 N67-36462
Corrosion stability of titanium in organic acids 23 p4065 N67-37141
Halogen effects on chemical stability of titanium in halogen acids 23 p3965 N67-37142
Delayed titanium corrosion in hydrochloric acid, and sulfuric acid by sodium nitride 23 p3966 N67-37143
Hydrogen contamination effect on titanium ductility and fracture toughness 23 p4066 N67-37148
Effect of interstitial elements and iron on corrosion resistance of commercially pure titanium in hydrochloric and sulfuric acids [NASA-TT-F-11379] 23 p4072 N67-37576
Radio frequency losses on airframes due to high electrical resistivity of titanium and titanium alloys [LR-20046] 23 p4072 N67-37661
Titanium 46, titanium 48, chromium 50, and iron 54 studies using triple angular correlation measurements [TID-23854] 23 p4109 N67-37889
Investment Co-25W-3Cr-0.1B cast alloy for studying effect of Ti, Zr and C on structure and stress rupture properties at 1850 deg F in air [NASA-CR-89850] 24 p4465 N67-39857
TITANIUM ALLOY
Thick oxide layers on zirconium-titanium alloys for enhanced wear resistance in water lubricated mechanisms [AECL-2537] 01 p0081 N67-10021
Nitriding of titanium alloys at reduced pressures [FTD-TT-65-1630] 01 p0083 N67-10373
Sources and causes of porosity in titanium arc welds [AMRA-TR-66-06] 01 p0078 N67-10418
Plastic deformation resistance of titanium alloys [FTD-TT-65-1697] 01 p0087 N67-10961
Physiochemical properties and equilibrium diagrams of titanium alloys 02 p0269 N67-11762
Phase equilibrium of titanium aluminum molybdenum system in titanium rich alloy field 02 p0269 N67-11763
Phase transformations in titanium aluminum molybdenum alloys 02 p0270 N67-11764
Phase diagram of titanium vanadium niobium molybdenum system 02 p0270 N67-11765
Microstructural and X-ray phase analysis of alloys of titanium niobium chromium system 02 p0270 N67-11766
Partial phase diagram of titanium chromium iron silicon boron system 02 p0270 N67-11767
Partial phase diagram of titanium aluminum chromium iron silicon boron system 02 p0270 N67-11768
Classification of titanium alloys according to microstructure 02 p0270 N67-11769
Metallographic and X-ray analyses of titanium alloys 02 p0271 N67-11770
Phase diagram of titanium-aluminum alloy 02 p0271 N67-11772
Phase composition of alloys of titanium aluminum chromium iron silicon system 02 p0271 N67-11773
Oxidation kinetics and formation of gas saturated layers in titanium alloys in air at high temperatures 02 p0272 N67-11776
Effect of gas saturated layers on strength and plastic properties of titanium alloys 02 p0272 N67-11777
Hydrogen effect on delayed cracking tendency of titanium alloys 02 p0272 N67-11779
Corrosion resistance of titanium alloys to various corrosive media in chemical and pharmaceutical industries 02 p0272 N67-11780
Corrosion resistance of titanium alloys to media in food industry 02 p0272 N67-11781
Electrochemical and corrosion resistant properties of titanium-aluminum alloys 02 p0273 N67-11784
Dependence of elastic constants of titanium alloys on composition and structure 02 p0273 N67-11784
Heat resistance testing of titanium aluminum tin alloys by centrifugal bending method 02 p0273 N67-11787
Mechanical properties of heat treated titanium alloys 02 p0274 N67-11788
Heat resistance, creep, and thermostability of titanium alloy 02 p0274 N67-11789
Ingot of titanium alloy containing three percent aluminum studied to develop production technology 02 p0274 N67-11790
Temperature dependence of mechanical properties of high strength alpha-phase titanium alloy containing aluminum 02 p0274 N67-11791
Heat resistance of industrial and experimental titanium methods determined by centrifugal method 02 p0274 N67-11792
X-ray analysis of multicomponent titanium alloy to provide data for production of sheets with uniform mechanical properties 02 p0274 N67-11793
Activation energy of creep and mechanism of plastic deformation in titanium alloys 02 p0275 N67-11794
Hot and cold drawing, pierceability, and reliability of AT-3 titanium alloy recommended for tube production 02 p0284 N67-11795
Plastic deformation during cold rolling of high strength titanium alloy strips 02 p0284 N67-11797
Phase transformations in titanium alloys subjected to continuous cooling during welding 02 p0275 N67-11798
Delayed failures and crack formations during welding of titanium alloys and steels 02 p0275 N67-11799
Influence of metastable structural transformations on mechanical properties of alpha-beta phase titanium alloys 02 p0275 N67-11800
Mechanical properties of Ti-Fe-Cr titanium alloys with varying amounts of iron 02 p0275 N67-11801
Hydrogen embrittlement in alpha-beta titanium alloys 02 p0275 N67-11802
Soldering titanium alloy with protective coatings of rhenium, rhodium, or silver 02 p0285 N67-11803
Mechanical properties, corrosion resistance, and time to failure of forgings of several titanium alloys 02 p0276 N67-11804
Annealing, hot working, and cooling of three titanium alloys, commercially pure titanium, and steel 02 p0276 N67-11805
Oxidation of titanium and its alloys, and strengthening Ti alloys for use at high temperatures by using Al-Ni protective coating 02 p0276 N67-11806
Strength characteristics of industrial melts of multicomponent titanium alloys with .03 to .075 aluminum content 02 p0276 N67-11807
Titanium alloy with stable phases for use in industrial tube production 02 p0276 N67-11808
Electrolytic methods for producing titanium and titanium alloys [BM-RI-6675] 02 p0285 N67-11809
Anodic polarization behavior of titanium and titanium alloys in sulfuric acid solutions [GAM/MC-68B-5] 02 p0287 N67-11881
Titanium alloy studies on phase transformation and additive effects on welded joints, and hot and cold rolling [JPRS-38370] 02 p0499 N67-12656
Phase transformations in welded titanium alloy joints 02 p0499 N67-12657
Increased plasticity in sheets and welded joints of titanium alloys with zirconium and rhenium additives 02 p0499 N67-12658
Increased strength of cylindrical titanium alloy containers from cold rolling and aging 02 p0499 N67-12659
Hot rolling titanium alloys into small round shapes 02 p0401 N67-12660
Deformation processing of anisotropic metals - superplasticity in aluminum-copper, zirconium, titanium, and magnesium alloys, and in electroplated lead and tin composites [AD-638214] 02 p0400 N67-12673
Isothermal tension testing of titanium and zirconium alloys for examining superplasticity property 02 p0410 N67-12675
Electrorefining of titanium-aluminum alloys [BM-RI-6678] 02 p0412 N67-12965
Automatic welding of stainless steel with consumable electrode in vertical plane and influence of hydrogen, nitrogen, oxygen, and air on formation of pores in titanium alloy welds [FTD-MT-65-181] 04 p0654 N67-13252
Influence of hydrogen, nitrogen, oxygen, and air on formation of pores in titanium alloy welds 04 p0654 N67-13254
Hot rolling behavior of titanium alloy ingots containing aluminum, vanadium, molybdenum, and zirconium additives [NASA-TT-F-10421] 04 p0650 N67-13259
Silicon effect on microstructure and creep properties of titanium aluminum tin zirconium silicon alloys [S+T-MEMO-2/66] 04 p0643 N67-14219
Annotated bibliography on ambient temperature aqueous stress corrosion cracking of titanium and titanium alloys [NRL-BIBL.-29] 05 p0710 N67-14459
Effect of deformation rate and temperature on as formed and heat treated mechanical properties of titanium alloys [AMRA-TR-66-22] 05 p0713 N67-14460
Stress corrosion cracking of titanium alloys, and proposed electrochemical mechanism [DI-82-0094] 05 p0719 N67-15215
Bonding of Inconel and titanium alloy structural panels by roll-welding process [AMRA-CR-66-02/2] 05 p0727 N67-15152
Emittance and thermal cycling tests of stainless steel tubes coated with iron and

calcium titanate, and niobium-zirconium tubes coated with iron titanate
[NASA-CR-72149] 06 p0982 N67-16569
Improvements in consolidation and fabrication of vanadium-titanium alloy tube blank extrusion, tube reducing, and drawing
[ANL-7127] 07 p1103 N67-17738
Texture strength and fracture toughness of titanium alloy sheet biaxial stress fields at room and cryogenic temperatures
[NASA-TM-X-52272] 07 p1104 N67-17322
Hot pressing of thermomechanical processed titanium alloys
[FTD-HT-66-213] 07 p1094 N67-17916
Crack propagation, delayed failure, and residual static strength of titanium, aluminum, and stainless steel alloys in air, three percent salt solution, and sea water
[NASA-TN-D-3825] 07 p1105 N67-18147
Stress corrosion cracking of titanium aluminum vanadium alloy in methyl alcohol
[NASA-TN-D-3868] 07 p1105 N67-18154
Phase transformation of titanium-zirconium alloys studied after heat treatment
06 p1288 N67-18207
Phase diagram structure of titanium-copper system
[NASA-TT-F-10661] 06 p1291 N67-18925
Axial-load fatigue crack propagation tests on duplex annealed titanium alloy specimens having various widths
[NASA-TN-D-3879] 06 p1378 N67-18965
Mechanisms of slat stress corrosion cracking of titanium alloys at high temperatures
[NASA-CR-82511] 06 p1293 N67-19067
Stress corrosion cracking of titanium alloys at ambient temperature in aqueous solutions
[NASA-CR-82796] 09 p1457 N67-19416
Mechanical properties of titanium alloy plate evaluated after heat treatment
[MEL-265/66] 09 p1461 N67-19739
Effect of oxygen and water vapor on fatigue properties of titanium alloy and 4340 steel
[NASA-CR-82971] 06 p1462 N67-19962
Fatigue properties of titanium aluminum vanadium tin alloy
[KAPL-3156] 09 p1464 N67-20217
X-ray inspection of titanium hydride using Debye-Scherer and diffractometer methods
[AWRE-O-60/66] 10 p1655 N67-21506
Polybenzimidazole structural adhesives for bonding stainless steel, beryllium alloys, and titanium alloys
[AFML-TR-65-416] 10 p1664 N67-21848
Mechanical properties of thick plate titanium aluminum vanadium alloy
[MEL-266/66] 11 p1899 N67-23115
Load and fatigue tests on titanium aluminum vanadium alloy sheet metal
[NASA-CR-83076] 11 p1901 N67-23475
Stress corrosion resistant titanium alloy as structural material for marine applications
[MEL-506/65] 12 p2118 N67-24043
Notch tensile strength and mechanical properties of aluminum, titanium, uranium, and steel alloys
[AMRA-TR-66-13] 12 p2119 N67-24412
Temperature and notch radius effects on mechanical properties of titanium alloyed aluminum, vanadium, tin, and zirconium
[AMRA-TR-66-26] 12 p2120 N67-24653
Stress-corrosion cracking of high strength steels, titanium alloys, and aluminum alloys
[NRL-MR-1739] 12 p2121 N67-24882
Fabrication design for titanium gore segment
[NASA-CR-84949] 13 p2331 N67-24328
Electric heat treatment process for aluminum and titanium aluminum vanadium alloys
[NASA-CR-84933] 13 p2333 N67-24334
Tension, compression, and impact testing of maraging and alloy steels and titanium alloy - welding materials for submersible pressure hulls
[REPT.-5-10-67-3] 13 p2341 N67-24343
Titanium-deoxidized steel used for support material in high strength skin-to-rib bonding of composite rolled structural metal panels
[AMRA-CR-66-02/3] 14 p2543 N67-26750
Tensile properties, notch strength, heat treatment and aging responses, welding behavior, and corrosion resistance of metastable beta titanium molybdenum vanadium iron aluminum sheet alloy
[WAL-TR-465/2-14, PT. 1] 14 p2551 N67-26780
Design, fabrication, and test of titanium vanadium chromium aluminum alloy composite rocket motor case
[PWA-2894] 14 p2607 N67-26818
Titanium sheet alloy selected for precipitation hardening
[WAL-TR-465/2-15] 14 p2551 N67-26889
Influence on microstructure and mechanical properties of titanium alloys
14 p2554 N67-27027
Grain size effects on hydrogen embrittlement of titanium and titanium alloys
14 p2554 N67-27028
Effects of hydrogen content and isothermal annealing on thermal stability of titanium alloy with 1 percent molybdenum
14 p2554 N67-27029
Hydrogen embrittlement of titanium with aluminum
14 p2554 N67-27031
Homogenous distribution of alloying components in titanium with consumable batch electrode and arc melting methods
14 p2555 N67-27032
Tooling requirements and cost estimates of electron beam welding, and electron beam welding of aluminum, titanium, stainless steel, and Inconel alloys
[GDC-ERR-AN-955] 14 p2543 N67-27209
Systems design manual for forming airframe parts of annealed titanium alloys
[GDC-ERR-AN-957] 14 p2544 N67-27218
Destructive and metallographic testing of plasma arc welded titanium alloy joints
[GDC-ERR-AN-953] 14 p2544 N67-27219
Titanium alloy solid state welding techniques for fabricating structural components
[GDC-ERR-AN-954] 14 p2544 N67-27220
Stress corrosion cracking of titanium alloys at ambient temperature in aqueous solution
[NASA-CR-84472] 14 p2556 N67-27506
Solid state physics research projects including work on titanium and aluminum alloys, nondestructive testing, fatigue, and superconductivity
14 p2905 N67-27757
Stress corrosion cracking of titanium alloys
[NASA-CR-84653] 15 p2722 N67-28006
High yield strength 6AL-4V titanium alloy fuel tank material analyzed for stress corrosion cracking in methyl alcohol
[NRL-MR-1744] 15 p2734 N67-28245
Effects of sheet width and notch length on calculated fracture toughness of low interstitial titanium alloy sheet
[NASA-TN-D-4016] 15 p2799 N67-28299
Phase diagram of titanium-rich aluminum alloys, using thermal, microstructural, dilatometric, and X-ray analyses
[NASA-TT-F-11011] 15 p2728 N67-28744
Mechanical properties and nitrogen tetroxide stress corrosion resistance of Ti-6AL-4V alloy with different heat treatments
[NASA-CR-85635] 16 p2906 N67-29174
Effects of high initial tensile and compressive loads and elevated temperatures on room temperature fatigue life of notched titanium alloy sheets
[NASA-TN-D-4061] 16 p2948 N67-31589
Duplex-annealed titanium alloy as SCAT structural material
16 p2278 N67-31625
Phase diagrams and crystal structure of europium titanium oxygen system
19 p3297 N67-33902
Physical metallurgy of titanium - effects of ternary alpha-soluble and beta-stabilizing additions on Ti-Al primary alpha, mechanical properties and precipitation kinetics
[IITRI-B6041-12] 19 p3475 N67-33998
Plastic anisotropy information determined and applied to studying texture strengthening in titanium alloys
[BMWL-SA-992] 20 p3855 N67-34170
Weldability of titanium and titanium alloys using various welding methods
[TB-71] 20 p3656 N67-34336
Stress corrosion cracking of titanium alloys at ambient temperature in aqueous solutions
[NASA-CR-87432] 20 p3656 N67-34656
Quantitative phase analysis of titanium effect on boron steel plasticity
20 p3661 N67-35079
Fabrication of large titanium alloy structures using electron beam welding and hot forming
[R66FPD961] 21 p3855 N67-35459
Progress summary on various research programs into problem of stress-corrosion cracking of high strength materials including titanium alloys, aluminum alloys, and high strength steels
[NRL-MEMO-1775] 21 p3863 N67-35622
Thermoconductivity, corrosion behavior, phase fields, eutectic points, and other properties of uranium plutonium carbon titanium alloys
[CEA-R-3201] 21 p3863 N67-35635
Physical properties of titanium metallurgy - phase transformation and hardness effects, alloy compositions and lattice structures, creep and temperature resistance, and manufacturing
[FTD-HT-66-354] 22 p4062 N67-37121
Predicted titanium alloy compositions with optimal heat resistance characteristics
22 p4062 N67-37122
Phase diagrams and thermal expansion coefficients of titanium-oxygen system
22 p4062 N67-37123
Three dimensional graph of quarternary titanium aluminum molybdenum vanadium system
22 p4062 N67-37124
Phase structure of titanium aluminum based alloy with constant aluminum content
22 p4062 N67-37125
Solid solutions of titanium aluminum zirconium system for high temperature alloys
22 p4062 N67-37126
Phase equilibria, hardness, density, and electric resistance of titanium aluminum zirconium ternary alloy system
22 p4063 N67-37127
Alloy phase structures in ternary titanium aluminum zirconium system along binary titanium alloy section
22 p4063 N67-37128
Relationship between titanium alloy hardening structures and equilibrium phase diagrams
22 p4063 N67-37129
Stability effect of beta alloys in titanium chromium molybdenum iron aluminum system
22 p4063 N67-37130
Dilatometric aging and surface hardening effects in thermally treated titanium alloys
22 p4063 N67-37131
Dislocation theory for titanium alloy reversible brittleness at low deformation temperatures
22 p4064 N67-37123
Alloying effects on electrical resistivity, linear expansion, and oxidizability of titanium
22 p4064 N67-37134
Gamma radiation attenuation method for titanium molybdenum diffusion zone analysis
22 p4064 N67-37135
Redistribution of impurities between surface layer and mass in titanium alloys during oxidation
22 p4064 N67-37136
Oxygen content effect on mechanical properties of titanium aluminum alloy
22 p4064 N67-37137
Oxidation kinetics of heated titanium alloys prior to plastic deformation
22 p4065 N67-37138
Low pressure nitriding effects on diffusion layer structure of titanium alloy
22 p4065 N67-37139
Corrosion stability of sheet, bar, and forged titanium in sulfuric acid solutions
22 p4065 N67-37140
Use of titanium alloys in food industry machinery
22 p4065 N67-37144
Properties of titanium alloys with alpha and beta structure in relation to composition and heat treatment
22 p4066 N67-37145
Interatomic bond strength in monophasic titanium niobium chromium alloys
22 p4066 N67-37146
Creep resistance of titanium vanadium niobium molybdenum alloys at high temperature stress
22 p4066 N67-37147
Creep limit and deformation of titanium aluminum alloy at 350 degree Celsius
22 p4066 N67-37149
Creep behavior and thermal stability of titanium alloys at 500 degree Celsius
22 p4066 N67-37150
Relaxation stability of titanium alloy at various temperatures and stresses
22 p4067 N67-37151
Creep of alloys in titanium zirconium aluminum tin system
22 p4067 N67-37152
Mechanical properties of aluminum containing titanium alloys at room and high temperatures
22 p4067 N67-37153
Heat resistance tests on solid and welded titanium alloy sheets
22 p4067 N67-37154
Heat resistance of titanium aluminum molybdenum vanadium system alloys
22 p4067 N67-37155
Short term heat resistance of aluminum containing titanium alloy
22 p4068 N67-37156
Thermostability of aluminum containing

titanium alloy at 300 and 400 degree Celsius 22 p4068 N67-37157
Effects of plastic deformation and subsequent cooling on mechanical properties of titanium alloys 22 p4068 N67-37158
Ductility, power, and deformation parameters of titanium alloy rolling process at varying pressures and temperatures 22 p4068 N67-37159
Structure and properties of titanium alloy during hot forging 22 p4068 N67-37160
Heat treatment effects on structure, properties, and thermostability of aluminum containing titanium alloy 22 p4068 N67-37161
Controlled gas diffusion in titanium and titanium alloy welding seams 22 p4053 N67-37162
Submerged double-arc welding method for production of titanium alloy structures of medium and large thicknesses 22 p4053 N67-37163
Diffusion layer structure in soldered titanium joints with various metals 22 p4069 N67-37164
Micro spark analysis of gaseous inclusions in titanium alloy 22 p4069 N67-37165
X-ray analysis and microhardness measurements to determine defective inclusions in titanium ingot 22 p4069 N67-37166
Formation and properties of metastable phases in titanium alloy 22 p4069 N67-37167
Industrial processes for manufacturing welded straight-seam tubes from titanium and its alloys [FTD-MT-65-37] 22 p4053 N67-37239
Delayed fracture tests and brittle properties of titanium aluminum zirconium alloy [NASA-TM-X-60354] 22 p4070 N67-37309
Scale resistance of titanium-aluminum alloys during oxidation at high temperatures [NASA-TT-F-11303] 22 p4074 N67-38055
Mechanism of hot salt stress corrosion cracking of titanium base alloys [NASA-CR-88970] 23 p4283 N67-38350
Structural ductility for titanium alloy and maraging steel [NASA-CR-89280] 23 p4285 N67-38011
Electrochemical mass transport kinetic model used to study metallurgical and mechanical effects of titanium alloy stress corrosion cracking [NASA-CR-89315] 23 p4307 N67-39036
Electrochemical behavior of titanium and titanium alloys studied in sulfuric acid using electronic potentiostatic anodic polarization techniques [AMRA-TR-67-16] 24 p4393 N67-39439
Titanium-iron alloys and titanium trichloride reaction rates in molten sodium chloride [BM-RI-7015] 24 p4397 N67-39850
Development of hydrogen brittleness in titanium alloy at low temperature and low strain rates [NASA-TM-X-60851] 24 p4486 N67-39862
Melting techniques and mold properties for high precision castings of titanium and titanium alloys [S+T-MEMO-2/67] 24 p4457 N67-39984
Salt water stress-corrosion cracking characteristics of commercial titanium alloys [NRL-6564] 24 p4468 N67-39894
Metallurgical properties of alpha-gamma uranium alloys from uranium molybdenum niobium vanadium titanium system [AMRA-TR-67-18] 24 p4467 N67-39997

TITANIUM BORIDE
Plastic deformation effects on refractory titanium carbide, zirconium carbide, titanium boride, and molybdenum silicate [NASA-TT-F-10775] 13 p2338 N67-25830

TITANIUM CARBIDE
Interaction of zirconium dioxide with titanium, niobium, and chromium carbides [NASA-TT-F-10049] 07 p1698 N67-17518
Spin-casting and property evaluation of high temperature Hf, Zr, Ti, and Ta carbide alloys 13 p2107 N67-33904
Plastic deformation effects on refractory titanium carbide, zirconium carbide, titanium boride, and molybdenum silicate [NASA-TT-F-10775] 13 p2338 N67-25830
X-ray analyses on K-band spectral structure for titanium absorption in nitrides and carbides [NASA-TT-F-11114] 17 p3150 N67-31190
X-ray analysis of atomic scattering and structural defects of titanium carbide [NASA-TT-F-10436] 21 p3670 N67-36230
Physical properties of pyrolytic Group IV metal carbides and nitrides [NASA-TT-F-11190] 21 p3724 N67-36535

TITANIUM CHLORIDE
Dyeing titanium tetrachloride smoke trails for wind velocity measurements [NASA-CR-66360] 16 p2845 N67-29435
Reaction rate between titanium-oxygen solid solutions and titanium trichloride in molten sodium chloride [BM-RI-7065] 20 p3590 N67-35215
Amorphous propylene polymerized with titanium tetrachloride and aluminum triethyl to determine association [DISC-3899] 24 p4395 N67-39892

TITANIUM COMPOUND
Crystal structure of some ternary intermetallic titanium compounds 02 p0271 N67-11771
Reactivity of titanium and other materials with liquid oxygen and nitrogen tetroxide [NASA-CR-83849] 09 p1412 N67-29257
Preparation, analysis, and chemical reactions in relation to titanium tetramercaptides and dialkylaminotitanium mercaptides [TR-4] 10 p1570 N67-26586
Attempts to compound titanium chalcogenide infrared transmitting glasses [TI-66-67-18] 14 p2581 N67-27019
Titanium /IV/ phosphinate polymers preparation and analysis [TR-53] 19 p3399 N67-33151
High energy proton shielding properties of lead, polyethylene, titanium hydride and aluminum 23 p4311 N67-36975

TITANIUM NITRIDE
X-ray analyses on K-band spectral structure for titanium absorption in nitrides and carbides [NASA-TT-F-11114] 17 p3150 N67-31190

TITANIUM OXIDE
Titanium oxide thin film capacitor with large temperature dependence for detecting infrared radiation 02 p0284 N67-12105
Characteristics of titanium dioxide thin film diodes [RADC-TR-66-467] 08 p0855 N67-16370
Infrared and ultraviolet absorption spectroscopic data used to prepare energy level diagram of titanium oxide 06 p1552 N67-19165
Titanium trivalent cation influence in titanium oxide lattice on semiconducting and photochemical properties of crystal 06 p1552 N67-19167
High temperature stability and feasibility of hydrated titanium and tantalum oxides as ion exchangers in water cooled reactors [AERE-R-5230] 06 p1541 N67-19399
Cesium vapor heat conduction in thermionic energy converters, space charge distribution in neutral plasma, and titanium oxide thin films 12 p2017 N67-32648
Contrast in electron microscopy transmission at cavities in titanium dioxide and other metallic crystals - corrosion and oxidation [EURAEC-1555] 13 p2339 N67-25991
Influence of preparation conditions on capacitance of doped sintered titanium dioxide compacts [NIJS-R-498] 15 p2681 N67-30689
Solid chemical analyses of selenium, americium, and titanium oxides with zirconium, hafnium, thorium, neptunium, and plutonium dioxides [KFK-433] 16 p2843 N67-29262
Model atmospheres of class M main sequence stars use to study absorption bands of TiO 17 p3161 N67-31027
Crystal chemistry and phase equilibra of ternary system Eu-Ti-O 21 p3706 N67-36225
Piezoresistance and piezo-Hall effect in semiconducting strontium titanium oxide [NASA-CR-80494] 23 p4124 N67-36724
Phase diagrams and thermal expansion coefficients of titanium-oxygen system 23 p4062 N67-37122
Redistribution of impurities between surface layer and mass in titanium alloys during oxidation 23 p4064 N67-37134
Properties of titanium dioxide and other inorganic salts, and ordering of point defects in high temperature oxides [NYO-2581-7] 23 p4127 N67-37223
Growth of large single titanium oxide crystals from melts - crystal stoichiometry, impurity segregation and electric properties [ESD-TR-67-343] 24 p4390 N67-39824

TITRATION
Amperometric titration of thorium by thoron 03 p0336 N67-12366
Potentiometric titration of cerium and manganese following separation from plutonium and cobalt ternary and quaternary alloys [LA-3402] 03 p0411 N67-12881
Literature review of conditioning treatments for electrodes used in potentiometric analysis, with reference to uranium titrations [EUR-3118.F] 03 p0359 N67-13091
Determination of trace chlorine in fluoroelastomer by combustion in oxygen bomb containing sodium hydroxide solution followed by mercuric nitrate titration [UCID-15189] 19 p3289 N67-33643

TNT
S TRINITROTOLUENE /TNT/

TOLERANCE
SA HEAT TOLERANCE
SA IMPACT TOLERANCE
SA NOISE TOLERANCE
SA ORTHOSTATIC TOLERANCE
Machining and measurement procedures of machine capable of turning aluminum alloy hemisphere to submicron tolerances [Y-RE-304, REV.] 10 p1638 N67-26025
Amplitude filters affecting diffraction image and Marchal aberration tolerance conditions 10 p1686 N67-21700
Tables of two-sided tolerance factors for normal distributions [NASA-CR-87306] 19 p3470 N67-32975
Projected tolerance zone concept for controlling position and attitude of threaded holes [SC-DC-67-1744] 20 p3649 N67-34307

TOLERANCE /BIOL/
SA ACCELERATION TOLERANCE
SA ALTITUDE TOLERANCE
SA COLD TOLERANCE /BIOL/
SA HUMAN TOLERANCE
SA RADIATION TOLERANCE
Differential sensitivity of vestibular apparatus in tolerating accumulation of vestibular effects 02 p0122 N67-11422
Comparing hypoxia resistance of whole organism to individual tissues in rats 02 p0182 N67-11434
Increasing resistance of organism to hypoxia by using antioxidants mexamine, BYe-57, and ambunol 02 p0194 N67-11522
Clinical nutritional study of minimum protein and caloric requirements for man [NASA-CR-79896] 02 p0215 N67-12237
Tolerance of human and mammalian ear to overpressure effects [DASA-1858] 18 p3213 N67-33513
DASA-AEC-Lovelace Foundation blast simulation facility for biomedical investigation of blast and shock effects [DASA-1833] 18 p3253 N67-33880
Changes in stroke volume of right and left heart in relation to altitude tolerance - pulmonary circulation [J-234-4] 22 p3970 N67-37240
Dependence of altitude tolerance of rats on phosphorylation processes 23 p4194 N67-38106

TOLUENE
SA TRINITROTOLUENE /TNT/
Effects of acetone and toluene solvents and dip time on crystallinity of polyethylene terephthalate and mylar samples 06 p0830 N67-18898
Oxygen and organic compound effects on quenching of toluene scintillators [EGG-1183-2111] 10 p1579 N67-21990

TOMAHAWK ROCKET
S NIKE-TOMAHAWK ROCKET

TONE
Experiments on perception and discrimination of simultaneously sounding tones by ear [TDCK-42963] 01 p0011 N67-10022
Vegetative, soil, and photographic factors affecting tone in agricultural remote sensing 04 p0585 N67-13419
Ten-event tone control system for programming complex experiments [REPT.-28] 12 p2104 N67-34027
Signal analyzer for observing basic speech tone changes 15 p2664 N67-27604

TONOMETRY
SA BLOOD PRESSURE
SA PRESSURE MEASUREMENT
Theoretical sandwich shell model of cornea for use in tonometry [F-5804] 18 p3033 N67-33634

TOOL
SA MACHINE TOOL
Tools for induction brazing of stainless steel tubing and fittings
[NASA-CR-79752] 02 p0264 N67-11687
Neutral buoyancy immersion techniques for tools developed for use in assembly, maintenance, and repair operations in space 03 p0403 N67-12716
Semiautomated tool setter
[RFP-666] 04 p0637 N67-14134
Total strain, strain rate, and material temperature effect on anisotropy of tool steel
[AMRA-TR-66-21] 07 p1099 N67-17934
Sintered carbide processing for tools, effects of additives, and capabilities of carbide tools
[Y-DA-1412] 10 p1648 N67-21659
Rocket-powered turbine wrench to unthread fuses in unexploded ordnance
[M67-9-1] 14 p2698 N67-27718
TOOLING
SA MACHINING
Tooling requirements and cost estimates of electron beam welding, and electron beam welding of aluminum, titanium, stainless steel, and Inconel alloys
[GDC-ERR-AN-955] 14 p2543 N67-27200
TOOTH
S GEAR TOOTH
TOOTH DISEASE
Rehardening of softened tooth enamel surfaces, and calcification ability of body fluids
[AD-638357] 01 p0015 N67-10322
TOPCAT PROJECT
Meteorological observations and aircraft measurements of clear air turbulence during routine flights in Australian jet stream - TOPCAT project
[RAE-TR-66123] 04 p0572 N67-14262
Topcat project power spectral measurements in Australia of clear air turbulence associated with jet streams
[ARC-CP-940] 20 p3672 N67-34535
TOPOGRAPHY
SA GEODESY
SA LUNAR TOPOGRAPHY
SA MAPPING
SA SURFACE GEOMETRY
SA TERRAIN
Topographic reduction of gravity measurements in hypothesis of spherical earth
[PUBL-39] 01 p0063 N67-10857
Cartographic representation of various morphologic species of loess on large scale topographic maps
[JPRS-36132] 01 p0067 N67-10395
Influence of topography on formation of bright patches on Mars
[NASA-CR-79721] 01 p0154 N67-10877
Topographic information acquisition methods for lunar, planetary, and solar surfaces
[NASA-CR-650] 02 p0260 N67-11951
Doppler radar spectroscopy of Mars surface - elevation differences between bright and dark areas
[NASA-CR-89134] 03 p0399 N67-12271
Aerial photography interpretations of tropical and subtropical forests and vegetation 03 p0397 N67-12842
Aerial photograph interpretation of fresh water swamp forest structure and vegetation 03 p0397 N67-12850
Interpretation of aerial photographs on mangrove forest vegetation 03 p0397 N67-12851
Geographical studies of China - physiographical formation of mountainous plateau, sand dune dynamics, topography and characteristics of deserts, and lake basin topography
[JPRS-36042] 05 p0636 N67-14367
Physiographical formation of western Szechuan and western Yunnan 05 p0636 N67-14368
Basic characteristics of Dzungaria desert 05 p0639 N67-14370
Geology and topography of Tarim Basin agricultural basin threatened by sand dune encroachment 05 p0639 N67-14371
Characteristics, formation, and development of Tsinghai Hu lake basin topography 05 p0639 N67-14372
Three level nonlinear model in spherical coordinates to assess effect of topography on prediction of isobaric field
[EMM-66-44] 06 p0907 N67-15405
Spatial and temporal distributions in terrain related cloud cover over Vietnam 10 p1671 N67-20429
Applicability of airborne multisensor surveys to geographic research
[AD-641894] 10 p1629 N67-20728
Topography, geology, petrology, and geography of Antarctica
[TT-65-50143] 11 p1866 N67-22341
Topographic zoning technique for Antarctica 11 p1868 N67-22352
Tasks involved in topographic description of Antarctica 11 p1868 N67-22353
Topographic simulation scheme used to program path layout of conductors in printed circuit board design 11 p1847 N67-22629
Interference contrast microscopy technique for obtaining three-dimensional, clear image of microstructural topography of surfaces 12 p2108 N67-24342
Statistical model for topographic representation of aircraft penetration maneuvers in tactical warfare on digital computer
[RM-5061-PR] 14 p2562 N67-26702
Topographic peculiarities over Soviet territory of transition layer separating stratospheric anticyclonic circulation from lower cyclonic circumpolar circulation 15 p2740 N67-28137
Evaluation of dyad-spline method for all-weather terrain mapping
[CS-3231/030] 15 p2703 N67-28292
Contour, grid, polynomial, statistical, and analog representations of multivariate functions, and applications to topographic modeling
[RM-4636-PR] 15 p2728 N67-28806
Topographic mapping using monoscopic photographs and surface photometric properties, and testing photoconductors for slow-scan vidicons 16 p2893 N67-29156
Stereometrograph for compiling relief and planimetric detail for topographic maps from vertical aerial aerial photographs
[FTD-HT-66-390] 19 p3451 N67-33004
Quantitative parameters of surface roughness for use in geologic remote sensing
[NASA-CR-87323] 19 p3442 N67-33245
Integral equation solution for density of simple layer potential - theory of determining topographic surface of earth
[ACIC-TC-1172] 20 p3626 N67-34620
Surface topography of selectively deposited germanium for study of integrated circuits used in portable radar equipment
[TI-03-67-31] 20 p3611 N67-34648
Geodetic control without triangulation, trilateration, or gravity data, and gravimetric reduction of leveling
[ITR-4] 20 p3636 N67-34964
Geodetic control without triangulation, trilateration, or gravity data, and gravimetric reduction of leveling
[ITR-5] 20 p3636 N67-34965
Analysis of optical inhomogeneity of quartz crystals by X-ray diffraction topography
[NASA-TT-F-11197] 22 p4123 N67-36897
Vertical exaggeration ratios selected for three-dimensional mapping
[TR-3] 23 p4341 N67-38148
Photoresponse measurements on semiconductor device junctions by modified flying spot scanner techniques to obtain topological photoresponse displays 23 p4233 N67-38465
Aerial photographic survey on surface faulting in geological structure of Nevada valley 24 p4444 N67-40026
Neotectonic movements used as indicators of anomalous thicknesses of earth crust
[ACIC-TC-1246] 24 p4443 N67-40894
TOPOLOGY
SA OROGRAPHY
Diagram method for counting topologies on finite sets
[NASA-CR-80165] 02 p0282 N67-12254
Application of network topology to analysis of passive networks 04 p0621 N67-13344
Computer programs for application to topological analysis of active networks 04 p0631 N67-13845
Analytical aspects of mean square nonlinear approximations
[D1-82-0565] 04 p0570 N67-14234
Linear system of very large size - matrix topology, handling large matrices as continuous functions, and projection type and separation type of iterative schemes
[NASA-CR-81256] 06 p0902 N67-16096
System reliability using topological methods
[R-309] 06 p0903 N67-16119
Translation extension in Tauberian topological algebras
[BN-441] 06 p0903 N67-16196
Existence and generation of Hamilton circuit in tree graph
[R-319] 06 p0859 N67-16379
Topology of magnetic field and diffusion of plasma in toroidal traps
[MATT-TRANS-37] 07 p1167 N67-17564
Metrization and separation theory for normal, separable Moore spaces
[NASA-CR-70112] 07 p1113 N67-17833
Preparation and translation of formal languages into topological structures for computer processing
[JUL-174-MA] 10 p1621 N67-21078
Transformation to give equivalent network, with regard to network function, with fewer vertices - topological analysis
[R-329] 10 p1597 N67-21385
Steenrod squares in mod two cohomology algebra of H space
[AFOSR-66-2357] 10 p1667 N67-21714
Semi-topological analysis of linear networks
[R-323] 11 p1848 N67-23110
Topological formulas used to eliminate subgraphs in signal flow graph
[R-339] 13 p2290 N67-25970
Generalized computer techniques for solving contour map problems
[NASA-CR-83991] 13 p2291 N67-26007
System configuration synthesis
[NASA-CR-83971] 13 p2300 N67-26162
Homomorphic mapping from universal Teichmuller space to bounded operators in Banach space
[CU-30] 14 p2563 N67-26800
Two-dimensional representation of complex nonplanar graphs
[TN-1967-1] 14 p2564 N67-27013
Estimation of transition matrix of finite Markov process, abelian groups, structure of near rings and near rings homomorphisms, and metrization of topological spaces
[NASA-CR-84514] 14 p2565 N67-27672
Thermonuclear plasma and accelerator technology - limitation on injection, topology of phase space, and stellarator construction problems
[COO-1232-44] 15 p2775 N67-28591
Some total invariants of asymptotically flat space-times
[AD-651096] 16 p2921 N67-29589
Topological study of sintering process
[ORO-2581-1] 16 p2853 N67-29880
Upper and lower bounds obtained for number of all topologies on n points
[NASA-CR-85593] 17 p3094 N67-31144
Construction of energy functions for Morse system of vector fields on manifold
[NASA-CR-85814] 17 p3095 N67-31434
Topological properties and concepts related to covered space
[NASA-CR-86920] 18 p3286 N67-32149
New approach to theory of monads
[TR-1] 19 p3479 N67-32883
Free differentiable actions on homotopy seven spheres
[AROD-2956-18-M] 19 p3480 N67-33139
Magnetic field topology near neutral points in closed magnetosphere 20 p3730 N67-34144
General theorems applied to topological spaces, fixed points, and coincidence problems
[P-3694] 22 p4062 N67-36931
Simplified framework for Robinsons nonstandard analysis using set theory
[TR-27] 22 p4062 N67-37013
Topological dual extended to nonplanar networks by coherent dual concept, and applied to reliability problems 23 p4372 N67-38965
Categories of topological spaces and Lie groups
[THESE-3855] 24 p4482 N67-40141
Convolution algebras on locally compact surfaces
[AROD-5254-11-M] 24 p4482 N67-40245
TOPSIDE PROGRAM
Topside sounder, background radio noise, very low frequency, energetic particle, and electrostatic probe experiments of Alouette II satellite

[NASA-TM-X-57352] 08 p1370 N67-16434
Spread echoes in middle and high latitudes of northern hemisphere from measurements by Topside sounder aboard Alouette satellite 16 p2856 N67-29285
Topside and fast-sweeping ground-based ionograms for studying field-aligned structure of spread-F boundaries 16 p2857 N67-29286
TORNADO
Development and movement of tornadic storms over Oklahoma on 27 May 1965 07 p1116 N67-16896
Vortex flow concentration and tornado control, and mathematical model for kinetic collision 16 p2876 N67-29160
Radar reflectivity measurements role in identifying hail storms and tornadoes [TM-17] 23 p4378 N67-38388
TOROID
Magnetic moment measurements on superconducting toroid [NRL-6414] 02 p0286 N67-11299
Resistive plasma instabilities in toroidal hydromagnetic systems [MATT-424] 02 p0292 N67-11716
Topology of magnetic field and diffusion of plasma in toroidal traps [MATT-TRANS-37] 07 p1167 N67-17584
Load deflection data for grooves and between flanges with toroidal elastomer sealing rings [AWRE-O-62/66] 13 p2330 N67-26213
Computer programs to calculate toroidal magnetic field configurations [UCRL-50161] 15 p2774 N67-22356
Physical interpretation of toroidal wave functions [REPT.-0172-SR-2] 16 p2937 N67-29414
Toroidal theta pinch with azimuthal magnetic field in m and s equilibrium configuration [IPP-1/63] 20 p3710 N67-34782
Toroidal magnetic field configurations for containing plasma [CLM-TRANS-12] 22 p4115 N67-37196
Motion constants and variational principle for stationary magnetohydrodynamic flow in toroid 23 p4321 N67-38748
Redefined energy-variational principle for steady state magnetohydrodynamic flow in toroid 23 p4321 N67-38749
Toroidal harmonics calculations without using elliptic integrals 24 p4476 N67-39463
TOROIDAL DISCHARGE
Diffusion rate of plasma across magnetic field measured in toroidal, pulsed dc discharge and during afterglow [SU-IPR-69] 03 p0451 N67-13340
Plasma stability condition and macroscopic effects in toroidal discharges 12 p2181 N67-24167
Toroidal discharge in alternating longitudinal magnetic field 12 p2184 N67-24188
Plasma compression by magnetic field in toroidal device 12 p2185 N67-24192
Relation between electric and magnetic field strengths experimentally determined in impedance measurements of stationary high frequency toroidal plasma discharge [JUL-481-PP] 20 p3706 N67-34324
Theoretical and experimental studies on plasma generation and confinement - stellarator design, power electronics and instrumentation systems, and magnetic field induction methods [MATT-Q-34] 23 p4318 N67-38725
Instability measurements on low density plasma in toroidal multipole field 23 p4319 N67-38734
Construction of toroidal quadrupole plasma generating machine 23 p4322 N67-38777
TOROIDAL PLASMA
Equilibrium and stability of toroidal plasma with surface currents [IPP-6/53] 01 p0133 N67-10468
Equipotential surfaces of plasma moving in toroidal octupole magnetic field [COO-1233-32] 01 p0135 N67-10639
Proposed straight theta-pinch devices energized by energy storage supply of toroidal Scyllac device [LA-3553-MS] 03 p0448 N67-13865
Equilibrium and stability of toroidal plasma screw pinch [REPT.-66-32] 04 p0396 N67-14004
Plasma instability with captured particles in toroidal geometry [IAE-1149] 04 p0597 N67-14077
Plasma equilibrium in confined toroidal magnetic field configurations [IAE-1151] 04 p0597 N67-14078
Resistive instabilities in toroidal hydrogen plasma 07 p1159 N67-16826
Modifications to diagnostic facility for time-resolved spectroscopic studies of pulsed plasmas 07 p1076 N67-16827
Influence of transverse currents on equilibrium of toroidal plasma in presence of conducting walls [IAE-1132] 07 p1186 N67-17594
Nonadiabatic injection of plasma into L-2 stellarator using programmed magnetic field method [CTO-312] 10 p1735 N67-20757
Motion of plasmoid in magnetic field of toroidal solenoid with helical winding 11 p1954 N67-21931
Nonadiabatic injection of continuous electron beam into toroidal magnetic field producing circulating electron stream 11 p1960 N67-22057
Velocity space instabilities in toroidal geometry [IC/66/91, REV.] 11 p1961 N67-22905
Static, radial electric fields influence on trapped particle instabilities in toroidal plasmas [IC/66/100] 11 p1964 N67-22391
Continuous wave traveling wave accelerator development for production of pinched plasma toroids [REPT.-6126, VOL. I] 17 p3140 N67-30263
Hydromagnetic, drift and dissipative, trapped particle, and high frequency instabilities in toroidal systems, as well as helical magnetic cells, thermal convection, and diffusion [CLM-TRANS-11] 17 p3141 N67-30475
Plasma diffusion across the magnetic surfaces of a toroidal field [REPT.-67-12] 19 p3518 N67-33509
Engineering aspects of toroidal theta-pinch machine [LA-DC-8086] 19 p3429 N67-33888
Instability of particle velocity distribution in toroidal plasma [CTO-366] 20 p3694 N67-34445
TOROIDAL SHELL
Axisymmetric deformation analysis for toroidal shell with variable wall thickness 04 p0618 N67-13803
Approximate method for determination of natural oscillation frequencies of cylindrical, conic, and toroidal shells [NASA-TT-F-10077] 07 p1302 N67-17389
Plasma confinement in toroidal magnetic field and with conducting diaphragm 08 p1348 N67-18829
Solution for symmetrical deformation problem of orthotropic toroidal shell 09 p1523 N67-20039
Stress-strain state of toroidal shell at bending, applicable to calculating bellows 09 p1525 N67-20054
Model of structural anisotropy for determining basic stresses in circumference and external fibers of symmetrically loaded ribbed toroidal shell 09 p1538 N67-20139
Stiffness matrix solution for shells of revolution possessing variable thickness heat protection [NASA-TN-D-3963] 13 p2417 N67-25843
Axisymmetric strain of thick-walled toroidal shell 13 p2421 N67-26395
Stability of toroidal shell 13 p2421 N67-26436
Buckling of pressurized toroidal ring under uniformly distributed line load [NASA-TN-D-4134] 20 p3739 N67-34657
Approximate method for analysis of toroidal shells by linear bending theory [AROD-5169.4-E] 22 p4151 N67-38050
Analytical data on free vibrations of pressurized prestressed toroidal shell applied to simple toroidal shell structure models [NASA-CR-885] 22 p4152 N67-38913
Vibration testing of pressurized toroidal shell [NASA-CR-884] 23 p4356 N67-38370
Experimental design of deployable tension cone decelerator with inflatable toroids for compression resistant structures in base of cone [NASA-CR-929] 24 p4348 N67-40230
TORPEDO
Component reliability and nondestructive testing of torpedo parts 20 p3647 N67-34469
TORQUE
Galvanometric torque compensators with digital output for use in digital methods of data processing 05 p0295 N67-12709
Aerodynamic resistance torque of gyrometers operating in hydrogen and helium 03 p0295 N67-12777
Hydroproof, pneumatic proof, cycle, and seat erosion qualification tests on low torque three piece valve sets with various material components for upper seat ring [NASA-TM-X-52268] 05 p0712 N67-14918
Journal bearing studies of shaft displacement gauge evaluation and friction torque determination [NASA-CR-72034] 05 p0714 N67-15217
Conical pivot bearings for space environment use, minimal torque design criteria 07 p1089 N67-16819
Ultrasonic vibratory modes, frequencies, power levels, and pulse times for torque system of wrench-tightening aluminum and stainless steel flared tubing connections [NASA-TM-X-52550] 07 p1092 N67-17528
Error torques of squeeze film cylindrical journal bearings [NASA-CR-76236] 07 p1095 N67-17779
Forces and torques acting on satellites and dynamical equations for describing satellite attitude [NASA-CR-83966] 08 p1368 N67-19195
Exchange torque, power and momentum flow, and stress in rigid ferrimagnet [AFCRL-67-0255] 21 p3915 N67-28849
Closed tubular extendible boom concept with applications for fluid transport and torque transmission 21 p3943 N67-28234
Fluid flow torque on cylindrical disk during torsional oscillations about axis while immersed in viscous fluid [REPT.-2395] 22 p4156 N67-37490
TORQUE MEASURING APPARATUS
Measurement of torques generated by interaction between magnetic dipole of spacecraft and ambient magnetic field [NASA-TN-D-3711] 01 p0074 N67-10782
Single axis simulator design for satellite control system testing and low torque measurement [NASA-TM-X-55666] 08 p1363 N67-18625
Complex loading machine with automatic programming of stress state for use in testing of thin walled tubular samples under simultaneous effect of tensile force and torque 08 p1366 N67-19166
Rolling contact bearing torque measurements and fatigue life tests of high temperature lubricants [NASA-TN-D-3948] 14 p2373 N67-26543
Torque test for evaluating quality of aluminum alloy melts [R-1823] 14 p2543 N67-26713
TORQUE MOTOR
Torque motor servorotator for vestibular applications [NASA-CR-80763] 04 p0497 N67-13917
Permeance, differential motion equations, and static and frequency characteristics of electromechanical torque motor converter with magnetic spring 18 p3371 N67-32547
TORSION
Deformation and discharge theories compared by traction and torsion tests on metal tubes and wires, and verification of reciprocal theorem 05 p0770 N67-14298
Torsion pendulum used to measure internal friction in iron aluminum alloys having high aluminum content [CEA-R-2954] 19 p3471 N67-33236
Soviet research on calibration of gravimetry with horizontal torsion filament by tilt method 19 p3468 N67-33795
Crack initiation in copper and brass subjected to large amplitude torsion [ARL/MET-49] 20 p3697 N67-34442
Cylindrical shells during axial compression, supercritical pressure, elastic deformation, and torsion [FTD-MT-65-176] 21 p3943 N67-36267
Behavior of gelatin tested at cryogenic temperature with torsion pendulum [NASA-CR-83270] 22 p4158 N67-38969
TORSIONAL STRESS
Torsion test rig for microplasticity measurements from room temperature to 400 deg C [ONERA-TN-100] 01 p0071 N67-10469
Deformation and discharge theories compared by traction and torsion tests on metal tubes and wires, and verification of reciprocal theorem 05 p0770 N67-14298
Limiting stress calculated for thin walled shapes in biaxial bending with

torsion 09 p1537 N67-30131
Approximation method for solving problem of torsional impact occurring in infinite elastic isotropic space 13 p2221 N67-23710
Elastic plastic torsion problems in nonlinear programming
[DOMIIT-1-35] 13 p2416 N67-25637
Approximation method for determining torsional stiffness of rods having complex shapes 13 p2419 N67-26185
Hole obliquity effects on torsional fatigue strength of nickel-chromium-molybdenum steel
[NEL-226] 13 p2419 N67-26198
Torsion effects on circular cylindrical shells with rectangular openings reinforced by elastic ribs
[NASA-TT-F-10744] 14 p2627 N67-27529
Extension of Kantorovitch method proposed and demonstrated on torsion problem of beam of rectangular cross section
[NYU-AA-66-78] 15 p2809 N67-28619
Constitutive relations for materials with memory formed for solution of boundary value problems
[AM-66-15] 16 p2977 N67-29047
Test method and results of installation torque versus plastic and elastic strain, angular nut rotation, and deformation for turbine rotor bolt
[R66FPD249] 16 p2901 N67-30060
Reversed cyclic torsion effects on aluminum tubes of different wall thickness
[TR-49] 19 p3547 N67-33280
Modification and simplified application of Vlasov torsion theory for thin-walled rectangular tubes 20 p3738 N67-34597
TORSIONAL VIBRATION
Design analysis for twisted pinned blades subject to bending and torsional vibrations
[NASA-TT-F-10273] 01 p0158 N67-10208
Torsional frequencies of uniform shafts with elastic restraints and elastically attached masses
[TG-833] 01 p0162 N67-11191
Torsional flutter of unstalled cascade blades at zero deflection
[ARC-R+M-3429] 07 p0901 N67-18109
Matrix analysis of longitudinal and torsional vibrations in nonuniform multibranch beams
[NASA-TN-D-3644] 07 p1205 N67-18149
Ranger flight data for dynamic torsional model synthesis to predict transient vibration of Surveyor spacecraft
[NASA-CR-83110] 10 p1763 N67-21446
Device for excitation of torsional sinusoidal oscillations
[FTD-HT-66-703] 15 p2717 N67-28361
Torsional vibration and shock transients of Atlas Agena-D applied to advanced OSO 18 p3340 N67-31695
Free and torsional vibrations and stall flutter of axial flow compressor blades
[FTD-MT-65-530] 23 p4173 N67-38087
Torsional vibrations of twisted nonrotating and rotating axial-flow compressor blades 23 p4174 N67-38089
TOUGHNESS
5 FRACTURE TOUGHNESS
TOWED BODY
Aeroelastic analysis method applied to flutter of flexible, towed tension shell
[NASA-CR-777] 12 p2612 N67-25648
Flutter of towed rigid decelerators, and relationships between geometric and aerodynamic parameters defining unconditional stability boundary
[NASA-CR-766] 12 p2233 N67-25652
Empirical equations for towing resistance to wheel in soft soil
[AD-634623] 15 p2752 N67-27974
Evaluating two methods for predicting towline tensions and configurations of towed body system using bare cable
[DTMB-2313] 17 p3169 N67-30229
Locator for tracking vehicle towed by hydrofoil
[DRL-TM-3] 19 p3451 N67-32971
Tank in conjuction with wind tunnel used to test effect of water waves and wind on model ships 20 p3618 N67-34914
TOWNSEND DISCHARGE
Direct current crossed magnetic field effects on electric discharge characteristics of gases in Townsend region
[AFCRL-67-0023] 13 p2383 N67-25439
TOXICITY
SA OXYGEN TOXICITY
SA POISON
Ultrastructure skeletal-muscle mitochondria pathology and biochemical activity upon exposure to alpha toxin from human gas gangrene organism
[EATR-4026] 02 p0177 N67-11262
Toxicity and pathological effects of mercury and organic mercury compounds on cardiac function 03 p0338 N67-12394
Gas-liquid chromatography studies of toxicity of fluorine
[NASA-CR-69992] 07 p1015 N67-17761
Acute hydrazine toxicity in mice
[SAM-TR-66-89] 09 p1403 N67-20006
Fitting personnel with half-mask respirators for protection against toxicity
[RFP-810] 12 p2032 N67-24572
Hydrazine effects on vitamin B6 levels in mouse brain
[AF-IF] 13 p2259 N67-26221
Response of animals to toxic materials under conditions of reduced pressure and varying partial pressures of oxygen 14 p2454 N67-26731
Effect of mixed gas atmosphere on toxicity of nitrogen dioxide and ozone to exposed animals 14 p2455 N67-26735
Fluorine toxicity studies of effects from human inhalation and damage to animal kidneys
[NASA-CR-84659] 15 p2648 N67-28013
Toxicity and metabolism of transuranium elements
[ORNL-TR-1463] 18 p2844 N67-29279
Toxic and radiation hazardous materials handling facility
[SCL-DC-67-5] 16 p2873 N67-29326
Beryllium sulfate effects on serum alkaline phosphatase in primates
[AMRL-TR-66-196] 18 p2832 N67-29412
Toxicity of metal surface to biological cultures, and millimeter-wave astronomy
[PB-173834] 16 p2989 N67-29577
Toxicity of metal surface to mass cultures of Chlorella pyrenoidosa 16 p2834 N67-29578
Acute toxicity of trifluoropentane dione and tetramethylheptane dione
[ARL-66-0224] 17 p3003 N67-30718
Inhalation toxicity of pyrolysis products from fire extinguishing compounds of halogenated hydrocarbons
[REPT.-3320] 18 p3214 N67-32542
Monomethylhydrazine effect on in vitro frog cornea
[SAM-TR-67-22] 18 p3215 N67-32544
Performance characteristics of thin metal film portable sensor used for detecting low concentrations of nitrogen tetroxide, fluorine, and unsymmetrical dimethyl hydrazine propellants
[TRW-6503-6001-R0000] 19 p3380 N67-32874
Diesel tractor afterburner for producing toxic exhaust gas for rabbit extermination
[ARL/ME-272] 20 p3717 N67-34603
Nitrogen tetroxide and hydrogen fluoride propellant vapors effect on plant life on and near Kennedy Space Center
[NASA-CR-87883] 20 p3579 N67-35193
Determining maximum allowable toxicity concentrations of natural human metabolism
[NASA-TT-F-11358] 23 p3974 N67-38010
Improvements in polyvinyl chloride polymers to decrease toxicity effects 23 p4191 N67-39015
TOXICITY AND SAFETY HAZARD
Radiation shelter, on-board dosimetry, therapeutic measures, and ground radiation safety service as means of providing protection from radiation hazards encountered in space 02 p0190 N67-11492
Hazards created during handling of liquid propellant systems 06 p0662 N67-15988
Maximum allowable concentrations and emergency tolerance limits for some liquid propellants 06 p0662 N67-15989
Solid state rapid timing sequencer for obtaining toxic gas samples from rapid fire weapons and fast burning rocket engines
[USAARU-67-4] 09 p1451 N67-20383
Parts and materials data retrieval system for selection of spacecraft materials for toxicological testing and off-gassing rates 14 p2452 N67-26715
Toxicological screening of space cabin materials 14 p2470 N67-26717
Toxicological aspects, recommendations, and efficiency of carbon tetrachloride as fire extinguisher
[AD-649465] 15 p2654 N67-28886
Case histories of deaths and injuries from carbon tetrachloride fire extinguishers
[AD-650734] 16 p2833 N67-29451
Deleterious effects of commercial grades of methyl chloroform used in cements for insulating materials on closed environment atmospheres of nuclear submarines 19 p3385 N67-33763
Polyimide plastic film smoke hood for protection of jet transport passengers against smoke and toxic gases during evacuation
[AM-67-4] 22 p3975 N67-36727
Storage of chemicals, hazards and toxic properties of certain metals and organic compounds, and general safety measures
[ORNL-TM-1834] 23 p4202 N67-38407
Early detection of organic chemical toxic effects in exposed animals
[AD-657252] 23 p4196 N67-39136
TOXICOLOGY
SA INSECTICIDE
SA PHARMACOLOGY
Toxicological evaluation of materials for space cabin life support systems
[AMRL-TR-66-69] 01 p0018 N67-11008
Radiotoxicological analysis of radioactive contamination
[JPRS-39218] 05 p0656 N67-15179
Bibliography of toxicology of nickel carbonyl
[ORO-3461-8A] 10 p1565 N67-21815
Toxicology of boron hydrides - alterations in tissue amines by toxic decaborane-14 and pentaborane-9 modified by hydrazines and propynylamines
[SAM-TR-66-112] 14 p2461 N67-27017
Toxicology and pathology of repeated doses of monomethylhydrazine in monkeys
[AMRL-TR-66-199] 18 p3213 N67-32461
Toxicological characteristics of hydrazine on on animals
[FTD-HT-66-306] 19 p3375 N67-33290
TRACE CONTAMINANT
Separation and determination of trace metal impurities in rare earth sesquioxides
[IS-T-58] 01 p0032 N67-10612
Microwave spectroscopy used in identification of atmospheric trace contaminants
[NASA-CR-66090] 02 p0259 N67-11723
Trace contaminants isolated during simulated manned spacecraft conditions, and testing of closed ecological system involving 3 men for 30 days 04 p0498 N67-14248
Gamma spectrometric determination of trace contaminant in active matrix 04 p0821 N67-16235
Qualitative analyses, mass spectrometry, metal impurity determination, gas chromatography, and trace element detection studies
[UCID-15014] 07 p1031 N67-17899
Spectrophotometric determination of trace amounts of uranium in high purity plutonium metal after anion exchange separation in hydrochloric acid
[LA-3551] 08 p1239 N67-19061
Analysis of cryogenetically trapped trace contaminants by ionizing gas chromatography
[AD-645714] 11 p1798 N67-22553
Fluorometric determination of uranium traces in aqueous solutions
[AECL-2647] 11 p1812 N67-23004
Analysis of trace contaminants in closed ecological atmosphere systems by gas chromatography and mass spectroscopy
[SAM-TR-66-99] 12 p2032 N67-24469
Identification of contaminants associated with human occupancy of sealed environmental simulator, and evaluation of suitability of helium - oxygen atmosphere 14 p2470 N67-26718
Identification of organic trace contaminant generated by contaminant control system of closed ecological system 14 p2470 N67-26719
Microwave spectrometric gas analyses in determining trace constituents collected from space simulator
[SAM-TR-67-3] 14 p2471 N67-26760
Trace contamination composition within integrated life support system test chamber
[NASA-CR-794] 14 p2474 N67-27971
Analysis of trace contaminants from closed ecological system by gas chromatography, mass spectrometry, and infrared spectrophotometry
[SAM-TR-67-4] 16 p2940 N67-29549
Isotope fuel and catalyst selection for optimum isotope heated catalytic oxidizer system /ICHOS/ for control of trace contaminants
[NASA-CR-66346] 16 p2965 N67-30163
Quantitation of deuterium oxide trace

levels in water using infrared spectrophotometry
[SAM-TR-67-13] 17 p3015 N67-30642
Determination of trace chlorine in fluoroelastomer by combustion in oxygen bomb containing sodium hydroxide solution followed by mercuric nitrate titration
[UCID-15100] 19 p3389 N67-33043
Trace contaminants produced by man in space cabin simulator
[NASA-CR-87451] 19 p3378 N67-33837
Infrared interferometer spectrometer analysis of contaminant gases in enclosed habitable atmospheres
[AMRL-TR-66-236] 23 p3976 N67-36805
TRACE ELEMENT
Oxygen traces in lead determined by water-steam transformation technique
[EUR-3072.I] 02 p0227 N67-11907
Boron traces in uranium monocarbide, sintered aluminum powders, and terphenyls used in Orgel reactors
[EUR-3073.I] 02 p0228 N67-11908
Polish articles on neutron activation analysis, trace elements, reactor technology, and nuclear physics and chemistry
[AEC-TR-4919] 06 p0821 N67-18221
Colorimetric determination of trace chloride ion quantities in reactor water cooling system 06 p0823 N67-18245
Chemistry and analysis of trace metals in sea water
[TID-23295] 07 p1073 N67-17482
Trace elements detected in sporulation of bacteria and germination of bacterial spores
[NASA-CR-81786] 07 p1017 N67-18129
Atomic absorption and emission spectroscopy, and neutron activation for ultratrace chemical analysis of materials for semiconductor
[NASA-CR-82011] 08 p1237 N67-18519
Collection and determination of trace amounts of uranium using cellulose phosphate ion exchange paper
[AECL-2648] 11 p1813 N67-23073
Neutron activation measurements of trace element concentrations in concrete materials for use in NASA Space Propulsion Facility
[NASA-TM-X-1361] 12 p2125 N67-24460
Mass spectrometric determination of rare earth trace elements in aged sediments
[NASA-TM-X-55796] 14 p2528 N67-27577
Effects of organic additives on intensities of metallic element spectral lines
[T67-8-1] 17 p3012 N67-30262
Radioactive tritium isotope used to measure thin oil film in ultrahigh vacuum systems
[SGAE-PH-53/1967] 17 p3109 N67-30693
Radioactive tracer isotope applications in industrial production and processing
[SGAE-IB/IA-15/1967] 17 p3109 N67-30694
Radioactive isotope tracers used to measure bituminous material injected below concrete surface
[SGAE-IB/IA-14/1967] 17 p3110 N67-30914
Photolysis studies utilizing radioactive tracers
[AFOSR-67-1079] 18 p3220 N67-31502
Polarographic method for determining cadmium in cadmium-tin alloys
[EUR-3494.E] 20 p3589 N67-34159
Sensitivity, inter-element interference, and other aspects of atomic fluorescence spectrometry in trace analyses
[AWRE-O-67/66] 20 p3592 N67-34436
Neutron activation analyses of trace elements in petroleum and long-lived nuclides
[SGAE-CH-46/1967] 20 p3598 N67-35244
Preparation, distillation, and paper chromatography studies of labeled phosphorus 32 of high specific activity
[EUR-3455.I] 20 p3599 N67-35361
Labeled technetium 99m human serum albumin for scintillation scanning of lungs
[CNEA-193] 20 p3580 N67-35366
Development and application of krypton-85 as trace element
[NYO-2757-6] 21 p3791 N67-36399
Mass spectrometric methods for trace analysis of insulating solids in powder form
[AFCRL-67-0451] 23 p4000 N67-38009
Spectrographic method for determining trace impurities in sodium chloride
[BARC-284] 23 p4201 N67-38249
TRACER
Tracer studies on nucleic acid and protein synthesis control mechanisms, and relation to radiation damage
[NYO-2643-22] 01 p0016 N67-10052
Radioactive tracer technique for measuring wear life of dry film lubricants as related to coating loss percent
[RIA-66-2446] 01 p0080 N67-11199
Rapid tracer method for determining radiolytic carbon dioxide produced in liquid systems during radiolysis of carbon 14 labelled compounds by gas counting
[AERE-R-5253] 04 p0501 N67-13713
Radioactive tracers used to measure exchange rate of water vapor at snow surface
[AECL-2576] 04 p0582 N67-14034
Application of activable tracers, including bibliography
[EUR-3126.F] 07 p1024 N67-17119
Sedimentation, and bed-material movements in waterway studied by luminescent and radioactive tracers
[EUR-3130.F, VOL. IV] 07 p1068 N67-17921
Tracer method to determine bed material transport in water way
[EUR-3130.F, VOL. I] 07 p1075 N67-18060
Compartmental model, represented as system of linear combination of exponentials with common exponential parameters, for tracer experiments
[NASA-CR-82474] 08 p1301 N67-19038
Tracer gas technique use to measure concentration of gas injected into supersonic air stream
[NASA-TN-D-3800] 11 p1860 N67-23062
Bed material transport study by radioactive tracers, and measurement techniques
[HRB-35216-R-5] 11 p1871 N67-23023
Iodine 129 as geochemical and ecological tracer
[NYO-3624-1] 12 p2040 N67-23730
Laboratory apparatus for studying spray reactions with aid of radioactive tracer
[IA-1078] 12 p2074 N67-23759
Tritium tracer and thermogravimetric analysis used to investigate reactions of zinc-silver and cadmium-silver batteries
[NASA-CR-84215] 13 p2307 N67-25332
Diffusion coefficients in solids obtained by radioactive tracers, and mathematical models for diffusion in grain boundaries 13 p2335 N67-25345
Bibliography on tracer diffusion in metals - self and impurity diffusion in alloys
[ORNL-3795, PT. III] 13 p2336 N67-25436
Tracer studies on reaction kinetics between chlorine dioxide and potassium iodide, and data handling in oxygen 18 tracer research
[ORO-2858-18] 14 p2462 N67-27443
Various tracer and isotope effect studies in organic chemistry
[ORO-2234-4] 14 p2462 N67-27460
Spark current flow velocity measurement in hypersonic tracer stream
[NASA-CR-760] 14 p2445 N67-27573
Radioactive sodium 24 used as tracer to study sugar from beets
[REPT.-759/XXII/J] 14 p2484 N67-27696
Synthesis, dissemination, collection, and analysis of iodine 129 used as atmospheric circulation tracers
[NYO-3301-1] 15 p2702 N67-28205
Airborne instruments for tracer studies in clouds and frequency control of VLF stations
[PB-174051] 16 p2969 N67-28573
Airborne instrument system to disperse, locate, and collect tracer material for application to cloud physics studies 16 p2896 N67-29574
Leakage rate determination by Radflo method using krypton-85 as tracer, and by helium pressurization
[SC-DC-67-1534] 17 p3061 N67-30839
Scintillation counters for measuring gamma radiation of tracers in nuclear reactor shielding studies 17 p3117 N67-31275
Stability tests of colloidal gold-198 tracer used for labelling oil
[SGAE-IB/IA-16/1967] 17 p3074 N67-31295
Differential equation for parent and daughter decay influence on radioactive tracer diffusion profiles
[NASA-TN-D-4099] 18 p3218 N67-32370
Cosmic ray produced radio nuclides as tracers of atmospheric processes
[BNWL-SA-1146] 19 p3484 N67-32967
Statistical tracer theory for analysis of whole system retention data
[ORAU-104] 19 p3376 N67-33394
Radiotracer propellant gauge using krypton 85 for bladder and bladderless expulsion systems
[TID-23666] 19 p3455 N67-33960
Chemical method of astronaut urine volume measurement by tritium tracer dilution system
[NASA-CR-65823] 20 p3777 N67-34813
Methods of labelling sand with radioactive isotopes for studying particle movement in river and sea beds
[PAECL/CHEM/MISCELL-1] 22 p4030 N67-37570
TRACK
SA GROUND TRACK
SA MINITRACK
SA PARTICLE TRACK
SA TEST TRACK
Method for geometric track reconstruction in bubble chambers
[JINR-P10-3023] 12 p2163 N67-23767
Digitized wire spark chambers compared with other track determination track techniques
[BNL-11631] 15 p2757 N67-27913
Solid state nuclear track detectors in reactor physics experiments
[NORA-MEMO-123] 21 p3853 N67-36494
TRACKING
SA COMPENSATORY TRACKING
SA INFRARED TRACKING
SA LUNAR TRACKING
SA MISSILE TRACKING
SA OPTICAL TRACKING
SA PHOTOGRAPHIC TRACKING
SA RADAR TRACKING
SA RADIO TRACKING
SA RANGE AND RANGE RATE TRACKING
SA RAY TRACING
SA SATELLITE TRACKING
SA SPACECRAFT TRACKING
SA SPECTROMETRIC TRACKING
SA STAR TRACKING
SA SUN TRACKER DEVICE
SA VISUAL TRACKING
Manual control systems technology - human performance in tracking data acquisition
[NASA-CR-79286] 01 p0021 N67-10173
Finite-state machine theory application to manual control, and development of models of tracking behavior 01 p0021 N67-10177
Orbital-positioning phases of Syncom II observed by control tracker of telecommunications station
[NASA-TT-F-8522] 01 p0026 N67-10187
Visual observation data on artificial earth satellites during 1962 from U.S.S.R. observatory 08 p0232 N67-11298
Clock-jitter calculation for ranging receiver system - digital communication and tracking 08 p0230 N67-12146
Ariel I satellite - structural design, experimental data, and tracking
[NASA-SP-119] 08 p0073 N67-10514
Laser light applications in communications, searching, tracking, interception, and aviation
[FTD-TT-65-361] 09 p1486 N67-10979
Simulated team feedback effect on performance of good and bad trackers
[AFOSR-66-2541] 10 p1508 N67-21759
Computer programs for reentry tracking of ballistic vehicles, identification on nonlinear dynamic systems, and algorithm for Fourier transform 12 p2068 N67-23582
Tracking and navigation, communications R+D, ground support equipment, and computer programming for deep space network
[NASA-CR-83741] 12 p2057 N67-23681
Pulse coherent transponder for space probe and tracking applications
[AR-2218] 13 p2370 N67-25448
Double Purkinje two dimensional tracking of eye position for optometer design
[NASA-CR-75060] 14 p2530 N67-26530
French space program and plans for balloon sounding, launching, and tracking equipment
[NASA-TT-F-11063] 16 p2965 N67-28622
Navigation systems for manned lunar missions and earth space station rendezvous 17 p3101 N67-30897
Advanced range and orbit determination system for radio navigation and tracking 17 p3101 N67-30898
Tracking, communications, and orbit determination for lunar space vehicles 17 p3095 N67-30899
Calculations and experimental data on relativistic bubble density rise along tracks

of charged particles in propane bubble chamber 17 p2966 N67-30960
Monopulse tracking scheme for phased array antenna
[NASA-CR-85859] 17 p3028 N67-31239
Possibility of tracking cloudiness of night sky from meteorological satellites 18 p2383 N67-31912
Shaping behavior of human trackers through use of visually displayed signal
[BBN-1456] 18 p2216 N67-31916
Least squares method and Euclidean spatial geometry for estimating position of space objects, based on angular error measurements
[RE-S-66-3] 18 p2306 N67-32507
Effects of primary task performance on response time to toggle switches in workspace configuration
[AMRL-TR-66-190] 22 p3975 N67-36688
Deep Space Network research on tracking and navigation accuracy, communications, facility engineering and equipment, and multiple mission telemetry system
[NASA-CR-88553] 22 p3996 N67-36945
Differential equations for analyzing minimax of time-to-encounter of tracking and tracked control movements
[JPRS-43440] 23 p4015 N67-37119

TRACKING ANTENNA
Operations, characteristics, and performance of Telstar satellite tracking facilities in Italy, France, and England
[NASA-SP-32, VOL. 4] 03 p0963 N67-12301
Circularly polarized diplexer for communications satellite ground station antenna 03 p0964 N67-12310
Telemetry, command and beacon antennas for rockets, probes, and satellites
[PT-66-90] 14 p2488 N67-26753
Design and test of antenna for Niro rocket
[AFCRL-67-0063] 14 p2488 N67-26908
Error detection code for deep space network, multi-mission telemetry demodulator, traveling wave maser, and advanced antenna system 17 p3022 N67-30373
Turnstile conical scan feed to improve tracking antenna performance on Apollo-instrumented ships
[NASA-TM-X-55809] 21 p3796 N67-35779
Scale model tests of parabolic circularly polarized monopulse tracking antenna with dual frequency operation
[WRE-TN-PAD-107] 21 p3801 N67-36151
Integrated NASA tracking antenna network for Apollo missions using spacecraft transponder.
[NASA-TM-X-55937] 24 p4468 N67-40079
Pointing error measurements for antenna automatic steering system at Scandinavian satellite tracking station 24 p4410 N67-40476

TRACKING FILTER
Limit cycles in passive filter phase locked loops of digital communication and tracking systems 06 p0834 N67-15760
Voltage controlled oscillator noise measurement and optimum tracking filters 06 p0839 N67-15919
Simplified phase lock tracking filter for ground testing of satellite systems
[TG-529] 09 p1415 N67-19740
Tracking filter system for Saturn V-501 launch vehicle, and evaluation of fixed and tracking filters for bending mode stabilization applications
[NASA-CR-87486] 20 p3733 N67-34694
Decoupled shifting memory filter method for radio tracking of boosted and ballistic phases of space vehicle flight
[ELDO-TM-F-35] 23 p4217 N67-39237

TRACKING RADAR
SA SEARCH RADAR
Comparison of FPS-16 and GMD-1 radar tracking and radiosonde measurements and methods for processing wind data - time variability of atmospheric parameters
[NASA-CR-61156] 02 p0254 N67-11984
Doppler system for measuring flight performance of small rockets and light ammunition 04 p0513 N67-12937
Real time system to evaluate surveillance radar signals for automatic tracking of air targets 04 p0514 N67-12949
Radar tracking in Air Traffic Control /ATC/ environment 04 p0515 N67-13051
Turbulence climatology - aircraft measurements of jet stream and atmospheric winds, correlation between turbulence, wind, and temperature patterns, and balloon path tracking by radar
[AFCRL-66-256] 06 p1303 N67-12235
Tracking radar for balloon path observations and atmospheric turbulence measurements 06 p1304 N67-12238
Statistical radar theory - tracking, synthesis, discrimination, smoothing, processing, speed, direction finding, scanning, detection, and resolution
[FTD-MT-65-47] 11 p1820 N67-22636
Orbital tracking program for analysis of data from C-band and S-band radar
[NASA-TM-X-55926] 22 p4000 N67-37574

TRACKING STATION
SA GROUND STATION
SA MINITRACK
Certain satellites observed from satellite station Stade - West Germany
[NASA-TT-F-9230] 01 p0151 N67-10193
Visual satellite observations and tracking data - West Germany
[NASA-TT-F-9408] 01 p0151 N67-10194
Visual satellite observations from satellite station Stade - West Germany
[NASA-TT-F-9416] 01 p0151 N67-10195
Satellite observations by U.S. and foreign stations during 1960 as part of NASA program
[NASA-CR-79505] 02 p0233 N67-11731
Cinetheodolite observations received by Malta tracking station for U.S. and Russian satellites in orbit during June 1966 - tables 02 p0235 N67-11914
Cinetheodolite observations received by Malta tracking station for U.S. and Russian satellites in orbit during June and July 1966 - tables 02 p0235 N67-11915
Elementary theory on radio guidance and tracking stations
[ELDO-TM-F-17] 02 p0235 N67-11971
Logic design for digital control positioning of steerable antenna for satellite ground tracking station 03 p0964 N67-12308
Aspects of hyperbolic space localization system
[ELDO-TM-F-34] 04 p0516 N67-14264
Selection of high accuracy radio guidance and tracking systems among interferometer, range and range rate and multichannel transponder systems
[ELDO-TM-F-36] 04 p0516 N67-14291
Venus station transmitting and receiving systems during Mariner IV tracking 05 p0689 N67-14457
Theoretical basis for double precision orbit determination program - formulation for computing two-way Doppler and round-trip range 06 p0837 N67-15906
Time synchronization experiments with Deep Space Network Stations 06 p0839 N67-15918
Deep Space Stations flight support operations for Surveyor II, Lunar Orbiter I, Pioneer VI and VII, Mariner IV, and Atlas Centaur 06 p0839 N67-15923
Deep Space Stations construction and equipment installation 06 p0861 N67-15924
Ground facility instrumentation for Mariner Venus project occultation measurements 06 p0840 N67-15925
Venus Deep Space Station experimental activities and equipment performance and improvements 06 p0840 N67-15926
Evolution of Satellite Tracking and Data Acquisition Network /STADAN/ from pre-IGY and Minitrack facilities
[NASA-TM-X-55658] 07 p1038 N67-17637
Coordinates for instruments at Earlyburn optical tracking station
[REPT.-59] 08 p1386 N67-18370
Airborne Range and Orbit Determination tracking stations potential locations evaluation and accuracy during early minutes of flight
[NASA-CR-83051] 10 p1596 N67-20407
Evaluation of potential locations for Airborne Range and Orbit Determination ground stations 10 p1596 N67-20408
Accuracy of Airborne Range and Orbit Determination tracking system in early minutes of flight 10 p1596 N67-20409
Data from earth satellite tracking station
[FTD-HT-66-321] 10 p1599 N67-20682
Criteria for selecting radioactive isotopes for space propulsion systems and auxiliary power generation and synthesis of radio guidance and tracking stations 12 p2299 N67-23911
Synthesis of radio guidance and tracking stations 12 p2301 N67-23913
Very low frequency tracking stations for radio astronomy, and initial signal analyses 12 p2377 N67-25143
Satellite communication and tracking station network for data acquisition and transmission
[ESRO-TM-44] 13 p2279 N67-25697
Formula derivation for optimum satellite station configurations for simultaneous direction observations to satellites
[NASA-CR-84077] 13 p2383 N67-26368
Coverage by network of telemetry and tracking stations of satellites on near-earth orbits
[ESRO-TM-9] 15 p2665 N67-27929
Tracking station location uncertainties studied for effect on root-mean-square errors in spacecraft position and velocity
[NASA-TM-X-55804] 15 p2670 N67-28747
Influence on trajectory determination of error in tracking station location and station time and frequency synchronization
[NASA-TM-X-55798] 15 p2792 N67-28797
Tracking requirements for a twenty-four hour satellite station keeping control system
[ELDO-TM-F-38] 20 p3604 N67-34879
Geodetic parameters, astrophysical observations, and satellite orbit positioning
[SAO SPECIAL REPT.-200, VOL. 1] 21 p3839 N67-35962
Station coordinates and tesseral harmonic coefficients determination 21 p3800 N67-35969
Geodetic control points connected to Baker Nunn camera stations 21 p3844 N67-36484
Telemetry equipment of satellite laser tracking stations and geodesic applications
[NASA-TT-F-11192] 22 p3904 N67-36698
Construction and operation of indicators used for scanning radar stations
[FTD-MT-65-254] 22 p3998 N67-37230
Time code generation and distribution techniques used in tracking stations and missile test ranges
[NASA-CR-89261] 23 p4215 N67-38859
Graphs of station contact times for Apollo parking orbits with variable launch azimuths
[NASA-TM-X-55965] 24 p4530 N67-40168
Entry acquisition and radio visibility computer program for optimization of tracking station locations - blackout prediction
[NASA-TM-X-55986] 24 p4499 N67-40185

TRACKING STUDY
Operator performance in tracking study 02 p0221 N67-11664
Influence of secondary task interference in tracking
[NASA-CR-79632] 02 p0221 N67-11695
Pilot tracking performance in human engineering study
[AM-66-19] 02 p0222 N67-11825
Sine-wave tracking studies indicate predictability of input and control device dynamics in manual control by human operator 06 p0808 N67-15882
Usefulness of transinformation as measure of human tracking performance 06 p0810 N67-15880
Effects of motion cues on manual tracking ability of pilots 06 p0811 N67-15867
Effect of minor stress imposed by moderate alcohol dosage on tracking skills of 20 men 06 p0811 N67-15869
Physical and psychophysiological effects of spaceflight on pilot tracking performance under simulated Voskhod II conditions 10 p1566 N67-20288
Physiological factors affecting operator performance of tracking tasks, and mathematical representations of operator
[RAE-TN-WE-38] 11 p1799 N67-22718
Tracking and navigational accuracy analysis for deep space network 13 p2057 N67-25061
Preparations, field operations, and instrumentation for suntracker balloon flights
[NASA-CR-83966] 13 p2347 N67-26049
Tracking and navigation analysis, communications development, and facility engineering and operations for deep space network
[NASA-CR-85298] 17 p3043 N67-30371
Establishment of stable time and frequency standards based on communication and tracking system characteristics
[NASA-CR-89900] 23 p4213 N67-38529

TRACKING SYSTEM
SA POLYSTATION DOPPLER /POLYDOP/ TRACKING SYSTEM
SA SATELLITE TRACKING AND DATA ACQUISITION NETWORK
Mathematical models for effect of tracking

systems on RMS errors in spacecraft position and velocity - least squares method [NASA-TN-D-3776] 03 p0369 N67-13175
Effects on communications and tracking systems of electromagnetic wave interactions with ionized rocket exhausts 04 p0595 N67-13688
Automatic surveillance radar system to detect and track targets at low and high elevation angles 04 p0572 N67-13956
Integrated trajectory multiple target tracking system employing continuous wave phase comparison and continuous wave Doppler measurements 04 p0513 N67-13938
Track-while-scan computer logics adopted by SHAPE for air traffic management 04 p0514 N67-13950
Deep Space Network - tracking and navigational accuracy analysis, communications research, development, and engineering, and Deep Space Station engineering and operations [NASA-CR-66654] 05 p0670 N67-14421
Influence of Doppler tracking system oscillator instability on orbit accuracy 05 p0671 N67-14429
Pioneer VII trajectory dispersions and Deep Space Network initial acquisition 05 p0672 N67-14434
Mean square approximation to optimum cross correlation function for tracking device 06 p0834 N67-15761
Pilot responses in multiloop control tracking system with and without side tasks 06 p0810 N67-15865
On-board tracking system of two-way coherent Doppler between entry capsule and orbiting bus for determining orbit of entry capsule and estimating atmospheric parameters 06 p0944 N67-15904
Fortran IV matrix and vector operations programming system 06 p0848 N67-15905
Ranging measurements and equipment for Mariner Venus space probe 06 p0838 N67-15915
Design and development of charging system, solar array simulator, tracking system, and satellite power systems [NASA-CR-81367] 06 p0796 N67-16638
Hydrogen maser potential as stable frequency reference for precision tracking systems 07 p1095 N67-16725
Radar signature analysis of extended targets [RM-5134-PR] 07 p1036 N67-17252
Operations, facilities, management, and history of European Space Research Organisation 08 p1386 N67-18304
Range accuracy of Goddard Range and Range Rate system /GRARR/ evaluated and compared to Sequential Collation of Range systems /SECOR/ [NASA-TM-X-55687] 08 p1247 N67-18740
Airborne laser beam profile monitor design [BRL-TN-1835] 09 p1456 N67-19709
Optical equipment and 90-GHz millimeter wave components for space communications and tracking 12 p2650 N67-23663
Application of ultrastable oscillators to one-way ranging systems - Measurement technique for determining phase fluctuation spectrum of highly stable oscillators [NASA-CR-84444] 14 p2494 N67-27427
Angular positions, velocities, accelerations, and torques required by two-axis gimbal system with tracking device that swivels universally [AD-634680] 15 p2685 N67-27959
Observation equations for satellite tracking systems using geometric data from geodetic satellites [RN-23] 15 p2705 N67-28623
Launching facility, tracking network, and technology studies in French space program [NASA-TT-F-11068] 16 p2965 N67-29021
Jet aircraft detection, range estimation, and auditory tracking tests in desert environment [TR-67-3] 16 p2941 N67-29430
Laser research for communication system, guidance, and tracking applications 17 p3075 N67-30561
Hydrogen maser for precision tracking system in application to spacecraft trajectories 17 p3076 N67-30600
Ability of position azimuth range spectrum analyzer modified by addition of image storage tube electro-optical triangulation computer to detect and track thunderstorms [AFCRL-67-0185] 17 p3060 N67-30613
Methodology and heat radiators in microwave and laser systems for communication and tracking [NASA-CR-85073] 17 p3028 N67-31385
Probability of target lock-on by tracking system using automatic rangefinder during automatic search [JPRS-41344] 17 p3028 N67-31432
Parametric analysis of microwave and laser for communications and tracking systems [NASA-CR-74969] 18 p3239 N67-32164
Parametric analysis of microwave and laser systems for communication and tracking - updated reference data for advanced space communication and tracking systems [NASA-CR-77943] 18 p3230 N67-32165
Parametric analysis methodology for determining optimum deep space communication and tracking systems, and reference data on mission analysis, optics, prime power, and ground receiver sites [NASA-CR-87963] 18 p3230 N67-32167
Systems studies to optimize missions using laser/optical, microwave, or combination of microwave and laser/optical communication and tracking systems [NASA-CR-86910] 18 p3233 N67-32223
Geodetic satellite-A experiment designs on data acquisition, processing, and analysis, and accuracy evaluations of tracking systems [NASA-CR-86577] 18 p3233 N67-32403
Mathematical method for determining signal levels as function of time for communicating or tracking equipment before mission [NASA-TM-X-55861] 19 p3404 N67-33354
Automatic track following system for processing bubble chamber pictures [NYO-2171-222] 19 p3412 N67-33847
Optical design of multi-spectral tracking telescope for Apollo applications program [NASA-CR-87313] 19 p3461 N67-33989
Scientific instruments for data reduction of field observations used in weather prediction 21 p3799 N67-35964
Soviet open literature survey on tracking of missiles and space vehicles [ATD-67-45] 21 p3901 N67-36435
Optical beam deflectors with piezoelectrically driven mirrors for use in optical acquisition and tracking systems [NASA-CR-88115] 21 p3947 N67-36558
Technical systems design, tracking stations engineering and operations, and communications engineering for Deep Space Network /DSN/ [NASA-CR-86790] 22 p3995 N67-36749
Equations for interrelating position data of different coordinate systems used in manned space flight network tracking equipment [NASA-TM-X-55956] 23 p4217 N67-39234
Noise characteristics of unified S-band tracking system high speed range rate and X-Y angular data obtained during aircraft flyby tests [NASA-TM-X-55967] 24 p4485 N67-39651
Radiometric boresighting using sequential lobing [NASA-TR-R-272] 24 p4406 N67-39791
Continuous parameter tracking system for measuring human performance in compensatory control system [NASA-CR-910] 24 p4390 N67-40096
TRADESCANTIA
Spherical chromosomal fragments determined in exposure of Tradescantia microspores to periodic vibrations [NASA-CR-79510] 02 p0210 N67-11740
Causes of radiosensitivity changes in embryonic tissues studied in barley and Tradescantia [COO-1490-10] 02 p0249 N67-13225
Sensitivity of developmental phases of Tradescantia paludosa microspores to Vostkhod spaceflight conditions 10 p1589 N67-26298
TRADEX RADAR SYSTEM
Satellite trajectory data from TRADEX radar system [ESD-TR-66-554] 05 p0676 N67-15114
TRAFFIC CONTROL
SA AIR TRAFFIC CONTROL
Automatic data processing techniques and equipment applied to railroad traffic control and planning [JPRS-39494] 01 p0037 N67-10690
Optimal control of high speed ground transport system for continuous city traffic [ESL-P-251] 01 p0114 N67-10440
Allocations of servicing periods to minimize average delay for N time-shared traffic streams [ORC-66-38] 03 p0417 N67-12951
Space laws and international cooperation to regulate traffic, allocate radio frequencies, and establish legal liability 13 p2455 N67-25278
TRAIL
SA METEOR TRAIL
SA SMOKE TRAIL
Photographic measurements on trail density variations of moving stars 06 p0881 N67-15464
Sodium vapor trail experiments, and wind measurements by photographic method [NASA-CR-66822] 22 p0943 N67-36021
TRAILBLAZER I REENTRY VEHICLE
Light intensity data of Trailblazer I reentry bodies [NASA-TN-D-3697] 01 p0166 N67-10789
TRAILING EDGE
SA TRAILING-EDGE FLAP
Laminar incompressible leading and trailing edge flows and near wake rear stagnation point [AGARD-526] 04 p0532 N67-14109
Laminar incompressible leading and trailing edge flows and near wake rear stagnation point [R66SD25] 05 p0695 N67-14702
Flow in wake of two-dimensional blunt trailing edge model investigated and effects of splitter plates and base bleed on vortex street studied [NPL-AERO-1199] 07 p1064 N67-17234
Analysis of subsonic flow past symmetrical blunt trailing edge airfoil sections at zero incidence in absence of vortex street [ARC-R+M-3426] 07 p0988 N67-17347
Base bleed effect on flow behind two-dimensional model with blunt trailing edge 08 p1273 N67-18296
Hinge moment data analysis for rectangular and near rectangular trailing edge controls at supersonic and transonic speeds [ARC-CP-974] 19 p1550 N67-21181
Fortran program for numerical analysis of blunt trailing edge supersonic compressor [ARL-66-0189] 12 p2910 N67-24366
Theoretical analysis of blunt trailing edge supersonic compressor and comparison with experimental results [ARL-66-0236] 15 p2706 N67-28980
Stagnation line between leading and trailing edges on outer surface of shroud of shrouded propeller in static condition in rearward and in forward motions [RR-65] 16 p2811 N67-28982
Cascade data for high camber blunt trailing edge blades in transonic flow [ARL-67-0064] 16 p2811 N67-29112
Blunt trailing edge blading for use in supersonic axial compressors [ER-2] 16 p2812 N67-28234
Constant chord, trailing edge, control deflection effects on aerodynamic loading characteristics of 60 degree delta wing-body combination at transonic speeds [NASA-TM-X-122] 18 p3198 N67-31729
Base pressure near trailing edge of axisymmetric bodies in supersonic flow 18 p3198 N67-31807
Span loading and aerodynamic characteristics for tip and trailing edge controls on 60 deg delta wing at Mach numbers 1.61 and 2.01 [NASA-TM-X-51] 18 p3197 N67-31808
Spanwise loadings and aerodynamic characteristics for trailing-edge controls on 40 deg sweptback wing at Mach numbers 1.61 and 2.01 [NASA-TM-X-752] 18 p3198 N67-32002
Blunt trailing edge blading applications to supersonic compressor stages [ARL-67-0120] 20 p3589 N67-34249
Turbine blade trailing edge thickness effect on blade loss coefficient and turbine stage efficiency [ARC-R+M-3458] 20 p3602 N67-34769
Hypersonic characteristics of flat plate wing with semicylindrical leading edge equipped with leading edge and trailing edge control surfaces [ARL-67-0060] 22 p4174 N67-36581
TRAILING-EDGE FLAP
Low speed wind tunnel stability tests on delta wing aircraft model with blowing over trailing edge flaps and ailerons [ARC-CP-719] 09 p1394 N67-19422

Low speed effects of leading edge and trailing edge flaps on longitudinal stability and trim characteristics of outboard-tail supersonic transport configuration
[NASA-TM-X-895] 18 p3194 N67-32142

TRAINER
Effectiveness of ground trainers in private pilot flight training
[FAA-ADS-67-5] 20 p3582 N67-34237

TRAINING
SA ASTRONAUT TRAINING
SA BEHAVIOR
SA FLIGHT SIMULATION
SA FLIGHT TRAINING
SA INSTRUCTION
SA LEARNING
SA MEMORY
SA PILOT TRAINING
SA SIMULATOR TRAINING
SA TRANSFER OF TRAINING
Electronics technician training
[STB-67-1] 01 p0022 N67-10321
Increasing resistance of vestibular apparatus and human tolerance to extreme conditions by physical training program 02 p0218 N67-11489
Comparision of prompting and feedback training procedures in teaching auditory perception
[STB-67-5] 02 p0223 N67-12185
Principles, techniques, and approach used in conducting training program in space system engineering
[NASA-CR-79753] 02 p0339 N67-12221
Extent of generalization of classical conditioning under identical training schedules
[TR-16] 09 p1484 N67-19701
Future manpower and training needs in commercial aviation industry 11 p2004 N67-22278
Algorithm for training a linear perceptron 11 p1843 N67-22414
Pattern recognition in self-training mode 11 p1843 N67-22415
Military interpersonal relations and performance of trainees
[REPT.-3] 11 p1797 N67-22543
Training objectives for corrective maintenance of AN-URC-32 transceiver based on task analysis by psychologists and electronics technicians
[TR-48] 11 p1798 N67-22585
Flight simulator and techniques for training pilots to control compensatory task
[UTIAS-TN-106] 12 p2023 N67-24597
Performance oriented electronics technician training program - fleet performance evaluation of graduates
[STB-67-15] 13 p2361 N67-25120
Optimal training algorithms for man-machine systems with nonideal teacher
[JPRS-40659] 14 p2473 N67-27360
Activity of International Centre for Theoretical Physics 15 p2757 N67-27922
United States Navy research and training programs to offer protection against flash blindness 16 p2838 N67-29250
Prediction methods for estimating success or failure during training in naval flight officer program
[NAMI-996] 16 p2839 N67-25420
Job complexity relationship with electronic maintenance training variables
[AD-652391] 18 p3219 N67-32652
Brief survey of Soviet computer technology, including applications, training program, and systems descriptions
[NASA-TT-F-10606] 21 p3805 N67-36083
Training research using man-computer interactions
[AD-654619] 21 p3773 N67-36417
Flying personnel morale as function of training stage and self-definition
[NAMI-1007] 22 p3977 N67-36895
Convergence proofs for Gluckesman training system for linear machines which seek separating hyperplanes that are some minimum distance from all training patterns
[AD-657171] 23 p4230 N67-38404
Basic airborne electronics training - effect of reduction in previous training upon ability to learn operational procedures
[STB-67-19] 23 p4197 N67-38924

TRAINING AIRCRAFT
SA T-34 AIRCRAFT
Flight tests on trainer aircraft to determine life expectations and fatigue on fin, tail plane, and rear fuselage during various maneuvers
[ARL/SM-296] 03 p0234 N67-13145
Criteria and methods for evaluating trainer aircraft effectiveness during training of pilots for fleet fighter and attack type aircraft
[REPT.-2-55109/7R-56392] 17 p2993 N67-30347

TRAINING EQUIPMENT
SA FLIGHT SIMULATOR
Use of perspective geometry training for target area location
[OR-6528] 09 p1404 N67-19559
Color closed circuit television camera system for signal source of display system for simulation training
[REPT.-827] 11 p1819 N67-22520
Effects of varying amount of interpolated learning on facilitation and interference in human performance on modified Mashburn apparatus
[SDC-938-1-3] 11 p1797 N67-22522
Effects of varying amount of interpolated learning on facilitation and interference in human performance on modified Mashburn apparatus
[SDC-938-1-1] 11 p1797 N67-22523
Importance of training requirements data in design and use of aviation training devices
[AD-645961] 11 p1797 N67-22544
Description and summary of computer augmented learning devices and systems
[REPT.-66TMP-55] 11 p1798 N67-22575
Personnel training in sound reverberation patterns to determine effects on Doppler discrimination
[STB-67-13] 13 p2280 N67-25974
Suitability evaluation of part of general vehicular research trainer as test for predicting success in naval aviation training
[AD-651809] 17 p3009 N67-30169
Methods and sensor equipment for analyzing motion and improving performance in Soviet sports 19 p3381 N67-33156
Human factors in aerial reconnaissance and surveillance, helicopter training devices, and pilot performance under stress
[AD-655126] 21 p3772 N67-35742
Temporal and luminance calibration of flash blindness training device
[NADC-MR-6706] 22 p3976 N67-36806

TRAJECTORY
SA ABORT TRAJECTORY
SA ASCENT TRAJECTORY
SA BALLISTIC TRAJECTORY
SA CIRCUMLUNAR TRAJECTORY
SA DESCENT TRAJECTORY
SA EARTH-MOON TRAJECTORY
SA ELECTRON TRAJECTORY
SA FLIGHT PATH
SA INTERPLANETARY TRAJECTORY
SA LUNAR TRAJECTORY
SA MISSILE TRAJECTORY
SA MOON-EARTH TRAJECTORY
SA PARTICLE TRAJECTORY
SA REENTRY TRAJECTORY
SA RENDEZVOUS TRAJECTORY
SA ROUND-TRIP TRAJECTORY
SA SPACECRAFT TRAJECTORY
Rigid-body performance examined by six degree-of-freedom trajectory simulation program
[WRE-HSA-118] 02 p0172 N67-11974
Generalized multistep methods of constructing stable difference equations, and applications to satellite orbit trajectory computation
[SP-3031] 05 p0764 N67-15091
Trajectory, orbit, and inclination of Tunguak meteorite 06 p0961 N67-15453
Generalized rigid body trajectory program for digital computer
[SC-DR-65-511] 07 p1046 N67-17473
Payload and trajectory data for Nike Apache firings tracked by radar - January-June 1965
[NASA-TM-X-55723] 10 p1762 N67-21296
Payload and trajectory data for Nike Apache firings tracked by radar - July-December 1965
[NASA-TM-X-55726] 10 p1763 N67-21299
Computer program for constructing isentropic trajectories based on manual techniques 12 p2133 N67-23483
Digital control bevatron injector inflection trajectory 12 p2061 N67-24134
Translunar trajectory and lighting ring problems associated with design of lunar photography survey mission 13 p2210 N67-24289
Instrument for photographically recording gyroscopic pendulum motion trajectory 15 p2708 N67-27645
Six-degree-of-freedom trajectory program for flight of rigid vehicle powered by solid propellant rocket
[NOLTR-66-199] 19 p3531 N67-32798
Computed trajectories of superpressure balloons at 50-millibar altitude 23 p4180 N67-39250
Fortran IV program for calculating orbital heating rates to various-shaped satellites in general trajectory
[NASA-CR-89005] 24 p4552 N67-40510

TRAJECTORY ANALYSIS
Orbital parameters and methods of using orbital information bulletins
[NASA-TT-F-10468] 02 p0303 N67-11389
Low-thrust trajectory requirements for solar system exploration using nuclear electric propulsion
[NASA-CR-79297] 02 p0366 N67-12234
Trojan orbit computations of nonperiodic trajectories 04 p0613 N67-13866
Optimum propellant mass for second stage of ELDO B 1 launch vehicle and trajectory calculations for four orbital altitudes
[BOLKOW-RF-34] 04 p0616 N67-14232
Aerodynamic and flight characteristics and trajectory analysis of NIRO sounding rocket - graphs
[SGC-916FR-1, APPEND. A] 05 p0767 N67-14992
Satellite trajectory data from TRADEX radar system
[ESD-TR-66-554] 05 p0676 N67-15114
Determination of periodic cislunar trajectories in four-body problem
[GGC/EE/66-9] 05 p0764 N67-15266
Inclination angle and right ascension of nodal crossing of near earth satellite orbital plane from radar observation data
[RISO-1-66] 06 p0942 N67-16208
Effects of geodetic measurement errors on trajectory data
[RE-5-66-1] 06 p0843 N67-16418
MIDAS computer program to calculate stream functions needed for long range trajectory construction on constant entropy surface 07 p1071 N67-17315
Trajectory and guidance analyses of Earth-Venus-Mercury mission in 1973
[NASA-CR-81636] 07 p1193 N67-17827
Trajectory parameter determination in relation to various AROD airborne range and orbital determination ground stations
[NASA-CR-82600] 08 p1369 N67-19254
Two-variable asymptotic solution for three-dimensional solar powered low thrust trajectories in vicinity of ecliptic plane
[NASA-CR-82913] 09 p1512 N67-19916
Trajectory approximation by two-body problem analyses for space vehicle in earth-moon system
[ESRO-TM-26] 09 p1513 N67-20083
Mathematical prediction of flight trajectories for various types of aircraft
[FTD-HT-66-343] 10 p1554 N67-20706
Trajectory formulas for missiles in hyperbolic orbits applied to Lunik I lunar probe
[RAE-TN-SPACE-40] 11 p1977 N67-22715
General solutions to trajectory and orbit equations
[NASA-CR-750] 11 p1908 N67-22778
Meteorological aspects of constant level balloon operations in southwestern United States
[AFCRL-66-706] 11 p1916 N67-23146
Launch window, trajectory shaping, and lunar orbit mission analyses for improved Delta launch vehicle and advanced IMP-D spacecraft
[NASA-TN-D-3911] 12 p2206 N67-23797
Mesons as Regge dipole 12 p2168 N67-24300
Matched asymptotic expansion method applied to ordinary and optimal trajectory problems in hypervelocity flight dynamics
[NASA-CR-84165] 13 p2404 N67-26491
Periodic and almost periodic trajectories in cislunar space - techniques for determining behavior of dynamical systems of known periodic solutions, and space flight safety concept
[NASA-CR-83963] 14 p2612 N67-27178
Set of uniform variational orbit parameters for space trajectory analysis
[NASA-CR-84484] 14 p2816 N67-27643
Influence on trajectory determination of error in tracking station location and station time and frequency synchronization
[NASA-TM-X-55798] 15 p2792 N67-29797
Mathematical models to approximate functions, bounds and power series for

three-body problems, satellite orbit theories, and other aspects of trajectory analysis and guidance theory
[NASA-SP-141] 16 p2967 N67-29370
Trajectory and navigation accuracy studies related to deep space network 17 p3100 N67-30272
Marshall Space Flight Center research project, and technological developments on manned space flight, trajectory analysis, structural designs, and related topics
[NASA-TM-X-53630] 17 p3181 N67-30554
Electric propulsion applied to lunar surface and Mars missions 17 p3152 N67-30609
Numerical calculation of three-dimensional trajectories using balanced horizontal and vertical motions 17 p3096 N67-30787
Analytical methods for determination of trajectories, loads, and heating experienced by spacecraft passing through rocket exhaust field
[NASA-CR-84855] 17 p3179 N67-31353
Atmospheric trajectory analysis of super-Schmidt photographic meteors, and physical properties of meteors 18 p3329 N67-33039
Computer program and trajectory analysis for solar electric space mission study
[NASA-CR-86917] 18 p3336 N67-33276
Equations of motion of body under influence of earth gravity and atmospheric drag using radar polar coordinates
[ESD-TR-67-276] 19 p3396 N67-33753
Elementary derivation of principal effects of earth oblateness on satellite orbits
[TR/RP-76] 19 p3532 N67-33790
Sounding rocket free fall trajectory estimation from single station range measurements
[REPT.-67-19] 19 p3537 N67-33642
Numerical method for rocket trajectory determination from multistation Doppler tracking data
[REPT.-67-K3] 20 p3600 N67-34215
Conference on orbit and trajectory estimation
[NASA-TM-X-60236] 20 p3726 N67-34627
Mission, trajectory, and vehicle analyses of manned Mars stopover missions - advanced nuclear system parameters
[NASA-CR-87488] 20 p3733 N67-34792
Expressions derived for earth satellite ground track for general elliptical, circular, and circular synchronous orbits
[ESD-TR-67-351] 21 p3890 N67-35847
Mission analysis procedure for determining approximate lunar areas of accessibility for mission planning
[NASA-CR-85738] 23 p4141 N67-37328
Performance analysis of two-burn guidance equations for injecting Atlas/Centaur vehicle into lunar trajectory
[NASA-CR-72311] 22 p4144 N67-37805
Error analysis in clock trajectography
[ONERA-TN-111/1967/] 23 p4294 N67-38452
Saturn IB launch vehicle AS-206 operational trajectory range safety analysis
[NASA-CR-89296] 23 p4345 N67-38931
Launch vehicle trajectory data for Saturn AS-205/206 rendesvous mission
[NASA-CR-89333] 23 p4347 N67-39061
Saturn IB launch vehicle AS-206A operational flight trajectory dispersion analysis
[NASA-CR-89294] 23 p4347 N67-39005
Trajectory and range calculations for fanned and paired plane jets in restricted cross flow 23 p4259 N67-39183
Aerodynamic damping coefficient from wind tunnel free flight trajectories of nonaxisymmetrical bodies
[NASA-CR-89566] 24 p4371 N67-39673
Earth-Venus trajectories analysis for launches scheduled in 1973
[NASA-CR-89539] 24 p4538 N67-39729
Voyager mission study considerations including launch opportunities, trajectory design, performance capability of Saturn V launch vehicle, and vehicle load relief control
[NASA-TM-X-53654] 24 p4532 N67-40336

TRAJECTORY CONTROL
SA DRIFT
SA OPTIMAL CONTROL
SA OPTIMIZATION
Use of Jupiter gravity turns for tailoring trajectories to Saturn with consideration of launch opportunities
[NASA-TN-D-3699] 02 p0303 N67-11388
Optimum distribution of trajectory correcting impulses in single parameter correction during spacecraft planetary approach 10 p1756 N67-30262
Orbit trim propulsion requirements for sun synchronous satellites
[NASA-TM-X-53825] 16 p2905 N67-30148
Introduction to problem of low thrust orbital transfer
[ELDO-TM-101] 23 p4243 N67-38436
Hybrid computer program for real time trajectory determination of human controlled space vehicle booster
[NASA-CR-89642] 24 p4415 N67-40127

TRAJECTORY MEASURING SYSTEM
Integrated trajectory multiple target tracking system employing continuous wave phase comparison and continuous wave Doppler measurements 04 p0612 N67-13928
Cosmos 97 satellite feasibility tests of ammonia gas laser frequency generator for determining satellite trajectory
[FTD-HT-66-725] 13 p2333 N67-25449
Geometric simultaneous multistation least squares solution for determining all points along trajectory and three-dimensional coordinates of ground station using geodetic satellite data
[AD-634679] 15 p2697 N67-27908

TRAJECTORY OPTIMIZATION
Failure analysis of adjoint systems method for determining optimal trajectories
[NASA-CR-79509] 02 p0304 N67-11739
Midcourse guidance analysis and optimization with discrete measurements for mission logic development
[NASA-CR-65557] 03 p0896 N67-13092
Solutions for optimal control problems by variation method in space of states 03 p0976 N67-12506
Trajectory optimization for variable mass system
[ATD-66-91] 04 p0611 N67-13812
Documentation for addition to digital computer program for rapid earth-to-space trajectory optimization of orbital rendesvous option
[NASA-CR-685] 06 p0962 N67-15467
Dynamic programming derivation for Hamilton-Jacobi method of classical mechanics in solving optimization problems
[RM-5116-PR] 06 p0918 N67-16460
Modifications to PRESTO computer program for rapid earth-to-space trajectory optimization
[NASA-CR-684] 06 p0969 N67-16804
Supersonic transport trajectory optimization example solutions
[NASA-CR-86347] 07 p0992 N67-16774
High speed digital computer program written in Fortran IV for trajectory optimization
[NASA-CR-686] 07 p1189 N67-17177
Computer program using numerical methods that calculates minimum time for space vehicle to meet its mission with optimum trajectory, and can maximize option if burning time is fixed
[NASA-TM-X-53552] 07 p1193 N67-17633
Space glider trajectory optimization methods 09 p1863 N67-19684
Predicted orbital path display as aid to human operator performing orbital rendezvous
[AMRL-TR-67-7] 11 p1977 N67-22109
New method for treating optimal trajectories
[NASA-CR-744] 11 p1909 N67-22306
Necessary conditions for optimal lunar trajectories with discontinuous state variables and intermediate point constraints
[NASA-TM-X-1353] 11 p1979 N67-22335
Trajectory optimization for Apollo-type vehicle under entry conditions during lunar return
[NASA-TR-R-258] 13 p2313 N67-25043
Optimal coplanar orbit transfer in Newtonian gravitational field minimizing characteristic velocity of maneuver
[NASA-CR-83239] 13 p2401 N67-25741
Game theory for optimal parameter control of payload delivery by limited thrust engine space flight
[NASA-TT-F-10739] 14 p2665 N67-27276
Army research and development activities in electronics, theoretical and applied physics, ballistics, pyrotechnic chemistry, and weapon system technology
[AD-634618] 15 p2698 N67-27971
Least square fitting of position, velocity, and acceleration flight data by polynomial arc smoothing for trajectory accuracy
[AD-634638] 15 p2753 N67-27988
Probability of mission success by trajectory optimization for translunar space flights
[NASA-CR-84815] 15 p2791 N67-28772
Optimal linear estimation of comet orbit for spacecraft intercept mission
[NASA-CR-84848] 15 p2792 N67-28822
Flight profile trajectory optimization for two stage launch vehicle rendesvous mission with orbiting satellite
[NASA-CR-73181] 16 p2927 N67-30182
Pontryagin maximum principle used to calculate optimum ascent trajectory and circular earth orbit for two-stage spacecraft in vacuum 17 p3158 N67-30982
Correlations between optimization by means of dynamic programming and variational calculus demonstrated using simple problems 17 p3000 N67-30988
Impulsive solution used to solve optimum trajectory problems with bounded thrust magnitude
[NASA-TN-D-4059] 17 p3150 N67-30982
Newton-Raphson method applied to solution of boundary value problems in trajectory optimization
[NASA-CR-85782] 17 p3004 N67-31288
Dynamic programming and Pontryagin maximum principle
[NASA-CR-838] 17 p3098 N67-31480
Focusing blast accuracy for antiaircraft missile warheads using a sphere of Composition C-4 19 p3269 N67-33277
Steepest ascent method for trajectory optimization based on minimum time and maximum velocity of fuel flow rate 19 p3535 N67-33383
First order analysis to determine optimal heliocentric orbit for Sunblazer space probe
[CSR-TR-66-10] 21 p3921 N67-35979
Research project summaries in propulsion, guidance and control, trajectory optimization, physics and chemistry, communications, and related space sciences
[NASA-CR-86100] 21 p3992 N67-36101
Thrust history of rocket engine that produces maximum altitude for two-stage sounding rocket launch vehicle
[P-3490] 23 p4335 N67-38183

TRANSCENDENTAL FUNCTION
Arithmetic and transcendental functions evaluation routines for Jess program
[RM-5099-PR] 11 p1928 N67-22490
Algebraic approximations for transcendental equation 12 p2128 N67-23703
Method and computer program for solving arbitrary simultaneous system of nonlinear algebraic and transcendental equations
[NASA-CR-84448] 14 p2585 N67-27423
Quadratic approximation of logarithmic function for simplifying solution to transcendental equations
[NOTS-TP-4223] 19 p3482 N67-33510
Programming language for transcendental functions in applied mathematics
[NASA-TM-X-55943] 22 p4000 N67-37397

TRANSDUCER
SA DIGITAL TRANSDUCER
SA ELECTRONIC TRANSDUCER
SA IMAGE TRANSDUCER
SA MAGNETIC TRANSDUCER
SA PHOTOELECTRIC CELL
SA PRESSURE TRANSDUCER
SA QUARTZ TRANSDUCER
SA TEMPERATURE TRANSDUCER
Method of attaching wire transducers under hydrostatic pressure
[FTD-TT-65-1941] 01 p0070 N67-11130
Research in instrumentation - monitoring and measuring devices, microwaves, semiconductor triodes, transducers, coaxial resonators, gyroscopes, and regulators
[JPRS-39139] 02 p0282 N67-12481
Operating principle of high-speed pulse-time alternating current transducer based on magnetic core with rectangular hysteresis loop for discrete telemetering system 02 p0602 N67-12698
Capacitance transducers with green-lead plates for use in electrical measuring devices 02 p0698 N67-12799
Electrochemical transducers for acoustic signal reception and small displacement measurements
[FTD-TT-65-1575] 04 p0602 N67-14222
Pressure scanner unit developed for checking all pressure leads and connections and for providing reference vacuum for transducer calibration in wind tunnel testing
[BSL-TN-1616] 05 p0700 N67-15270
Accelerometer used as transducer to

measure precordial vibrations of dog hearts 07 p1020 N67-16995
Epoxy casting systems used in manufacturing transducers [RAE-TR-66094] 07 p1065 N67-17814
User handbook on piezoelectric accelerometers and velocity transducers 08 p1279 N67-18217
Device for calibrating high intensity, high frequency transducer [NASA-CR-83912] 08 p1281 N67-18547
Digital transducers to link fluidic and electronic systems in peripheral computer equipment [F3] 10 p1593 N67-21135
Radiometric transducers used for automatic control of level of molten metal for continuous steel casting machine 10 p1644 N67-21254
Piezoelectric transducer accelerometers [FTD-HT-66-106] 10 p1633 N67-21378
Wind parameter transducers with oscillographic recording and automatic printout 11 p1874 N67-23009
Transducers for heat transfer rate, pressure, and force measurements of hotshot wind tunnels [AEDC-TR-66-228] 11 p1857 N67-23357
Sonar transducer analysis to determine hydraulic and mechanical shock stresses induced in ceramic drive element by underwater explosion 13 p2412 N67-25166
Solid-block piezoelectric ceramic keyboard transducers [ECOM-2786] 14 p2531 N67-26662
Design and construction of cryogenic liquid level-temperature transducer [AFFDL-TR-66-179] 14 p2533 N67-26942
Feasibility of optical holography for detection and measurement of vibrational characteristics of solid state transducers [REPT.-7590-F] 14 p2536 N67-27162
Attitude control, temperature control, power system transducers, and space simulator tests for Mariner Venus 67 spacecraft 14 p2621 N67-27743
Inductance-type transducer with compensating windings 15 p2707 N67-27826
Linearization of vibration and string transducer characteristics 15 p2707 N67-27827
Synthesis of capacitance transducers into digital codes 15 p2707 N67-27828
Photoelectric transducers as controlled elements of electric circuits, with assembly based on photoresistors and low power incandescent lamps 15 p2677 N67-27835
Compliant tube effect of acoustic interaction on radiation impedance of sonar transducers at air-water surface [ASR-3] 18 p3306 N67-32650
Directional response characteristics displayed by thin-walled piezoelectric ceramic tube transducers [NADC-AE-6709] 19 p3414 N67-32938
Conical bearing transducer suitable for gimbal axis support of gyro [NASA-CR-87280] 19 p3463 N67-33019
Low-cost polarized ferroelectric ceramic force transducer 19 p3453 N67-33139
Molecular electronics technique of developing microminiature instrumentation amplifiers for use with high-impedance and low-impedance transducers 19 p3415 N67-33141
Digital techniques, electrical and mechanical transducer information, and digital storage devices 19 p3459 N67-33818
Electronic stethoscope for use aboard aeromedical evacuation flights [SAM-TR-67-39] 21 p3771 N67-35550
Skin friction transducer development and design specifications [NASA-CR-73123] 22 p4044 N67-36864
Transducer calibration facility [MPL-U-14/67] 22 p4020 N67-37194
Design formulation and microphone development for audio transducer helmet assembly [ECOM-6264-1] 23 p4196 N67-38706
Electronic generation of quadrature information for sinusoidal transducers [SC-RR-67-375] 24 p4450 N67-39693
Development and evaluation of respiration rate transducers for aircraft environments [NASA-TN-D-4217] 24 p4389 N67-39753

TRANSEQUATORIAL PROPAGATION
New theory of transequatorial very high frequency radio wave propagation anomalies [WRE-TM-CPD/T/-121] 13 p2282 N67-26191
Oblique sounding of transequatorial propagation path, and spread echoes due to E layer and F layer irregularities 16 p2659 N67-29308
Error patterns measured on transequatorial high frequency communication links [MTP-46] 17 p3023 N67-30482
Anomalous sunrise effects observed on long transequatorial very low frequency propagation path in South Australia [WRE-TN-APD-7] 17 p3028 N67-30772

TRANSFER
S CHARGE TRANSFER
S ELECTRON TRANSFER
S ENERGY TRANSFER
S HEAT TRANSFER
S MASS TRANSFER
S MOMENTUM TRANSFER
S ORBITAL TRANSFER
S PROPELLANT TRANSFER
S RADIATION TRANSFER

TRANSFER FUNCTION
Measurement of spatial dependent transfer function in zero power reactor [KR-107] 01 p0109 N67-10727
Sums and differences of Butterworth polynomials for approximating transfer functions of electrical networks [AFCRL-66-334] 02 p0290 N67-11390
Transfer function and excitation study methods of atmospheric turbulence for supersonic aircraft applications [TP-346/1966/] 02 p0171 N67-11755
Solution to problem of finding optimum control of object with given transfer function 03 p0375 N67-12409
Nucleon correlation with two-particle stripping reaction 03 p0434 N67-12558
Measurement and theory, including signal to noise and transfer function calculations, of atmospheric water vapor using ruby laser optical radar 04 p0557 N67-13488
Dynamic response and transfer functions of turbojet engines with air extraction behind compressor [NASA-TT-F-10358] 04 p0604 N67-13791
Adaptive control systems identification based on average difference equation approximation for vehicle transfer function [GGC/EE/66-18] 05 p0687 N67-14675
Theory and design data for uniformly dissipative, doubly terminated band pass and low pass filters with Butterworth, Chebyshev, or Bessel transfer functions [ESD-TR-66-45] 05 p0687 N67-15011
Describing-function models for transfer dynamics for human operator neuromuscular system 06 p0809 N67-15854
Model for detection, identification, and modification phases of process by which human operator adapts to changes in dynamics 06 p0809 N67-15855
Local transfer functions measured with neutron detector in experimental power reactor to determine kinematic parameters 07 p1124 N67-17056
Test signals, AC analysis, transfer function determination, and nonlinear components for single parameter testing of amplifier [NASA-CR-61164] 07 p1038 N67-17632
Transfer functions of linear control systems obtained by use of matrix method [RAE-TR-66294] 08 p1290 N67-18361
Techniques for logical network synthesis with given transfer function based on approximation methods using sampled inputs [NASA-CR-83914] 09 p1428 N67-19911
Method and digital computer program for Resistance-Inductance-Capacitance /RLC/ synthesis of minimum-phase transfer functions 09 p1428 N67-20267
Transfer function set, and differential and algebraic equations for transient thermal model of SNAP reactor [NAA-SR-MEMO-11823] 10 p1678 N67-20915
Approximation of transfer characteristic of parallel-T RC network [RAE-LIB-TRANS-1193] 10 p1597 N67-21201
Modulator transfer functions for fixed and ramp input waveforms, and nonlinear homomorphic system for echo removal 11 p1839 N67-22656
Computer program to derive transfer function of system from frequency response data for application to liquid propellant rocket engines [RPE-TR-66/9] 11 p1930 N67-23100
Dynamics equations and transfer functions for an inertial navigation system [NASA-TM-X-59482] 11 p1919 N67-23478
Pulse transfer function of closed linear automatic system - mean square error minimum 12 p2072 N67-24227
Frequency response and transport functions for NERVA-type rocket engine [NASA-TN-D-3979] 13 p2361 N67-25780
Temperature dependent fluid property effects on heat transfer in coaxial tube heat exchanger 13 p2425 N67-26196
X-ray irradiation, and replication of deoxyribonucleic acid during episomal transfer 14 p2457 N67-26774
Transfer function used to calculate expected vibration levels at locations of Scout Launch Vehicle from noise levels during flight 14 p2625 N67-27068
Frequency characteristics determination of equivalent transfer function of four-terminal operational network 15 p2683 N67-28115
Neutronic stability of coupled Kiwi and Phoebus nuclear rocket engines confirmed by transfer function and pulsed neutron source measurements [LA-DC-8516] 15 p2748 N67-28452
High frequency transfer function measurements for coupled fast power reactors [LA-DC-8290] 15 p2749 N67-28477
Dynamic behavior of gear hobbing machines, test rig for rotational excitation of gear drives, and transfer function measurement setup for use in control of machine tool chatter vibration [QTR-2] 18 p3273 N67-31548
Filter and transfer function simulator computer program using state-variable model for deriving response of transfer function [SC-TM-67-144] 19 p3409 N67-32998
Resonators for synthesis of transfer functions of complex frequency [TR-400-154] 19 p3420 N67-33068
NRX/EST nuclear rocket test system transfer function measurements by control drum perturbation, and comparison with analysis model predictions [NASA-CR-87373] 19 p3495 N67-33823
Transfer functions in application to nuclear reactor [CEA-R-3102] 19 p3497 N67-33976
Analytic approximation of transfer functions and frequency responses for calculating substitute structure and simplifying Laplace transform 20 p3616 N67-34904
Excitation functions and angular distributions of multinucleon transfer reactions in interaction between heavy ions [REPT.-791/I-A/P] 20 p3703 N67-35131
Directional graphs for analyzing electric circuit, and algorithms for defining transfer function of graphs 21 p3822 N67-35969
System theory techniques and analysis of system with delay subject to generalized function inputs [RM-4672-PR] 21 p3824 N67-36169
Expanded possibilities of automata having structure in which transient functions are variable [JPRS-42178] 21 p3824 N67-36178
Semiclassical and quantum theoretical analyses for two particle interaction nucleon-transfer model [YALE-1807-45] 22 p4111 N67-37765
Apache subroutine for generating Pade circuits for fixed and variable time delays [EUR-3559.E] 23 p4219 N67-38304
Signal to obtain closed loop transfer function of numerically controlled machine tool control system [Y-1586] 24 p4459 N67-40005

TRANSFER OF TRAINING
Effect of prior experience on acquiring skill on simulated inertial control task [AMRL-TR-66-25] 06 p0814 N67-14941
Transfer of mental abilities at different stages of practice in solving concept problems [RB-67-20] 21 p3773 N67-36114

TRANSFER ORBIT
Ascent trajectory, transfer and parking orbits for lunar and interplanetary space rendezvous maneuvers 05 p0758 N67-14499
Transfer orbit and rendezvous trajectory theory 06 p0843 N67-15081
Optimal impulse transfers between near circular noncoplanar close orbits [ONERA-PUBL.-115/1966/] 13 p2401 N67-25589
Optimization of transfer between Keplerian orbits - time free case [ONERA-TP-462/1967/] 20 p3730 N67-35177

TRANSFORM
S FOURIER TRANSFORM

S HILBERT TRANSFORM
S LAPLACE TRANSFORM
S Z TRANSFORM
TRANSFORM INTEGRAL
Integral transforms used to calculate dynamic vibrations of thick walled elastic anisotropic cylinders and spheres with internal damping 14 p2626 N67-27070
Integral transformation connected with Klein-Gordon equation
[JINR-P2-3323] 22 p4085 N67-38046
Fortran programs that perform Cooley-Tukey Fourier transforms
[ESD-TR-67-462] 23 p4218 N67-38097
TRANSFORMATION
S CONFORMAL TRANSFORMATION
S COORDINATE TRANSFORMATION
S GIBBS PHENOMENON
S LINEAR TRANSFORMATION
S LORENTZ TRANSFORMATION
S PHASE TRANSFORMATION
TRANSFORMATION TENSOR
Transformation of light beam tensor during Rayleigh scattering
[FTD-HT-66-651] 12 p2156 N67-34722
TRANSFORMER
Non-dissipative charge controller using rotary transformer to provide spacecraft power from solar array output
[NASA-CR-81365] 06 p0795 N67-16636
Decoupler transformer for high energy pulse shaping
[UCRL-70011, REV. 1] 09 p1432 N67-29204
High voltage step-down substations 11 p1836 N67-32305
Design and construction of high voltage power transformers 11 p1836 N67-32306
Variable ratio dc transformer regulator used to process main vehicle power from solar array battery power system in radio astronomy explorer spacecraft
[NASA-TM-X-55758] 12 p2018 N67-23970
Circuit design of flat measuring windings of linear transformer-type functional converters 15 p2677 N67-27631
Differential transformers for measurement of in core fuel elongation
[HPR-70] 17 p3105 N67-30238
Single ended switching transformer regulator 17 p3036 N67-30592
Digital computer calibration of linear variable differential transformer used for measuring displacement
[Y-1567] 20 p3840 N67-34423
Oil-insulated, high voltage pulse transformer
[SC-TM-67-206] 21 p3818 N67-36064
Static dc to dc regulated converter using two-core output transformer
[NASA-CR-89560] 24 p4377 N67-39799
Power conversion potential of superconducting transformers
[LNF-67/52] 24 p4520 N67-40548
TRANSIENT HEATING
Transient radiative heat exchange at moon surface
[D1-82-0559] 01 p0155 N67-11069
Mathematical technique for optimizing reduction of transient heat transfer data
[FFA-106] 02 p0326 N67-11996
Direct relationship of temperature transients to bubble history during nucleate boiling
[EUR-3162.F] 08 p1384 N67-19196
Exponential data on transient pool boiling and channel boiling
[SAN-1013, VOL. I] 10 p1770 N67-30678
Transfer function set, and differential and algebraic equations for transient thermal model of SNAP reactor
[NAA-SR-MEMO-11822] 10 p1678 N67-30915
Boiling in transiently heated systems for water reactor excursion analysis
[SAN-1013, VOL. II] 12 p2233 N67-31543
Computer program for thermal analyses of complex transient heat transfer problems
[NASA-CR-65581] 17 p3179 N67-31257
Surface temperature measurement technique application to thermal insulators under transient, radiant heat inputs - literature survey
[RAE-TN-STRUCT-340] 16 p3353 N67-31523
Transient heat transfer and thermodynamic analysis of Apollo service module propulsion system
[NASA-CR-65579] 22 p4183 N67-37223
Transient heat transfer and thermal hydrodynamics of pool-type pulse reactors
[SC-RR-67-19] 22 p4092 N67-37496
Transient heat conduction in finite slabs with position dependent heat generation
[NASA-TM-X-1442] 23 p4363 N67-38351
Transient radiation and conduction in slotted slab and hollow cylinder
[NASA-CR-965] 22 p4233 N67-38368
Two-dimensional transient heat conduction computer program /HOT-2/ for CDC 6600
[WAPD-TM-669] 23 p4364 N67-38648
Specific heats and heats of transformation measured for Zircaloy-2 and low-nickel Zircaloy-2
[BMI-1803] 23 p4364 N67-38669
Simplified measurement of transient convective heat transfer coefficient
[AAEC/E182] 24 p4549 N67-39585
Mathematical model of transient natural convection in vertical tubes with non-axisymmetric wall temperature calculated with finite transforms
[FTAS/TR-67-18] 24 p4550 N67-39606
TRANSIENT LOAD
Synthesizer test unit for obtaining data on susceptibility of electronic equipment to power transients
[R-473] 01 p0074 N67-10940
Theory and calculations of unsteady forces on finite wings in transient motion, and comparison of initial and final aerodynamic forces
[ARC-R+M-3456] 00 p1392 N67-32303
Transient voltage suppression filter networks for protecting electronic equipment
[R-566] 10 p1591 N67-29684
Evaluation of transient loads for environmental testing of spacecraft using multiple degree of freedom model 13 p2413 N67-25172
Materials testing facility for determining mechanical properties for specific transient load applications
[AD-634666] 15 p2797 N67-27949
Nonlinear steady state solutions to moving load problems
[AFOSR-67-1439] 22 p4153 N67-36933
Point shear load method for transient elastic wave propagation analysis in transversely isotropic plate
[TR-6] 24 p4543 N67-39697
TRANSIENT OSCILLATION
SA DECAY
SA LASER
Asymptotic behavior of transient signal propagation in lossless, isotropic plasmas
[AFCRL-66-234/II/] 01 p0042 N67-11107
Quality evaluation of oscillatory transient processes in high-speed search-free self-adjusting systems 03 p0377 N67-12527
Distortions of controlled electric transients by shock monitoring instrumentation circuits
[SC-DC-67-1832] 22 p4252 N67-38834
TRANSIENT PRESSURE
Heat transfer across surfaces in contact - effects of transient temperature and pressure environments
[NASA-CR-83396] 08 p1383 N67-18979
Calculating transient lift and moment functions on delta wings in incompressible flow
[NPL-AERO-1023] 11 p1778 N67-32784
Transient pressure measuring methods as applied to liquid propellant rocket thrust chamber
[NASA-CR-83564] 16 p3897 N67-29914
TRANSIENT REACTOR TEST /TREAT/ FACILITY
Transient Reactor Test facility /TREAT/ experiments to provide data for fast reactor safety kinetics calculations 07 p1124 N67-17961
Plutonium Recycle Test Reactor fuel element performance and fabrication, on mash-spot resistance welding for Transient Reactor Test capsules 08 p1284 N67-19323
Technological developments with ultrahigh temperature reactor experiment facility
[LA-3005] 16 p3994 N67-29983
TRANSIENT RESPONSE
Transient annealing in semiconductor devices following pulsed neutron irradiation
[SC-DC-66-1829] 01 p0140 N67-10825
Transient Analysis Generator /TAG/ program for automatic circuit analysis of transient and steady state behavior of large class of electrical networks
[NASA-CR-80845] 04 p0622 N67-14152
Model calculations and measurements of electrical and radiation responses for semiconductor devices and integrated circuits
[ARD-66-49R] 06 p0457 N67-16600
Transient temperature response of infinite flat plate with unsymmetrical boundary conditions
[AEDC-TR-66-168] 09 p1518 N67-19459
Transient behavior of synchronous electrical machines in terms of Laplace transformation
[RAE-LIB-TRANS-1130] 10 p1597 N67-31130
Rate equations describing transient behavior of microwave maser oscillators
[TR-904] 11 p1896 N67-32064
Transient radiation effects on reactor thermocouples
[NASA-CR-83979] 11 p1927 N67-32465
Fast reactor transient response and safety in selected accidents
[GEAP-4787] 12 p2147 N67-32898
Transient electric network analyser computer program manual
[NASA-CR-83883] 13 p2290 N67-25672
Approximation method for calculating transient response of long coupled antenna arrays
[NR-371-015] 14 p2488 N67-26896
Mathematical matrix method used to improve dynamic model of structure - transient response 14 p2624 N67-27062
IBM 7094 code to calculate fast power transients due to accidents in water moderated reactors
[RT/FIMA/66/4] 14 p2577 N67-27323
Transient responses of semiconductors and circuits to ionizing radiation
[SC-DC-66-2443] 16 p2870 N67-29686
Fundamental mechanisms and parameters affecting steady state and transient performance of Rankine cycle liquid metal systems
[SAN-677-6] 17 p3177 N67-30841
Cinematography of weakly luminous transient phenomena by using image converters
[CEA-R-3097] 17 p3121 N67-31154
Model for transient holdup and separation efficiency of solvent extraction
[RLO-1053-3] 17 p3018 N67-31186
High Flux Isotope Reactor /HFIR/ transient behavior and reactivity control
[ORNL-TM-1747] 17 p3113 N67-31297
Transient and harmonic responses of plate with attached viscoelastic layer
[ATA-115] 18 p3347 N67-31512
Three-probe heater sensor system, transient response system, and simulation fluid selection propellant leakage detection system study
[NASA-CR-65067] 18 p3372 N67-32388
Mathematical model and Fortran IV program for transient shock spectra analysis 19 p3548 N67-32124
Matrix method for obtaining transient response of filter
[RAE-TR-66372] 20 p3814 N67-34647
Finite difference method to obtain numerical results on normal shock wave diffraction by sphere and subsequent transient flow
[NASA-TR-R-268] 21 p3831 N67-35723
Aircraft frequency response determined from transient flight tests using Fourier transform method of analysis
[COA-AERO-175] 21 p3797 N67-35959
Environmental testing of radio refractometers - transient response measurements
[TP-3] 23 p4044 N67-38214
Application of computer program to dc and transient analysis of switching circuits
[ECOM-3824] 22 p4016 N67-37227
Extended transient-response calculation method to determine aerodynamic load and blade motion for variable shaft torques of rotary wing
[CAL-BB-1946-S-3] 23 p4367 N67-37463
Numerical method for treating time transient gas lubrication equation
[NASA-CR-65529] 22 p4057 N67-37709
Numerical method for determining transient blade motions of rotor with flapping and lead-lag degrees of freedom
[NASA-TN-D-4198] 22 p3998 N67-38018
Modified Bainbrot modulator functions for determining aerodynamic response in flight mechanics - stability and control derivatives
[AGARD-549, PT. II] 22 p3921 N67-38041
Bainbrot method of transient response analysis for extraction of stability and control derivatives 23 p3921 N67-38049
Scattering of electromagnetic energy from highly conducting bodies
[REPT.-1795-4] 23 p4215 N67-38369

Transient solid propellant combustion analysis
[AFOSR-67-1778] 24 p4520 N67-39547
Numerical digital computer method for determining transient responses of nonlinear automatic systems based on calculation of convolution integral
[NASA-TM-X-68854] 24 p4424 N67-40087

TRANSISTOR
SA FIELD EFFECT TRANSISTOR /FET/
SA JUNCTION TRANSISTOR
SA PHOTOTRANSISTOR
SA SILICON TRANSISTOR
Life predictions of diffused germanium transistors by power stress 01 p0047 N67-10108
Failure modes in die to header bonds of planar transistors 01 p0051 N67-10134
High speed tunnel diode transistor micrologic circuits
[TN-1966-17] 01 p0052 N67-10350
Signal and noise equivalent circuits for ultrahigh frequency transistors
[TIL/T-5665] 01 p0053 N67-10549
Transistor quality statistics in pulsed ionizing radiation environment
[FR-66-17-158] 02 p0243 N67-11250
Accelerated life testing of transistors 02 p0245 N67-12113
Flip-flop arrays, power transistors, epitaxial stress, and other technological developments in integrated static inverter program
[NASA-CR-80068] 02 p0248 N67-12258
Application of electric integrator for measuring carrier lifetime in transistors 03 p0375 N67-13402
Model of anomalous photocurrent generation in transistor structures
[SC-DC-66-1821] 07 p1052 N67-17683
Single and cascaded wideband transistor amplifiers
[RADC-TR-66-122] 09 p1424 N67-19688
Determination of metal, thickness, and fabrication techniques for obtaining usable base film for metal base transistor
[REPT.-4] 10 p1590 N67-20536
Transistorized receiving-transmitting apparatus for radio direction finding of hydrological buoys and data transmission from buoy to vessel 11 p1818 N67-22373
Transistor threshold logic gate power dissipation and transition characteristics
[TR-23] 11 p1849 N67-23368
Transistorized voltage converter
[FTD-MT-65-81] 13 p2063 N67-23880
High current transistorized regulator for fine current control of arc jet, and for smoothing fluctuations in test section flow field
[RM-355] 13 p2064 N67-24200
Correlation between noise measurement and failure in transistors as screening technique
[NASA-CR-83896] 13 p2294 N67-25959
Failure modes for transistors and evaluation of stress and noise screening techniques
[NASA-CR-57650] 13 p2295 N67-26279
Transistorized digital-to-analog converter for industrial automation facilities 14 p2500 N67-26856
Transistorized multichannel, voltage to digital code and code to voltage converter 14 p2500 N67-26857
Operational dynamics of transistors connected with pulse circuits containing tunnel diodes 15 p2676 N67-27822
Analytical method of calculating switching time and power lost by compound transistors operating under commutating conditions 15 p2677 N67-27833
Computer program to obtain normalized transistor data from its equivalent circuit
[R66CPD-7] 17 p3041 N67-31063
Sensitivity limitations of low current amplification by transistorized current-feedback direct current electrometers
[ORNL-TM-1726] 17 p3041 N67-31066
Fast scan infrared detection and measuring instrument to predict failure of power transistors
[NASA-CR-85602] 18 p3278 N67-31723
Microprobes for medical research, photodetectors, crystal growth, semiconductor fabrication and characteristics, and p-n junction amplifier and MOS transistor construction 18 p3251 N67-32504
Top capacity electrically small antenna study with emphasis on radiator-transistor integration
[SR-1] 19 p3405 N67-33458
Screening test for measuring electric parameters of commercial power transistors
[NASA-TM-X-52301] 21 p3812 N67-35316
Linvill modeling of integrated circuit diode and transistor
[PA-TR-3525] 21 p3818 N67-35924
100-VA direct-coupled inverter with standard transistors
[NASA-CR-86274] 21 p3764 N67-36500
Radiation damage to orbiting solar cells and transistors - degradation of radiation
[TG-886] 23 p4180 N67-38181
Temporary effect of neutron bombardment on various transistors 23 p4234 N67-38479
Second breakdown in silicon power transistors at high collector voltage 23 p4225 N67-38481
Planar transistors with good electric properties prepared with heat treated platinum contacts 23 p4225 N67-38488

TRANSISTOR AMPLIFIER
Development of 20-watt integrated oscillator amplifiers
[NASA-CR-80540] 03 p0374 N67-13201
Nanosecond circuitry and techniques for transistor amplifiers, variable rate kilovolt pulser, and related instrumentation 09 p1423 N67-19424
Silicon monolithic ultrahigh frequency amplifier for use in integrated circuits
[ECOM-01813-1] 10 p1591 N67-20596
Temperature dependence of field effect transistor amplifiers used with junction diodes
[CLOR-52/D] 10 p1586 N67-21554
Coupled power amplifier providing high output impedance, low phase shift, and response to dc for vibration testing
[RAE-TR-66231] 11 p1839 N67-22923
Zero level drift of transistor dc amplifiers 15 p2676 N67-27825
Low noise high input impedance pulse amplifier
[SR-22] 15 p2679 N67-28445
Transistor amplifier and analog computer designs, and probe manufacture for hot-wire anemometer
[ISAV-159] 16 p2897 N67-29969
Constant bandwidth, wide range, transistorized logarithmic amplifier
[SR-294/E/] 18 p3341 N67-31522
Dc analysis of typical hybrid circuit as practical approach to transistor and vacuum tube amplifiers
[REPT.-44] 20 p3612 N67-34911
Hybrid direct current operational amplifier for missile control circuits
[APL/JHU-CF-2868] 21 p3815 N67-35583
Analysis and design of maximum gain, low current junction field effect transistor configurations
[AFCRL-67-0184] 21 p3816 N67-35693
High-efficiency VHF transistor CW RF power amplifiers for portable radio equipment
[ECOM-2836] 22 p4011 N67-36910

TRANSISTOR CIRCUIT
Technique for measuring s parameters and s parameter applications to high frequency transistor circuit design and small signal analysis 01 p0054 N67-10598
Circuitry, specifications, construction, and applications of transistorized gamma rate meter 06 p0680 N67-16236
Circuit considerations for dc to dc conversion in high frequency range
[NASA-TM-X-55607] 08 p1223 N67-18745
Hybrid tunnel-diode/transistor integrated circuit squaring counter system for spacecraft
[NASA-CR-83870] 13 p2294 N67-25869
Electronic instrument with transistorized electric circuit for measuring small mechanical displacements
[A6] 13 p2322 N67-26115
Wideband linear transistorized cable driver
[SR-22] 15 p2679 N67-28444
Bipolar transistor model and integrated circuit element used for prediction of semiconductor radiation response
[ECOM-00423-7] 15 p2782 N67-28881
Solid state electronic circuits installed in mass spectrometer used for analysis and control of gaseous diffusion processes
[K-1692] 17 p3060 N67-30630
Micropower transistor logic circuits designed to operate from power supply voltages which vary with temperature
[NASA-TN-D-4052] 17 p3037 N67-31194
Transistor and diode equivalent circuits models used in nonlinear computer circuit analysis program
[NAFI-TR-847, VOL. II] 17 p3039 N67-31307
Thin film interconnect patterns developed for three hybrid satellite resistor, diode, and transistor circuit applications 19 p3416 N67-33382
High response transistorized pulse height discriminator 23 p4254 N67-38983
Time-to-pulse-height converter design using transistor in avalanche switching mode
[IDO-17225] 24 p4449 N67-39633
Silicon transistor circuit for reactor period simulator test on neutron flux measuring device
[DP-1119] 24 p4451 N67-39956

TRANSISTOR LOGIC
Coupling problems between transistor logic and electroluminescence-photoconductor logic circuits 03 p0379 N67-13063
Transistor logic circuit cards for data processing systems
[NBS-TN-388] 04 p0519 N67-13814
Nonlinear model of field effect transistor for computer aided transient analysis of complementary metal oxide semiconductor-field effect transistor NAND gate 18 p3245 N67-31587

TRANSIT SATELLITE
Cinetheodolite satellite observations made during January, February, and March 1966 at Earlyburn
[REPT.-60] 11 p1981 N67-22490

TRANSIT TIME
Transit time measurements on electric polarization of kilovolt neutrons scattered by lead 04 p0585 N67-13804
Travel time and amplitude anomalies of teleseismic signals observed and corrected at Montana Large Aperture Seismic Array
[LL-1] 10 p1586 N67-21439

TRANSITION
S BOUNDARY LAYER TRANSITION
S ELECTRON TRANSITION
S FORBIDDEN TRANSITION
S TRANSIT TIME

TRANSITION ELEMENT
SA CHROMIUM
SA COBALT
SA HAFNIUM
SA IRIDIUM
SA MANGANESE
SA MOLYBDENUM
SA NICKEL
SA PALLADIUM
SA PLATINUM
SA RHENIUM
SA RHODIUM
SA RUTHENIUM
SA SCANDIUM
SA TANTALUM
SA TITANIUM
Spectrometric measurements of energies in muonic atoms of elements
[JINR-P-2735] 01 p0122 N67-10617
Absorption spectra of divalent iron in transition group elements and gallium phosphide
[NASA-CR-79723] 01 p0034 N67-10678
Isomer shifts of iron 57 in transition metals under pressure
[COO-1196-329] 01 p0143 N67-11181
Combined interpolation scheme for calculating energy bands of transition and noble metals
[NASA-CR-80129] 02 p0295 N67-12173
Rare earths, transition elements, and kinetics - physical and inorganic chemistry 05 p0663 N67-14613
Reactions and interactions studied between oxides and carbides of transition metals
[NASA-TT-F-10447] 06 p0818 N67-15699
Interstitial compounds of transition elements prepared for improving oxygen electrode in alkaline hydrox fuel cell
[NASA-CR-81337] 06 p0795 N67-16626
Crystal lattice parameters and solubility limits of alpha iron with binary transition element additions
[AMRA-TR-66-25] 06 p0696 N67-16655
Transition metal hydrides as moderator material in neutron thermalization process 08 p1366 N67-18235
Crystallography studies of alkali halides, refractory and transition metals, and magnetic materials
[NRL-MR-1718] 09 p1408 N67-19687

Electrochemical potential of transition metals and lanthanides dissolved in molten alkali metaphosphate
[SC-CR-66-2106] 10 p1573 N67-20907

Experimental measurements of lattice vibration modes in transition metals 10 p1749 N67-21024

Hydrogen motion in primary solutions of hydrogen in some transition elements 10 p1750 N67-21037

Structures, thermal stability, and reactions for dimethyl carbamates of transition metals
[REPT.-3783] 11 p1803 N67-22128

Preparation and properties of transition metal complexes with tetradentate ligand series
[AROD-4486-5] 11 p1811 N67-22693

Thermal emission characteristics of transition metals, alloys, and compounds with nonmetals
[FTD-HT-66-178] 11 p1907 N67-22725

Electronic specific heat coefficient and superconducting transition temperature with control of alloyed transition metals 13 p2389 N67-25347

Resistance change, thermoelectric force, and superconductivity data for transition metal carbides and nitrides
[NASA-TT-F-10847] 13 p2393 N67-25810

Superexchange interaction between magnetic ion paris and super transferred hyperfine interaction in weakly covalent crystals
[AD-647956] 14 p2602 N67-26686

Rates and mechanisms of solvent exchange reactions studied with paramagnetic transition metal ions in solution
[AFOSR-67-0663] 15 p2658 N67-28256

Sensitized fluorescence of rare earth ions in laser crystals
[REPT.-66-9C1-SXTLS-R1] 16 p2903 N67-29445

Thermodynamic and electromagnetic properties of superconductors with nonmagnetic transition element impurities
[TUEP-67-12] 17 p3148 N67-30648

Methods for predicting temperature composition stability of binary systems of refractory transition metal compounds
[AFML-TR-67-106] 17 p3078 N67-30716

Tabulated oxidation potentials for various transition elements
[NASA-CR-85811] 17 p3019 N67-31287

Electronic structure of transition carbides and nitrides
[ONERA-TP-481/1967/] 19 p3527 N67-32967

Solubility of hydrogen in transition metals and elements, with bibliography
[REPT.-6] 20 p3587 N67-34689

Crystal field theory applied transition metal impurities in semiconductors
[NASA-CR-87818] 20 p3714 N67-34740

Electron spin resonance and optical absorption spectra of transition metal ions, color center defects in laser glass, and molecular structure of tetrahedron
[TR-599-1] 21 p3918 N67-35344

Contracted basis set analytic self-consistent field wave functions for transition metal atoms
[UCRL-50360] 22 p4106 N67-37536

Metal complex formation studied on 1,3,5, triaminocyclohexane and 1,3 diaminocyclohexane
[DISS-3917] 24 p4395 N67-39616

Rhodium-containing catalysts used in polymerization studies for high strength chemical-resistant elastomers for temperature extremes
[REPT.-68-12-CM] 24 p4395 N67-39629

Glass transition temperature measurement - telomer preparation and reactions
[NASA-CR-89635] 24 p4521 N67-40145

TRANSITION LAYER
SA BOUNDARY LAYER TRANSITION
SA EKMAN LAYER

Infrared contrast observed in transition zone between earth and space, and comparison of findings with those of theoretical study on atmospheric model
[TP-356/1966/] 03 p0856 N67-11916

Laminar and transitional flow separation induced by various flare and ramp angles at Mach numbers 3, 5, and 7
[AEDC-TR-66-190] 10 p1617 N67-21547

Charged particle motion in unidimensional model of magnetosphere transition layer
[NASA-CR-83933] 13 p2313 N67-25933

Topographic peculiarities over Soviet territory of transition layer separating stratospheric anticyclonic circulation from lower cyclonic circumpolar circulation 15 p2740 N67-28137

TRANSITION POINT

Dependence of entanglement chain length on polymer composition of linear, amorphous polymers - Rheology 05 p0721 N67-14507

Interpretation of glass transition in terms of viscoelastic state variables of temperature, frequency, and composition 05 p0721 N67-14510

Proton spectra of transition states at saddle point of fissioning plutonium 239 and plutonium 240 nuclei
[LA-DC-7878] 05 p0741 N67-14694

Design concept of variable viscosity, variable stiffness dampers, using polymeric materials at temperatures in region of glass transition point 07 p1199 N67-16923

Calorimetric and thermomechanical measurements for identification of temperature transition regions in various rubbery polyurethanes
[NASA-CR-81749] 07 p1108 N67-18692

Digital computer solution to extending parametric oscillations by means of transitional process 13 p2392 N67-25708

Multiple transitions in polymer and copolymer systems
[NASA-CR-84427] 14 p2561 N67-27708

Relationship between chemical structure of high polymers and glass transition temperature
[RAE-LIB-TRANS-1206] 17 p3065 N67-30622

Polymers and glass transition temperatures
[AFML-TR-65-231, PT. 3] 18 p3227 N67-32657

Glass transition temperatures and thermal cubical expansion coefficients determined for new galactose-derived acrylate and methacrylate polymers
[RAE-TR-67041] 20 p3662 N67-34002

Effect of ductile cladding on bend transition temperature of wrought tungsten
[NASA-TN-D-4184] 22 p4061 N67-37073

Oscillations in flowing and subcritical hydrogen system, and threshold for transition from stable to unstable flow with heat addition
[LA-DC-8726] 22 p4166 N67-37695

Superconducting transition temperature and electronic structure in pseudobinaries of niobium with tin and aluminum or antimony
[ESD-TR-67-299] 23 p4226 N67-38104

TRANSITION PROBABILITY

Atomic transition probabilities tabulated for some 4,000 spectral lines of first ten elements at various ionization stages
[NSRDS-NBS-4, VOL. I] 01 p0131 N67-11118

Theoretical basis for prognosis using transient statistics for random processes in form of mean square of Taylor series 03 p0566 N67-12519

Search for double dipole transition in C-12 nucleus 06 p0926 N67-15602

Electric and magnetic transition probabilities of spherical nuclei of europium in shell region N equals 82 06 p0934 N67-15654

Half life of 423.1 KeV level in tungsten 183 measured by delayed coincidence method to determine absolute transition probabilities
[AE-251] 06 p0936 N67-15767

Neutral kaons with measurable mass differences, and experiments dealing with scattering, transitions, and parity changing 07 p1146 N67-17215

Pairing correlation effect on transitions in deformed nuclei of rare earths
[ZFK-PHA-31] 08 p1231 N67-18527

Bibliography on atomic transition probabilities
[NBS-MISC.-PUBL.-278] 11 p1948 N67-23450

Half life of first excited level in Au 199, and M1 and E2 transition probabilities
[AE-268] 13 p2389 N67-26105

Total positivity of some functions associated with Markov branching processes
[MRC-TSR-717] 15 p2733 N67-28254

Spectroscopy of light atoms and ions and transition probability determinations using gas-driven shock tube
[NASA-CR-84706] 15 p2770 N67-28764

Quantum theory, transition probability, molecular orbitals, and perturbation theory - research projects 16 p2943 N67-29407

Two-configuration approximation for atomic species of O, F, Ne, Na, and Mg - dipole strengths and transition probability
[T-R-634] 17 p3123 N67-30891

Internal bremsstrahlung measurement on yttrium and resulting transition probabilities
[BMWF-FBK-67-10] 17 p3126 N67-30939

Electric and magnetic properties of K equals 1 rotational band in rhenium 188 - transition probabilities in odd-odd nuclei
[AE-280] 17 p3129 N67-30943

Transition probabilities, excitation cross sections, and neon glow studies for plasmas 17 p3143 N67-31017

Transition probabilities of atomic collisions, elastic scattering of electrons, and excitation functions 17 p3133 N67-31019

One-dimensional model for dissociation of diatomic molecules, and calculation of transition probabilities 18 p3227 N67-32368

Absolute transition rates in odd-mass promethium and europium isotopes
[AE-287] 21 p3907 N67-36570

Phenomenological discussions on energy levels, gamma transitions, and beta transitions of medium heavy nucleus
[INSJ-104] 22 p4111 N67-37974

Ratios of E2 transition probabilities of deformed even-even nuclei
[LR-17] 23 p4199 N67-38307

Chemical relaxation and dissociation of small molecules, and transition probabilities 23 p4205 N67-38884

Energy levels and transition probabilities of manganese plus 4 titanium oxide and chromium plus 3 zinc tungstate - tables
[NASA-TM-X-55972] 24 p4515 N67-39884

Quantum mechanical study of molecular transition probabilities, Einstein A coefficients and oscillator strengths of band systems of diatomic molecules 24 p4402 N67-40515

TRANSLATION

Abstracts of technical translations regarding several aerospace topics taken from open Soviet literature
[NASA-CR-84106] 13 p2405 N67-26434

Fortran II program for translating programs from one dialect to another of same language
[AEEW-M-467] 15 p2671 N67-27612

Incremental translation, execution, object code processing, and source language organization in computer compiler programs
[AFCRL-67-0483] 24 p4416 N67-40182

TRANSLATIONAL MOTION

Low gravity liquid sloshing in arbitrary axisymmetric tank performing translational oscillations
[NASA-CR-84404] 14 p2515 N67-27262

Finite displacements of solid subjected to rotation of internal flywheels and translational motion 18 p3240 N67-31647

Damped vibrations of elastically supported rigid body with coupling between translation and rotation 18 p3249 N67-31709

Translational displacements and additional moments of friction affecting rotation in ball bearings due to defects in shape of rolling surfaces
[FTD-HT-66-376] 21 p3835 N67-35280

TRANSLATOR

Modifications and additions to systems analysis translator digital computer program
[AMRL-TR-65-123, SUPPL. I] 01 p0043 N67-10900

Programming microlanguage on Ural-4 computer, and algorithm for sorting on magnetic tape
[JPRS-41733] 23 p4230 N67-38614

Basic features of programming microlanguage for Ural-4 computer - translator location, rate, and capacity 23 p4230 N67-38615

TRANSMISSION
SA AUTOMATIC PICTURE TRANSMISSION /APT/
SA COAXIAL TRANSMISSION
SA DATA TRANSMISSION
SA FACSIMILE TRANSMISSION
SA HEAT TRANSMISSION
SA LIGHT TRANSMISSION
SA MICROWAVE TRANSMISSION
SA MULTIPLEX TRANSMISSION
SA NEURON TRANSMISSION
SA POWER TRANSMISSION
SA PULSE TRANSMISSION SYSTEM
SA RADAR TRANSMISSION
SA RADIO TRANSMISSION
SA SATELLITE TRANSMISSION
SA SIGNAL TRANSMISSION
SA SOUND TRANSMISSION
SA TELEVISION TRANSMISSION

Transmission method for measuring neutron spectrum to calculate energy distribution in reactors 03 p0439 N67-12897

Transport of carbon and nitrogen from stainless steel containing flowing potassium, and reliability evaluation of transmission gears 06 p0627 N67-16174
Reliability of transmission gears, emphasizing pitting fatigue mode of failure 06 p0627 N67-16176
Instrumentation, transmission, and data processing of experimental aircraft testing program 08 p1221 N67-19353
Distributed parameter or wave transmission concept for analyzing bending vibration in flexible launch vehicle [NASA-CR-84055] 13 p2420 N67-36350
Solid lubricants for bearings and gears of helicopter transmissions [USAAVLABS-TR-67-4] 16 p2900 N67-29360
Incoherent scattering of slow neutrons in polarized crystal target [JINR-P4-3158] 16 p2945 N67-29490
Charged particle transmission through spherical plate electrostatic analyzer 18 p3270 N67-31790
Transmission of 14 MeV neutrons in liquid nitrogen measured with neutron detectors [UCRL-50259] 23 p4297 N67-38187

TRANSMISSION EFFICIENCY
Efficiency and performance characteristics of very short conical spiral antenna [TP-375/1966/] 02 p0235 N67-11918
Test results and demonstration transmissions with Telstar I and Telstar II satellites received at Goonhilly ground station 03 p0365 N67-12319
Radiation and transmission currents in dielectric coated cylindrical antennas [TR-506] 06 p0842 N67-16148
Mechanical properties of electric motor and power reducer transmission ratio selection 07 p1091 N67-17297
Atmospheric turbulence effects on intensity of laser beam transmitted at optical frequencies [NASA-CR-83052] 18 p1649 N67-30464
Transmission ratio selection of power reductors for follow up drive reduction gears 19 p3371 N67-33548
Transmission methods for communication and research satellites [RAE-LIB-TRANS-1236] 20 p3602 N67-34607

TRANSMISSION LINE
SA ANTENNA COUPLER
SA CLUTCH
SA COAXIAL CABLE
SA DELAY LINE
SA FLUID TRANSMISSION LINE
SA WAVEGUIDE
Telegraph input-output devices for digital computer systems [JPRS-38691] 04 p0517 N67-13730
Digital receiver printer for telegraph lines 04 p0517 N67-13731
Transmission line models of magnon-phonon modes in ferrite - uncoupled modes [AFCRL-66-683, PT. I] 07 p1127 N67-16799
Synthesis of networks containing lumped building blocks and uniform transmission lines [PIBMRI-1323-66, PT. 1] 07 p1055 N67-17272
Ferrite-filled transmission line filters used as dissipative radio frequency attenuators to reduce electromagnetic radiation hazards [W-11/66] 07 p1052 N67-17671
Electric parameters of precision, coaxial, air-dielectric transmission line [NBS-MONOGRAPH-96] 08 p1280 N67-19259
Electric transmission line used for dynamic analysis of supercritical shafts on flexible supports [USAAVLABS-TR-66-44] 10 p1637 N67-20585
Fluid logic device development - model similarity, aspect ratio, and transmission lines 10 p1610 N67-21118
Design, manufacture, and maintenance of equipment and structures used in construction of high voltage transmission lines 11 p1833 N67-22181
Status and trends in high voltage transmission lines 11 p1834 N67-22182
Design of high voltage transmission lines 11 p1834 N67-22183
Methods of raising power loading of high voltage transmission lines 11 p1834 N67-22184
Stability analysis of high voltage transmission lines using electric dynamic models 11 p1834 N67-22185
Operational regimes and stability of high voltage Volgograd-Moscow transmission line 11 p1834 N67-22186
Operation and stability of Kuibyshev-Ural high voltage transmission line 11 p1834 N67-22187
Operation changes in high voltage transmission line resulting from change-over of 400 to 500 kilovolts 11 p1835 N67-22188
Performance characteristics and stability of high voltage power systems with direct current transmission lines 11 p1835 N67-22189
Corona loss and radio interference levels in high voltage transmission lines under different weather conditions and choice of conductor 11 p1835 N67-22191
Corona losses on high voltage alternating current transmission lines 11 p1842 N67-22192
Statistical analysis of corona loss measurements on high voltage transmission lines with various conductors 11 p1835 N67-22193
Tests of dielectric strength of large air gaps to determine minimum clearances for high voltage overhead transmission lines and substations 11 p1835 N67-22194
Electric properties of insulation of high voltage transmission lines 11 p1835 N67-22195
Internal overvoltages on high voltage transmission lines and protection devices 11 p1835 N67-22196
Electric properties of spark gap lightning arrestors used on high voltage transmission lines to limit internal and external overvoltages 11 p1835 N67-22197
Design data and principles for constructing high voltage transmission lines 11 p1836 N67-22199
Optimum ratio of aluminum to steel in steel reinforced aluminum cables used in high voltage transmission line conductors 11 p1836 N67-22200
Materials and methods used in constructing high voltage transmission lines 11 p1842 N67-22201
Equipment, methods, and problems in operation and maintenance of high voltage transmission lines 11 p1842 N67-22202
Series-capacitor compensation installation for increasing power loading on high voltage transmission lines 11 p1836 N67-22206
Communication systems for operation and maintenance of high voltage transmission lines 11 p1817 N67-22209
Relay protection and emergency automatic equipment for high voltage transmission lines 11 p1837 N67-22210
Strip transmission line characteristics and apparatus - bibliography [RAE-LIB-BIBL-269] 11 p1839 N67-22963
High speed coating process for producing foamed high density polyethylene insulated fine gauge conductors for use in exchange cables [AD-646542] 14 p2542 N67-28784
Industrial production of insulated electric wire using tandem wire drawing and insulating line facilities [AD-646546] 14 p2542 N67-28802
Metal, plastic, and rubber sheathing materials for protecting telephone lines from insect attacks [AD-646543] 14 p2486 N67-28807
Water vapor permeation effect on capacitance and conductance of plastic insulated underground telephone cables [AD-646528] 14 p2487 N67-28808
Wideband linear transistorized cable driver [SR-23] 15 p2679 N67-29444
Soviet textbook on theory of long lines, radio wave propagation and electromagnetic waves, antenna engineering, and feeder devices [FTD-HT-66-360] 16 p2860 N67-29489
Mode conversion methods for strip transmission line nonreciprocal devices [GE/EE/67A-5] 17 p3089 N67-30251
Reflection measurements in transmission lines using broadband frequency modulation in microwave region [DISS-3966] 18 p3229 N67-32930
Integrated antenna-transmitter developed to telemeter data from inflight artillery fuse and shell [HDL-TR-1343] 18 p3235 N67-32568
Operation of thin film dielectric structures as electromagnetic waveguides at optical frequencies [C7-929/501] 19 p3413 N67-32711
Soviet-source abstracts from 1965-66 articles on radio relay, telecommunication, telegraph, telephone, and cable facilities for U.S.S.R. cities and railroads 19 p3402 N67-33028
High voltage coaxial cable for transmission lines test program [LA-DC-8067] 19 p3419 N67-33976
Design concepts of refrigeration systems for cooling components of microwave receiving systems to 80 to 100 deg Kelvin - transmission line [NASA-CR-88120] 21 p3950 N67-36487
Shrink-fitted sleeves and boots with encapsulating compounds used to fabricate firing cables [SCL-DR-67-24] 21 p3864 N67-36597
Random scattering of quasimonochromatic radiation in long transmission line [AFCRL-67-0353] 22 p3904 N67-36718
Measurement of ferromagnetic resonance line widths of single crystal ferrites using shorted transmission line [ECOM-2849] 22 p4125 N67-36872
Coupled transmission line models of magnon-phonon modes in ferrimagnets [AFCRL-67-0314] 22 p4136 N67-37192
Radial line stubs as shunt elements in strip line circuits [LMSC-808981] 22 p4013 N67-37338
Static and dynamic instabilities of elastic propellant lines with flowing fluid [ASRL-TR-134-3] 22 p4134 N67-37552
Feasibility of high rate digital data transmission through telephone transmission line [REPT.-9118] 23 p4211 N67-38078
Transmission line distributed amplifiers utilizing field effect transistors [TR-534] 23 p4229 N67-38977
Controllable broadband differential phase shifter for low-power application using periodic loading of transmission lines with varactors [DISS-3926] 24 p4420 N67-40039

TRANSMISSION LOSS
Calculated gain of advanced antenna system 06 p0638 N67-15911
Errors in calculating flow losses in cylindrical channels exposed to sudden expansion of flow 09 p1433 N67-19488
Impulse noise source for determining transmission loss through ship hull [MEL-332/66] 09 p1485 N67-19863
Transmission loss measurements over irregular terrain on 20-100 MHz using low antenna heights [IER-10-ITSA-10] 12 p2050 N67-23836
Transmission loss of LF and VLF radio waves in lower ionosphere due to absorption in nuclear explosion environment [RM-5249-PR] 16 p2862 N67-29113
Transmission loss predictions for tropospheric communication circuits [NBS-TN-101] 19 p3407 N67-33640
Transmission loss measurements over irregular terrain - height gain, location gain and correlation [IER-35-ITSA-35] 23 p4211 N67-38126
Tabulated data of VHF propagation obtained over irregular terrain at 20, 50, and 100 MHz [IER-36-ITSA-36] 23 p4212 N67-38146

TRANSMITTANCE
SA SCATTERING
Transmissivity of atmosphere for thermal radiation from nuclear weapons [USNRDL-TR-1060] 07 p1070 N67-17152
Absorption and spectral transmittance expressions derived for clarifying statistical basis of gas band models - Recirculation of gas flow field in space vehicle [NASA-CR-81748] 07 p1140 N67-18092
Spectral transmissivity of earth atmosphere in 250 to 500 wave number interval - theoretical computation for pure rotational absorption [ECOM-5068] 10 p1619 N67-22544
Runway visual range system for atmospheric transmittance over 500 feet [RD-66-94] 14 p2371 N67-27184
Reflectance and transmittance of rubidium chloride, rubidium bromide, rubidium iodide, strontium titanate, indium phosphide, and tellurium from 2 to 30 microns 18 p3316 N67-31685
High power moderate Q transmitting antenna for shore station use and permitting improved utilization of space [NEL-1450] 18 p3234 N67-32511
Periodic fading of very low frequency radio signals received from transmitter over polar path during sunset and sunrise [KGO-672] 20 p3600 N67-34221
Simulated proton space environment effects on ultraviolet transmittance of optical materials

[NASA-TM-X-55911] 21 p3897 N67-36589
TRANSMITTER
SA CONDUCTOR
SA MULTICHANNEL TRANSMITTER
SA RADIO TRANSMITTER
Low data rate telemetry radio frequency solid state transmitter for telecommunication system capable of surviving high impact on lunar or planetary surface 02 p0237 N67-12139
High power traveling wave amplifier tube for Telstar satellite ground transmitter 03 p0364 N67-12317
Traveling wave amplifier output stage for communication satellite ground transmitter 03 p0365 N67-12318
High power continuous wave radar transmitter for use as planetary radar system and as proving ground for equipment NASA space program 04 p0514 N67-13944
Venus station transmitting and receiving systems during Mariner IV tracking 05 p0689 N67-14457
Increasing pulse repetition rate of transmitter to meet system gain requirements for partial ionospheric reflection sounder 05 p0701 N67-14651
Duplexer for radar system using dual-mode transmitter tube
[ECOM-2765] 06 p0840 N67-15979
Operating principles and design of pneumatic differential transmitters 07 p0996 N67-16878
Integrated microwave circuit studies involving selection of optimum FM transmitter
[NASA-CR-80010] 08 p1259 N67-18419
High temperature NaK filled differential pressure transmitter 09 p1445 N67-19438
Transmitter-receiver with increased sensitivity and resolution for electron resonance spectrometer
[REPT.-3574] 10 p1595 N67-21777
Prototype double-sideband Doppler VOR carrier modulator and transmitter for ground station use
[RD-65-44] 14 p3489 N67-37213
Oscillator, transmitter, and receiver development for space communication systems 17 p3022 N67-35274
Ultrahigh frequency transmitter and telemetry development 17 p3024 N67-35586
Physical properties of carbon dioxide laser radar transmitter - Gain and saturation in dc excited amplifiers
[S-970] 20 p3653 N67-34421
Brushless M-type data transmitter using photovoltaic cells for sensing angular position
[RAE-TR-66334] 22 p3995 N67-36858
Ratio of intensities of backscattering radiation to directly transmitted radiation is determined by calculating area common to two overlapping ellipses
[TN-6511] 24 p4409 N67-40236
Structural and thermal properties of multimode high energy laser transmitter system and Q-switched laser transmitter
[IR-066-1] 24 p4443 N67-40306
Antennas, receiver systems, transmitters, instrumentation, and data handling procedures of Ascension Island Deep Space Instrumentation Facility
[NASA-CR-89793] 24 p4426 N67-40326
Transmitter tube studies involving spurious noise generation
[RADC-TR-67-343] 24 p4421 N67-40383
C-band and X-band oscillators functioning sequentially as transmitter and gated local oscillator
[RCS-OSD-1366] 24 p4421 N67-40399
TRANSONIC FLOW
Aircraft control surface effectiveness in transonic flow
[NAL-TR-108] 01 p0001 N67-10027
Dynamic properties of transonic flows 02 p0320 N67-11393
Aerodynamic stability coefficients for aircraft models in transonic or supersonic flow
[TP-300/1966/] 02 p0172 N67-11920
Uniform gas flow calculation for subsonic and transonic part of plane symmetrical Laval nozzle
[NASA-TT-F-10494] 04 p0830 N67-13834
Wind tunnel experiments on self-excited oscillations of aircraft control surfaces in transonic flow
[NPL-AERO-1191] 06 p0787 N67-16194
Fortran program for analyzing two-dimensional airfoils with subsonic and transonic applications
[ER-8591] 07 p0987 N67-16800
Drag force measurements on two-dimensional v-shaped notches in transonic and supersonic turbulent flows
[NASA-CR-81691] 07 p0990 N67-16831
Flow about simple, blunt and sharp leading-edged, two-dimensional airfoils at transonic and low supersonic speeds
[NPL-AERO-1189] 09 p1291 N67-19751
Velocity and temperature profile measurements for adiabatic boundary layers on cylindrical bodies in transonic parallel accelerated flows
[NASA-TN-D-3882] 09 p1435 N67-19890
One-dimensional, frictionless, compressible flow of ideal gas flow with heat addition and area change in transonic regime
[DLR-FB-67-02] 11 p1880 N67-22866
Experimental study of single degree of freedom flutter in transonic flow
[NASA-TT-F-10729] 12 p2012 N67-25019
Computer method for predicting unsteady aerodynamic characteristics of planar wings in transonic flow
[AFFDL-TR-66-121] 13 p2244 N67-26229
Small perturbations in transonic and hypercritical flows with shocks
[TAE-58] 14 p2517 N67-27058
Numerical calculation of transonic flow patterns of compressible fluids
[CS-51] 15 p2690 N67-28086
Base pressure and dynamic pressure isobar plots for transonic hot gas flow and supersonic cold air flow
[NASA-TT-F-10452] 15 p2891 N67-28236
Cascade data for high camber blunt trailing edge blades in transonic flow
[ARL-67-0064] 16 p2811 N67-29112
Transonic and supersonic flow patterns about models of aerodynamic bodies in hydraulic analogy tank
[DLR-FB-66-89] 17 p3047 N67-30448
Similarity solutions for viscous transonic spiral and radial flow
[REPT.-07146-2-T] 22 p4024 N67-37088
Transonic flows in neighborhood of point where shock wave meets sonic line
[TG-230-T520] 22 p4023 N67-37763
Computation of compressible fluid flow patterns in transonic region
[CS-70] 22 p4023 N67-38089
Unsteady transonic flow of compressible gas past corner
[NASA-TT-F-11307] 24 p4434 N67-40221
TRANSONIC FLUTTER
Transonic panel flutter
[NASA-TT-F-11314] 24 p4545 N67-40157
TRANSONIC NOZZLE
Transonic performance of clustered exhaust nozzle for hypersonic vehicle
[DGRR/WGLR PAPER-66-004] 13 p2396 N67-25682
Jet effect on axisymmetric base pressure of nozzle in transonic or supersonic stream
[FFA-111] 24 p4433 N67-40095
TRANSONIC SPEED
Transonic aerodynamic investigation of tension shell and blunted 100 deg conical shapes for unmanned entry vehicles
[NASA-TN-D-2700] 01 p0003 N67-10747
Transonic aerodynamic characteristics of lifting bodies with cross sectional ellipticity
[NASA-TN-D-3363] 08 p0331 N67-13168
Interaction effects of control jet exhausting radially from nose of ogive-cylinder body at transonic speeds
[NASA-TN-D-3752] 05 p0630 N67-15218
Pressure distribution over plane-nosed cylinder at subsonic and transonic speeds
[ARC-R+M-3435] 07 p0999 N67-17048
Rolling stability derivatives of variable sweep tactical fighter aircraft model at subsonic and transonic speeds
[NASA-TN-D-3845] 07 p0993 N67-18150
Measurements of direct pitching moment derivatives for four wing planforms at transonic speeds
[ARC-R+M-3435] 09 p1389 N67-20322
Hinge moment data analysis for rectangular and near rectangular trailing edge controls at supersonic and transonic speeds
[ARC-CP-974] 10 p1550 N67-21181
Wind tunnel experiments on the flow over rectangular cavities at subsonic and transonic speeds
[ARC-R+M-3436] 10 p1550 N67-21189
Transonic cascade tunnel tests on turbine blades with airfoil sections of impulse design
[NAL-TR-106] 10 p1582 N67-21412
Stability and drag characteristics of projectiles with spike or pointed nose at supersonic and transonic speeds
[AGARD-542] 11 p1779 N67-23245
Axial-flow medium aspect ratio compressor rotor blade rows designed to evaluate use of blade camberline shape to minimize blade element losses at high transonic speed
[NASA-CR-54561] 12 p2012 N67-25078
Balance measurements on delta wing aircraft at transonic speeds
[ARC-CP-964] 13 p2347 N67-26151
Aerodynamic characteristics of rectangular wings at subsonic, transonic, and supersonic speeds
[NASA-CR-73097] 16 p2812 N67-29175
Pressure measurements and flow photography tests on two-dimensional base flow at subsonic and transonic speeds
[ARC-R+M-3427] 16 p2814 N67-29882
Behavior of disturbing waves in smooth, transonic, two-dimensional flow past profiles
[NLR-TN-T.123] 16 p2815 N67-29909
Pressure drag of airfoil with different round leading edges at transonic and low supersonic speeds
[ARC-CP-921] 16 p2816 N67-30047
Constant chord, trailing edge, control deflection effects on aerodynamic loading characteristics of 60 degree delta wing-body combination at transonic speeds
[NASA-TM-X-123] 18 p3186 N67-31739
Transonic flutter of simple thin truncated-cone panels
[NASA-TM-X-599] 18 p3351 N67-32137
Static longitudinal aerodynamic characteristics at transonic speeds and angles of attack to 99 deg of reentry glider with folding wing-tip panels
[NASA-TM-X-610] 18 p3186 N67-32139
Lift and pitching moment characteristics of low aspect ratio wing-body combinations of different stiffnesses at transonic speeds
[NASA-TM-X-943] 18 p3189 N67-32156
Effects of canards in reducing launch vehicle flight loads
[NASA-TN-D-4125] 19 p3549 N67-32440
Normal-force, pitching-moment and axial-force coefficients for axisymmetry models with hammerhead noses at transonic speeds in wind tunnel
[NASA-TM-X-1433] 20 p3363 N67-35113
Skin friction law at subsonic and transonic speeds for calculating turbulent boundary layer growth on two-dimensional airfoil
[ARC-CP-948] 21 p3735 N67-36158
Transonic buffeting pressure over large hammerhead configuration
[TR-1001/2116-40/-1] 23 p4174 N67-38898
TRANSONIC TURBINE
Flow generating rotor for testing inlet flow to transonic stators
[NASA-CR-54630] 21 p3753 N67-35379
TRANSONIC WIND TUNNEL
Validity of testing full scale flight components in transonic wind tunnel by evaluating flow deviations from free flight in critical transonic phase of flight
[NASA-TM-D-3870] 07 p1198 N67-17021
Transonic wind tunnel tests on finite sweptback wings for predicting three-dimensional flow
[ARC-R+M-3348] 08 p1217 N67-16798
Time average and unsteady pressures on base of blunt afterbody, containing single jet, measured in subsonic and transonic air streams
[ARC-CP-903] 15 p3036 N67-32160
Microelectronic analog data and digital command control system for transonic dynamic wind tunnel tests of research aircraft models 18 p3348 N67-31805
Flow calibration in transonic wind tunnel for studying tunnel interference effects
[NPL-AERO-1043] 20 p3580 N67-34229
Maximal permissible model length for boundary reflected disturbance-free testing at transonic tunnel
[NASA-TM-D-4128] 21 p3825 N67-35722
TRANSPARENCY
Hydroacoustic system for telemetering data on sea water transparency 11 p1870 N67-22559
Multipass photoelectric photometry system for sea water transparency measurements 11 p1870 N67-22560
Resonance transparency factor measurements in uranium lattices
[RT/P1/67/13] 24 p4494 N67-40549

TRANSPARENT MATERIAL
Infrared coating studies involving transparent materials for use as spacer layers for filters
[QR-1] 06 p0048 N67-16159
Heat shield plastics for high speed aircraft transparencies
[D-MAT-136] 09 p1465 N67-19067
Temperature limitations of transparent polymeric materials used in aircraft canopies, windows, and windshields
[RAE-TN-CPM-53] 11 p1904 N67-22782
Photoelastic observation of ultrasonic waves in transparent plate
[ORNL-TM-1671] 13 p3416 N67-25611
Optical effects of laser light beam on organic glass 13 p3234 N67-26399
Hot pressing magnesium oxide into transparent polycrystal
[AVSSD-0168-67-RR] 15 p2729 N67-28978
Method for photographic emulsion removal from nontransparent backing and transfer to transparent backing
[EGG-1183-2133] 16 p2897 N67-29738
Abstracts on window and heat shield materials, intermetallic compounds, electrochemical power supply systems, low density polymers, and polymers containing atomically dispersed metals
[ATD-68-113] 16 p2852 N67-29847
Optical methods for studying ultrasonic propagation in transparent media
[ORNL-P-2725] 17 p3122 N67-31318
Flat disk-shaped acrylic windows under short-term hydrostatic loading
[NCEL-TR-537] 18 p3358 N67-32687
Exposure of Apollo window material to 500 deg F temperature cycles and solar simulation approximating Johnson spectrum
[NASA-CR-65687] 20 p3685 N67-34672
Charged particle emission after ruby laser irradiation of transparent dielectric materials
[TR-7] 21 p3866 N67-35695
Fracture characteristics of transparent polymers by effect of powerful light pulses at different temperatures 21 p3870 N67-36438

TRANSPIRATION
SA EVAPORATION
SA FLUID TRANSPIRATION
Preliminary thermal transpiration data for helium through porcelain membrane for heat pump 11 p1998 N67-22165
Transpiration method for measuring vapor pressures of liquid gold and plutonium compounds
[AERE-R-5352] 15 p2714 N67-28841

TRANSPIRATION COOLING
Transpiration cooling calculations for two porous concentric spheres with viscous incompressible fluid coolant and applied magnetic fields
[TN-PH-4-66] 11 p1961 N67-22937
Transpiration cooling of constricted electric arc heater
[ARL-66-0157] 14 p2633 N67-27465

TRANSPLANTATION
Bone marrow transplantation in irradiated animals and production of specific pathogen free animals for radiobiology applications
[EUR-3122.E] 01 p0016 N67-10656

TRANSPONDER
Phaselock techniques as applied to aerospace transponders
[NASA-CR-80567] 03 p0369 N67-12347
Selection of high accuracy radio guidance and tracking systems among interferometer, range and range rate and multichannel transponder systems
[ELDO-TM-F-36] 04 p0516 N67-14291
S-band transponder laboratory test equipment
[NASA-CR-65570] 06 p0833 N67-15676
Interface between transponder set and encoders used for automatic altitude reporting
[NADC-AM-6654] 06 p0842 N67-16196
Mariner S-band turnaround ranging transponder improvement program 08 p1345 N67-18345
Hartlobe airborne dual radar antenna system with improved gain-time-control action in interrogator transponder
[NRL-6461] 09 p1417 N67-19850
Transponder dart for measuring atmospheric temperature and wind profiles
[REPT.-7003-1] 10 p1763 N67-20556
Performance improvement study for air traffic control transponder antenna
[FAA-RD-66-103] 12 p2855 N67-24852
Pulse coherent transponder for space probe and tracking applications
[AR-2218] 13 p2278 N67-25443
Transponder pedestal and converter for Doppler instrumentation system
[WRE-TN-ISD-30] 16 p2898 N67-30044
Geosynchronous satellite transponder for providing two-way voice and data communication between aircraft and ground control facilities, and position location
[NASA-TM-X-55662] 19 p3403 N67-33199
Design, alignment, testing, and specifications of S-band transponder Mark I with 20-cycle bandwidth for planetary spacecraft
[NASA-CR-89060] 23 p4217 N67-39314
Integrated NASA tracking antenna network for Apollo missions using spacecraft transponder
[NASA-TM-X-55937] 24 p4408 N67-40079

TRANSPORT
SA GAS TRANSPORT
SA JET TRANSPORT
SA SUPERSONIC TRANSPORT
Design of helical pack tape recorder transport capable of handling 2000 feet of 1/2 inch magnetic tape
[NASA-CR-80140] 02 p0262 N67-12162
Cesium ionization and transport phenomena and performance of porous ionizers 04 p0604 N67-13882
Large scale transport processes carrying radioactive debris from stratosphere to troposphere
[COO-1340-3] 10 p1621 N67-20039
Monte Carlo computer code to calculate transport of gamma rays in three-dimensional, rectangular geometry
[USNRDL-TR-1038] 10 p1588 N67-20097
Intermittency effects on turbulent transport processes in free turbulent flows
[R67SD3] 11 p1863 N67-23461

TRANSPORT AIRCRAFT
SA AIR TRANSPORTATION
SA AVRO WHITWORTH HS-748 AIRCRAFT
SA CONCORDE AIRCRAFT
SA HANDLEY PAGE H.P. 137 AIRCRAFT
Feasibility of V/STOL propulsion concepts for short haul transport aircraft
[NASA-CR-670] 05 p0631 N67-14938
Air breathing propulsion in aerospace transport
[NASA-TT-F-10697] 07 p1181 N67-17390
Operating costs and performance of transport aircraft in commercial airline service
[AD-640678] 08 p1230 N67-18285
Design criteria and requirements for aircraft cargo restraint system
[USAAVLABS-TR-66-50] 10 p1555 N67-20589
Frequency of gusts at low altitude for transport aircraft research
[ARC-CP-873] 10 p1554 N67-21195
Balance measurements on delta wing aircraft at transonic speeds
[ARC-CP-904] 13 p2347 N67-26151
Transport helicopter rotor design optimization for single lift and tandem lift systems
[R-445] 13 p2347 N67-26235
Response feedback control loops effects on lateral-directional dynamics of variable stability transport aircraft
[NASA-TN-D-3968] 14 p2445 N67-26545
Evaluation of military air transport systems
[ORG/MS-7] 15 p2807 N67-27923
Feasibility of V/STOL concepts for short-haul transport aircraft
[NASA-CR-743] 15 p2840 N67-28369
Army fixed-wing cargo restraint design criteria using load limiters
[AVSER-66-21] 16 p2817 N67-29223
Problems of flight quality posed by transport aircraft with slender wing and no tail unit
[AGARD-332] 16 p2819 N67-30025
Aviation forecasts of air traffic control systems, transport planes, airport planning, and aircraft engines and fuels for fiscal years 1967 through 1977
[AD-651455] 17 p3181 N67-30464
Transonic pressure tunnel tests to determine effects of sting-support interference on longitudinal aerodynamic characteristics of transport aircraft models with upswept aft ends
[NASA-TN-D-4021] 17 p2993 N67-31654
Piloted simulator study to investigate stalling characteristics of transport-type airplanes with localized instabilities associated with pitching-moment variations
[NASA-TN-D-4071] 17 p2995 N67-31449
Supersonic commercial transport feasibility study 18 p3130 N67-31666
Weight standardization, tilt and stopped rotor optimization, and noise sensitivity analysis of V/STOL concepts for short-haul transport aircraft
[NASA-CR-73111] 18 p3195 N67-32478
Proximity effects of moving ground plane on aerodynamic characteristics of low speed transport aircraft model using blowing over flaps for boundary layer control
[NASA-TN-D-4063] 19 p3367 N67-33254
Systems and structural design concepts for air bus aircraft - propeller turbine and pure jet powered general purpose transport aircraft
[COA-AERO-197] 20 p3545 N67-34457
Low visibility operation of supersonic transport Concorde using duplicate monitored systems to achieve automatic failure survival
[REPT.-280-TP-391] 20 p3567 N67-35099
Aircraft used to control forest fires 21 p3662 N67-35997
Cabin pressurization characteristics of USAF and commercial transport aircraft
[AD-654311] 21 p3758 N67-36044
Counting accelerometer data on passenger transport aircraft gust loads
[ARC-CP-933] 22 p3859 N67-36990
Industrial location theory in era of super cargo aircraft
[AD-655695] 22 p4169 N67-37187
Evaluation of advanced VTOL, STOL, and conventional takeoff and landing aircraft for short haul transportation systems
[NASA-CR-73129] 23 p4177 N67-38562
Evaluation of advanced VTOL, STOL, and conventional takeoff and landing aircraft for short haul transportation systems
[NASA-CR-73130] 23 p4177 N67-38563
Flyover noise signals produced by jet transport aircraft
[DS-67-18] 23 p4177 N67-38564
Large transport approach and landing simulation - direct lift control applied to noise abatement approaches, and supersonic transport handling capabilities
[NASA-CR-73149] 23 p4178 N67-39061

TRANSPORT COEFFICIENT
Bibliographies compiled and data evaluated on diffusivity, viscosity, transport phenomena, and turbulent flow
[NASA-CR-79930] 02 p0250 N67-11860
Applications of transport coefficients in plasma, and related bibliography 04 p0504 N67-13484
Transport coefficients from adiabatic excitation transfer in atomic gases
[NASA-CR-80672] 05 p0740 N67-14998
Viscosity and thermal conductivity coefficients for dilute nitrogen and oxygen
[NASA-CR-81126] 05 p0697 N67-15214
Transport coefficient kinetics for gas of loaded sphere
[NASA-CR-68702] 08 p1326 N67-18651
Method for determining turbulent transport coefficient in supersonic flow
[NASA-CR-82536] 08 p1268 N67-19055
Shielding design mathematics for fuel-handling facilities, computer calculations for gamma ray transport and dose rates, and programs for neutron transport and Legendre coefficients 08 p1324 N67-19236
Boltzmann equation approach to transport phenomena and density expansion of transport coefficient
[TR-9] 10 p1614 N67-21341
Thermal diffusion column shape factors based on Lennard-Jones /6-12/ intermolecular force model and transport coefficients for binary gas mixture
[K-1670] 12 p2157 N67-25585
Viscosity and thermoconductivity coefficients of dilute neon, krypton, and xenon
[NASA-CR-83290] 13 p3425 N67-25941
Composition and transport coefficients of partially ionized argon in chemical equilibrium - Tables
[NASA-CR-85559] 17 p3143 N67-30675
Kinetic analysis of transport coefficients in mass and energy rate equations for steady state evaporation of mercury, and bubble growth measurements at low temperatures
[NASA-CR-85621] 17 p3178 N67-31213

TRANSPORT EQUATION

Indian Institute of Science Journal articles on bacteriology, thermodynamics, actinomycetes isolation, wave propagation, and transport processes 03 p0477 N67-12843

Fokker-Planck formalism for incorporating random particle deviations, Hermitian polynomials for expanding distribution functions, and transport equation derivations 03 p0447 N67-12846

Angle-space synthesis as analytical approach to solution of neutron transport equation in realistic multidimensional reactor geometries

[CONF-660606-14] 04 p0575 N67-13962

Time periodic solutions of transport and Poisson equations for layer-like field inhomogeneities propagating through crystal

[TR-14] 05 p0751 N67-14947

Time dependent solutions of transport and Poisson equations for layerlike field inhomogeneities

[TR-13] 06 p0945 N67-15356

Monte Carlo and discrete-ordinate calculations of neutron transport from fission and 14 MeV point sources in infinite air medium compared to other calculations of same phenomena

[ORNL-TM-1547] 07 p1155 N67-17693

Digital solution of integral transport equation in one-velocity and isotropic scattering approximation for square cell containing four-rod cluster element

[EUR-3124.I] 07 p1136 N67-18064

Perturbation and successive approximation methods for coupled form solution of transport equations on reactor shell problem

[INR-685/IX/RP] 10 p1686 N67-21410

Biorthogonal angular polynomial expansions of directional flux in linear Boltzmann transport equation

[LA-3617] 12 p2169 N67-24549

Milne problem solution for monoenergetic neutron transport equation with linear anisotropic scattering function in plane geometry

[BMWF-FBK-66-18] 12 p2171 N67-24679

Derivation and properties of transport equation describing cosmic ray energy spectrum variation within interplanetary medium

[NASA-CR-84504] 14 p2699 N67-27663

Calculation of neutron flux distribution by means of integral transport method in one-dimensional geometry

[AE-379] 17 p3129 N67-30522

User manual for one-dimensional discrete ordinates transport code with anisotropic scattering

[K-1693] 17 p3036 N67-30529

Neutron diffusion coefficient determined by using transport equations in P-2 approximation 17 p3137 N67-31248

Computational methods used in multifluid hydrodynamics code 19 p3498 N67-33211

Multigroup transport perturbation AL/TAC code for Philco-2000 computer

[IA-1105] 19 p3507 N67-33699

Rigorous solution of energy-independent neutron transport equation for thin embedded layer

[JUL-484-RE] 20 p3692 N67-34254

Biorthogonal angular polynomial expansions of two-dimensional Boltzmann transport equation

[LA-DC-8478] 20 p3670 N67-34678

Computer program for analysis of one-dimensional integral differential transport equation

[JUL-444-MA] 20 p3762 N67-35070

Computer program for solving time-independent neutron transport equation in multigroup r-geometry reactor cell

[EIR-110] 21 p3900 N67-35457

Analytical solution of energy dependent neutron transport equations

[EIR-98] 21 p3901 N67-35859

Buildup of charged radiation component in shielding

[JINR-P9-3269] 21 p3901 N67-35908

TRANSPORT PROPERTY

SA DIFFUSION

SA HEAT TRANSFER

SA KINETIC THEORY

Fluid transport property and hydration of cornea placed in water

[AD-634855] 01 p0014 N67-10308

Theory of transport coefficients for moderately dense gases

[BN-460] 01 p0060 N67-10378

Calculation of Sobolevs phi function of radiative transfer via numerical inversion of Laplace transforms

[RM-5121-PR] 01 p0120 N67-10488

Investigations of transport effects in solids

[AD-637829] 01 p0139 N67-10492

Trapping, transport, and decay from transverse shock-produced plasma flow interaction with magnetic field

[TID-22144] 01 p0134 N67-10628

Estimation of local anisotropic scattering properties using measurements of multiply scattered radiation - numerical analysis

[RM-5075-PR] 01 p0118 N67-10970

Vibration effects on natural convection and fluid transport properties in cryogenic systems

[NASA-CR-79540] 02 p0235 N67-11899

Effect of transport property uncertainties on stagnation point heat transfer prediction 02 p0236 N67-12100

Theoretical and engineering research on plasma measurement techniques, waveguides, transport properties, delay lines, reentry phenomena, interactions, and instabilities 04 p0594 N67-13661

Cyclotron resonance, helicon propagation, and DE Haas-van Alphen effect experiments for studying transport properties of semiconductors semimetals

[ARL-66-0078] 05 p0751 N67-14949

Transport properties of plasma determined from electric arc measurements 05 p0748 N67-15238

Radiative transport effects in corner flow - solution to diabatic flow problem found as perturbation on adiabatic Prandtl Meyer solution

[TR-124] 06 p0960 N67-15414

Series expansion of Laguerre polynomials applied in solution of plasma kinetic equation to obtain 20 by 20 determinant for equilibrium plasma for electron-electron and electron-ion contributions

[P-364] 06 p0943 N67-16179

Electrophoretic method using radioisotopes to determine isothermal ion mobilities and transport numbers in molten salts

[EUR-3190.E] 07 p1026 N67-17357

Rubidium and cesium thermodynamic and transport properties for space power systems

[AGN-8187] 07 p1209 N67-17589

Turbulent far wake mixing problems

[NYU-AA-66-63] 07 p1066 N67-17655

Thermoelectric powers of silver-gold and silver-germanium alloys

[NASA-CR-81639] 07 p1179 N67-17826

Electron transport processes in tunnel diodes

[REPT.-314] 07 p1179 N67-17904

Asymptotic properties of approximate solutions for integral equations of radiative transfer in strongly absorbent media

[MRC-663] 09 p1489 N67-19786

Thermodynamic and transport properties of liquid cesium and rubidium viscosity

[AGN-8192, VOL. 3] 09 p1544 N67-20211

Low temperature studies and investigation of electrical, physical, optical, and transport properties of semiconductors

[PRF-3236] 10 p1746 N67-20604

Electron temperature, transport, and velocity obtained for electric field in polar semiconductor

[SR-8] 10 p1746 N67-20606

Emittance, beam spot size, proton extraction efficiency, and beam time structure of external proton beam at ZGS

[COO-1545-13] 10 p1711 N67-20974

Thermodynamic and transport properties of cesium, rubidium, lithium, and sodium

[AGN-8202] 10 p1773 N67-21316

Neutron-gamma Monte Carlo transport code to provide differential data for use in mapping initial radiation environment created by nuclear detonation

[NDL-TM-35] 10 p1589 N67-21634

Theoretical and experimental research on free molecular transport properties, gas dynamics, nitrogen free jet properties, shock wave behavior, and shock structure in binary mixtures

[NP-16419] 11 p1943 N67-22295

Theoretical and experimental studies in chemical physics - transport properties, molecular energy levels, excitons, phase studies mathematical models, quantum mechanics, and spectroscopy

[APGR-67-0041] 12 p2027 N67-22518

Water transfer function of human skin

[AD-646848] 12 p2035 N67-24851

Digital computer subroutine for thermodynamic and transport properties of liquid, vapor, and supercritical water

[WAPD-TM-568] 13 p2423 N67-25589

Transport computer program for calculating real and adjoint flux for NASA zero power reactor

[NASA-TM-D-3990] 14 p2573 N67-26350

Mechanical and industrial engineering programs to study gas dynamics, transport properties, hypervelocity, wind tunnel testing and other problems 14 p2542 N67-26868

Solution to problem of multiple scattering in slab illuminated by parallel rays of radiation expressed in terms of problem with isotropic radiation sources

[RM-5295-PR] 14 p2581 N67-26911

Ultrasonic test methods used to determine transport properties of high temperature gases

[NASA-CR-789] 14 p2517 N67-27223

Gas solubility and transport properties in fuel cell electrolytes

[NASA-CR-84432] 14 p2481 N67-27439

Electrotransport properties of oxygen, nitrogen, and carbon in vanadium

[IS-T-133] 16 p2944 N67-29327

Dielectric properties of structures, electron band structure and transport properties, and resonance phenomena 16 p2946 N67-29464

Three-dimensional properties of magnetic beam transport elements

[BNL-11143] 18 p3446 N67-29789

Self-diffusion measurements and fission product transport and release mechanisms in high temperature nuclear uranium fuels

[BMWF-FBK-66-32] 17 p3167 N67-30229

Transport properties and boiling characteristics of wicks for vapor-chamber fins

[NASA-CR-813] 17 p3178 N67-31148

Chemical diffusion coefficient of manganous oxide in p-region and n-region by measuring electronic conductivity as function of time and oxygen pressure 18 p3322 N67-31794

Initial behavior of pseudo-shock and relaxation of gases

[R-350] 18 p3360 N67-32041

Gamma radiation properties of cylinder placed behind and axially perpendicular to slab - evaluation of effectiveness of radiation shielding on ships

[USNRDL-TR-67-43] 19 p3487 N67-32857

Arc calculation, composition, and transport properties of argon and hydrogen plasma

[FTD-MT-63-544] 19 p3515 N67-33064

Thermodynamic-transport and related property data for para-hydrogen - tables

[LA-3660] 19 p3581 N67-33225

Tests conducted to determine transport behavior of iodine and uranium dioxide aerosols in air

[ORNL-4030] 19 p3480 N67-33345

Thermodynamic and transport properties of cesium and rubidium pressure volume temperature properties

[AGN-8192, VOL. 1] 20 p3743 N67-34079

Electrical conductance of semipermeable membranes

[AD-655127] 21 p3894 N67-35410

Computer programs for thermodynamic and transport properties of hydrogen

[NASA-CR-80060] 21 p3945 N67-35827

Thermodynamic and transport properties of potassium for alkali metals evaluation program

[AGN-8194, VOL. 2] 21 p3951 N67-36033

Anomalous plasma transport in stmulent plasma of Q device

[SRRC-CR-67-15] 22 p4114 N67-36976

Ionic thermocurrents in alkali halide crystals containing substitutional beryllium ions

[TR-8] 22 p4136 N67-37115

Material transport and temperature distribution in arc welding between melting aluminum electrodes

[REPT.-67-66] 22 p4139 N67-37739

Field quenching model for undeformed moving domains in cadmium sulfide negative differential conductivity

[AROD-4461-16-P] 22 p4139 N67-37988

Charge transport mechanism in thin silicon nitride films

[NASA-CR-80696] 22 p4139 N67-37944

Establishment of thermodynamic and transport properties for parahydrogen

[NASA-CR-88867] 22 p4167 N67-37975
Thermodynamic and transport properties of rubidium, cesium, and potassium, and alkali metals evaluation for heat pipe applications
[AGN-8223] 22 p4168 N67-38006
Preliminary collation of thermodynamic and transport properties of saturated liquid and vapor cesium
[NASA-CR-88967] 22 p4168 N67-38007
Pulse detection system for measurement of transport properties of photoexcited carriers in insulating crystals
[AROD-4938-6-P] 23 p4327 N67-38270
Chemical reaction rates considered on molecular and statistical levels 23 p4305 N67-38683
Absorption and transport of zincate in separator membranes for improved electrodes in spacecraft electrochemical cells
[NASA-CR-89312] 23 p4182 N67-38923
Electric conductivity calculations of excitonic insulator in semimetallic region
[TR-47] 23 p4333 N67-39041
Determination of molecular basis for transport properties of organic nitro compound solutions used in high capacity fuel cells and batteries
[NOLC-737] 24 p4376 N67-39486
Generalized convergent kinetic equation for transport cross section analysis of ionized plasma
[UCRL-50166] 24 p4507 N67-39684

TRANSPORT THEORY
SA INTEGRAL EQUATION
Response matrices in double P sub N approximation of neutron transport theory
[AAEC-E-149] 01 p0128 N67-10776
Steady state, transport operator, and comparison with T-matrix
[USNRDL-TR-1057] 01 p0118 N67-11178
GRIBM computational system in Fortran II for IBM 7094 for generating multigroup constants from microscopic neutron cross section data
[NAA-SR-11900, VOL. III] 06 p1319 N67-18893
Invariant imbedding equations for transport problems derived and applied to boundary value and initial value problems
[NASA-CR-82509] 06 p1302 N67-19089
Thermal neutron flux calculations by Monte Carlo and other codes, experiences with SNAP power plants, and applications of discrete-ordinate transport theory to radiation shielding problems 06 p1322 N67-19224
Fortran program applying first order perturbation theory to problems in multigroup neutron transport theory
[AWRE-O-40/66] 10 p1719 N67-21513
Fortran Monte Carlo program treating time dependent neutron and photon transport
[UNC-5157] 12 p2174 N67-24961
Electronic band structure, transport theory, laser scattering, and magnesium and Heisenberg models - solid state physics research 13 p2389 N67-25125
Time dependent neutron transport from point isotropic source at high altitude
[DASA-1830-II] 13 p2370 N67-25177
Statistical mechanics, quantum biochemistry, macromolecule theory, surface and membrane theory, transport phenomena, receptor isolation, and cancer chemotherapy in theoretical biology
[NASA-CR-83005] 13 p2257 N67-25760
SNARG-1D computer program based on discrete-ordinates, transport theory method for solving one-dimensional problems applicable to plane, cylindrical, and spherical geometries
[AML-7231] 14 p2568 N67-27246
Time dependent neutron transport from point isotropic source at altitude of 50,000-ft using Monte Carlo transport code
[DASA-1830-III] 14 p2527 N67-27466
Computer programs for calculations of infinite lattice parameters by multigroup transport theory and of composite reactor parameters by few-group diffusion theory
[DP-1064] 14 p2579 N67-27590
Variational principles associated with neutron diffusion in solids
[MRC-TSR-711] 15 p2760 N67-32290
Methods using integral transform techniques for application to fast neutron transport theory
[EUR-3497.E] 17 p3139 N67-34512
Monte Carlo studies of light transport
[RRA-T74] 17 p3122 N67-31393
Discontinuous Markov processes and stochastic population processes applied to transport theory problems
[AML-7131] 18 p3308 N67-31823
Markov process used in formulations and theory of stochastic neutron transport
[LA-DC-8708] 19 p3507 N67-33644
DTF-BURN - multigroup transport theory burnup computer program written in Fortran IV
[LA-3671] 19 p3491 N67-33646
General transport theory applicable to studies of kinetics of heterogeneous systems
[CEA-R-3060] 19 p3494 N67-33663
One-speed transport theory with anisotropic scattering applied to slab albedo problem
[NP-16508] 19 p3556 N67-33883
DIFF code using results of WDSN transport code to calculate neutron diffusion theory parameters for CRAM diffusion code
[AAEC/E174] 20 p3691 N67-34174
Transport theory extended to two-dimensional geometry and applied to multigroup theory
[KIR-115] 21 p3902 N67-35994

TRANSPORT VEHICLE
Optimal control of high speed ground transport system for continuous city traffic
[ESL-P-251] 01 p0114 N67-10440
Assessment of SR.N5 hovercraft used as transport vehicle in arctic regions
[DR-163] 06 p0789 N67-15459
Alluvial fan method for developing quantified terrain data for vehicle design criteria
[AD-634659] 15 p2807 N67-27543
Feasibility of area maintenance concept with self-contained test vehicle for use on low cost instrument landing systems
[RD-66-104] 16 p2873 N67-29460
Review and analyses of land locomotion theories, soil mechanics, and unusual vehicle concepts for off-road trafficability
[TR-9560] 18 p3255 N67-31921
Design theory for vehicle suspension system with increased speed capability over rough terrain 18 p3256 N67-31924
Review of current methods for analyzing vehicle wheel performance in soft soil 18 p3263 N67-31925
Analytical methods for predicting performance of wheeled or tracked vehicles over off-road terrain 18 p3256 N67-31926
Unusual surface vehicle concepts and components evaluated for off-road locomotion 18 p3256 N67-31927
Full scale crawler belt shoe tests on surfaces and lubricants for structural and sliding friction effects
[NASA-CR-88904] 23 p4232 N67-38347

TRANSPORTATION
SA AIR TRANSPORTATION
SA RAIL TRANSPORTATION
Collar and chain procedure for transporting and seating monkeys
[ARL-TR-66-14] 01 p0016 N67-10483
Optimal transportation bases and cost matrices
[AD-640668] 06 p0803 N67-16151
Mobile integrated support system for transporting tactical electronic equipment compared to conventionally supported system 07 p1656 N67-16986
Estimation of curie content of radioactive materials transported under International Atomic Energy Agency regulations
[TRG-1287/D/] 10 p1697 N67-20406
Economic impact of air traffic control delays, airport congestion, and inadequate ground transportation on regional airline operations 11 p2003 N67-22270
Support facilities and transportation equipment for missile and space systems - annotated bibliography
[ATD-66-139] 13 p2305 N67-26351
Support facilities and equipment for missile and space systems
[ATD-67-12] 16 p2973 N67-29545
Concepts and techniques of spatial data systems for urban and transportation planning
[NASA-CR-85616] 17 p3033 N67-31145
Organization, handling, and data retrieval for spatial data systems in urban and transportation planning
[NASA-CR-85827] 18 p3256 N67-31940
Systems design of unattended system for automatic measurement and digital recording of critical transportation environmental parameters 19 p3452 N67-33138
Proton beam transport system from linear accelerator to Nimrod accelerator
[RHEL/R-141] 21 p3827 N67-36287
Optimum allocation of transportation terminals in urban areas
[R66-60] 22 p4168 N67-36919
Dynamic programming model for optimal combination of transportation modes over multiperiod planning horizon
[RM-5250-PR] 22 p4083 N67-37242
Color specifications for transportation signal lights
[NBS-MONO-75] 22 p4014 N67-37469
Maximizing flow through network with node and arc capabilities
[RM-5383-PR] 23 p4274 N67-38502
Shock and vibration design criteria manual for transportation and handling
[NASA-CR-84408] 23 p4361 N67-39212
System functional requirements and configurations for roving vehicle missions on Moon and Mars - motion control
[NASA-CR-89563] 24 p4527 N67-39669
Calculation of fission product release from irradiated fuel elements under normal transportation conditions and after thermal accident during transportation
[EUR-3422.F] 24 p4494 N67-40454

TRANSURANIUM ELEMENT
SA AMERICIUM
SA BERKELIUM
SA CURIUM
SA FERMIUM
SA NOBELIUM
SA PLUTONIUM
Production and indifference pricing of transuranium isotopes produced by simulated power reactors 05 p0785 N67-14822
Evaluation of cross sections for determining production of transuranium elements
[BNL-982] 07 p1151 N67-17521
Neutron cross sections and resonance integrals for transuranium elements 08 p1336 N67-18601
Evaluation of critical path method for scheduling transuranium processing plant
[ORNL-3925] 10 p1690 N67-21816
Annotated bibliography of chemical and physical properties of americium
[RFP-770] 11 p1809 N67-22383
High flux isotope reactor target development, and production of gram quantities of heavier transuranium elements by neutron captures in plutonium 239 13 p2355 N67-25369
Toxicity and metabolism of transuranium elements
[ORNL-TR-1462] 16 p2844 N67-29279
Accelerator requirements for production of very heavy ions and of super elements with atomic number greater than 101
[UCRL-17295] 21 p3906 N67-36456
Low energy X-ray measurement of some transuranic elements with lithium-drifted silicon detector system
[RFP-980] 24 p4396 N67-40106

TRANSVERSE OSCILLATION
Dynamic response of droplet vaporization process excited by traveling transverse acoustic oscillations derived by linear analysis
[NASA-TN-D-3749] 03 p0474 N67-13169
Splitter plate effectiveness in reducing transverse oscillations of finite circular cylinder in turbulent flow
[UBL-759] 07 p1062 N67-16860
Oscillating laminar separated flow ahead of forward facing step oscillating transversely to hypersonic free stream 08 p1218 N67-19230
Effect of vibrations and oscillations on heat transfer from circular cylinder
[ARL-66-0235] 16 p2983 N67-29983
Transverse coherent motion of two particle beams in strong focusing storage ring
[CERN-67-19] 20 p3706 N67-34615
Vaporization and transverse acoustic oscillation effects on liquid jet breakup
[NASA-CR-72256] 22 p4159 N67-36766

TRANSVERSE VIBRATION
Transverse forced vibration of viscoelastic nylon filament under stretching and tension changes 05 p0789 N67-14496
Approximate solutions to transverse vibrations in shallow spherical shells 09 p1525 N67-20949
Finite element modeling of uniform cantilever beams and computation of

transverse frequencies due to combinations of bending with rotatory inertia and shear flexibility
[NASA-TM-X-55743] 11 p1992 N67-22881
Transverse modes in resonantly coupled accelerator 12 p2076 N67-24076
Motion equation for forced transverse vibration of slender beam with viscous damping programmed for computer solution
[PA-TR-3490] 12 p2230 N67-24787
Transverse and four-momenta of recoil protons, and interactions of high energy secondary cosmic ray particles
[INR-793/VI/PH] 20 p3732 N67-34906
TRANSVERSE WAVE
Reflection coefficient of transverse electromagnetic mode parallel plate waveguide illuminating perfectly reflecting sheet
[NASA-CR-66234] 03 p0367 N67-12964
Stress and strain distribution analysis in braking high speed moving bodies by extensible strings using influence between longitudinal and transverse waves 05 p0736 N67-14526
Extraordinary transverse wave propagation for plasma measurements 11 p1957 N67-21956
Interaction of longitudinal, surface, and transverse waves on plasma boundary
[NASA-TT-F-10620] 12 p2187 N67-25627
Radiation leakage from TM mode in circular dielectric rod aerial waveguide
[RT-27] 14 p2583 N67-27845
Acoustical properties of tellurium crystals, and factors affecting accuracy of observations of acoustical activity
[TR-12] 19 p3522 N67-32778
Interaction between longitudinal and transverse waves of infinite homogeneous isotropic collisionless plasma
[AD-654525] 21 p3911 N67-36444
Dispersion of free harmonic waves in fiber reinforced composites
[TR-67-3] 23 p4353 N67-39077
Analytical and experimental study of interaction of waveguide with waves on rotating electron beam
[UTEC-MD-67-050] 24 p4422 N67-39419
Nonlinear wave-wave interaction between parallel transverse plasma oscillations
[AD-656738] 24 p4508 N67-39907
Nonlinear interaction between electroacoustic and transverse electromagnetic waves microwave frequencies
[IPP-3/54] 24 p4509 N67-39908
TRAPEZOIDAL WING
Pressure distribution on trapezoidal wing of canard aircraft model in supersonic pressure tunnel tables
[NASA-TM-X-140] 18 p3190 N67-31534
Wind tunnel determination of supersonic flow properties in vicinity swept, delta, and trapezoidal wing-body combinations
[NASA-TM-X-64] 18 p3189 N67-32300
TRAPPED MAGNETIC FIELD
Bremsstrahlung effect from plasma injection into magnetic trap with cusped fields 11 p1955 N67-21938
Motion analysis of charged particles in axially symmetric magnetic fields of cusped geometry 11 p1955 N67-21939
Experimental investigation of charged particle motion in magnetic traps of cusped geometry 11 p1955 N67-21940
Resonant magnetic field for conversion of longitudinal particle energy into transverse energy 11 p1956 N67-21941
Resonant magnetic field for conversion of transverse energy of charged particles into closed magnetic trap 11 p1956 N67-21942
Low temperature coils in magnetic trap for generating strong magnetic fluid 11 p1956 N67-21943
Calculations on filling magnetic field of small capacity trap with plasma 11 p1956 N67-21944
Description of intrusive trap magnetic properties in Degen River section of U.S.S.R. for interpreting aeromagnetic and terrestrial magnetic survey data
[ACIC-TC-1162] 16 p3208 N67-32174
Microwave surface resistance of superconducting lead, trapped magnetic flux, and magnetometer using superconductivity
[HEPL-514] 24 p4518 N67-39928
TRAPPED PARTICLE
SA GEOMAGNETICALLY TRAPPED PARTICLE
SA MAGNETICALLY TRAPPED PARTICLE
Luna-10 measurements of meteor particle impacts in earth magnetosphere
[JPRS-38798] 02 p0306 N67-12010
Current sheet approximation of effect of ring current on distribution of unbound particles in magnetosphere
[NASA-CR-78971] 02 p0301 N67-12234
Trapped electrons and magnetic moment of Mars determined by solid-state charged-particle telescope aboard Mariner IV 03 p0463 N67-12751
Computer program for two-dimensional mapping of directional fluxes of energetic particles trapped in outer magnetosphere
[NASA-CR-55615] 03 p0456 N67-12163
Behavior of particles of radiation belts during magnetic storms
[NASA-CR-81271] 06 p0956 N67-16506
Fortran routine for Relay I trapped proton distribution measurements
[NASA-CR-81686] 07 p1048 N67-18040
Topological study of trapped particle motion in magnetic field
[NASA-TM-X-57233] 08 p1397 N67-18704
Design study for muon and antiproton facility at Stanford linear accelerator
[UR-875-161] 10 p1599 N67-26728
Paramagnetic relaxation characteristics of trapped electrons and hydrogen atoms in irradiated frozen aqueous solutions
[COO-1528-7] 10 p1723 N67-21807
Velocity space instabilities in toroidal geometry
[IC/66/91, REV.] 11 p1961 N67-21905
Static, radial electric fields influence on trapped particle instabilities in toroidal plasmas
[IC/66/100] 11 p1964 N67-23391
Trapped particle distribution at 900 km altitude near South Atlantic geomagnetic anomaly 13 p2311 N67-25181
Geomagnetic Euler potentials applied to conjugate points on earth surface and magnetosphere, and equations for drift shells traced by trapped particles
[NASA-TM-X-55819] 16 p3288 N67-29996
Temporal variations of 40 keV electrons in magnetosphere during and after magnetic storm on April 18, 1965
[NASA-CR-85905] 17 p3057 N67-31362
Atmospheric electric field relation to ionospheric irregularities, and absorption mechanisms for synchrotron radiation from trapped electrons in Van Allen belts 18 p3222 N67-32503
Proposals for high inclination satellite and for satellite for investigating particle wave interactions magnetosphere
[ESRO-SN-29] 19 p3445 N67-33522
Computer code for calculating omnidirectional vehicle encountered trapped particle fluxes
[NASA-TM-X-55675] 20 p3721 N67-34158
Electromagnetic interaction with background plasma and Cerenkov trapping mechanism for electron or ion current loops
[UCRL-50187] 20 p3708 N67-34376
Charged particle energization by arbitrarily moving magnet
[NASA-TM-X-55909] 21 p3895 N67-35628
Spectral, spatial and temporal variations of outer zone electrons from Injun III observations
[NASA-CR-83543] 22 p4135 N67-36712
Earth trapped proton measurements using sensors on board four Elektron series satellites
[NASA-CR-85368] 23 p4340 N67-38852
Design and development of triethylenediamine or potassium iodide impregnated charcoal filters for methyl iodide trapping 23 p4288 N67-38869
TRAPPED RADIATION
Models of trapped electron environment of inner radiation belt at synchronous orbit altitudes
[NASA-SP-3024, VOL. III]
00 p1800 N67-18899
Calculations regarding trapping, retention, transfer, and acceleration of charged particles in earth radiation belt
[NASA-CR-84092] 13 p2316 N67-26414
Analysis of Explorer IV satellite telemetry records concerning geomagnetically trapped radiation
[DASA-1889] 17 p3155 N67-31699
Effect of optical radiations and water vapor on trapping spectrum of cadmium sulfide
[NASA-TN-D-3974] 18 p3281 N67-32132
Satellite measurements and trapped corpuscular radiation, and radiation damage on satellite component materials 18 p3223 N67-32187
Low energy protons and models of trapped radiation environment
[NASA-SP-3024, VOL. IV] 21 p3829 N67-36447
TRAPPING
SA COLD TRAP
SA CRYOTRAPPING
Excitation transfer and trapping in photosynthetic units 18 p3208 N67-31748
Air cleaning filters and systems for reactor control and environmental safety, contamination prevention, aerosol exhaust, and fission product confinement and containment
[CONF-660904, VOL. 1] 23 p4387 N67-38880
Trapping plant filter tests on iodine release from uranium fuel into vented reactor containment system 23 p4289 N67-38898
TRAUMA
Hemorheologic disturbance of fat embolism after trauma 05 p0648 N67-14605
Atraumatic methods for monitoring cardiovascular functions
[NASA-CR-87000] 20 p3576 N67-34723
TRAVELING SALESMAN PROBLEM
Algorithm to solve traveling salesman problem
[ORC-67-11] 20 p3669 N67-34366
TRAVELING SOLVENT METHOD
Crystal growth and structure of silicon carbide investigated by traveling solvent method
[AFCRL-67-0271] 21 p3783 N67-35773
TRAVELING WAVE
Raman generator for amplification of coherent radiation, and spectral characteristics of gas laser with one direction traveling wave propagation
[FTD-MT-65-299] 02 p0267 N67-11313
Multimodality of gas laser in resonator with one direction traveling wave propagation 02 p0267 N67-11315
Traveling wave bulk electroconvection induced across temperature gradient
[NASA-CR-80161] 02 p0448 N67-12284
Traveling wave linac radio frequency system for advanced 200 BeV accelerator
[BNL-10559] 04 p0820 N67-14628
Frequency analysis to determine image pulsation of artificial light wave traveling through atmospheric ground layer 04 p0971 N67-15467
Combination resonant V-antenna and traveling-wave dipole antenna
[NASA-CR-81184] 06 p0822 N67-15522
Two-dimensional unsteady flow in traveling wave plasma accelerator studied using small perturbation theory
[NASA-CR-81288] 06 p0944 N67-16588
Electrohydrodynamic traveling wave induction pumping of liquids and gases
[NASA-CR-70405] 07 p1007 N67-17766
Mode coupling effects due to scattering in traveling wave helium-neon ring laser
[NASA-CR-82490] 09 p1388 N67-19586
Conference on problems of surface wave propagation and amplification, self-induced vibration, aeromagneto flutter, Rayleigh wave scattering, and traveling waves in various media 12 p2184 N67-24141
Traveling surface waves in system of mechanical oscillators moving over elastic surface and in gas flow over finite elastic surface with thin plate 12 p2191 N67-24149
Interaction of high frequency waves and plasma in Delta 2 12 p2191 N67-24170
Numerical solution and model of one-dimensional unsteady interaction of plasma with magnetic field in traveling wave accelerator
[SR-41] 13 p2308 N67-25977
High voltage pulse traveling wave reflection-type faucet attenuator with subnanosecond response
[UCRL-14723] 13 p2310 N67-25457
Traveling waves in F region over Arecibo associated with magnetic disturbance 16 p3209 N67-29219
Continuous wave traveling wave accelerator development for production of pinched plasma toroids
[REPT.-6128, VOL. I] 17 p3140 N67-30683
Optimum length for traveling magnetic wave plasma accelerator that maximizes kinetic efficiency
[NASA-TN-D-4295] 24 p4389 N67-39189
TRAVELING WAVE AMPLIFIER
Design and performance of traveling wave

maser amplifier for communications ground station 03 p0406 N67-12313
High power traveling wave amplifier tube for Telstar satellite ground transmitter 03 p0364 N67-12317
Traveling wave amplifier output stage for communication satellite ground transmitter 03 p0365 N67-12318
Microwave research - optical maser improvement, and generation of domain in cadmium sulfide by injected acoustic noise [ML-1491] 18 p3252 N67-32189
Solid state traveling wave amplifier using n-type semiconductor [ECOM-2902] 21 p3815 N67-35586
Low weight beam tube development for traveling wave amplifiers [ECOM-02378-2] 21 p3817 N67-35647
Lightweight focusing schemes for low noise, X-band traveling wave tube amplifiers [RCS-OSD-1286] 22 p4010 N67-36891
C-band traveling wave amplifier for troposcatter applications [RCS-OSD-1366] 22 p4012 N67-37014
TRAVELING WAVE MASER
Helium cooling system for solid state maser amplifier installation at communication satellite ground station 03 p0407 N67-12314
Tuning range extension of klystrons used for pumping S-band traveling wave masers 05 p0715 N67-14441
Dual channel traveling wave maser for integration in closed cycle refrigerator 06 p0838 N67-15906
Low noise receivers - traveling wave maser development 06 p0838 N67-15913
Tunable traveling wave maser for deep space communications and planetary radar [JPL-TR-32-1072] 07 p1005 N67-17168
Error detection code for deep space network, multi-mission telemetry demodulator, traveling wave maser, and advanced antenna system 17 p3023 N67-30073
Materials preparation and microwave bench measurements for zero-field traveling wave maser 19 p3407 N67-33585
TRAVELING WAVE MODULATION
Frequency power relation validity for electromagnetic wave propagation through dielectric medium modulated with traveling acoustic wave [AFOSR-66-2333] 06 p0918 N67-16218
TRAVELING WAVE TUBE
Reduction of high magnetic field induced noise in traveling wave tubes [ECOM-2737] 01 p0138 N67-10365
Measurements of nonlinear amplitude distortion and phase shift in traveling wave tube [RADC-TR-66-543] 02 p0344 N67-11932
Method for evaluating traveling wave tube stability and atomic hydrogen frequency standard 05 p0683 N67-14442
Strip form iterated traveling wave parametric amplifier using series connected diodes [AD-642786] 06 p0852 N67-15964
Nonlinear theories for klystrons and traveling wave tubes [RADC-TR-66-796] 08 p1256 N67-18286
Comparison of clover-leaf traveling wave tubes and multicavity klystrons in 6 Gc frequency band [NASA-CR-83473] 08 p1258 N67-19029
Effect of ferrite on interaction of external electron beam and magnetic field of traveling wave tube [ECOM-2796] 15 p3822 N67-32920
S-band traveling wave tube development [NASA-CR-80023] 21 p3816 N67-35644
S-band traveling wave tube for deep space [NASA-CR-80022] 21 p3817 N67-35670
Fabrication and testing of high-efficiency 100 W S-band traveling wave tube for spacecraft application [NASA-CR-80080] 21 p3819 N67-36281
Development of 100 watt S-band traveling wave tube for space applications [NASA-CR-80565] 22 p4000 N67-36739
Microwave propagation in single carrier semiconductor including collision and diffusion effects [ECOM-2923] 23 p4124 N67-36767
Design and development of traveling wave power amplifier tube employing transverse wave interaction [ECOM-0226-1] 23 p4011 N67-36907
X-band high power traveling wave tube and associated amplifier console [ECOM-66864-F] 24 p4419 N67-39793
TREAT
S TRANSIENT REACTOR TEST /TREAT/ FACILITY
TREATMENT
S HEAT TREATMENT
S OXYGEN TREATMENT
S SURFACE TREATMENT
S THERAPY
TREE
Relation between solar activity and tree ring growth in western North America [NASA-CR-81788] 07 p1075 N67-18132
High altitude color and multispectral imagery for inventory and mapping of timber resource [NASA-CR-82963] 09 p1449 N67-19905
Review of proceedings from seminar on solar dendroclimatic relationships and discussion of predictions of sunspot activity on basis of tree ring variance [NASA-CR-88972] 23 p4186 N67-38416
TRI-SERVICE TRANSPORT
S XC-142 AIRCRAFT
TRIANGULAR WING
Wind tunnel studies of basic low speed aerodynamics of short-coupled canard configurations of two triangular wings of small aspect ratio [SAAB-TN-60] 16 p3813 N67-29778
Gun tunnel measurements of lift, drag, and pitching moment on 20-degree half-angle right circular cone and on delta wings of triangular and caret cross section [ARC-CP-908] 16 p2814 N67-29987
Pressure distribution measurement of interference effects on maximum lift-drag ratio at supersonic speeds produced by wedge shaped bodies located under triangular wing [NASA-TM-X-76] 18 p3186 N67-31960
TRIANGULATION
Computer program for simultaneous triangulation of aerial photographs [AD-638750] 01 p0069 N67-10093
Design, fabrication, and testing of prototype fly-away satellite triangulation system for geodetic stellar camera survey system 07 p1077 N67-16970
Validity of solenodetic positions 11 p1975 N67-22515
Simultaneous analytical aerial triangulation and adjustment technique programmed in Fortran for large scale digital computer [TR-34-TR] 11 p1863 N67-22584
Acoustic spectrometer system for ultrasonic nondestructive testing by triangulation method 13 p2105 N67-25872
Visual factors affecting precision of coordinate measurement in aerotriangulation [GIMRADA-RN-21] 14 p3472 N67-27014
Method for calibrating comparators using grid plates calibrated by triangulation method [BRL-R-1353] 15 p2714 N67-28685
Ability of position azimuth range spectrum analyzer modified by addition of image storage tube electro-optical triangulation computer to detect and track thunderstorms [AFCRL-67-0183] 17 p3060 N67-30613
Automatic electro-optical satellite triangulation system for finding geodetic connections [GIMRADA-RN-23] 18 p3234 N67-32517
Comparisons of triangulation and trilateration techniques for use in constructing continuous geodetic networks [ACIC-TC-1297] 19 p3440 N67-33936
Geodetic control with triangulation, trilateration, or gravity data [ITR-6] 19 p3445 N67-33529
Radar measurements and observed meteor phenomena in earth atmosphere 19 p3537 N67-33668
Stellar triangulation theory, geodetic satellite observations and preprocessing procedures [NASA-CR-80061] 23 p4242 N67-38296
Numerical verification of stable, periodic, coplanar orbit existence about Sun perturbed Earth-Moon triangular point [NASA-TM-X-53931] 24 p4527 N67-39930
TRIAZINE
Conformation isomerization of hexahydro-1,3,5 trimethyl-1,3,5 triazine [TR-8] 12 p2048 N67-24071
TRIBUTYL PHOSPHATE
Dipole moment determination of tributyl phosphate 06 p0825 N67-16251
Reversed-phase chromatography with tributyl phosphate used to separate carrier-free gold from platinum target 06 p0824 N67-16266
Fraction determination of tributyl phosphate complexed by uranium and total concentration determination of tributyl phosphate in refinery solvent [MCW-1435] 07 p1030 N67-17892
Absorption spectrophotometric methods for determining impurities tributyl phosphate and degraded process solvents [PG-737] 09 p1411 N67-20207
TRIDENT AIRCRAFT
S DE HAVILLAND DH-121 AIRCRAFT
TRIFLUORIDE
SA CHLORINE TRIFLUORIDE
Viscosity coefficients of corrosive bromine trifluoride using porous medium [K-1680] 12 p2044 N67-24561
Effects of gamma flux intensity on sensitivity of proportional neutron counters containing boron trifluoride [AD-634621] 15 p2744 N67-27973
TRIGA MARK F REACTOR
Large reactivity insertions performed in Advanced TRIGA Prototype Reactor to determine capabilities of uranium-zirconium hydride core 07 p1125 N67-17063
Experimental results and mathematical model for feedback effects during short interval series pulsing with TRIGA Mark II reactor 07 p1125 N67-17064
Analytical model and measurements of coolant flow and temperatures on TRIGA Mark II pulsing reactor at steady state and transient conditions 07 p1125 N67-17066
Spectral distribution of neutrons from Triga Mark F reactor measured with magnetic neutron spectrometer - recoil protons [BRL-MR-1841] 22 p4103 N67-37006
TRIGONOMETRIC FUNCTION
Trigonometric interpolation for conformal mapping of simply-connected and multiply-connected regions bound by closed profile 12 p2228 N67-24537
Equations for interrelating position data of different coordinate systems used in manned space flight network tracking equipment [NASA-TM-X-55956] 23 p4217 N67-39234
Description of quasi-symmetric rockets attitude by means of trigonometric functions [ESRO-TM-91] 24 p4490 N67-40054
TRIGONOMETRY
Trigonometric leveling along triangle in Antarctica 04 p0545 N67-14229
TRIM
Low speed effects of leading edge and trailing edge flaps on longitudinal stability and trim characteristics of outboard-tail supersonic transport configuration [NASA-TM-X-895] 18 p3194 N67-32143
TRINITROTOLUENE /TNT/
Radiochemical and physiochemical studies of Kiwi-TNT debris [USNRDL-TR-1100] 15 p2743 N67-27901
Detonation products and heats of HMX, TNT, NM, and FEFO from heavily confined charges [UCRL-70444] 23 p4202 N67-38376
TRIODE
Thermal processing of thin film polycrystalline field effect triode [ECOM-00231-7] 01 p0054 N67-11016
Hot electron triodes using metal-semiconductor Schottky emitters [AFCRL-66-531] 01 p0142 N67-11057
Pulse height selector with semiconductor triodes 09 p0875 N67-13414
Vacuum magnetic triodes, cesium diodes, and rare gas triodes - thermionic converter studies 04 p0483 N67-13898
Evaluation of arc damage to power triode grid wires [MATT-583] 06 p0855 N67-16351
ECA 7835 super power triode test results, and initial operating parameters of FTH 515 Vapodyne triode [BNL-10480] 10 p1592 N67-20657
Amplifier tests using triodes with insufficient emission for gridded broadband amplifiers for pulsed C-band frequencies [ECOM-01665-5] 16 p2867 N67-29974
Computer code for improved klystron cavities and internal cavity triode designs [LA-DC-8907] 16 p2870 N67-29795
Single crystal cadmium sulfide and cadmium selenide insulated gate field effect triode [GE/EE/67A-1] 17 p3035 N67-30461
Gate circuitry for thin film polycrystalline field effect triode transistors [REPT-3] 17 p3037 N67-30656

Fabrication of thin film transistors compatible with passive components 18 p3343 N67-31578
Three-input NAND gate circuit design in thin film polycrystalline field effect triode study
[REPT.-3] 18 p3351 N67-32480
Three-hundred milliwatt X-band triode oscillator
[QR-5] 19 p3419 N67-33976
Guidance and control research on solid state triodes, evaporated thin film cadmium sulfide photodectors, and reduction of plasma maintenance voltage with magnetic field 20 p3612 N67-34765
Silicon-sapphire space charge limited triode development
[NASA-CR-97492] 20 p3612 N67-34894
Arc damage in aluminum foil and simulated triode grid structure 23 p4226 N67-36774
TRIPLET EXCITATION
Energy transfer processes in photochemistry and radiation chemistry - triplet-triplet transfer in polybutadiene
[AFML-TR-66-292] 01 p0035 N67-11190
Relations between total cross sections for scattering from singlet and triplet states following from collinear symmetries for baryon-baryon forward scattering
[JINR-P-2872] 07 p1155 N67-17695
TRIPLET STATE
Triplet state of benzophenone at low temperatures
[AFCRL-66-12/II/] 07 p1029 N67-17674
Exchange excitation of hydrogen molecule by electron impact from ground to triplet electronic state
[NASA-TM-X-59172] 07 p1159 N67-18280
Photochromic eye protective device based on triplet absorption
[TRW-05485-6003-R000] 10 p1567 N67-21716
Separable non-local nucleon-nucleon potential for odd-parity spin triplet states
[IC/66/121] 11 p1936 N67-23484
Possible and impossible phase space transformations by means of alternating gradient doublets and triplets
[CERN-67-8] 20 p3693 N67-34365
TRIPROPELLANT
Metal combustion in tripropellants as chemical means to increase temperature and propulsion efficiency of hydrogen 21 p3948 N67-36106
TRITIUM
Tritium autoradiography to study ion adsorption and isotopic exchange
[REPT.-679/V/C] 01 p0026 N67-10570
Deuterium deuteron-neutron helium 3, and tritium deuteron-neutron helium 4 reactions for fast neutron radiation meter calibrations
[NP-16204] 01 p0130 N67-10911
Determination of deuterium /deuteron, neutron/ helium 3 and tritium /deuteron, neutron/ helium 4 nuclear reaction yields in thick targets at energies up to 100 keV
[NP-16383] 03 p0445 N67-12291
Ionization chambers used for detecting tritium in air in presence of gamma radiation
[AECL-2694] 08 p1284 N67-19177
Permeability of materials to gaseous tritium
[CEA-R-3018] 09 p1490 N67-20180
Angular distributions, absolute cross sections, and spectroscopic factors in nuclear /p,d/ and /p,t/ reactions involving argon, vanadium, and chromium
[PUC-937-211] 10 p1764 N67-20635
Permeation and diffusion coefficients of hydrogen isotopes through stainless steels - diffusion of tritium through 6110 and EN58E steels at 90 deg C
[AWRE-O-58/66] 10 p1572 N67-20637
Application of radioactive tritium isotope to water movement in oil deposit reservoirs 10 p1778 N67-21397
Highly sensitive apparatus for recording tritium isotope for exploiting petroleum deposits - hydrogeology and hydraulic engineering problems 10 p1834 N67-21996
Influence of three-body forces in tritium problem using nonlocal factorizing potential
[JINR-P4-2959] 10 p1794 N67-21999
Tritium tracer and thermogravimetric analysis used to investigate reactions of zinc-silver and cadmium-silver batteries
[NASA-CR-84215] 13 p2287 N67-25222
Atmospheric tritium origins, concentration, and applications
[CEA-76] 16 p2884 N67-29338
Tritium used as tracer in obtaining quantitative data on hydrogen entrapment in grown silicon dioxide layers - characterization of integrated circuits and electron paramagnetic resonance
[NASA-CR-86628] 18 p3347 N67-31819
Tritium and other environmental isotopes in hydrological cycle 19 p3444 N67-33469
Tritium content in precipitation for Canada 19 p3444 N67-33470
Major pulse history of tritium in stratosphere 19 p3444 N67-33472
Tritium content in Southern Hemisphere precipitation 19 p3444 N67-33473
Gas phase radiolysis of dichlorodifluoromethane in presence of tritium
[AWRE-O-99/66] 19 p3394 N67-33554
Conductivity of gases ionized with tritium beta rays, and use of rays as atmospheric ion sources in bioclimatology 21 p3769 N67-36380
TRITON
Oxygen 18 triton-alpha nitrogen 15 and oxygen 16 triton-proton oxygen 18 differential cross sections
[JINR-P-2796] 07 p1151 N67-17524
Neutron spectrometry in natural uranium assembly using lithium 6 /neutron, triton/ helium 4 reaction and surface barrier junction
[EUR-3061.F] 10 p1575 N67-21155
Triton spectra from helium 3-triton proton reaction
[AD-650970] 16 p2940 N67-29102
Hypertriton problem solution - nucleon-nucleon and hypernucleon scattering
[REPT.-783/VII/PL] 20 p3701 N67-35006
TROJAN ORBIT
Trojan orbit computations of nonperiodic trajectories 04 p0613 N67-13866
Trojan orbits - restricted three-body problem for Sun-Jupiter system
[D1-82-0564] 07 p1159 N67-17156
Long-period librations of Trojan planetary orbits in rotating three-body coordinate system 07 p1191 N67-17324
Trojan manifold of periodic orbits in system earth-moon
[D1-82-0604] 15 p2792 N67-28951
TROPICAL METEOROLOGY
Atmospheric water vapor budget over Caribbean Sea and Gulf of Mexico
[ECOM-01549-F] 02 p0082 N67-11272
Tropical rainfall patterns and associated mesoscale systems in Central America
[ECOM-59268-F] 09 p1474 N67-20349
Conference on diurnal, seasonal, and synoptic aspects of tropical meteorology
[ML-66310] 10 p1869 N67-20422
Hail incidence in tropical zone within 23.5 deg north and south of equator 10 p1670 N67-20423
Detection and prediction of waves in tropical inversion 10 p1671 N67-20431
Aruba expedition 1965 - study of air-sea interaction around flat island across direction of trade winds 11 p1913 N67-22295
Tropical meteorology studies of effect of sea surface conditions and small flat island on heat flux and momentum 11 p1913 N67-22296
Comparative study of stress, wind, and wave development at different distances from lee shore 11 p1913 N67-22297
Presence of gravity waves and effect of trade wind flow over Aruba 11 p1913 N67-22298
Mathematical model and computer program for convection in tropical precipitation and cloud kinematics
[ECOM-01219-1] 11 p1913 N67-22370
Computerized tropical wind analysis and stream function calculation 12 p2133 N67-23484
Meteorological satellite data use tropical weather analyses 13 p2137 N67-24399
Streamline analysis of motion field and wind velocity for tropical meteorological forecasts
[AD-647686] 13 p2140 N67-24300
X-band radar observations and analyses of rainfall associated with trade winds at Hawaii 14 p2485 N67-27725
Thunderstorms in Southeast Asia
[TS-11] 15 p2894 N67-29116
Vertical distributions of pressure, temperature, and density of mean monthly atmosphere models at 15 degrees north
[AFCRL-67-0139] 17 p3092 N67-30491
Diagnostic balance model for small Rossby numbers applicable to studies of weather systems of high and low latitudes 17 p3097 N67-30785
Dynamical structure of tropical atmosphere based on experiments with diagnostic numerical model 17 p3099 N67-30788
Calculation of percentage area covered by convective clouds from moisture convergence 17 p3098 N67-30789
Correlation of rainfall distribution and drop size with climatic regions and type of rain
[FA-F-1851] 21 p3982 N67-35414
Biennial oscillation in zonal wind and temperature in tropical stratosphere - planetary transport processes in upper atmosphere
[MIT-2241-31] 22 p4041 N67-37974
Tropical upper tropospheric trough as secondary source of typhoons and primary source of tradewind disturbances
[HIG-67-12] 23 p4230 N67-38166
Stratospheric circulation and typhoon formation and motion
[JPRS-43845] 24 p4494 N67-39603
Typhoon formation, characteristics, and methods of forecasting along Chinese coast 24 p4494 N67-39605
Environmental data base for regional climatology studies in humid tropics
[AD-657597] 24 p4494 N67-39623
Conference papers on meteorological satellite data interpretation, solar and upper atmospheric phenomena, tropical meteorology, and weather forecasting techniques
[AWS-TR-196] 24 p4495 N67-39682
Satellite television and infrared observations of extratropical cloud vortices and cyclones 24 p4495 N67-39686
TROPICAL STORM
Satellite data, verticity, divergence, and Raob, synoptic, and isobystal analyses for two successive heavy rainstorms over south Florida
[SAR-2] 01 p0109 N67-10230
Characteristics of hurricane season in North Atlantic Ocean including Caribbean Sea and Gulf of Mexico
[ML-68135] 06 p0598 N67-19773
Tropical cyclones in northeastern and northwestern Australian regions, 1959-1964 season 13 p2261 N67-25652
Synoptic model relating surface winds, flying conditions, and rainfall at Kadena AB, Okinawa, to positions and intensities of tropical cyclones
[AD-658258] 16 p2894 N67-29080
Moisture and radar analysis of heavy tropical storm in Florida
[ML-67068] 16 p2894 N67-29441
Diagnostic studies of weather systems of high and low latitudes using general balance model for small Rossby numbers
[NASA-CR-85513] 17 p3097 N67-30784
Numerical calculation of three-dimensional trajectories using balanced horizontal and vertical motions 17 p3098 N67-30787
Synoptic study of developing tropical easterly waves 17 p3099 N67-30789
TROPICS
SA SUBTROPICS
Service life of electronic components in tropical environments
[ECOM-01268-F] 06 p0654 N67-16226
Corrosion of copper and copper alloys in tropical environments
[NRL-6422] 11 p1968 N67-23102
Human acclimatization to tropical and subtropical regions
[NASA-TT-F-11147] 21 p3767 N67-36151
TROPISM
S ISOTROPISM
S ORTHOTROPISM
S PHOTOTROPISM
TROPOPAUSE
Techniques for estimating thunderstorm penetrations of tropopause
[AFCRL-66-526] 01 p0021 N67-14218
Tropopause role in stratosphere-troposphere mass exchange processes
[COO-1240-9] 15 p2792 N67-28812
Preflight analysis for upper tropopause aircraft flights over Edwards, California to study atmospheric turbulence due to mountain wave phenomenon
[RAE-TM-AERO-971] 17 p3092 N67-31328
Balloon failures near tropopause 22 p4179 N67-37269
Polyethylene balloon ascent failures at/or

near tropopause 23 p4271 N67-39274
TROPOSCATTER
Measured meteorological parameters related to radio signal characteristics in ground to ground link transmission - troposcatter system
[RADC-TR-66-606] 06 p0645 N67-16596
Digital simulation of tropospheric scatter communication channel 07 p1034 N67-16923
Time modulation multiplex digital communication systems for determining tropospheric scattering 07 p1035 N67-16963
Computer-programmed troposcatter simulator using tapped delay line approach
[ECOM-02545-1] 11 p1821 N67-22729
Wideband digital modulation and detection techniques for troposcatter
[ECOM-02543-1] 11 p1826 N67-23379
Long distance communication using tropospheric scatter or diffraction mechanism of propagation
[IER-3-ITSA-2] 11 p1826 N67-23454
Wideband digital modulation and detection techniques for troposcatter
[CSI-67-TR-2342] 14 p2488 N67-27045
Circuit design and hardware procurement for troposcatter simulator
[CSI-67-TR-2374] 18 p3235 N67-32669
Optimal modulation pattern for wideband digital data transmission over troposcatter path
[ECOM-02542-3] 18 p3235 N67-32694
C-band traveling wave amplifier for troposcatter applications
[RCS-O6D-1366] 22 p4012 N67-37014
TROPOSPHERE
Lower stratospheric circulation and seasonal variations in troposphere 03 p0419 N67-12862
Joint clear sky radar and aerological observations in lower 1.5 km layer of atmosphere for establishing relationships of radar reflections to tropospheric meteorological processes
[TG-230-T496] 06 p0995 N67-15411
Correlation between astronomical visibility and atmospheric turbulence in low troposphere 06 p0971 N67-15470
Radiosonde and radar sounding of troposphere and tropopause during clear weather, fall 1963
[T-R-629] 07 p1118 N67-17917
Tropospheric and ionospheric effects on radio frequency communications
[NASA-TM-X-55709] 08 p1250 N67-19054
Vertical influence of dynamic disturbances between stratosphere and troposphere
[EMM-66-66] 09 p1471 N67-19480
Ultrahigh frequency propagation in troposphere
[JPRS-39907] 10 p1565 N67-21167
Transmission loss and space diversity measurements over mountain diffraction path
[IER-13-ITSA-13] 11 p1825 N67-23159
Effect of turbulent troposphere on parameters of linear array antenna
[JPRS-39736] 11 p1827 N67-23456
Digital computer technique for ray-tracing diagrams based on geometric optics of microwaves 12 p2134 N67-23492
Problems relating to use of satellite observations on aerosol layers and cirrus clouds in upper troposphere and lower stratosphere, and radiative transfer theory 12 p2139 N67-24305
Aerosol concentration and size distribution at sea level and in troposphere
[AD-646465] 13 p2094 N67-24703
Tropospheric temperature and absorption data for solar radiation observations with microwave radiometer 13 p2310 N67-25150
Automatic system for analyzing amplitude data from studies of troposphere, radio waves in troposphere, and interference environment
[IER-9-ITSA-9] 14 p2534 N67-27051
Prediction of wind and virtual temperature profiles for periods up to 72 hours from surface through stratosphere
[NASA-CR-61178] 14 p2568 N67-27317
Anomalous refraction due to inclination of air strata in troposphere 15 p2701 N67-28078
Aircraft buffeting due to clear air turbulence in upper troposphere and stratosphere 15 p2740 N67-28136
Particle size distribution, concentration, and composition in aerosol samples from troposphere and stratosphere
[NYO-3615-1] 16 p2854 N67-29323
Laser radar returns from lower troposphere compared with vertical ozone distributions
[PMR-TM-67-2] 16 p2903 N67-29542
Atlas of aerosol attenuation and extinction profiles for troposphere ndd stratosphere
[AFCRL-66-828] 16 p2888 N67-29774
Analysis of tropospheric responses to chromospheric flares using surface atmospheric pressure data from North American meteorological stations
[NASA-TM-X-60078] 17 p3155 N67-31118
Tropospheric radio propagation over dry land regions in central U.S.S.R. studied by systematic monitoring of refractive index of air 18 p3261 N67-31674
Microwave refractometer for studying tropospheric refractive index structure 18 p3272 N67-32505
Ionospheric data of middle latitudinal U.S.S.R. stations compared with solar activity and tropospheric characteristics 19 p3439 N67-32823
Statistical estimation techniques applied to ground-based passive probing of tropospheric temperature structure
[IER-37-ITSA-37] 19 p3442 N67-32842
Relationship between solar wind velocities and temperature field of lower troposphere derived from satellite measurements
[NASA-CR-87185] 19 p3443 N67-32858
Thermal radiation flux motion in troposphere
[FTD-MT-65-569] 19 p3443 N67-32403
Synoptic meteorology - atmospheric processes as related to solar activity, solar cosmic rays and high energy particles in troposphere, and color photography as visual aid
[JPRS-41465] 19 p3484 N67-33523
Solar cosmic rays and high-energy particles of earth's inner radiation belt as intermediaries in transmission of disturbance from sun to troposphere 19 p3485 N67-33525
Transmission loss predictions for tropospheric communication circuits
[NBS-TN-101] 19 p3407 N67-33640
Mesoscale structure of atmosphere in regions of clear air turbulence determined by aircraft observations of wind, temperature, and ozone in upper troposphere and lower stratosphere
[AFCRL-67-0115] 21 p3836 N67-35480
Tropospheric wind profile climatology of New Orleans, Louisiana
[NASA-CR-88603] 22 p4086 N67-37012
TU-104 navigational Doppler system measurement of wind velocity and direction, mesostructure of wind field at 6 to 12 km, and structural characteristics of horizontal component 22 p4042 N67-38051
Tropical upper tropospheric trough as secondary source of typhoons and primary source of tradewind disturbances
[HIG-67-12] 23 p4250 N67-38106
Physical-numerical model for inferring tropospheric structure from satellite radiation measurements - rain relationship to surface dew point, and atmospheric energetics 23 p4280 N67-38801
Physical numerical model for inferring tropospheric structure from satellite radiation measurements 23 p4280 N67-38802
Noise model for simulating effect of tropospheric turbulence on measurements of range, range rate, angles, and angular rate associated with radio guidance and tracking stations
[ELDO-TM-F-4] 23 p4216 N67-39168
TROPOSPHERIC RADIATION
Large scale transport processes carrying radioactive debris from stratosphere to troposphere
[COO-1340-6] 10 p1621 N67-20639
TROPOSPHERIC WAVE
Radio refractive index of atmosphere, tropospheric refraction, and synoptic radio meteorology
[NBS-MONOGRAPH-92] 01 p0098 N67-10241
Numerical integration and approximation methods to evaluate bending angular tropospheric refraction of ray path between two points 01 p0099 N67-10244
Time and space variations of refractive index structure with synoptic tropospheric disturbance 01 p0099 N67-10245
Tropospheric refraction and refractive index model 01 p0099 N67-10249
Synoptic study of developing tropical easterly waves 17 p3096 N67-30789
TRUNCATION
Fortran program for buckling of truncated spheres
[BNWL-330] 17 p3172 N67-30773
Computational methods used in multifluid hydrodynamics code 19 p3498 N67-33211
TRUNCATION ERROR
Truncation error in particle-in-cell numerical process for solving hypervelocity impact and nuclear burst problems
[RM-4876-PR] 05 p0729 N67-14941
Truncation errors in natural frequencies as computed by method of component mode synthesis 11 p1991 N67-22830
Difference equations for neutron diffusion equations in hexagonal geometry option of PDQ-7 program - truncation error
[WAPD-TM-645] 12 p2156 N67-23563
Error growth and stability analyzed for numerical integration of differential equations in chemical kinetics
[NASA-CR-66371] 14 p2479 N67-27231
Convergence and truncation error study in time series expansion
[NASA-CR-65616] 16 p2919 N67-29170
TRUSS
Probability of failure constraint concept for optimization of general structural system under simultaneous and alternative load systems - truss example
[NASA-TN-D-3777] 04 p0618 N67-13720
Compression tests of open-face truss core sandwich panels
[NASA-TN-D-3780] 06 p0979 N67-16658
Design of statistically determinate trusses for minimum weight and deflection
[NASA-CR-88552] 22 p4155 N67-37425
TRYPSIN
Radiation damage and radiosensitivity experiments with glycerol, trypsin, hydroxide radicals, amino acids, proteins, adenine, thymine, and uracil
[NP-16309] 12 p2027 N67-24687
Trypsin enzyme interaction with electromagnetic fields
[AD-646545] 14 p2484 N67-27840
TSR 2 AIRCRAFT
S BAC TSR 2 AIRCRAFT
TU-104 AIRCRAFT
S TUPOLEV TU-104 AIRCRAFT
TUBE
SA CATHODE RAY TUBE
SA CIRCULAR TUBE
SA COMPRESSION TUBE
SA DISCHARGE TUBE
SA ELECTROMAGNETIC SHOCK TUBE
SA ELECTRON TUBE
SA GAS TUBE
SA IMAGE CONVERTER
SA IMAGE DISSECTOR TUBE
SA IMAGE ORTHICON TUBE
SA IMAGE TUBE
SA INTENSIFIER TUBE
SA MICROWAVE TUBE
SA PHOTOTUBE
SA PIPE
SA PITOT-STATIC TUBE
SA PITOT TUBE
SA PRESSURE TUBE
SA TRAVELING WAVE TUBE
SA VACUUM TUBE
SA VENTURI TUBE
SA VORTEX TUBE
Wave motion of viscous fluid in elastic tubes
[REPT.-66-5] 01 p0061 N67-11139
Rate of heat transfer increase in round air cooled tube 02 p0323 N67-11234
Hot and cold drawing, piercability, and rollability of AT-3 titanium alloy recommended for tube production 02 p0264 N67-11705
Titanium alloy with stable phases for use in industrial tube production 02 p0276 N67-11808
Particle deposition and reentrainment in long vertical conduits 04 p0620 N67-13762
Rolling seamless tubes from billets, and stress and fracture reduction
[JPRS-39945] 06 p0982 N67-15392
Increased roll inclination and piercing speed for reduced axial failure in tube rolling 06 p0983 N67-15394
Tube rolling processes using long mandrel 06 p0983 N67-15395
Potassium multiple-tube test condenser design study
[NASA-CR-73187] 06 p0793 N67-16055
Resistance of small bore tubes to turbulent flow of compressible fluid for application to fluidic circuits
[D2] 10 p1613 N67-21140
Pressure drop across sharp end capillary

tubes for laminar flow
[HASL-189] 10 p1615 N67-21507
Determination of local and mean heat transfer coefficients in tubes at high heat flux densities
[UCRL-TRANS-10664] 11 p2801 N67-32231
Thin-walled tube used for continuous measurement of carbon activity in sodium
[UNC-5160] 12 p2600 N67-32757
High speed nonlinear multiplier with argon and neon tubes as light source, and photomultiplier tubes 12 p2658 N67-33762
Investigation of slotted iris structure with drift tubes 12 p2662 N67-34139
Fatigue tests of tubes flared by roll forming and Dynaflare machine
[GDC-ERR-AN-959] 13 p2330 N67-26236
Critical fuel solution reactors containing arrays of void tubes
[NASA-TM-X-52302] 14 p2576 N67-27320
Design criteria for elastic thick-walled cylindrical tube consisting of metallic liner and composite material outer jacket
[AD-634656] 15 p2796 N67-27996
Performance and payload gains by launching rockets from ejection tube
[NASA-TM-X-52328] 16 p2976 N67-30142
Forced convection burnout data for large diameter tubes in high pressure water
[AEEW-R-479, PT. IV] 17 p3180 N67-31462
Up-down counter for synchronization of instrumentation used with pressure driven shock tube
[HDL-TM-67-5] 19 p3456 N67-33855
Reversed cyclic torsion effects on aluminum tubes of different wall thickness
[TR-49] 19 p3547 N67-33200
Pressure drop and heat transfer in laminar and turbulent tube flow of mercury
[BMWF-FBK-67-05] 20 p3744 N67-34136
Conference on design of leak tight separable fluid connectors
[NASA-TM-X-60234] 21 p3856 N67-35568
Tube connector problems and leakage research for spacecraft application 21 p3856 N67-35571
Classification of separable tube connectors in consideration of structural design 21 p3857 N67-35573
Evaluation of separable tubing connector and manufacturing tooling 21 p3857 N67-35576
Micrometeoroid impact fracture rates in wire, flat tapes, and thin-walled hollow tubes
[NASA-CR-869] 21 p3931 N67-35736
Function and strength testing of liquid hydrogen metal flex hose for service module fuel cell of Saturn IB program
[NASA-CR-88004] 21 p3941 N67-36125
Industrial processes for manufacturing welded straight-seam tubes from titanium and its alloys
[FTD-MT-65-27] 22 p4053 N67-37219
Concentric tube injection effect on dynamic characteristics of hydrogen-oxygen rocket
[NASA-TM-X-52363] 24 p4523 N67-40221

TUBE HEAT EXCHANGER
Local heat transfer and static pressure data for mercury condensing single tube heat exchangers cooled by sodium potassium
[NASA-TN-D-3986] 14 p2515 N67-26552
Space radiator simulator, using finned tube heat exchanger cooled by controllable airflow, for SNAP-8 ground test facility
[NASA-TM-X-1375] 14 p2511 N67-26507
Frequency response measured in experiments with pump-fed single tube heat exchanger boiler using Freon and water
[NASA-TM-X-52306] 14 p2632 N67-27237
Mathematical model for operational data of steam heated tube heat exchanger 20 p3745 N67-34404
Approximations, transfer function, and stability considerations for model of heat exchanger consisting of two concentric tubes
[SGAE-RT-11/1967] 20 p3747 N67-34985
Convective heat transfer between high parameter steam and solid wall of nickel or steel tubing in supercritical region
[NASA-TT-F-11282] 24 p4551 N67-40181

TUBING
Fuel assembly experiments, hydride orientation and mechanical properties of thin walled Zircaloy tubing, and in-core flux monitors
[DPST-66-82-5] 01 p0106 N67-10666
Tools for induction brazing of stainless steel tubing and fittings
[NASA-CR-79758] 03 p0344 N67-11697
Effect of preferred orientation on mechanical properties and deformation behavior of Zircaloy-2 fuel sheathing
[AECL-2627] 03 p0425 N67-12699
Soviet metal tubing technology for aerospace applications
[ATD-66-95] 03 p0465 N67-13060
Small-diameter, thin-wall tungsten tubing by hot extrusion over floating mandrel
[NASA-TN-D-3772] 03 p0466 N67-13172
Deformation and discharge theories compared by traction and torsion tests on metal tubes and wires, and verification of reciprocal theorem 05 p0770 N67-14528
Pressure losses in tubing and fittings - flow systems analysis, entrance effects in flexible metal hoses, and methods for analyzing flow over rough surface
[NASA-CR-81236] 06 p0965 N67-15044
Improvements in consolidation and fabrication of vanadium-titanium alloy tube blank extrusion, tube reducing, and drawing
[ANL-7127] 07 p1106 N67-17736
Portable differential ball gauge to measure internal flare angle of flared tubing
[NASA-TM-X-52546] 08 p1286 N67-19053
Nondestructive testing methods to evaluate refractory-metal alloy tubing for nuclear application 09 p1452 N67-19591
Sulfur 35 and phosphorus 32 used to study crystal structure of steel in centrifugally hollow cast hollow tube blanks 10 p1643 N67-21242
Chemical and electrochemical milling of spiral lands on Zircaloy tubing
[KAPL-2150] 10 p1648 N67-21567
Refractory bimetallic tubing bond quality testing by metallographic and ultrasonic inspection
[NASA-CR-72262] 11 p1890 N67-23691
Explosive welding of aluminum liners in Zircaloy-4 tubing by mandrel and external die methods
[BMI-X-412] 11 p1891 N67-23183
Techniques for fabricating small diameter, thin wall tungsten and tungsten rhenium alloy tubing
[ANL-7151] 12 p2111 N67-25067
Copper tubing failure under thermonuclear conditions, development of lead alloys with increased lithium content, and tungsten probes using thermochemical deposition processes 13 p2357 N67-26376
Fatigue life, dilation, and tensile strength tests on stainless steel hydraulic tubing
[S+T-MEMO-16/62] 13 p2230 N67-26216
Physical parameters of stainless steel capillary tubing used to construct working equations for absolute gas viscometer
[BM-RI-6940] 13 p2234 N67-26348
TIG fusion welding methods for joining stainless steel tubing in confined areas
[GDC-ERR-AN-956] 14 p2544 N67-27216
Powder metallurgical fabrication of small diameter tungsten alloy tubing
[COO-1516-4] 14 p2545 N67-27230
Physical properties of Zircaloy-4 tubing
[WAPD-TM-585] 14 p2546 N67-27251
Fire resistance tests on aircraft aluminum alloy tubing
[DS-67-4] 17 p3082 N67-31300
Manufacturing processes for seamless stainless steel tubing
[NASA-CR-85910] 17 p3083 N67-31377
Structureborne sound transmission through flexible hoses and cables
[TDCK-48047] 17 p3123 N67-31443
Reduction of overstock of hot precision extruded uranium tubing for reactor fuel elements 19 p3461 N67-32743
Literature survey on fatigue properties of unwelded and welded chromium-molybdenum steel tubings used in aircraft structures
[ARL/SM-304] 20 p3720 N67-34530
Joining of refractory-austenitic bimetal tubing of niobium and stainless steel using electron beam, gas tungsten arc, and plasma arc welding techniques
[NASA-CR-72275] 21 p3900 N67-36029
Direct process of chemical vapor deposition for producing tungsten tubing
[ORNL-P-3108] 23 p4258 N67-38606

TUMOR
Biological effectiveness of negative pion beam on mice with abdominal lymphoma 06 p0961 N67-15043
Irradiation facility and equipment for therapeutic tumor treatment of very small animals
[JUL-356-ME] 11 p1905 N67-23033
Electron microscope techniques for studying ultrastructure of tumor virus cells
[JPRS-40528] 14 p2462 N67-27200

TUNGSTATE
SA CALCIUM TUNGSTATE
Chemical properties and molecular structures of heteropoly blues
[ABOD-4598-5-C] 21 p3781 N67-35461

TUNGSTEN
Mechanical and thermal properties of tungsten and molybdenum alloy sheets for aerospace applications
[REPT.-7543-1479-XII] 01 p0063 N67-10280
Recrystallization parameters of niobium and tungsten - Titanium and molybdenum effects on recrystallization temperature and hardening of niobium alloys
[FTD-MT-65-412] 02 p0268 N67-11251
Temperature dependence of linear growth rate of niobium and tungsten recrystallization centers 02 p0269 N67-11252
Extraction of tungsten from wolframite by carbonate process
[AEET-251] 02 p0286 N67-11759
Creep-rupture properties of wrought powder metallurgy W, thermochemically deposited W, and several W-base alloys
[ORNL-3902] 04 p0559 N67-13634
Osmium dispenser cathodes 04 p0620 N67-13722
Ultrahigh vacuum techniques on hydrogen permeation through tungsten and adsorbed gas replacement
[WERL-2822-21] 04 p0622 N67-13882
Thermionic emission from planar monocrystalline tungsten
[NASA-CR-69079] 04 p0601 N67-14084
Activation analysis of tungsten content in irradiated zone-purified iron samples
[UJV-1368] 05 p0644 N67-14468
Half life of 482.1 KeV level in tungsten 183 measured by delayed coincidence method to determine absolute transition probabilities
[AE-251] 06 p0926 N67-15767
Field-ion microscopic studies of small defect clusters in irradiated iridium and tungsten 07 p1173 N67-16757
Measurements of gamma and neutron dose distributions in core of thermal tungsten nuclear rocket experiment
[NASA-CR-72081] 07 p1138 N67-17181
Mechanical property and heat resistance of alloy HI-437 - plasticity and strength of tungsten
[FTD-MT-65-383] 07 p1099 N67-17291
Plasticity and strength of tungsten during short time tests 07 p1100 N67-17292
Chromium-tungsten solid solution decomposition
[UCRL-10619] 07 p1101 N67-17489
Surface ionization of cesium and thermionic emission from planar single crystals of tungsten
[UCRL-11857] 07 p1176 N67-17586
Tungsten hot-wire constant current and constant temperature anemometers used for measuring steady and unsteady flows
[ISAV-155] 08 p1281 N67-18266
Totally absorbing gamma ray detector measurements of neutron capture cross sections on tungsten isotopes 08 p1315 N67-18795
Nonspherical optical model analysis of neutron scattering properties of tungsten isotopes
[NAA-SR-11973] 08 p1343 N67-18879
Seebeck coefficients of iron and tungsten 09 p1450 N67-19522
Long time creep test data on molybdenum base alloys, tantalum base alloys, and vapor deposited tungsten
[NASA-CR-82215] 09 p1462 N67-19959
Time of flight measurements of neutron spectra in uranium 235 and tungsten
[GA-7427] 09 p1490 N67-20180
Impulsive-field de Haas-van Alphen effect measurements carried out to study Fermi surface of tungsten
[IS-T-160] 10 p1748 N67-20774
Tungsten neutron cross section, resonance parameters, and scattering matrices for certain nuclear reaction concepts
[NASA-CR-83062] 10 p1760 N67-20823
Adsorption of oxygen on polycrystalline tungsten ribbon at temperatures from 300 to 830 deg K
[WERL-2862-22] 10 p1930 N67-21621
Anisotropy of tungsten work functions for zero and extremely high electric fields 11 p1905 N67-22167
Mechanical properties of tungsten and rhenium in W Re Mo alloy

development 11 p1889 N67-22282
Adhesion-friction tests on annealed copper, titanium, and tungsten [NASA-CR-66279] 11 p1897 N67-22884
Effect of carbon additions on shear modulus of tungsten and tungsten-rhenium alloy [ARO-D-253] 11 p1899 N67-23106
Out of pile evaluation of tungsten rhenium thermocouple systems for use in measuring plutonium oxide and uranium oxide fuel temperatures [GEAP-5166] 12 p2090 N67-23567
Chromatographic separations of niobium, tantalum, molybdenum, and tungsten [IS-T-113] 12 p2041 N67-23758
Photoluminescent emission spectra of powder phosphors - aluminum phosphide films on tungsten substrates electroluminescent materials [QPR-2] 12 p2192 N67-24377
Nonlinear analog simulation of tungsten water moderated reactor to obtain steady state operating maps [NASA-TN-D-3040] 12 p2151 N67-24624
High viscosity tungsten-silica thermal protection materials [NOLTR-66-213] 12 p2126 N67-24909
Effective resonance integral measurements of separated tungsten isotopes and natural tungsten relative to gold [NASA-TN-D-3957] 12 p2175 N67-25056
Lattice defects for tungsten deformed at room temperature, and preparation of transmission electron microscopy specimens 13 p2335 N67-25346
Optimization thermochemical deposition of tungsten to improve texture and other properties 13 p2335 N67-25357
Copper tubing failure under thermonuclear conditions, development of lead alloys with increased lithium content, ant tungsten probes using thermochemical deposition processes 13 p2357 N67-25378
Brazing tungsten for high temperature reactor service in hydrogen [NASA-TN-D-3944] 13 p2397 N67-25792
Decay probabilities of tungsten nucleus matrix into two negative parity mesons [JINR-E3-3102] 13 p2376 N67-25913
Preparation and purification of zone refined tungsten crystals with mosaic block angles [AD-648575] 14 p2551 N67-26886
Cladding and temperature effects on extrudability and mechanical properties studied with powder metallurgy tungsten [NASA-TN-D-3941] 14 p2556 N67-27226
Surface structure and electronic properties of single crystal molybdenum and tungsten ribbons [COO-1417-2] 15 p2723 N67-28316
Mutual diffusion characteristics and phase diagram of titanium tungsten mixtures at high temperatures [NASA-TT-F-11010] 15 p2734 N67-28327
Electron emission from tungsten under proton bombardment - effect of nitrogen adsorption [SC-R-67-1038] 15 p2762 N67-28354
Permeation of nitrogen through arc-cast tungsten [NASA-CR-72336] 15 p2725 N67-28370
Rhenium separation from copper, molybdenum, and tungsten and spectrophotometric determination [LA-3550] 15 p2662 N67-28811
Field ion microscopic determination of screw dislocations during degradation of tungsten, tantalum, and nickel monocrystals [TIL/T-5666] 15 p2782 N67-28843
Electron emission characteristics of low work function surfaces - coadsorption of cesium and fluorine on tungsten [NASA-CR-84875] 15 p2772 N67-28938
Variation of resolved proportional limit with mosaic angle from 77 deg to 973 deg K in zone refined tungsten [AROD-4917-2] 16 p2909 N67-29753
Nuclear reactions for producing tungsten 189 and rhenium 190 radioisotopes, and decay characteristics [CNEA-175] 16 p2951 N67-30009
Doppler coefficients and effective resonance integrals of natural and enriched tungsten samples at high temperatures [NASA-CR-72229] 17 p3168 N67-30729
Nonmetallic additive effects on properties of vapor deposited tungsten [NASA-CR-85086] 17 p3051 N67-31223
Creep strength test for strips of high strength refractory alloy composed of tantalum, tungsten, and hafnium 19 p3548 N67-33272
Elastic and inelastic fast neutron scattering from tungsten 182, 184 and 186 isotopes [ANL-7286] 19 p3506 N67-33566
Behavior of cesium surface ionization on porous tungsten [NASA-CR-72189] 19 p3424 N67-33701
Growth and preferred orientations of large elongated grains in doped tungsten sheet [REPT.-66-C-346] 20 p3654 N67-34028
Decalibration of tungsten-tungsten 25 percent rhenium thermocouple in neutron flux by determining change in thermoelectric emf [LA-3683] 20 p3679 N67-34213
Neutron bombardment influence on certain properties of tungsten [JPRS-42311] 20 p3712 N67-34220
Diffusion of carbon from carbide of uranium into molybdenum and tungsten 20 p3656 N67-34376
Metallic adhesion strength of silver and tungsten junction [NASA-CR-87474] 20 p3661 N67-35068
Joining of refractory-austenitic bimetal tubing of niobium and stainless steel using electron beam, gas tungsten arc, and plasma arc welding techniques [NASA-CR-72275] 21 p3860 N67-35029
Auger process application to study of gaseous adsorption on tungsten [NASA-CR-88362] 21 p3923 N67-36472
Effect of ductile cladding on bend transition temperature of wrought tungsten [NASA-TN-D-4184] 22 p4061 N67-37073
Metallographic preparation of pyrolytic carbon and/or tungsten coated uranium oxide and uranium carbide fuel spheres [LA-DC-8676] 22 p4090 N67-37231
Surface structures and work function changes in oxygen adsorption on tungsten/100/ [NYO-3830-1] 22 p4127 N67-37234
Quantitative analysis of high pressure consolidation of submicron tungsten [UCRL-50172] 22 p4055 N67-37655
High pressure consolidation of vacuum encapsulated tungsten compacts [UCRL-13296] 22 p4079 N67-37897
Ultrahigh vacuum studies of hydrogen permeation in tungsten and replacement of one adsorbed gas by second from gas phase [WERL-3823-26] 22 p3992 N67-37916
Anisotropy in thermoelectric force and thermal conductivity of pure tungsten in transverse magnetic field [NASA-TT-F-11079] 22 p4130 N67-38020
Exchange of energy between tungsten at high temperatures and gases at room temperature [UCRL-17395] 23 p4294 N67-38506
Direct process of chemical vapor deposition for producing tungsten tubing [ORNL-P-3162] 23 p4258 N67-38606
Statistically designed parametric study to evaluate factors affecting chemical vapor deposition of tungsten [ORNL-TM-1890] 23 p4269 N67-38668
Mechanical behavior of CVD tungsten at elevated temperatures [ORNL-P-3189] 23 p4267 N67-38669
Determination of tungsten resonance absorption integrals by activation [NASA-TN-D-4137] 23 p4315 N67-38978
Coadsorption of cesium and fluorine on tungsten, and analysis of mechanisms leading to decay of field emission current from low work function zirconium/oxygen coated tungsten emitter [NASA-CR-89661] 24 p4514 N67-39579
Thermal and field desorption of cesium from fluorinated tungsten surface - cathode electron emission characteristics [NASA-CR-89663] 24 p4516 N67-39712
Tungsten cable for internal prestressing of chemically consolidated zirconia [NASA-CR-89607] 24 p4457 N67-39851
Hypersonic diffusion controlled oxidation of tungsten [R67SD39] 24 p4468 N67-40171
TUNGSTEN ALLOY
Operation of brittle fracture mechanisms in tungsten-iron-nickel and iron-silver composites [ASRL-TR-123-3] 01 p0084 N67-10507
Relative importance of effects produced by additions of rhenium to tungsten, molybdenum, and chromium 06 p0893 N67-18839
Preparation of single crystals of rare earth tungsten bronzes and uranium tungsten bronzes - X-ray diffraction, and electrical and magnetic properties of samples 07 p1175 N67-16972
Effect of interstitial addition on phase equilibrium of niobium-rich region of niobium tungsten hafnium and niobium tungsten zirconium alloy systems [DRI-1092-235] 10 p1656 N67-21562
High-temperature reactor materials research - creep-rupture tests on Mo-Re-W alloys and on arc-cast Mo and W sheets 11 p1919 N67-22062
Long-time creep data on refractory metal alloys for advanced space power systems [NASA-CR-72185] 11 p1900 N67-22323
Metallographic and X-ray analysis of tungsten-molybdenum-zirconium ternary system isothermal section at 1300 deg C [JPRS-39757] 11 p1900 N67-23468
Property characterization of ductile tungsten base sheet alloy [AD-645143] 12 p2115 N67-23602
Metallurgy research in high temperature carbides, powder techniques, furnace equipment, spin casting, thorium, uranium, and tungsten alloys [USBM-RC-1249] 12 p2107 N67-23953
Mechanical and physical properties of tungsten-rhenium alloys prepared by powder techniques for extrusion drawing 12 p2107 N67-23956
Remote handling techniques for studying fission product diffusion in irradiated tantalum, and tungsten rhenium molybdenum alloy materials 12 p2149 N67-24251
Techniques for fabricating small diameter, thin wall tungsten and tungsten rhenium alloy tubing [ANL-7151] 12 p2111 N67-25987
Ductile-brittle transition test method for tungsten-technetium alloy specimens [NASA-CR-83859] 13 p2338 N67-25831
Vapor deposition of rhenium and rhenium-tungsten composites by thermochemical reduction of rhenium hexafluoride with hydrogen [BM-RI-6915] 13 p2373 N67-26306
Support facilities and transportation equipment for missile and space systems - Annotated bibliography [BM-RI-6929] 13 p2341 N67-26350
Electron beam remelted tungsten technetium alloys forged while encapsulated in molybdenum cans - surface appearance and edge cracking properties [NASA-CR-84071] 13 p2341 N67-26374
Powder metallurgical fabrication of small diameter tungsten alloy tubing [COO-1518-4] 14 p2545 N67-27230
Phase and microhardness data on hafnium niobium tungsten zirconium alloy systems containing interstitial carbon or dioxide [DRI-2369] 15 p2723 N67-28217
Phase diagrams for cobalt-tungsten alloys for compositions to 85 atomic percent cobalt and temperatures to solidus [BI-BM-6956] 15 p2728 N67-28781
Deformation structures of polycrystalline slightly strained tungsten, tungsten rhenium, and tungsten tantalum alloys examined by transmission electron microscopy [NASA-TN-D-4094] 16 p2382 N67-28839
Physical and mechanical property data for tungsten rhenium molybdenum alloys [GEMP-497] 19 p3474 N67-33918
High temperature compatibility of uranium dioxide fuel contained in tungsten-rhenium alloy [NASA-CR-72282] 22 p4093 N67-37645
A15-type phase in vapor-deposited W-Re alloys [ORNL-P-3101] 23 p4263 N67-38388
Chemical vapor deposition of tungsten and tungsten-rhenium alloys for structural applications - process development [UCRL-70340, PT. 1] 23 p4267 N67-38809
Chemical vapor deposition of tungsten molybdenum rhenium ternary alloy [LA-DC-8605] 23 p4288 N67-39230
Tungsten-rhenium alloys tested as thermocouple materials for high temperature measurement of ceramic fuel elements [AECL-2766] 24 p4469 N67-40360
TUNGSTEN CARBIDE
Electric conductivity of liquid tin, liquid lead, and liquid bismuth, and thermal conductivity of inorganic solid and liquids - Liquid aluminum oxide window, and liquid

tungsten carbide
[RITU-1966-18] 07 p1028 N67-17565
TUNGSTEN COMPOUND
Vapor deposition of tungsten, molybdenum, and rhenium coating by carbonyl decomposition or hydrogen reduction
[NASA-TT-F-10914] 14 p2556 N67-27531
Determination of thorium in thorium-dioxide tungsten mixtures
[UCID-15162] 23 p4304 N67-38834
Tungsten hexafluoride-hydrogen fluoride triple point curve use in purity analyses
[K-1699] 24 p4398 N67-39992
Dependence of stress rupture and superplasticity on structure in Co-W alloys
[NASA-CR-89851] 24 p4469 N67-40235
TUNGSTEN HALIDE
Purification techniques for removing low level metallic impurities from tungsten hexachloride
[BM-RI-6984] 19 p3394 N67-33555
TUNGSTEN INERT GAS /TIG/ WELDING
Tungsten joining by gas W-arc fusion welding, gas W-arc braze welding, electron beam welding, thermochemical deposition, and high temperature brazing
[ORNL-TM-1606] 08 p1290 N67-18587
Gas tungsten arc method for optimal weldments in steel plates for large rocket motor case
[NASA-CR-72155] 09 p1520 N67-19872
Quantitative relation of gas contamination in shielding medium to magnitude, frequency, and porosity level in aluminum Tungsten Inert Gas /TIG/ weldments
[NASA-CR-83970] 09 p1454 N67-19965
TIG fusion welding methods for joining stainless steel tubing in confined areas
[GDC-ERE-AN-936] 14 p2544 N67-27216
Crack propagation studies of welds in tantalum and niobium sheet
[B-70-67-18] 19 p3465 N67-33634
TUNGSTEN OXIDE
Thermal diffusion in tungsten-beryllium system
[NASA-TM-X-60336] 22 p4061 N67-37024
TUNGUSK METEORITE
Trajectory, orbit, and inclination of Tunguak meteorite 06 p0961 N67-15453
Conference papers on Tunguak meteorite research
[NASA-TT-F-10403] 13 p2212 N67-25026
TUNING
Tuning devices for obtaining stable frequency selective silicon integrated circuits over range from 150 kHz to 150 mHz
[REPT.-66-9F1-NEWSC-R1] 05 p0685 N67-15339
Effectiveness of tuned viscoelastic vibration dampers in aerospace vehicles 07 p1200 N67-16959
Tuning and field measurement techniques in resonantly coupled accelerator tank 12 p2077 N67-24080
Wideband grounded-grid amplifier design and tuning for multistage synchrocyclotron machines
[CERN-66-35] 13 p2295 N67-25660
Nuclear magnetic resonance spectrometer with automatic tuning to signal maximum
[FTD-HT-66-701] 16 p2892 N67-29405
Thermal dissociation source, automatic tunning, and atomic trajectories for hydrogen maser
[NASA-CR-89275] 23 p4262 N67-39353
TUNNEL
SA HOTSHOT TUNNEL
SA HYDRODYNAMIC TUNNEL
SA SHOCK TUNNEL
SA WATER TUNNEL
SA WIND TUNNEL
Gun tunnel investigations on influence of perforated plate at exit of high pressure chamber
[DLR-FB-67-07] 13 p2302 N67-26089
Attenuation of peaked air shock waves in smooth tunnels
[BRL-MR-1809] 16 p2813 N67-29543
TUNNEL CATHODE
Vacuum chamber characteristics and tungsten, tungsten oxide, gold tunnel junction fabrication for tunnel emission cold cathodes 11 p1785 N67-32164
TUNNEL DIODE
High speed tunnel diode transistor micrologic circuits
[TN-1966-17] 01 p0662 N67-16330
Modes of subharmonic generator employing charge storage diodes
[NASA-CR-86105] 02 p0247 N67-12353
Parametric amplifiers and tunnel diodes as L-band and S-band down-converters - frequency division multiplexing
[NASA-CR-80601] 02 p0235 N67-12270
Tunnel diode oscillator used as analog to digital charge converter
[AFATL-TR-66-98] 06 p0650 N67-15345
Electron transport processes in tunnel diodes
[REPT.-214] 07 p1179 N67-17964
Charge sensitivity of tunnel diode voltage threshold discriminator used in time difference measurements
[UCRL-14930-T] 10 p1592 N67-20737
Characteristics and detection capabilities of contoured detector-tunnel diode circuits
[NYO-3246-8] 10 p1749 N67-20986
Tunnel diode pulse shape discriminator for separating scintillation signals from different ionized particles
[BNL-10636] 10 p1883 N67-21011
Technique for growing superconducting tunnel diodes using substrate holder in vacuum
[AFCRL-66-750] 11 p1837 N67-22541
Hybrid tunnel-diode/transistor integrated circuit squaring counter system for spacecraft
[NASA-CR-83879] 13 p2294 N67-25869
Impurity and phonon induced electric currents in germanium tunnel diodes
[EMM-65-10] 14 p2602 N67-26701
Tunnel diode low level detection analysis for characteristics occurring under bias conditions
[NASA-TN-D-3905] 14 p2510 N67-27613
Operational dynamics of transistors connected with pulse circuits containing tunnel diodes 15 p2676 N67-27822
Tunnel diode shift register with emitter followers for eliminating reversed information flow 15 p2677 N67-28121
Tunnel diode applications in fast electronic circuits used for nuclear physics
[UJV-1675] 15 p2679 N67-28466
Equipment for measuring tunnel diode parameters
[FTD-HT-66-696] 16 p2892 N67-29075
Tunnel diodes used in construction of logic elements for high speed computers 18 p3253 N67-32239
Analysis of stability and configurations for linear solid state distributed amplifier
[AFOSR-67-1230] 21 p3814 N67-35486
Circuitry of radio frequency pulse amplitude flip-flop based on tunnel diodes
[FTD-HT-66-791] 21 p3814 N67-35545
Variations of tunnel diode pulse generator circuits
[NASA-TM-X-55949] 22 p4236 N67-38535
Mathematical models of semiconductor devices for computer aided circuit analysis
[SC-DR-67-479] 23 p4331 N67-39216
Window discriminator with fast switching tunnel diodes for pulse selection from wide amplitude spectrum
[EUR-3551.E] 24 p4430 N67-40201
TUNNELING
Vacuum deposition techniques for thin film tunneling device
[ECOM-3718] 01 p0652 N67-16455
Electronic tunneling model for determining dislocation motion behavior of covalently bonded crystals
[AD-646864] 06 p0945 N67-15413
Physical phenomena and tunneling theory for design of digital transducers
[NASA-CR-83984] 13 p2223 N67-26014
Schematic tunneling model for studying field emission through atoms adsorbed on metal surface
[REPT.-66-C-235] 21 p3916 N67-35765
Tunneling between metal and silicon separated by thin polymer film insulator
[NASA-CR-86716] 22 p4137 N67-37239
Josephson tunneling in superconductors
[LA-3414-MS] 23 p4229 N67-38299
Microwave photon interaction with superconducting tunneling currents - plasma physics, semiconductors, and solid state spectroscopy
[NOLC-715] 23 p4230 N67-38560
Electron tunneling through potential barriers - variation of field current and energy distribution of emitted electrons upon metal transition to superconducting state
[NASA-TT-F-11281] 24 p4517 N67-40160
TUPOLEV TU-104 AIRCRAFT
TU-104 navigational Doppler system measurement of wind velocity and direction, mesostructure of wind field at 6 to 12 km, and structural characteristics of horizontal component 23 p4043 N67-38051
TURBINE
SA AXIAL FLOW TURBINE
SA GAS TURBINE
SA STATOR
SA STEAM TURBINE
SA SUPERSONIC TURBINE
SA TRANSONIC TURBINE
SA TWO-STAGE TURBINE
Radial-inflow turbine performance over range of specific speeds
[NASA-TN-D-3742] 01 p0669 N67-16799
Experimental performance evaluation of radial inflow turbine over range of inlet total pressure
[NASA-TN-D-3834] 04 p0870 N67-18694
Effect of Reynolds number on performance of 4.50-inch tip diameter radial inflow turbine
[NASA-TN-D-3935] 07 p1068 N67-17626
Mechanical and dynamic behavior of exploratory Brayton cycle turbocompressor operating on gas bearings
[NASA-TM-X-52361] 07 p1069 N67-17628
Digital computer data processing of measurements of traversing flow in turbines 09 p1391 N67-19490
Turbocooler for air conditioning systems in hermetically sealed sections of aircraft
[FTD-HT-66-100] 09 p1542 N67-19563
Gas duct, bucket-carrier, and sandwich type cooling systems for tip-turbine fans
[R&EFPD198] 10 p1752 N67-20692
Three-stage turbine of low reaction to examine effects of reduced motor pitch and improved sealing
[ARC-CP-961] 10 p1881 N67-21320
Flexibility of dual purpose pbat turbine with lowered design exhaust pressure
[ACNP-66508] 13 p2248 N67-25823
Turbine diffuser and delivery system efficiency increased with involute volute and peripheral grid to ensure radial outflow
[TIL/T-5661] 20 p3623 N67-34345
Turbine blade trailing edge thickness effect on blade loss coefficient and turbine stage efficiency
[ARC-R+M-3450] 20 p3623 N67-34349
Turbine airfoil stress analysis computer program 21 p3909 N67-35522
Axial flow turbine compressor for Brayton-cycle space power plant
[NASA-CR-800] 21 p3750 N67-35445
Summary of proceedings of meeting on turbine erosion
[NASA-CR-80427] 22 p3904 N67-37102
Fatigue strength of turbine shafts with shrunk-on rings
[NEL-259] 22 p4209 N67-38508
Pebble bed reactor compared to gas turbine coupled reactor to achieve optimum gas cooled reactor design for nuclear power plant
[THTR-32] 23 p4293 N67-39344
TURBINE BLADE
Vibration damping of operating turbine blades
[NASA-TT-F-10248] 01 p0662 N67-16295
Wave method for calculating impulse loads on turbine blades
[FTD-TT-65-1989] 05 p0712 N67-14769
Models of fluid dynamic and thermodynamic processes involved in overall synthesis of analytical model of turbine blade erosion
[NASA-CR-81139] 05 p0697 N67-15949
Construction and application of analytical model of wet vapor turbine blad erosion
[NASA-CR-81135] 05 p0697 N67-15957
Effect of external variables on erosion rates of turbine blade materials under impacting liquid drops and chemical dissolution of flowing liquid
[NASA-CR-81136] 05 p0698 N67-15958
Radial-axial flow turbine with low blade heights and large clearances
[NASA-TT-F-10441] 05 p0701 N67-15523
Power losses from no-load operation of working blade rings in helicopter radial flow turbines, and transport gas turbine units
[NASA-TT-F-447] 05 p0702 N67-15560
Temperature distribution along profile of cooled turbine blade with heat-insulated edges 09 p1540 N67-19680
Temperature distribution along profile of turbine bushing blade 09 p1540 N67-19696
Finite difference method for solving problem of heat transfer between gas and turbine blade

[FTD-HT-66-487] 10 p1769 N67-20692
Kaolin and sublimation methods for determining structure of boundary layer of turbine cascade blades and transition from laminar to turbulent flow
[FTD-HT-66-319] 10 p1666 N67-20727
Transonic cascade tunnel tests on turbine blades with airfoil sections of impulse design
[NAL-TR-106] 10 p1552 N67-21412
Turbulent boundary layer theory applied to turbine blade profile design and flow separation
[ARC-CP-968] 10 p1615 N67-21420
Vibration of blades in axial flow turbines
[REPT.-1088-1] 11 p1988 N67-22738
Accelerated wet mercury vapor erosion testing of candidate SNAP-8 turbine rotor and nozzle materials in close pump loop
[NASA-CR-72190] 11 p1922 N67-22855
Investigation of hypersonic flow in highly curved passages with application to development of supersonic turbomachinery blading
[PIBAL-849] 14 p3445 N67-26941
Quasi three-dimensional compressible flow analysis to determine aerodynamic velocity distribution on turbine blades
[NASA-TM-X-1394] 14 p2519 N67-27572
Effects of vapor quality, droplet size and velocity, and turbine geometry on turbine blade erosion with steam
[NASA-CR-54499] 14 p2450 N67-27666
Turbine blade with external fluid droplet cooling and heat resistant coating
[FTD-HT-66-707] 15 p2786 N67-28695
Liquid cooling of gas turbine blades with forced convection using organic coolant 16 p2984 N67-29178
Temperature distribution and heat transfer in gas turbine blades 16 p2984 N67-29199
Aerodynamic damping prediction for blade vibration in turbine
[ONERA-TN-107/1967/] 16 p2815 N67-29943
Feasibility of using ductile nickel-chromium alloy claddings to protect chromium alloy turbine vanes and blades
[NASA-CR-85069] 17 p3061 N67-31162
Performance characteristics of high-weight flow, low pressure ratio, single stage turbine rotor and stator blades
[NASA-TM-X-6] 18 p3220 N67-31918
Turbine blade trailing edge thickness effect on blade loss coefficient and turbine stage efficiency
[ARC-R+M-3450] 20 p3543 N67-34989
High temperature nickel-base alloy mechanical properties, metallography, and workability testing for jet engine turbine blade application
[NASA-CR-54307] 21 p3807 N67-35348
Test rig for predicting thermal stress cracking in turbine stator or rotor blades
[NASA-CR-54636] 21 p3939 N67-35350
Airfoil pressure profile for calculating temperature distributions in simulated turbine blade specimens 21 p3939 N67-35351
Tensile and strain cycling fatigue properties of test materials for predicting life of turbine blade specimens 21 p3807 N67-35353
Strain gauge measurements of bending moments in mid-span section of turbine blade specimens 21 p3939 N67-35354
Area measurements of dynamic hysteresis loops to determine energy dissipation in heat-treated steels in relation to stress, and energy loss during vibration of turbine blades
[FTM-MT-65-231] 21 p3908 N67-35677
Method for designing blades of highly loaded two-stage turbines, and performance of blades tested in single-stage and two-stage configurations
[ARC-CP-961] 22 p3965 N67-36894
Aerodynamic damping of compressor blades and turbine buckets
[ONERA-TP-493/1967/] 23 p4175 N67-38821
Outlet angle determination for gas flow from flat turbine cascade 23 p4176 N67-39179
Differential equations for thermal state of turbine blade 23 p4336 N67-39181
Efficiency evaluation of radial-axial turbine with low blade heights and large clearances 23 p4336 N67-39186
Lifting line theory for cascade of blades in subsonic shear flow
[SAAS-415, VOL. 32, NO. 8] 24 p4373 N67-40091

TURBINE ENGINE
High energy, low voltage ignition system for starting gas turbine engines 02 p0263 N67-11247
Overall performance of stator component of cold air turbine determined for application to high temperature engine design
[NASA-TN-D-3751] 04 p0663 N67-13719
Digital measurement technique for turbine engine transmission systems 05 p0679 N67-14670
Feasibility study of single rotor, gas turbine engine design
[WAD-368/F, REV.] 09 p1505 N67-19707
Cyclic testing for life prediction of turbine engines 16 p2978 N67-29196
Analysis and testing of air cooled turbine rotor and stator blades 16 p2983 N67-29197
Ball and roller bearings and lubricants for high temperature application in turbine engines 16 p2899 N67-29201
Aircraft turbine engine lubricant improvement
[AFAPL-TR-66-122] 17 p3072 N67-30617
Statistical and computerized multiple regression analyses for determining optimum composition of high temperature cobalt base alloys used in turbine engine stator vanes
[NASA-CR-84543] 19 p3475 N67-33970
Systems and structural design concepts for air bus aircraft - propeller turbine and pure jet powered general purpose transport aircraft
[COA-AERO-197] 20 p3565 N67-34457
Aircraft turbine engine bird strikes and amino acid analysis for determination of specific bird types
[CM4-8-17-3] 20 p3568 N67-34630
Methods, equipment, and procedures for ultrasonic inspection of bearings, axle, and rotor drive turbine
[REPT.-6701.200] 22 p4067 N67-37764
Theory, equipment and design considerations for microfog lubricant for advanced turbine engine components
[NASA-CR-72291] 24 p4457 N67-39798

TURBINE INSTRUMENT
Calibration of turbine-type flow meters in liquid hydrogen
[NASA-TN-D-3770] 03 p0399 N67-13173
Simulation of liquid-hydrogen turbine-type flow meter calibrations using high-pressure nitrogen gas at liquid-hydrogen density
[NASA-TN-D-3773] 03 p0399 N67-13174

TURBINE WHEEL
SA COMPRESSOR ROTOR
SA IMPELLER
Clearances between casing and wheel studied for effect on efficiency of centripetal gas turbine
[NASA-TT-F-10450] 06 p0791 N67-15491

TURBOALTERNATOR
Analog computer study of parasitic load speed control for solar Brayton system turboalternator
[NASA-TN-D-3784] 05 p0637 N67-14929
Turboalternator speed control with valves in two-spool solar Brayton system
[NASA-TN-D-3783] 05 p0637 N67-14930
Static parasitic speed controller for Brayton cycle turboalternator
[NASA-TN-D-4176] 21 p3762 N67-36012

TURBOCHARGER
S CENTRIFUGAL COMPRESSOR

TURBOELECTRIC CONVERSION
Development status of SNAP-8 space power system using mercury Rankine cycle 01 p0104 N67-10287
Material testing of components and closed loop systems of SNAP-8 turboelectric space power mercury Rankine cycle conversion system
[NASA-CR-72257] 17 p3108 N67-30835

TURBOFAN
Sound power level and airflow measurements for flat, cambered, and airfoil compressor blades
[FAA-ADS-83] 06 p1218 N67-19383
Solutions to aerodynamic design problems of large by-pass engine turbofans 15 p2981 N67-29185

TURBOFAN ENGINE
Fortran 7094 computer program for calculation of design point performance of turbojet and turbofan engine cycles, and thermodynamic equations
[NASA-TM-X-1340] 06 p1283 N67-18399
Optimization of turbofan engines for short range aircraft with high by-pass ratios
[DGRR/WGLR PAPER-66-869] 15 p2784 N67-27921
Turbojet and turbofan engines for supersonic transports 18 p3320 N67-31622

TURBOGENERATOR
Potassium vapor Rankine cycle turbogenerator power system 01 p0105 N67-10289
Components of reactor-powered alkali metal-vapor turbogenerator space power system
[NASA-TM-X-52249] 02 p0174 N67-11232
Materials for potassium lubricated journal bearing and shaft applications in space system turbogenerators
[NASA-CR-72023] 02 p0263 N67-11349
Bending, buckling, and vibrations of anisotropic laminated plates for high power turbogenerators 09 p1533 N67-20110
Experimental test and evaluation of gas bearing Brayton cycle turbocompressor
[NYO-3237-7] 12 p2017 N67-23722
Nonlinear numerical analysis of turbogenerators and other electromechanical energy converters
[AD-646371] 12 p2019 N67-24704

TURBOJET AIRCRAFT
Method for determination of noise from turbojet aircraft on takeoff trajectories
[NASA-TT-F-10351] 01 p0004 N67-10225
Noise measurement evaluations of various takeoff-climbout profiles of four engine turbojet transport airplane
[NASA-TN-D-3715] 03 p0333 N67-12793
Aft-fuselage-mounted nacelles effect on subsonic longitudinal aerodynamic characteristics of twin turbojet aircraft
[NASA-TN-D-3781] 03 p0334 N67-13176
Specifications, propulsion, thermodynamic data, weight, and balance analyses for V/STOL jet operations research aircraft
[NASA-CR-66421] 19 p3368 N67-33825
Stability, control, structure, cockpit, and subsystem design studies for V/STOL turbojet operations research aircraft
[NASA-CR-66422] 19 p3368 N67-33826
Calculation of maximum noise pressure spectrum from turbojets on takeoff trajectory
[ONERA-TN-108/1967/] 20 p3564 N67-34013
Deep stall effects of rear-mounted turbojet T tail aircraft
[TP-337/1967/] 22 p3960 N67-37312

TURBOJET ENGINE
Dynamic response and transfer functions of turbojet engines with air extraction behind compressor
[NASA-TT-F-10356] 04 p0604 N67-13791
Analog-to-digital converter for turbojet engine test data evaluation 05 p0679 N67-14671
Design problems of helicopter rotor tip jet engines 05 p0755 N67-15200
Fortran 7094 computer program for calculation of design point performance of turbojet and turbofan engine cycles, and thermodynamic equations
[NASA-TM-X-1340] 06 p1283 N67-18399
Method of comparing inlet performance and weight compromises for supersonic transport
[NASA-TN-D-3661] 09 p1505 N67-19689
Performance, inlet flow characteristics, and radiated noise measurement for turbojet engine with choked inlet flow
[NASA-TN-D-3929] 12 p2300 N67-25060
Noise measurement and analysis for J97-P21 turbojet engine
[AFFDL-TR-66-147] 14 p2807 N67-26877
Twin spool high by-pass ratio turbojets for short and middle range programs 16 p2983 N67-29186
Simulated altitude performance of full scale, high temperature turbojet engine using pentaborane and HEF-2 fuel
[NASA-MEMO-12-31-58E] 18 p3819 N67-31544
Turbojet and turbofan engines for supersonic transports 18 p3320 N67-31622
Experimental annular turbojet combustor with high velocity air admission through one wall
[NASA-MEMO-12-28-58E] 18 p3321 N67-32030
Supersonic flights with non-afterburning turbojet engines
[NACA-RM-58K16] 18 p3321 N67-32034
Combustion characteristics of gas turbine engine in jet aircraft - location of burning zone in combustion chamber, stability range, and flow model for gas circulation at high altitude
[FTD-MT-65-114] 18 p3321 N67-32548
Performance characteristics of burning

zone location at combustion chamber wall of turbojet engine 18 p2356 N67-32349
Gas flow model for circulating zone in combustion chamber of turbojet engine 18 p2356 N67-32350
Fuel-air mixture burning characteristics behind front of turbojet engine combustion chamber 18 p2356 N67-32351
Eddy current inspection of turbojet engine turbine disks for loss of strength 20 p3717 N67-34473
Maximum sound pressure spectrum calculated from fixed and mobile jets 21 p3897 N67-36461
Measurement of temperature fields behind turbojet engine combustion chambers [NASA-TT-F-11111] 21 p3927 N67-36471
Gas turbine cycle calculations - differential methods for equilibrium operation analysis [NRC-9666] 23 p4180 N67-38155
TURBOJET ENGINE CONTROL
Control system considerations for advanced turbojet engines 16 p2821 N67-29192
Stability of closed loop control system for rotational speed and temperature of variable nozzle turbojet engine 16 p2821 N67-29193
TURBOMACHINE
Turbomachinery and heat transfer components of Brayton space power system 01 p0007 N67-10366
Test and evaluation of gas bearing Brayton cycle turbocompressor [MTI-66TR44] 07 p1081 N67-17884
Digital computer program for through-flow fluid mechanics in arbitrary turbomachine using matrix method [NGTE-R-282] 09 p1392 N67-19973
Turbulent flow through axial turbomachines, and three-dimensional flow theory [NAL-TR-112] 10 p1552 N67-31415
Compressor research package to provide aerodynamic performance data for Brayton-cycle axial flow turbomachinery [NASA-CR-54884] 11 p1780 N67-23341
Mathematical analysis of fluid dynamic properties of two-dimensional eddy currents of compressible liquids in turbomachines [FTD-TT-65-1924] 12 p2089 N67-24772
Critical problems in application of turboramjet turbomachines and ramjets at high speeds 16 p2962 N67-29188
Materials development for advanced concept turbomachine compressor casings, blades, and other components 16 p2966 N67-29202
Research in subsonic, supersonic, and hypersonic flow fields, high speed in high pressure atmosphere, and turbomachines 19 p3429 N67-33868
Gas-lubricated bearing system design consisting of two tilting pad journal bearings with spiral groove main thrust bearing for 50,000 rpm Brayton cycle turbine compressor [NASA-CR-902] 21 p3868 N67-36043
TURBOPROP ENGINE
Fuel and control system allowing turboprop engine to operate on contaminated fuels [GT-7756-R] 05 p0755 N67-14950
Simulated altitude flight testing of advanced fuel control and combustion system for turboprop engines [GT-7762-R] 07 p1183 N67-17650
TURBOPUMP
Analytical data on pump-generated pressure, flow, blade wake, cavitation, and stall oscillations for application to turbopump design [NASA-CR-80156] 03 p0383 N67-12914
Pump-generated pressure, flow, and blade wake oscillations analyses for application to turbopump design [NASA-CR-80158] 03 p0383 N67-12915
Electromagnetic flow meter for analyzing dynamic flow oscillations in turbopump systems [NASA-TM-X-53870] 07 p1086 N67-17933
Positive-type shaft seal design concepts to future turbopump performance requirements [NASA-CR-81837] 07 p1084 N67-18039
Magnetic transducer to measure rotational speed of turbopump operating in potassium system 09 p1443 N67-19439
Simulated bearing coolant injection effect on performance of two stage, velocity compounded turbojet drive turbine [NASA-TM-X-1264] 11 p1970 N67-23940
Mathematical model for predicting rotor dynamic motion phenomena associated with rotor whirl using computer simulation [NASA-CR-72303] 22 p4133 N67-37313
Activation and initial operation of test facility for turbopump of NASA M-1 rocket engine [NASA-CR-54834] 22 p4021 N67-37985
Design and development of dual turbopump liquid hydrogen feed system [NASA-CR-80844] 24 p4525 N67-40128
TURBORAMJET ENGINE
Critical problems in application of turboramjet turbomachines and ramjets at high speeds 16 p2962 N67-29188
Performance characteristics of turboramjet engine 16 p2963 N67-29189
Turboramjet engine design for use as propulsion system in space transport vehicle 16 p2963 N67-29190
TURBULENCE
SA ATMOSPHERIC TURBULENCE
SA BOUNDARY LAYER CONTROL
SA BOUNDARY LAYER TRANSITION
SA CLEAR AIR TURBULENCE
SA GUST
SA HOMOGENEOUS TURBULENCE
SA ISOTROPIC TURBULENCE
SA LOW LEVEL TURBULENCE
SA PLASMA TURBULENCE
Boundary layer oscillations over resonant surface [ASRL-TR-116-2] 01 p0063 N67-11195
Turbulence used as source of excitation during flutter flight tests - methods of measuring damping coefficient [TP-563/1966/] 02 p0316 N67-11995
Weak locally homogeneous turbulence and heat transfer with uniform normal strain [NASA-TN-D-3779] 04 p0532 N67-14104
Fluid concentrated dispersion of water-soluble polymer capable of reducing friction of water under turbulent conditions [AD-639605] 05 p0696 N67-15040
Turbulence in upper atmosphere according to radio echo observations of meteor trains 06 p0871 N67-15454
Plasma turbulence in Van Allen belt [NASA-CR-81257] 06 p0958 N67-16511
Weak hydraulic jumps in shallow water [AVCO-EVERETT RES. REPT.-260] 06 p0869 N67-16658
Turbulence measurement in three low speed wind tunnels and axial flow compressor [ARC-CP-847] 07 p1063 N67-16779
Nuclear fusion, ionization of energetic hydrogen atoms, turbulent plasma theory and related topics [AEC-TR-6669] 07 p1165 N67-17385
Multiparticle effect of turbulent plasma theory 07 p1165 N67-17387
Two-dimensional model for analyzing convection and magnetospheric turbulence 08 p1375 N67-18337
Evolution of wave correlations in uniformly turbulent, weakly nonlinear systems [NASA-CR-83471] 08 p1349 N67-19048
Longitudinal one-dimensional turbulence spectra behind towed grid in aqueous high polymer solutions [NOTS-TP-4235] 10 p1697 N67-20687
Statistical turbulence properties of fluid phase in gas solid suspension [TR-112-ME-F] 12 p2685 N67-23694
Experimental study of grid turbulence in dilute high polymer solutions [AD-648148] 12 p2686 N67-23697
Turbulent heating of plasma by direct current discharge 12 p2185 N67-24192
Velocity of small perturbations and existence of weak shock waves in radiating gas taking into account radiation pressure [FTD-MT-65-254] 12 p2068 N67-24719
Influence of flexible walls on boundary layer turbulence [DLR-FB-66-78] 15 p2678 N67-28687
Seasonal variation of movement and turbulence in equatorial F layer ionization 16 p2859 N67-29068
Atmospheric dynamics, and statistical description of turbulence 17 p3068 N67-30870
Turbulent fluctuation measurements with crossed beam method 17 p3068 N67-30882
Summaries and abstracts of papers presented at Euromech Colloquium on structure of turbulence 20 p3632 N67-34721
Counting accelerometer data on passenger transport aircraft gust loads [ARC-CP-823] 22 p3960 N67-35900
Hypersonic wind tunnel and electron beam excitation techniques for measuring turbulence characteristics in hypersonic wake of sharp slender cone 22 p4027 N67-37822
Cooled-film anemometer measurements of turbulence in hypersonic wakes of free flight spheres 23 p4088 N67-37823
General equations of turbulent flow are described and fundamental solutions demonstrated [NYU-AA-66-69] 24 p4432 N67-40060
Boundary layer for natural and induced turbulence for case of supersonic flow along smooth plate [NASA-TT-F-11350] 24 p4433 N67-40265
TURBULENCE EFFECT
Tranchorizon radio-meteorological turbulence parameter combining concepts of refraction and atmospheric stability 01 p0060 N67-10247
Vertical accelerations due to structural vibrations of slender aircraft flying in continuous turbulence - aeroelastic response [ARC-CP-942] 08 p1375 N67-18379
Atmospheric turbulence effects on intensity of laser beam transmitted at optical frequencies [NASA-CR-83052] 10 p1649 N67-20404
Atmospheric refraction effects on telescope guidance, photoelectric and television devices for reducing air turbulence, turbulence variability, and wide angle telescope design [FTD-HT-66-194] 11 p1975 N67-23504
Swirl effects on stabilization and length of turbulent butane-propane air flames [TAE-61] 12 p2235 N67-24367
Satellite observations of local circulations - orographic effects and jet stream structure 12 p2120 N67-24378
Distribution of eddy velocities and temperature fluctuations based on Gaussian distribution study [ECOM-0027] 18 p2291 N67-32573
Heat balance component values and turbulence coefficients for varying conditions in ground surface layer 19 p3484 N67-33113
Hydrodynamic research on energy transfer, turbulent model, and safety shielding from blast waves 19 p3433 N67-33260
Turbulence effects on flight control of large jet transport aircraft 19 p3868 N67-33984
Mesostructure and microstructure of wind field at 6 to 12 km, and turbulence induced aircraft buffeting in cumulonimbus cloud zone [FTD-MT-65-304] 22 p4043 N67-38650
Turbulence induced aircraft buffeting in zone of cumulonimbus clouds 22 p4043 N67-38652
Boundary layer trips for producing turbulence in hypersonic flow [NASA-TN-D-4129] 23 p4238 N67-38935
Noise model for simulating effect of tropospheric turbulence on measurements of range, range rate, angles, and angular rate associated with radio guidance and tracking stations [ELDO-TR-F-4] 23 p4216 N67-39168
TURBULENCE MEASURING APPARATUS
Device for measuring turbulent fluctuations of electric conductivity and temperature in sea water 11 p1891 N67-23279
TURBULENT AIR CURRENT
Mesoscale and turbulent vertical currents inside peak of cumulonimbus 06 p0732 N67-14391
Rolling response measurements of Hunter Mark 6 aircraft to turbulent air currents [ARC-CP-890] 10 p1694 N67-21537
Airplane vertical accelerations in turbulence compared with helicopters [ARC-CP-898] 10 p1695 N67-21170
Assessing lateral stability and control responses of several aircraft configurations to turbulent air currents [ARC-R+M-3428] 11 p1782 N67-23708
Experimental investigation of drag and heat transfer of turbulent airflow in divergent and convergent nozzles [NASA-TT-F-11221] 21 p3782 N67-36067
Computer programs for calculating response of flexible aircraft to gusts and control movements [ARC-CP-967] 22 p3960 N67-38600
TURBULENT BOUNDARY LAYER
Pressure gradient effects on turbulent boundary layer wall-pressure fluctuations

[REPT.-747] 01 p0059 N67-10259
Enthalpy distributions and concentration in flat plate turbulent boundary layer and calculation of heat transfer on rounded forebodies by integration of global energy equation
[TP-216/1966/] 02 p0251 N67-11873
Turbulent reattachment of supersonic jet
[TP-336/1966/] 03 p0383 N67-12856
Measurement by wake momentum surveys at Mach 1.61 and 2.01 of turbulent boundary layer skin friction on five swept wings
[NASA-TN-D-3764] 03 p0332 N67-13170
IBM 7094 Fortran II program for calculating turbulent boundary layer properties, with hydrogen chemistry
[NASA-CR-88534] 03 p0385 N67-13207
Improved forced convection heat transfer performance with boundary layer turbulence promoters for steam and gas cooled power reactors
[GEAP-5115] 03 p0475 N67-13275
Heat transfer measurements on flat plate with attached protuberances in turbulent boundary layer at specified free stream Mach numbers
[NASA-TN-D-3736] 04 p0622 N67-13460
Turbulent boundary layer on permeable surface 04 p0639 N67-13540
Critical review of experimental heat transfer coefficients and temperature distributions in turbulent boundary layers of supersonic and hypersonic flows
[DLR-FB-66-51] 04 p0622 N67-13770
Review of base drag with application to supersonic flight and turbulent boundary layers 06 p0783 N67-15372
Incompressible turbulent boundary layer with pressure gradient
[NASA-TT-F-10434] 06 p0864 N67-15552
Methods of predicting turbulent boundary layer growth in conical diffusers using kinetic energy deficit equation
[TWF/TN/15] 06 p0865 N67-15777
Pressure distribution on oscillating panels in low supersonic flow with turbulent boundary layer
[NASA-CR-691] 06 p0869 N67-16869
Wind tunnel for studying two-dimensional turbulent boundary layers in controllable pressure gradients
[ARC-R+M-3437] 06 p1261 N67-18261
Boundary layer separation in supersonic propelling nozzles
[ARC-R+M-3421] 06 p1264 N67-18262
Velocity defect relationship for outer part of equilibrium and near equilibrium turbulent boundary layers
[ARC-CP-865] 06 p1264 N67-18268
Analytical technique for predicting separation and reattached flow location and characteristics of two-dimensional supersonic and hypersonic turbulent boundary layers 06 p1272 N67-19293
Effects of blowing, suction, moving wall, and propeller slipstream on turbulent boundary layer separation 06 p1219 N67-19309
Unified theory of friction, heat transfer, and mass transfer in turbulent boundary layer and wall jet
[ARC-CP-823] 09 p1433 N67-19421
Turbulent boundary layer skin friction and heat transfer on hollow cylinder in hypersonic flow at high Reynolds numbers
[NASA-TN-D-3856] 09 p1434 N67-19986
Turbulent boundary layer flow along attachment line of infinite swept wing, calculated by entrainment and momentum integral equations in streamwise and cross flow directions
[ARC-26180] 09 p1393 N67-20272
Investigation of turbulent, incompressible flow separation over curved and sharp, backward facing steps
[REPT.-67] 10 p1605 N67-20526
Skin friction laws for incompressible turbulent boundary layer
[ARC-CP-983] 10 p1613 N67-21183
Air injection used to prevent separation of turbulent boundary layer in supersonic flow
[ARC-CP-990] 10 p1614 N67-21194
Turbulent boundary layer theory applied to turbine blade profile design and flow separation
[ARC-CP-866] 10 p1615 N67-21420
Experimental study of turbulent reattachment in supersonic flow
[RAE-LIB-TRANS-1196] 10 p1616 N67-21743
Lateral intensity of atmospheric turbulence in boundary layer as function of stability
[ECOM-5092] 11 p1558 N67-22398
Theoretical estimate for compliant coating effect on turbulent boundary layer wall pressure fluctuations
[USL-767] 11 p1961 N67-23121
Separation measurements of supersonic turbulent boundary layers over compression corners
[DRL-543] 12 p2085 N67-23834
Viscosity effects on two-dimensional flow, and turbulent boundary layer calculation
[ARC-CP-872] 12 p2088 N67-24592
Sound detectors and flow noise of simple lines and perforated pipes in motion, and sampling pressure fields beneath turbulent boundary layer
[BR-4973] 12 p2088 N67-24701
Flow structure and velocity data for turbulent boundary layer on rough surface
[AFOSR-67-0430] 12 p2089 N67-24809
Mach 3 to 7 blow-down wind tunnel facility for investigating boundary layer phenomena in transitional and turbulent range
[NOLTR-66-185] 13 p2301 N67-25477
Measurement of heat transfer to cone cylinder in highly cooled turbulent boundary layer of supersonic and hypersonic flows
[FFA-AU-120-, DEL II] 13 p2434 N67-25580
Protective cooling of insulated plane surface by gas injection into turbulent boundary layer of incident flow through slot system
[NASA-TT-F-10643] 14 p2630 N67-26572
Aerodynamic turbulent boundary layer noise simulation in sonic fatigue facility
[AFFDL-TR-66-112] 14 p2568 N67-27557
Spectroscopic measurements in quiet flow water tunnel of wall pressure fluctuations in thick turbulent boundary layers
[RT-15101] 15 p2892 N67-28547
Interference measurements of mass transfer in turbulent boundary layer through permeable surface
[NASA-TT-F-11925] 16 p2936 N67-29013
Turbulent boundary layer under conditions of heat and mass transfer at hypersonic flow - data tabulation
[NOLTR-67-6] 16 p2876 N67-29121
Space time correlations of longitudinal velocity fluctuations measured in turbulent boundary layer
[AFOSR-67-0660] 16 p2876 N67-29135
Behavior of separation and attachment in three-dimensional turbulent boundary layers on ellipsoids and annular wings
[AD-650952] 16 p2879 N67-29614
Method for calculating characteristic parameters of three-dimensional turbulent boundary layers based on assumption of third degree polynomial for temperature polar
[AD-650953] 16 p2879 N67-29615
Review of literature on reflected shock pressure time profiles for air, oxygen, nitrogen, argon, carbon dioxide, and acetylene
[ARC-R+M-3446] 16 p2939 N67-30036
Diffusion of heat from instantaneous point source in turbulent boundary layer over wind tunnel flood
[CER66-67DK45] 17 p3176 N67-30300
Incompressible turbulent boundary layer calculations and measured growth of momentum thickness
[ARC-R+M-3447] 17 p3049 N67-31187
Heat transfer coefficients and temperature distributions in turbulent boundary layers at supersonic and hypersonic flow
[NASA-TT-F-10905] 18 p3256 N67-31557
Turbulent boundary layer and skin friction data for supersonic transports 18 p3185 N67-31615
Skin friction and turbulent boundary layer studies at Mach 3 18 p3186 N67-31616
Experimental determination of heat exchange law for turbulent boundary layer in supersonic flow
[FTD-HT-66-379] 19 p3554 N67-33491
Solutions of laminar boundary layer equations and effect of catalytic recombination on heat transfer in turbulent boundary layer
[FTD-TT-65-1713] 19 p3435 N67-33770
Catalytic recombination and heat transfer in turbulent boundary layer 19 p3555 N67-33774
Calculation of turbulent boundary layers in two-dimensional incompressible flow
[RAE-LIB-TRANS-1219] 20 p3824 N67-34382
Flight measurements of pressure fluctuations in turbulent subsonic boundary layer and relation with wall shear stress
[RAE-TR-66238] 20 p3580 N67-34389
Nonnormal similar turbulent boundary layers in acceleration between converging planes
[TWF/TN/21] 20 p3624 N67-34752
Survey of boundary layer flow in which Prandtl equations apply in laminar or turbulent form
[ACA-67] 20 p3625 N67-34754
Analytic solution for acoustic pressure statistics in closed rectangular cavity behind supported rectangular plate excited by boundary layer turbulence
[USL-827] 20 p3689 N67-34913
Radiation sound field of rectangular panel set in infinite wall and excited by turbulent boundary layer
[ARC-R+M-3491] 20 p3690 N67-35179
Van Driest eddy viscosity hypothesis used for wall shear stress and heat flux for turbulent boundary layer with pressure gradient
[TWF/TN/14] 21 p3832 N67-36111
Skin friction law at subsonic and transonic speeds for calculating turbulent boundary layer growth on two-dimensional airfoil
[ARC-CP-948] 21 p3755 N67-36158
Numerical solution of turbulent boundary layer equations for compressible and incompressible flows
[DAC-33735] 22 p4022 N67-36802
Analysis of viscous sublayer structure in turbulent shear flow past flat boundary
[AD-656069] 22 p4025 N67-37205
Turbulent boundary layer characteristics of pointed slender bodies of revolution at supersonic speeds
[NASA-TN-D-4193] 23 p4173 N67-38084
Analytical study of flat plate turbulent boundary layer in compressible flow
[NOLTR-67-39] 23 p4235 N67-38257
Hypersonic turbulent heat transfer measurements on highly cooled cone
[NOLTR-67-24] 24 p4349 N67-39421
Intermittency distributions in turbulent wall boundary layers with and without pressure gradients
[NASA-TT-F-11226] 24 p4430 N67-39507
General equations of turbulent flow are described and fundamental solutions demonstrated
[NYU-AA-66-69] 24 p4432 N67-40060
Generalized aerodynamic forces on flexible cylindrical shell undergoing transient motion
[NASA-CR-89683] 24 p4547 N67-40305
Approximation method for calculating axially symmetric turbulent boundary layers with secondary flow in cyclone separator and in vortex classifier
[DLR-FB-67-56] 24 p4434 N67-40428
New methods of calculating compressible turbulent boundary layer on flat plates are compared with available prediction methods
[TWF/TN/28] 24 p4434 N67-40434

TURBULENT DIFFUSION
Theoretical turbulent saline diffusion in conduit in continuous service
[NASA-TT-F-9008] 01 p0061 N67-10754
Turbulent diffusion due to drift instability driven by temperature gradient
[LGI-66-12] 15 p2773 N67-27502
Derivation of three-dimensional hyperbolic differential equation based on finite correlated particle velocities for modeling anisotropic turbulent diffusion in atmosphere
[ECOM-6026] 18 p3266 N67-32364

TURBULENT FLOW
Convective heat transfer of gas-solids suspensions at high Reynolds number in turbulent pipe flow
[NYO-2990-7] 01 p0165 N67-10672
Heat transfer of turbulent flow in annular tubes 02 p0221 N67-11211
Turbulent nonisothermal flow of viscous compressible gas in starting length of axisymmetric and flat expanding channels with zero pressure gradient 02 p0222 N67-11222
Heat transfer in inlet portion of tube with turbulent flow 02 p0222 N67-11223
Heat transfer and friction in longitudinal flow past heat transfer elements 02 p0222 N67-11227
Bibliographies compiled and data evaluated on diffusivity, viscosity, transport phenomena, and turbulent flow
[NASA-CR-79990] 02 p0250 N67-11860

Analog method for measuring statistical correlations in time applied to turbulent flow and stray signals in electrocardiograms [TP-361/1966/] 02 p0200 N67-11917
Experimental studies on swirling flows in cylindrical ducts [M6117] 02 p0253 N67-12182
Shock tube studies on rarefied gas dynamics, hypersonic flow, and turbulent flow [AFOSR-66-0699] 02 p0254 N67-12289
Shear stress distributions for flow in smooth or partially rough annuli [AE-243] 03 p0362 N67-12637
Laws of high velocity turbulent flow in smooth pipe [NASA-TT-F-10359] 04 p0531 N67-13837
Observation methods of turbulent flow using hot wire anemometers and schlieren photography - wakes [TP-417] 04 p0481 N67-14287
Turbulent pipe-flow frictional pressure drop of very dilute aqueous solutions of polyethylene oxides measured and correlated with polymer molecular weight and concentration 05 p0654 N67-14547
Laminar to turbulent flow transition concepts studied in relation to oscillatory flows found in circulatory system 05 p0644 N67-14578
Optical measurements on solid phase distribution in gas-solid turbulent flow [NYO-2930-6] 05 p0694 N67-14700
Viscous sublayer in turbulent pipe flow [AD-639804] 05 p0696 N67-15039
Measurements of entrainment by free rotating disk in turbulent axisymmetric flow [ARC-27997] 05 p0697 N67-15106
Splitter plate effectiveness in reducing transverse oscillations of finite circular cylinder in turbulent flow [USL-759] 07 p1062 N67-16560
Effect of upstream flow discontinuities on acoustic power radiated by model air jet [NASA-CR-679] 07 p0968 N67-17360
Turbulence measurements in pipe flow of drag reducing nonnewtonian fluid [REPT.-6-71000/6R-22] 07 p1068 N67-17957
Force convection heat transfer characteristics of cryogenic hydrogen flowing turbulently at high heat fluxes [NASA-CR-678] 07 p1068 N67-18156
Turbulent separated flow around fin-type protuberance at supersonic Mach number [NASA-TN-D-3804] 08 p1216 N67-18406
Coefficients of heat transfer and hydraulic resistance as functions of nonisothermicity in turbulent motion of fluid with variable physical parameters 08 p1366 N67-18487
Polymer injection into turbulent flow around circular cylinder and resulting drag reduction 08 p1366 N67-18554
Velocity distribution of turbulent flow in vicinity of porous wall with homogeneous blowing and sucking [AVA-FB-66-06] 08 p1369 N67-19163
Diminution in friction of turbulent flow of aqueous polyvinyl alcohol and glycerine solutions 08 p1369 N67-19168
Lubricant consumption along axis of working bearing under turbulent fluid flow conditions 09 p1452 N67-19495
Acoustic and heat transfer aspects of launch vehicle turbulence 09 p1392 N67-20263
Optical methods for remote sensing of local thermodynamic properties and turbulence in model flows or atmosphere 09 p1544 N67-20264
Mathematical analysis of vortex breakdown in terms of swirling flow to stationary wave transition [ARC-27945] 10 p1607 N67-20606
Experimental design and performance characteristics of turbulence amplifiers 10 p1609 N67-21106
Resistance of small bore tubes to turbulent flow of compressible fluid for application to fluidic circuits [D2] 10 p1612 N67-21140
Turbulent flow through axial turbomachines, and three-dimensional flow theory [NAL-TR-112] 10 p1552 N67-21415
Base pressure prediction in two-dimensional supersonic turbulent flow - jet mixing [ARC-R+M-3434] 10 p1552 N67-21419
Thermal detectors and dynamic calibration techniques for mapping local thermodynamic properties and turbulent flow characteristics [NASA-CR-751] 11 p1584 N67-22779
Decay of turbulent axisymmetrical free jet and wake flows with rotation [TAE-55] 11 p1668 N67-22916
Steady state and dynamic properties of tilting pad journal bearings in laminar and turbulent flows [NASA-CR-732] 11 p1691 N67-23205
Hot-wire anemometers at constant temperature to measure mean velocity, fluctuations, and correlation coefficients of turbulent flows [REPT.-66-11] 11 p1668 N67-23396
Intermittency effects on turbulent transport processes in free turbulent flows [R67SD3] 11 p1663 N67-23461
Heat transfer coefficient for turbulent mercury flow in narrow annular channels 12 p2233 N67-23512
Film coefficients of heat transfer for helium at 2000 deg to 2500 deg F in turbulent flow [BM-RI-6856] 13 p2422 N67-25279
Flow at entrance of porous cylindrical pipe with suction [NT-430] 13 p2366 N67-26099
Characterization of turbulence and flow of liquid films on inclined walls using motion equation [REPT.-36] 13 p2435 N67-26110
Reattachment and critical points for laminar, transitional, and turbulent flow separation regimes on backward facing steps in supersonic wind tunnel [AS-66-18] 14 p2516 N67-26744
Turbulent heat and moisture flows studied for effects on heat balance and ablation of glaciers in Polar Urals 14 p2524 N67-27150
Macroscale turbulence of subsonic jets [NASA-CR-84423] 14 p2519 N67-27762
Statistical correlation techniques and parallel plate filter arrangement for determination of particle deposition in turbulent slot flow [AD-634671] 15 p2690 N67-27982
Nitrogen impurity distribution in turbulent flow of molten lithium coolant [SM-85/52] 15 p2745 N67-28178
Turbulent magnetohydrodynamic flows in prismatic and cylindrical pipes [NASA-TT-F-482] 15 p2692 N67-28280
Turbulent flow effect on heat transfer during air motion in pipes [FTD-MT-65-367] 15 p2695 N67-28622
Computation formulas for friction on permeable plate in turbulent gas flow 16 p2990 N67-30650
Turbulence-induced heat-transfer fluctuations in pipeflow of water using hot-film wall sensors [ORNL-TM-1602] 17 p3177 N67-30842
Critical evaluation and compilation of viscosity and diffusivity data on gas, liquid, solid, and turbulent flow systems [NASA-CR-85898] 17 p3039 N67-31416
Convective heat transfer in stabilized turbulent flow of homogeneous liquid in circular channel under supercritical pressure [NASA-TT-F-11099] 18 p3238 N67-31736
Drag reducing polyethylene oxide lubricants used in turbulent pipe flow [AD-651767] 18 p3350 N67-32108
Vibrations induced in thin-walled cylindrical pipes by passage of internal turbulent water under varying flow conditions [NASA-CR-86459] 18 p3351 N67-32118
Inertial ranges in two-dimensional turbulence [RR-11] 19 p3439 N67-32862
Drag reduction by dilute polymer solutions in turbulent flow [NRL-6542] 19 p3422 N67-33299
Necessary conditions for similar solutions to turbulent gas dynamics problems [UCRL-50211] 19 p3435 N67-33956
Pressure drop and heat transfer in laminar and turbulent tube flow of mercury [BMWF-FBK-67-05] 20 p3744 N67-34126
Relative motion and coagulation of particles in turbulent gas [USNRDL-TR-67-49] 21 p3830 N67-35596
Correlation equation of friction coefficient for laminar and turbulent flow at large ratios of surface to fluid-bulk temperature [NASA-TR-R-267] 21 p3831 N67-35762
Scattering of electromagnetic waves by vorticity fluctuations in shear generated turbulent flow [TR-1001/2946-20/-9] 22 p4118 N67-36607
Response of cylindrical structure to turbulent flow field at subcritical Reynolds number [UTIAS-TN-115] 22 p4154 N67-37097
Visualization of turbulent flows by means of flow birefringence [NASA-CR-88708] 22 p4085 N67-37277
Applicability of Cole theory of compressible turbulent flows in calculating skin friction coefficients [RM-5360-PR] 22 p4060 N67-37837
Heat transfer coefficients in turbulent flow of liquid drops and gases in round tubes [BNL-TR-144] 22 p4168 N67-37722
Spectrum of pressure fluctuations in turbulent flow [NASA-TM-X-60896] 23 p4235 N67-38172
Heisenberg statistical theory of turbulence and motion equations for turbulent flow [NASA-CR-89130] 23 p4239 N67-38966
Turbulent flow of electroconductive fluid in longitudinal magnetic field 23 p4234 N67-38189
Critical analysis of methods for determining magnetic Reynolds number, and limitations of one-dimensional approximations during flow of conductive gas 23 p4235 N67-38287
Mean velocity and mean shear stress distributions of two-dimensional quasi-parallel turbulent shear flows [AROD-5413-2-E] 24 p4439 N67-38980
Effects of dissolving gas nuclei in turbulently flowing water in pipe on cavitation and tensile strength [S-67-1136] 24 p4421 N67-38985
Experimental study on local heat transfer during turbulent flow of piped carbonic acid and water in supercritical region with state variables [NASA-TT-F-11235] 24 p4551 N67-40124
Boundary layer study to determine effect of positive pressure gradient on transition from laminar to turbulent flow [NASA-TT-F-11221] 24 p4428 N67-40126
Optical heterodyne measurements for mapping spatial velocity distribution in turbulent flow [NASA-CR-89614] 24 p4434 N67-40512

TURBULENT HEAT TRANSFER

Effect of highly cooled wall of slender cone on hypersonic turbulent heat transfer rates [NOLTR-65-153] 01 p0162 N67-16294
Turbulent friction and heat flux in two-dimensional flows and three-dimensional flows [TP-151/1964/] 01 p0164 N67-16654
Heat transfer for carbon dioxide in supercritical region 02 p0220 N67-11268
Correlation of free flight turbulent heat transfer data from axisymmetric bodies with compressible flat plate relationships [NASA-TN-D-3002] 06 p0788 N67-13691
Parametric feasibility study of structural factors and heat transfer in molten-salt reactors [JUL-386-RG] 10 p1771 N67-21975
Turbulent heat transfer in thermal entrance of perfectly insulated pipe [ARL-66-0179] 14 p2530 N67-26494
Turbulent heat transfer between atmosphere and ocean 15 p2760 N67-28135
Theory and experiments to determine heat transfer in tubes with rectangular or square profiles carrying hot air flow 18 p3236 N67-32389

TURBULENT JET

Trajectory of jet of compressed gas in drifting flow [FTD-TT-65-1977] 01 p0061 N67-11153
Jet turbulence and aerodynamic noise studies 09 p1391 N67-19650
Fluidics - pressure gradient effect on characteristics of turbulent bounded jet and confined jet [AD-644727] 10 p1607 N67-20648
Turbulent reattachment fluid amplifier switching times prediction based on turbulent jet entrainment properties and quasi-steady flow [A1] 10 p1612 N67-21139
Time-dependent attachment of thin two-dimensional turbulent jet to adjacent parallel flat plate [A2] 10 p1614 N67-21279
Turbulence measurements relevant to jet noise [UTIAS-110] 11 p1691 N67-23188
Theoretical and experimental analysis of static pressure in plane turbulent jet at low Mach numbers

[DLR-FB-67-04] 12 p3087 N67-34583
Propagation of turbulent jet impacting on flat surface
[NASA-TT-F-10784] 12 p3090 N67-35015
Turbulent swirling jets issuing from round orifice
[TAE-46] 13 p3306 N67-35583
Phase space solution of buoyant jets in calm stratified atmosphere
[R67SD8] 14 p2517 N67-27194
Turbulent jet flow interaction near flat plate surface
[FTD-HT-66-370] 15 p3693 N67-38894
Numerical integration of equations of flow in initial region of turbulent wall jet
[SF/TN/7] 21 p3830 N67-35670
Transition to turbulence for submerged incompressible and free compressible fluid jets
[OR-8663] 23 p4034 N67-37086
Mean and turbulent structure of free jet and jet impingement heat transfer
[ARAP-96] 22 p4161 N67-37176
Approximate method for determining concentration field in turbulent gas jet
[TG-230-TR27] 23 p4236 N67-38433
Steady axial symmetric flow of turbulent jets in free vortex surroundings
[R67SD42] 23 p4239 N67-38920
TURBULENT MIXING
Chemical kinetics of supersonic combustion and heterogeneous turbulent jet mixing related to design and operation of scramjets
[AFOSR-66-1855] 01 p0145 N67-10510
Isobaric thermal mixing layer of supersonic flow
[TP-327/1966/] 02 p0252 N67-11979
Numerical calculation of turbulent mixing of two homogeneous gas fluxes 07 p1085 N67-17397
Turbulent far wake mixing problems
[NYU-AA-66-63] 07 p1086 N67-17655
Decay of turbulent eddies in base region of Saturn-type launch vehicles, and transfer of energy through chemical reactions
[NASA-CR-81763] 07 p1211 N67-18104
Method for determining turbulent transport coefficient in supersonic flow
[NASA-CR-82826] 08 p1268 N67-19055
Supersonic turbulent mixing by ejecting nonreacting light gas from wall slot into Mach 2 airflow
[NASA-CR-82461] 08 p1270 N67-19273
Conference papers on separated flows, turbulent mixing, reattachment, and laminar boundary layer separation
[AGARD-CP-4, PT. I] 08 p1270 N67-19281
Velocity, temperature, and concentration profiles on boundary layer of isobaric turbulent mixture in supersonic flow 08 p1272 N67-19290
Determining velocities, mass flows, temperatures, and viscous stresses in turbulent, compressible isobar mixing layer, and application to reattachment problems 08 p1272 N67-19291
Turbulent mixing in supersonic flow past slender bodies with large blowing from surface 08 p1272 N67-19292
Numerical calculation of turbulent mixing of two uniform gas flows
[TG-230-T501] 09 p1432 N67-19457
Model for turbulent mixing of coaxial jets
[NAVWEPS-9097] 11 p1859 N67-22620
Spectral energy balance in turbulent mixing layer
[ARC-CP-899] 12 p2308 N67-26045
Separated flow - steadiness of separation and reattachment, turbulent mixing coefficient, effect of Reynolds number on base pressure, and reattachment problems
[AGARD-548] 16 p3078 N67-29531
Approximate methods for solving differential equations of motion to predict free turbulent mixing processes - single-term eddy viscosity model 19 p3553 N67-32985
Two-dimensional turbulent mixing scaling laws of mixing, heat transfer and skin friction for use in design of scramjet engine combustors 19 p3585 N67-33386
Confined coaxial mixing of isoenergetic airstreams
[ARL-67-0068] 19 p3432 N67-33576
Digital computer program for evaluating mixing and combustion characteristics of rocket exhaust jet with turbine gases exhausting peripherally about nozzle exit with surrounding external air stream
[NASA-CR-89619] 24 p4431 N67-39071
TURBULENT WAKE
Boundary layer analysis applied to two-dimensional turbulent wake
[RAE-TR-66059] 04 p0529 N67-13619
Calculations and analysis of experimental results concerning jet flow diffusion in base flow and formation of turbulences
[REPT.-35] 07 p1064 N67-17125
Iterative solution to boundary layer problem of two-dimensional turbulent reattachment 08 p1273 N67-19295
Base bleed effect on flow behind two-dimensional model with blunt trailing edge 08 p1273 N67-19296
Turbulent wake behind cone at Mach 5 studied in hypersonic wind tunnel
[NOLTR-66-95] 09 p1434 N67-19764
Large eddy structure of turbulent wake
[AD-642298] 10 p1666 N67-20560
Interaction between shock wave and turbulent wake shed from bluff-ended cylinder at free stream Mach numbers 1.2 and 1.9
[AGARD-539] 11 p1779 N67-23249
Growth of turbulent wake in density-stratified fluid
[TR-231-12] 13 p2306 N67-25415
Generalized analytic expressions for describing motion of free laminar jet
[USAAVLABS-TR-66-69] 13 p2307 N67-25639
Wind tunnel measurements of turbulent wake cooling behind slender body with base injection
[AFOSR-66-1929] 14 p2443 N67-26917
Schlieren photographs analyses to determine statistical properties of turbulent wakes of hypervelocity spheres 22 p4028 N67-37524
Pulsations in turbulent wakes of hyperballistic spheres during atmospheric reentry 22 p4028 N67-37525
Ballistic range electrostatic probe measurements of turbulent wakes from hypersonic spheres 22 p4116 N67-37527
TURING MACHINE
Cellular arrays for logic and storage
[AFCRL-66-613] 06 p0650 N67-16659
Context free language programming and Turing machines
[TM-738/028/00] 15 p2736 N67-28916
TURNSTILE ANTENNA
Indirect impact test of cupped turnstile antenna 08 p1245 N67-18343
Turnstile conical scan feed to improve tracking antenna performance on Apollo-instrumented ships
[NASA-TM-X-55899] 21 p3798 N67-35779
Canted turnstile as omnidirectional spacecraft antenna system
[NASA-TM-X-55924] 23 p3998 N67-37172
TVC
S THRUST VECTOR CONTROL /TVC/
TWENTY-FOUR HOUR ORBIT
S STATIONARY ORBIT
TWENTY-FOUR HOUR SATELLITE
SA SYNCHRONOUS SATELLITE
Tracking requirements for a twenty-four hour satellite station keeping control system
[ELDO-TM-F-26] 20 p3804 N67-34879
Thermoconductivity of propellant tank insulants, satellite communication ground station, and twenty-four hour satellite motion stability 20 p3734 N67-35021
Motion stability of twenty-four hour satellite in geomagnetic field 20 p3734 N67-35024
Placing in orbit and monitoring geostationary satellite, role of ESRO Redu station, and construction of control and mobile stations 22 p4149 N67-37347
TWENTY-SEVEN DAY VARIATION
Temporal variations of intensity and temperature in hydroxyl bands of auroral emission 15 p2696 N67-27886
TWILIGHT
Polarization method for analyzing twilight phenomena
[NASA-CR-80156] 02 p0289 N67-12911
Twilight investigations of planetary atmospheres from space probes
[FTD-MT-65-400] 09 p1510 N67-19543
Diurnal variations of twilight helium emission 15 p2696 N67-27885
Twilight emission of helium at high latitudes 15 p2696 N67-27889
Influence of higher order light scattering at zenith of twilight sky on brightness of primary twilight segment
[NASA-CR-88681] 16 p3264 N67-33028
Twilight cusp extensions of Venus and application to deriving heights of scattering atmosphere
[P-3631] 21 p3790 N67-35341
Venus twilight sky investigated for discrepancies between predicted and observed shape and periodic appearance of planet
[RM-5386-PR] 22 p4140 N67-37343
Upper stratosphere study by photometric observations of twilight
[NASA-CR-89335] 23 p4247 N67-39077
TWINNING
SA MECHANICAL TWINNING
Twinning and low temperature mechanical properties of polycrystalline niobium, molybdenum, and niobium molybdenum alloys
[AD-646682] 12 p2121 N67-24756
Stacking fault energy and frequency of annealing twins in iron nickel chromium alloy system
[COO-1319-47] 13 p2339 N67-25940
Tensile tests in liquid helium and role of twinning in plastic deformation of zirconium
[ORO-3262-3] 15 p2725 N67-28487
TWIST
S TORQUE
TWISTED WING
Aerodynamic characteristics at Mach 2.03 of series of curved leading edge wings employing various degrees of twist and camber
[NASA-TN-D-3827] 07 p0991 N67-18142
TWO-BODY ORBIT
Accuracy results for perturbed Lunar Orbiter trajectories and unperturbed Kepler orbits
[NASA-CR-82159] 08 p1365 N67-18778
TWO-BODY PROBLEM
SA MANY-BODY PROBLEM
Charged sigma production reactions in two-body and three-body decays
[TR-559] 01 p0123 N67-10633
Fortran computer program and Lagrangian motion equations for separation analysis of two bodies in space
[NASA-CR-80115] 02 p0909 N67-12257
Newtonian theory, Keplerian law, and two-body problem applied to orbital motion 05 p0759 N67-14411
Lagrange-Hamilton-Jacobi mechanics and application to two-body problem 05 p0727 N67-14413
Modifications to minimum variance program for processing real data, including two-body problem solution, and modified Kalman filter with bias errors
[NASA-CR-81150] 05 p0682 N67-15800
Excitation energy levels of residual interaction between nucleons within nucleus and photonuclear reactions in giant resonance region 06 p0930 N67-15838
Negative parity level shifts of O16 due to low momentum energy shell transitions calculated for neutrons and protons
[NASA-CR-81256] 06 p0941 N67-16629
Graphical analysis of impact behavior based on two-body impact problem 07 p1199 N67-16912
N-body problem and motion of masses under gravitational force 08 p1360 N67-18316
Trajectory approximation by two-body problem analyses for space vehicle in earth-moon system
[ESRO-TM-26] 09 p1512 N67-20225
Kaon pion system in three body final states, produced by 3 GeV/c negative kaon proton interaction
[CEA-R-3023] 10 p1727 N67-21633
Nonleptonic decays of hadrons, and two-body weak interactions
[INS-104] 11 p1955 N67-22475
Differential cross section measurement of elastic scattering of positive and negative pions from hydrogen
[NYO-2171-219] 12 p2161 N67-23588
Coefficients calculated for Taylor series expansion about two points - application of Taylor expansion to two-body problem
[NASA-TM-X-55758] 12 p2130 N67-23985
Approximation methods of solving spacecraft orbit problems, and application of two-body problems to space vehicle in Earth-Moon trajectory 12 p2111 N67-24458
Convergence of two-particle disintegration in three-body problem
[JINR-P4-3154] 15 p2764 N67-28435
Approximations for C and S functions and their derivative functions for application to two-body problem
[NASA-TM-X-55799] 15 p2737 N67-28708
Computerized expansions in elliptic motion

[D1-82-0601] 16 p2969 N67-29510
TWO-DIMENSIONAL BODY
Significance of one-dimensional many-body problem to quantum mechanics - historical survey of existing one-dimensional and two-dimensional models
[AFOSR-66-1574] 01 p0114 N67-10316
Two-dimensional flight computer program for IBM 1620 computer
[RDTR-83] 09 p1490 N67-19452
Determination of moments, forces per unit length, and displacements characterizing state of stress and strain in two-dimensional helicoidal shell of uniform thickness
[NASA-TT-F-453] 09 p1526 N67-20069
Two-dimensional statistical hydrodynamics for expanding finite box to infinite plane
[UCRL-50165] 10 p1608 N67-21012
Expansion for disturbance velocity potential of symmetric sonic flow past two-dimensional body
[RAE-TR-66030] 15 p2690 N67-29070
Supersonic gas flow around blunt bodies, and numerical algorithms constructed for calculating two-dimensional and three-dimensional bodies of various shapes
[NASA-TT-F-453] 16 p2977 N67-29355
Formulae for predicting stress concentration factors applicable to two-dimensional symmetrical T-head configurations
[AMRA-TR-66-36] 16 p2980 N67-29604
Refined finite element analysis of linear and nonlinear two-dimensional structures using polynomial expansion
[SESM-66-22] 20 p3737 N67-34268
Finite element dynamic stiffness matrix for two-dimensional panel flutter calculations
[LR-476] 20 p3738 N67-34429
Light scattering by banded two-dimensional biaxial crystal spherulite
[ONR-TR-90] 23 p4295 N67-38839
Comparison between predicted and measured profile drag for two-dimensional airfoil at incompressible speeds over whole Reynolds number range
[NPL-AERO-1052] 23 p4175 N67-39058
Transonic panel flutter
[NASA-TT-F-11314] 24 p4545 N67-40157
TWO-DIMENSIONAL FLOW
Turbulent friction and heat flux in two-dimensional flows and three-dimensional flows
[TP-151/1964/] 01 p0164 N67-10654
Numerical calculation of two-dimensional steady flow of ideal gas in boundary layer
02 p0249 N67-11260
Boundary layer analysis of two-phase /liquid-gas/, two-dimensional flow over circular cylinder and flat plate
[ARL-66-0010, PT. IV] 02 p0251 N67-11898
Exact solutions to Navier-Stokes equations with curl free convective accelerations
[R66SD61] 02 p0252 N67-12029
Boundary layer analysis applied to two-dimensional turbulent wake
[RAE-TR-66059] 04 p0529 N67-13619
Two-dimensional flow in laminar wake studies
[REPT.-66-6] 04 p0533 N67-14115
Magnetogasdynamic flows of small magnetic Reynolds number - Two-dimensional method for computing performance of steady crossed field accelerators
[AFOSR-66-2352] 05 p0744 N67-14704
Two-parameter method for calculating two-dimensional incompressible laminar boundary layer
[ARC-28113] 05 p0698 N67-15338
Fortran computer program for calculating velocities and streamlines for two-dimensional incompressible flow in axial blade rows
[NASA-TN-D-3762] 06 p0864 N67-15661
Decay rates and flutter speeds for two degree of freedom hydrofoil models with finite aspect ratio compared to results predicted by two dimensional airfoil flutter theory
[R-1170] 06 p0788 N67-16465
Two-dimensional unsteady flow in traveling wave plasma accelerator studied using small perturbation theory
[NASA-CR-81298] 06 p0944 N67-16556
Numerical methods for calculating two-dimensional unsteady flows caused by meteoritic impact on solid material
07 p1200 N67-17031
Wind tunnel for studying two-dimensional turbulent boundary layers in controllable pressure gradients
[ARC-R+M-3497] 08 p1261 N67-18361
Approximation method for calculating base pressure in two-dimensional supersonic flows
[NASA-TT-F-10659] 08 p1268 N67-18934
Numerical analysis of two-dimensional laminar flow with nonregular boundaries
[NASA-CR-82855] 08 p1269 N67-19115
Base bleed effect on flow behind two-dimensional model with blunt trailing edge
08 p1279 N67-19236
Analytic solutions for two and three-dimensional steady state diffusion problems with constant coefficients
[PMR-TM-66-7] 10 p1636 N67-21324
Base pressure prediction in two-dimensional supersonic turbulent flow - jet mixing
[ARC-R+M-3434] 10 p1552 N67-21419
Free molecule flow and surface diffusion through tubes and two-dimensional slots
[NASA-TR-R-258] 11 p1857 N67-22040
Two-dimensional theory for circular-arc jet flaps at supersonic speeds
[APL/JHU-CR-24] 11 p1777 N67-22454
Longitudinal surface curvature effects on steady, two-dimensional, incompressible laminar boundary layers
[AE-164-A] 11 p1869 N67-22935
Pressure distribution of two-dimensional flow on air cushion vehicle
[NT-9-1966] 11 p1782 N67-22971
Electrical analogy technique for determining rotational apparent masses of body in two-dimensional fluid flow
[NASA-CR-73080] 12 p2010 N67-24548
Viscosity effects on two-dimensional flow, and turbulent boundary layer calculation
[ARC-CP-872] 12 p2066 N67-24592
Linear programming for supercavitating flow through two-dimensional hydrofoils
[NEL-218] 12 p2066 N67-24594
Mathematical analysis of fluid dynamic properties of two-dimensional eddy currents of compressible liquids in turbomachines
[FTD-TT-65-1924] 12 p2069 N67-24772
Binary diffusion laminar boundary layer equations solved for two-dimensional and axisymmetric flow
[LB-29613] 12 p2090 N67-24939
Characterization of turbulence and flow of liquid films on inclined walls using motion equation
[REPT.-36] 13 p2425 N67-28110
Wake produced by oscillating wing in two-dimensional noncavitating flow studied in water tunnel using small air bubbles as flow tracers
[TM-607,2441-10] 16 p2811 N67-28988
Nonlinear analysis of two-dimensional, irrotational flow of incompressible, homogeneous fluid past fully cavitating, cambered hydrofoil and strut
[TR-72] 16 p2979 N67-29621
Pressure measurements and flow photography tests on two-dimensional base flow at subsonic and transonic speeds
[ARC-R+M-3427] 16 p2814 N67-29982
Behavior of disturbing waves in smooth, transonic, two-dimensional flow past profiles
[NLR-TN-T.123] 16 p2815 N67-29950
Geometric determination of two-dimensional incompressible fluid flow around several obstacles
[REPT.-116] 16 p2881 N67-30130
Theoretical and experimental analyses of two-dimensional incompressible cascade flow past axial flow compressor blade
[IN-16] 17 p3048 N67-30633
Froude number effect of two-dimensional flow of inviscid density-stratified liquid past slender body
[D1-82-0614] 17 p3080 N67-31458
Inertial ranges in two-dimensional turbulence
[RR-11] 19 p3430 N67-33962
Two-dimensional flow of body moving with constant speed through linearly stratified fluid
[TR-23] 19 p3432 N67-33276
Lift coefficient of wing section calculated from streamline flow measurement in two-dimensional smoke wind tunnel for studying high lift device
[RAE-LIB-TRANS-1230] 20 p3560 N67-34342
Calculation of turbulent boundary layers in two-dimensional incompressible flow
[RAE-LIB-TRANS-1219] 20 p3634 N67-34522
Effects of vorticity variation on two-dimensional suction flow
[NPL-AERO-1202] 20 p3638 N67-35069
Minimum drag surfaces for given lift coefficient in two-dimensional supersonic flow field
[RAE-TR-66305] 20 p3643 N67-35175
Unsteady two-dimensional potential flow for two lifting bodies
[DAC-33558] 21 p3733 N67-35865
Analysis of two-dimensional flow toward sinks on beta-earth
[TR-23] 21 p3736 N67-35567
Numerical solution of Boltzmann equation for two-dimensional gas
[AS-67-4] 22 p4022 N67-36694
Calculation method for quasi-two-dimensional flows through cascades in axial flow compressor
[E-79-10] 22 p4025 N67-37339
Numerical solutions for time-dependent Navier Stokes equation for two-dimensional flow of dissociating gas over circular cylinder
23 p4061 N67-37614
Parametric differentiation method for approximate solution of boundary layer flow equations
[T67-1] 22 p4022 N67-37815
Analysis of two-dimensional transient free surface flow of incompressible fluid through hydraulic switch
[AD-656489] 22 p4016 N67-37866
Pressure loss minimization in channel flow through strongly deflecting grid of blades
23 p4175 N67-38158
Mean velocity and mean shear stress distributions of two-dimensional quasi-parallel turbulent shear flows
[AROD-5412-2-E] 24 p4429 N67-38500
TWO-DIMENSIONAL JET
Secondary jets from two-dimensional nozzles with various exit Mach numbers for hypersonic control application
[NASA-TN-D-3780] 06 p0795 N67-15694
Size and direction of fluid jet flow from two-dimensional asymmetric orifices
06 p0794 N67-16869
Similarity solution of laminar two-dimensional incompressible jet flowing over curved surface
[NASA-CR-83923] 09 p1485 N67-19990
Motion equations for two-dimensional laminar jet of incompressible fluid in parallel streaming flow
[D1-82-0549] 09 p1436 N67-20020
Velocity decay, surface pressure distribution, and perturbation in two-dimensional turbulent wall jets over curved surfaces
[MERL-TN-67-1] 20 p3634 N67-34701
Two-dimensional wall jet - slot geometry effects on film cooling effectiveness and measurements of impervious wall effectiveness
[ARC-CP-943] 22 p4028 N67-38023
TWO-ELECTRON SYSTEM
Paired correlations of electrons in theory of many-electron systems
06 p0622 N67-12806
Energy formula of many-electron system with unfilled layer
06 p0628 N67-12971
General theory of electron exchange and approximation methods for determining contribution to total amplitude
11 p1782 N67-23110
Magnetic susceptibility of light atoms using approximation of two-electron-state model
[T-R-601] 12 p2161 N67-23423
Electron-positron pair production in pion-nucleon interactions
[TH/190] 14 p2908 N67-27121
Theoretical and numerical studies on closed states of two-electron atoms and ions
[AFOSR-67-0290] 16 p2946 N67-29048
Higher order perturbation energies for two-electron Hooke law model atom
[NASA-CR-83800] 17 p3134 N67-31021
Analytic solution of Schrodinger equation for ground state of two-electron atom and extension of method to hydrogen molecule
[NASA-CR-83016] 21 p3580 N67-32048
Ground state of atomic two-electron systems in independent particle model determined by Hartree-Fock calculation
[SR-34] 24 p4380 N67-39612
TWO-PHASE FLOW
Radial voidage distribution measurement in two-phased flow by technetic sampling
[AEEW-M-600] 01 p0080 N67-10075
Energy loss of two-phase flow in vertical absorption tubes
01 p0080 N67-10176
Two-phase flow and heat transfer in eccentric annulus geometry

[GEAP-5161] 01 p0106 N67-10663
Critical flow rate of two-phase nitrogen through orifice
[NASA-TM-X-53492] 01 p0164 N67-10756
Space independent model of two-phase flow
[BNL-963] 01 p0166 N67-10779
Burnout data examined for climbing-film two-phase annular flow - droplet rate of deposition
[AEEW-R-470] 01 p0165 N67-10804
Boundary layer analysis of two-phase /liquid-gas/, two-dimensional flow over circular cylinder and flat plate
[ARL-66-0010, PT. IV] 02 p0251 N67-11898
Pseudo-sonic velocity and pseudo-Mach number concepts in two-phase liquid-vapor flow
[NASA-TN-D-3734] 02 p0251 N67-11957
Heat transfer characteristics of two-component, two-phase flow about cylinder
[ARL-66-0091] 05 p0774 N67-15014
Fluid mechanics and dynamic reactions in liquid flow, single-phase flow, and two-phase flow
[NASA-CR-81161] 06 p0864 N67-15523
Nucleonic mass measurement technique for detecting aeration in T-34 aircraft engine lubrication system
07 p1062 N67-16965
Mercury droplet size and distribution in glass condenser tube in one and zero gravity environments
[NASA-TM-X-1338] 07 p1065 N67-17510
Mathematical expression for slip ratio for up, down, and zero gravity annular two-phase flow
[ORNL-TM-1519] 07 p1066 N67-17547
Stability of oscillations in air and water two component two-phase flow
[NASA-CR-72121] 07 p1067 N67-17838
Electromagnetic flow meters to measure void fraction in gas-liquid two-phase flow
[JAERI-1111] 09 p1450 N67-20220
Supersonic shock phenomena in two-phase tunnel
[NASA-CR-83800] 09 p1436 N67-20349
Characteristics of confined dense phase flow of granular solids driven by compressed air through plastic pipes
[AD-642945] 10 p1605 N67-20539
Effects of void formation on dynamic behavior and stability of two-phase flow with heat addition
[GEAP-5303] 10 p1771 N67-21004
Methods for predicting pressure drops in two-phase flow systems
[UCRL-50123] 10 p1616 N67-21622
Forced convection once-through mercury boiler studied in sodium potassium to mercury heat exchanger for heat transfer and two-phase flow pressure drop data
[NASA-CR-72231] 11 p2000 N67-22883
Hydrodynamic and thermodynamic investigations of single-phase and two-phase flows to obtain information on operating behavior of boiling water reactors
[BGAE-RE-7/1966] 11 p1924 N67-22977
Applicability of isokinetic sampling probe method to two-component, two-phase flow
[GEAP-5287] 12 p2065 N67-23733
Heat transfer aspects of horizontal two-phase flow
[AD-646386] 12 p2236 N67-24742
Two-phase flow through abrupt expansions and contractions - study of convection boiling inside channels
[TID-23394, VOL. 2] 13 p2306 N67-25438
Spacer effects in annular and cluster geometries in two-phase annular dispersed flow
[EURAEC-1992] 15 p2691 N67-28213
Mathematical model consisting of spherical particles with statistical size and velocity distribution to examine momentum interaction in solid-fluid flow
[AFOSR-67-0657] 15 p2694 N67-28903
Classification of basic relations from hydrodynamics and thermodynamics for application to two-phase flow studies
[EUR-3469.E] 17 p3047 N67-30509
Two-phase flow and heat transfer in multired geometries
[GEAP-5441] 19 p3553 N67-33423
Thermodynamics of two-phase diabatic flow and related instabilities
[RT/DNG/66/36] 19 p3555 N67-33719
Mathematical model for two-phase flow of high velocity vapor condensing in tube
[NASA-CR-97666] 20 p3626 N67-35258
Void fraction measurements in two-phase flow of sodium potassium and argon
[EUR-3486.F] 20 p3749 N67-35279
Flow patterns in high pressure two-phase flow with heat addition
[WAPD-T-1824] 21 p3822 N67-36146
Power disturbances close to hydrodynamic instability in boiling reactor natural circulation two-phase flow
[AE-285] 22 p4115 N67-37076
Two-phase steam-water flow at inlet and critical heat flux
[NYO-3304-10] 23 p4365 N67-38872
Oscillations in two-phase flows, using air-water mixtures
[NASA-CR-59504] 23 p4340 N67-39310

TWO-PHASE SYSTEM
Strength in two-phase model systems of glass matrix reinforced by randomly oriented W or Ni fibers
[UCRL-16844] 04 p0557 N67-14082
Mathematical models for pressure variation effects on space dependent dynamics of boiling water reactors and steam generators
07 p1126 N67-17072
Wave formation and droplet entrainment in two-phase flow system
[ARL-66-0159] 09 p1442 N67-20175
Effects of second phase size and rigidity on stresses associated with blocked screw and edge dislocation arrays
[NASA-CR-83048] 10 p1703 N67-20411
Conditions necessary for plane front growth of two phase solids from single phase melt
[TR-2] 12 p2115 N67-23630
Detonation measurements of two-phase liquid-gas mixtures, and drop shattering studies
[NASA-CR-72225] 12 p2239 N67-25041
Stationary phase approximation for two-channel atomic scattering system amplitude
[NASA-CR-83857] 13 p2376 N67-25833
Control of hydrodynamics of two-phase liquid-gas weightless medium with aid of surface energy
[NASA-TT-F-469] 13 p2366 N67-25848
Equations for calculating thermodynamic properties of fluids including properties in two-phase region from empirical state equation
[BM-RI-6934] 13 p2426 N67-26320
Propagation of oscillations in two-phase system of liquid and its vapor
[NASA-TT-F-10945] 14 p2518 N67-27282
Theoretical properties of Chapman-Jouget detonations in two-phase mixtures, and drop shattering tests
[NASA-CR-85000] 16 p2985 N67-29461
Two-phase analog infinite input impedance high stable gain fluid amplifier
[NASA-CR-80023] 18 p2871 N67-30150
Thermodynamic analysis of power plant cycles with two-phase systems
18 p3199 N67-32288
Thermodynamic properties of Van der Waals fluid in two-phase region
[BM-RI-6950] 19 p3554 N67-33578
Universal cryogenic-liquid/oxidizer engine system for two-phase operation, and application to space vehicles
21 p3927 N67-36185
Hall effect and electric resistance of zirconium carbide niobium carbide and tantalum carbide hafnium carbide alloys
[NASA-TT-F-11181] 22 p4123 N67-36696
Vapor pressures of fluorocarbon solutions at low temperature, liquid-liquid phase diagrams, mixing studies, solubility of solids, hydrogen bonding, and other fluorocarbon studies
[UCLA-34P12-22] 22 p3993 N67-37975
Singularity of thermodynamic quantities at liquid-vapor critical point of argon, nitrogen, and oxygen
[LA-TR-66-79] 22 p4167 N67-37980

TWO-REFLECTOR ANTENNA
Two-reflector antenna system design parameters, and Fortran program for evaluating Cassegrain and Schwarzschild antenna designs
[RADC-TR-66-563] 06 p1252 N67-19236

TWO-STAGE ROCKET
Flight profile trajectory optimization for two stage launch vehicle rendezvous mission with orbiting satellite
[NASA-CR-73101] 16 p2937 N67-30152
Navigation and guidance requirements of two-stage launch vehicle consisting of air breathing recoverable first stage and rocket powered second stage
[NASA-CR-73102] 17 p3101 N67-30744

TWO-STAGE TURBINE
Cold air performance of scale model fuel pump turbine for M-1 hydrogen-oxygen rocket engine
[NASA-TN-D-3819] 07 p1161 N67-17503
Partial and full-admission characteristics of two-stage velocity-compounded turbine
[NASA-TM-X-410] 18 p3196 N67-31525
Method for designing blades of highly loaded two-stage turbines, and performance of blades tested in single-stage and two-stage configurations
[ARC-CP-941] 22 p3955 N67-36884

U

U.S.S.R.
Short period water temperature fluctuations in coastal zone of Baltic Sea
[JPRS-38405] 01 p0067 N67-10388
Differential manometer for measuring wind velocity
[JPRS-38403] 01 p0106 N67-10387
Soviet hydroacoustical instrumentation for exploring ocean depths
[JPRS-38378] 01 p0067 N67-10388
Numerical weather forecasting methods used by U.S.S.R. meteorological service
[JPRS-38409] 01 p0101 N67-10394
Spacecraft sterilization procedures in U.S.S.R.
01 p0024 N67-10506
Space law development, emphasizing roles of U.S.S.R., United States, and international law
[FTD-TT-66-381] 01 p0169 N67-10976
All-Soviet Union heat and mass transfer conference proceedings
[R-451-PR, VOL. I] 02 p0319 N67-11301
Soviet automobile technology - corrosion resistant chromium coatings for auto-tractor engine components, and high energy ignition system for starting gas turbine engines
[FTD-TT-65-1856] 02 p0263 N67-11345
Raman generator for amplification of coherent radiation, and spectral characteristics of gas laser with one direction traveling wave propagation
[FTD-MT-65-299] 02 p0267 N67-11312
LUNIK X orbit studied to determine lunar gravitational field, taking into account effect of other planets
[NASA-CR-79543] 02 p0303 N67-11733
Lunar surface photographs obtained by LUNIK XII probe
[NASA-CR-79544] 02 p0313 N67-11734
Snow cover and snow flood calculations in forest and steppes - tables
[JPRS-38499] 02 p0283 N67-11825
Annotated bibliography of Soviet-Bloc research in astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmospheric and space science
[JPRS-38677] 02 p0257 N67-12001
Bibliography of Soviet scientific literature on aerospace medicine and biosstronautics
[JPRS-38661] 02 p0213 N67-12013
Annotated bibliography of Soviet literature on electrical and computer systems
[ATD-66-72] 02 p0241 N67-12023
Analog and digital computer developments and requirements in U.S.S.R.
[JPRS-38529] 02 p0241 N67-12024
Earthquakes in U.S.S.R. during 1962
[JPRS-38492] 03 p0285 N67-12233
Location of strong earthquake epicenters in U.S.S.R. during 1962
03 p0285 N67-12234
Earthquakes of Carpathian region in 1962
03 p0285 N67-12235
Earthquakes in Crimea during 1962
03 p0285 N67-12236
Caucasian earthquakes during 1962
03 p0286 N67-12237
Earthquakes on Kopet-Dag, U.S.S.R., for 1962
03 p0286 N67-12238
Earthquake activity in Central Asian region of U.S.S.R. in 1962
03 p0286 N67-12239
Uzbekistan earthquake data for 1962
03 p0286 N67-12240
Seismic activity for Kirgizia, Russian Central Asia, during 1962
03 p0286 N67-12331
Earthquake data for Kazakhstan and Kirgizia in 1962
03 p0286 N67-12332
Tadzhikistan seismic activity, 1962
03 p0286 N67-12333
Earthquakes in Altay and Sayan regions during 1962
03 p0286 N67-12334
Seismic activity of 1962 in Baykal, U.S.S.R.
03 p0286 N67-12335

Earthquake activity in far eastern region of U.S.S.R during 1962 03 p0397 N67-12236
Yakut, U.S.S.R., earthquakes in 1962 03 p0397 N67-12237
Earthquakes of Northern Karelia and Kola Peninsula in 1962 03 p0397 N67-12238
Physico-chemical modeling of information and thought processes. [JPRS-38760] 03 p0353 N67-12696
Secular and seasonal variations of atmospheric droughts in Ukraine 03 p0419 N67-12805
Descriptions of routine flight onboard Soviet long range intercontinental strategic missile carrier jet aircraft and outer space views of earth by astronauts [JPRS-38906] 03 p0354 N67-12821
Description of routine flight onboard Soviet long range intercontinental strategic missile carrier jet aircraft 03 p0354 N67-12822
Scientific and philosophical application of cybernetics in military science [JPRS-38476] 03 p0477 N67-12833
Methods applicable to military scientific investigations 03 p0477 N67-12834
Philosophical problems of cybernetics 03 p0477 N67-12835
Lunik X scintillation spectrometer studies of lunar gamma radiation intensity and spectral composition [NASA-CR-80867] 03 p0457 N67-12906
Press conference on Lunik X, and geochemical assessment of data [NASA-CR-80160] 03 p0464 N67-13013
Soviet aerospace medicine - abstracts from conference [ATD-66-116] 03 p0347 N67-13059
Soviet metal tubing technology for aerospace applications [ATD-66-95] 03 p0405 N67-13060
Press release on Lunik XII artificial moon satellite [NASA-CR-80524] 03 p0468 N67-13217
Lunik X experiments to detect lunar ionosphere [NASA-CR-80576] 03 p0466 N67-13237
Theoretical problems in biocybernetics, simulation of nervous system physiological processes using mathematical models, and use of cybernetics and electronic methods in medicine [JPRS-37900] 04 p0486 N67-13441
Problems of automatic control and information transmission in Soviet technical cybernetics [JPRS-39090] 04 p0522 N67-13596
U.S.S.R. research on weldability of aluminum alloys [ATD-66-100] 04 p0560 N67-13871
Operation of Soviet high speed BESM-6 computer [JPRS-38941] 04 p0518 N67-14180
Contemporary bionics problems in U.S.S.R., and their philosophical significance [JPRS-39056] 04 p0494 N67-14155
Organizational structures of computer centers, control systems, and automatic data processing systems in U.S.S.R. [JPRS-39043] 04 p0510 N67-14157
Proposal for establishment of systematic meteorological studies in Soviet mountainous regions 04 p0572 N67-14231
Soviet quantum electronics research [ATD-66-97] 04 p0558 N67-14312
Soviet physiological experiments and biological studies with animals during geophysical and orbital flights [ATD-66-117] 04 p0495 N67-14317
Principle of construction of searchless adaptive variable structure automatic control system [JPRS-39283] 04 p0524 N67-14320
Principles of control sciences applied to biology and medicine [JPRS-38959] 05 p0639 N67-14375
Different atmospheric perturbations causing optical image instabilities in astronomical star observations, and climatic evaluation of some observatory sites in U.S.S.R. [NASA-TT-F-437] 06 p0871 N67-15461
IGY and IGC data on vertical wind shears in jet streams over southern U.S.S.R. [T-R-613] 07 p1069 N67-16909
Astronomical techniques and instrumentation conference - U.S.S.R. [FTD-TT-66-38] 07 p1078 N67-17161
Dynamic stability in automated drives, electric motor combinations, and control systems [FTD-MT-64-289] 07 p1090 N67-17281
Drift cyclotron instability of plasma with hot ions, plasma confinement in toroidal magnetic field with conducting diaphragm, and flute instability of inhomogeneous plasma [AEC-TR-6670] 08 p1347 N67-19627
United States and U.S.S.R. use of scientific satellites, sounding rockets, and space probes for upper atmosphere studies [NASA-TT-F-390] 08 p1278 N67-19967
Soviet missiles and rockets displayed at military parade [LT-66-46] 09 p1545 N67-19553
Infrared radiation technology, and military and economic applications in U.S.S.R. [FTD-MT-65-132] 09 p1484 N67-19566
U.S.S.R. cosmic research [FTD-TT-66-76] 10 p1758 N67-20321
Automatic remote control systems for radio engineering devices [FTD-HT-66-353] 10 p1585 N67-20721
Conference papers on U.S.S.R. uses of radioactive isotopes and nuclear radiation in locating, prospecting, and exploiting mineral resources [AEC-TR-6466/4] 10 p1621 N67-21231
Plasma magnetohydrodynamics [IAE-1102] 10 p1730 N67-21548
Optimizing methods for making snow cover surveys by U.S.S.R. meteorological station network 11 p1864 N67-22623
Snow survey of catchment basin in Buzinovka valley of U.S.S.R. 11 p1864 N67-22624
Different interpretations of excerpts from documents on first Russian Antarctica Expedition 11 p1869 N67-22355
Soviet techniques and instruments for measuring temperature, optical density, salt content, electric conductivity, depth, and current velocity of sea water [JPRS-39881] 11 p1878 N67-22358
Soviet technology in aircraft design and construction [FTD-TT-65-1573] 11 p1781 N67-22584
Soviet electroslag welding method for production of clad plate rolled products for pressure vessels [FTD-MT-65-468] 11 p1869 N67-22539
Soviet science and technology review, and summary data on bioastronautics and aerospace medicine conferences 11 p2006 N67-22587
Holography research in U.S.S.R., and laser-less wave reflection photography technique 11 p1928 N67-22588
Soviet research trends pertaining to life support systems, bioastronautics, space physiology, and extravehicular operations 11 p1790 N67-22590
Soviet supersonic aircraft [FTD-HT-66-288] 11 p1783 N67-23145
Design and application of computer components and related systems - annotated bibliography [ATD-66-145] 11 p1833 N67-23427
Soviet studies in geophysics, astronomy, and space science [JPRS-39718] 11 p1872 N67-23431
Collection of Soviet articles on quantum mechanics and mathematics [FTD-MT-64-557] 12 p2128 N67-23701
Annual variation and anomalies of F-2 layer ionization and relationship to entry of solar radiation into atmosphere [FTD-MT-65-282] 13 p2310 N67-25101
Soviet cybernetics technology - summary and critique of algorithmic computer programming language for economics data processing [RM-5157-PR] 13 p2294 N67-25105
Selected Soviet articles on electronics, theory, waveguides, switching circuits, and operation of frequency scanning antennas [FTD-MT-65-116] 13 p2274 N67-25107
Mathematical methods for solving various problems of wave diffraction and propagation - Conference [FTD-MT-65-224] 13 p2304 N67-25201
Communications networks - English transliterations of Russian designations and abbreviations [ATD-66-87] 13 p2270 N67-25621
Computer technology outside U.S.S.R. 13 p2295 N67-25702
Russian phoneme analysis for machine recognition of speech 13 p2296 N67-25707
Russian open syllable count for automatic speech recognition in man-computer information systems 13 p2270 N67-25709
Recent U.S.S.R. publications of scientific studies in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space [JPRS-40672] 13 p2316 N67-26283
Photograph of Soviet spacecraft ready for launching with group of eleven cosmonauts alongside [NASA-CR-84698] 13 p2419 N67-26486
Soviet cybernetics - recent developments in computer technology and cybernetics [P-3660/1] 14 p2497 N67-26781
General and technical specifications for Soviet BESM-6 computer 14 p2497 N67-26782
Soviet conference on hybrid computer technology, digital differential analyzers, data converters, and analog computers [FTD-MT-64-344] 14 p2498 N67-26841
Hydrometeorological and thermodynamic processes, ice formation, snow accumulation, and history of glaciers in Polar Urals region of U.S.S.R. 14 p2522 N67-27141
Relief features, distribution, and morphology of glaciers in Polar Urals region of U.S.S.R. 14 p2522 N67-27142
Atmospheric circulation in glacier region of Polar Urals studied to determine hydrometeorological characteristics 14 p2522 N67-27143
Climate elements affecting hydrometeorologic characteristics of glacier region in Polar Urals 14 p2522 N67-27144
Synoptic conditions of characteristic weather types analyzed for glacier region of Polar Urals 14 p2522 N67-27145
Hydrological and meteorological characteristics of glacier region in Polar Urals 14 p2522 N67-27146
Properties, accumulation, and redistribution of snow cover on glaciers in Polar Urals 14 p2522 N67-27147
Ablation rates of snow and ice measured on glaciers in Polar Urals 14 p2522 N67-27148
Radiation factors contributing to melting of ice determined for glaciers in Polar Urals 14 p2522 N67-27149
Turbulent heat and moisture flows studied for effects on heat balance and ablation of glaciers in Polar Urals 14 p2524 N67-27150
Weather conditions and synoptic situations investigated for effects on glacier melting in Polar Urals 14 p2524 N67-27151
Seasonal conditions and factors affecting melting process of glacier ice and snow in Polar Urals 14 p2524 N67-27152
Spatial variation, size, heat balance, and altitude studied for effects on surface ablation of glaciers in Polar Urals 14 p2524 N67-27153
Radiation and temperature equations applied to calculate snow and ice melting of glaciers in Polar Urals 14 p2524 N67-27154
Annual total surface ablations measured for glaciers in Polar Urals 14 p2524 N67-27155
Heat balance and air temperature measured to determine run-off from glaciers in Polar Urals 14 p2524 N67-27156
Air, ice, and snow temperatures measured to determine thermal regime of glaciers in Polar Urals 14 p2524 N67-27157
Ice and snow formation and texture studied on glaciers of Polar Urals 14 p2525 N67-27158
Snow and ice formation and ablation investigated to determine mass balance of glaciers in Polar Urals 14 p2525 N67-27159
Pleistocene, holocene, and modern history of glaciation in Polar Urals region 14 p2525 N67-27160
U.S.S.R. radar techniques for meteorology and weather forecasting programs [JPRS-40459] 14 p2502 N67-27201
Need in U.S.S.R. for increased production of nuclear geophysical and X-ray spectral analyses instrumentation and equipment [JPRS-40324] 14 p2527 N67-27204
Soviet research on human brain memory mechanisms [JPRS-40857] 14 p2466 N67-27722
Soviet articles on design and operation of instruments and measuring apparatus [TT-67-31045] 15 p2707 N67-27921
U.S.S.R. study results on atmospheric composition during International Geophysical Year /IGY/-meteorological flight over Antarctica, and circulation anomalies over both hemispheres [RRPT-11] 15 p2720 N67-27954
Soviet press release on Apollo spacecraft fire [NASA-CR-84871] 15 p2794 N67-28617

Design and performance characteristics of radio electronic, electric measurement, automatic control, and computer instruments in U.S.S.R.
[JPRS-39996] 15 p2710 N67-28101
Soviet articles on hydrology, stratospheric warming, and atmospheric turbulence
[JPRS-39987] 15 p2739 N67-28123
Organizing data control system for obtaining, processing, and analyzing hydrometeorological information in U.S.S.R.
15 p2740 N67-28134
Topographic peculiarities over Soviet territory of transition layer separating stratospheric anticyclonic circulation from lower cyclonic circumpolar circulation
15 p2740 N67-28137
Summarized news items on U.S.S.R. computers and information processing
[P-3600/2] 15 p2674 N67-28396
Paleozoic history of geomagnetic field in Russia and dipole character of geomagnetic field in late Cambrian and Ordovician south of Siberian platform
[T-469-R] 15 p2704 N67-28567
Soviet computer design, components, and applications - abstracts
[ATD-67-19] 15 p2675 N67-28782
Course in spheroidal geodesy for fourth year students at Soviet colleges
[FTD-MT-64-390] 16 p2884 N67-29419
Soviet patent data on correlation function measurement and infralow frequency devices
[JPRS-40674] 16 p2894 N67-29472
Photographic apparatus used for Soviet satellite tracking
[JPRS-40669] 16 p2895 N67-29478
Research conducted by Soviet geophysical institute in auroras, geomagnetism and geoelectricity, ionospheric and radio wave propagation, cosmic rays, and seismology
16 p2897 N67-29570
Recent publications of Sino-Soviet bloc countries in areas of geophysics, astronomy, and space science
[JPRS-41250] 16 p2899 N67-30029
Reviews and abstracts of Soviet-bloc research in meteorology, oceanography, upper atmosphere and space, terrestrial geophysics, and related subjects
[JPRS-41057] 16 p2890 N67-30076
Methods and instruments of aerological measurements used in U.S.S.R.
[NASA-TT-F-268] 16 p2936 N67-30157
Soviet cybernetics and computer technology
[P-3600/4] 17 p3029 N67-30230
Annotated bibliography on cloudiness in Russia
[WB/BS-6] 17 p3097 N67-30536
Telecommunications satellites of Europe, U.S.S.R., and United States
17 p3166 N67-30733
Soviet research in bioastronautics, space biology, and space-oriented biotechnology - Abstracts
[ATD-67-17] 17 p3010 N67-29734
Conference on history and development of scientific study
[JPRS-41036] 17 p3182 N67-30613
Soviet articles on theoretical and experimental analyses of nuclear reactor shielding against penetrating radiation
[NASA-TT-F-411] 17 p3113 N67-31241
Soviet research on rare earth chalcogenides
18 p3221 N67-31670
Tropospheric radio propagation over dry land regions in central U.S.S.R. studied by systematic monitoring of refractive index of air
18 p3261 N67-31674
Soviet viewpoints on role of cybernetics in control systems
[TT-67-31586] 18 p3233 N67-32401
Soviet advances in electronic digital measuring devices, and experimental instrument models
[JPRS-40920] 18 p3271 N67-32402
Charts and graphs for constructing normal geomagnetic fields within U.S.S.R.
[ACIC-TC-1169] 18 p3268 N67-32547
Comparison of U.S.S.R. and United States computers
18 p3240 N67-32615
Self-teaching recognition algorithm for nonintersecting subsets
[JPRS-41356] 19 p3479 N67-32731
Soviet open source abstracts on communication and data transmission systems and equipment for industrial and railroad applications
[ATD-66-86] 19 p3399 N67-32796
Soviet open source abstracts and bibliography on radio, loudspeaker, telephone, telegraph, and facsimile equipment
19 p3399 N67-32797
Soviet open source abstracts on railroad radio, telecommunication, and data transmission systems and equipment
19 p3399 N67-32798
Rocket sounding of neutral atmospheric composition over European U.S.S.R.
19 p3438 N67-32822
Ionospheric drift in E-layer over Kharkov
19 p3438 N67-32825
Ionospheric data of middle latitudinal U.S.S.R. stations compared with solar activity and tropospheric characteristics
19 p3439 N67-32833
Soviet-source abstracts from 1965-66 articles on radio, telegraph, telephone, teletype, and facsimile equipment and systems stressing railroad communications
[ATD-67-5, PT. I-II] 19 p3402 N67-33026
Soviet-source abstracts from 1965-66 articles on telephone, telegraph, teletype, and facsimile equipment and radio relays and miniature transceivers
19 p3402 N67-33027
Soviet-source abstracts from 1965-66 articles on radio relay, telecommunication, telegraph, telephone, and cable facilities for U.S.S.R. cities and railroads
19 p3402 N67-33028
Planning, organization, and management of science and technology programs in Soviet Union
[FTD-MT-67-17] 19 p3557 N67-33438
Metamorphism and deep structure of norite and diorite granulitic series in Russian Lapland
19 p3447 N67-33684
Geological structure of U.S.S.R. - history and regional study of Soviet tectonic development
[ACIC-TC-1122, PT. I] 20 p3527 N67-34072
Soviet computer development and quality control, data processing, and systems analysis
[P-3600/5] 20 p3607 N67-34292
Soviet research on Antarctic region, and summary of international scientific cooperation
[JPRS-41566] 20 p3431 N67-34370
Soviet Antarctic research during period 1956 to 1966
20 p3431 N67-34371
Summary of international scientific cooperation in Antarctic
20 p3431 N67-34372
Soviet polar exploration in Antarctica
[JPRS-41701] 20 p3532 N67-34434
Ichthyology, biochemistry, and microbiology of deep zones of Kurile-Kamchatka depression
[JPRS-41170] 20 p3575 N67-34537
Heat budget of Soviet Arctic related to main atmospheric circulation patterns and yearly variations
20 p3673 N67-34845
Heat budget at Arctic Ocean-air interface, based on American and Russian data
20 p3674 N67-34853
Spatial and temporal distribution of radiation balance components in Soviet Arctic
20 p3674 N67-34854
Electric conductivity measurements of soil in U.S.S.R. for mapping radio wave propagation routes
[JPRS-41790] 20 p3636 N67-35094
Soviet technical cybernetics articles on optimal control and distribution, system optimization, and programming problems
[JPRS-42273] 21 p3621 N67-35801
Brief survey of Soviet computer technology, including applications, training program, and systems descriptions
[NASA-TT-F-10660] 21 p3305 N67-36083
Soviet solar flare observation and prediction system organization and operation
[ATD-67-34] 21 p3929 N67-36084
Abstracts of Soviet reports on computer technological developments in components, applications, and associated systems
[ATD-67-43] 21 p3612 N67-36583
Geological origin of Crimea and Black Sea
[ACIC-TC-1215] 22 p4034 N67-36981
Soviet developments in radiation, optical, gas, vibration, and plasma temperature sensors, bibliography
[ATD-67-39] 22 p4045 N67-36994
Self-focusing optical beam research in Poland and Russia
[ATD-67-38] 22 p4098 N67-37280
Open Soviet literature review on chemistry, physics, geology, and other topics in their relation to aerospace technology
22 p4100 N67-37587
Geological data on aeromagnetic survey of southeastern Russian platform
[ACIC-TC-1237] 22 p4040 N67-37772
Map of magnetic field intensity above U.S.S.R constructed from measurements by earth satellite
[ACIC-TC-1240] 22 p4041 N67-37776
Magnetic anomaly relationships to earth crust structure in central Kazakhstan
[ACIC-TC-1193] 22 p4041 N67-37872
Selected articles on developments in Soviet computing technology and cybernetics
[P-3600/6] 22 p4068 N67-38001
Abstracts, excerpts, and articles from Soviet publications on cybernetics, computer design and production, and automatic control systems
[P-3600/7] 23 p4219 N67-38191
Summaries and notes on major Soviet achievements during 1966 in physical, life, and material sciences, space medicine, mathematics, and astronomy
23 p4370 N67-39198
Abstracted data from Soviet journal on space biology and medicine, and problem areas in bioastronautics
[ATD-67-37] 24 p4386 N67-40284
News reports and abstracted data on Soviet-bloc research in geophysics, astronomy, meteorology, and space sciences
[JPRS-42999] 24 p4447 N67-40385
Soviet short-range weather forecasting method, gravimetry survey, and magnetic properties of over-critical ferromagnetic thin films
24 p4554 N67-40313

U.S.S.R. SPACE PROGRAM
Chronological listing, orbital data, and description of U.S. and Soviet satellites and space probes launched from 1957 to 1965
02 p0248 N67-11913
Equatorial and horizontal coordinates for Sputnik 1960 Epsilon and Cosmos II, VIII, X, XI, XVII, and XVIII - April and May 1963
02 p0235 N67-11990
Equatorial coordinates of observations for Sputnik 1960 Epsilon and Cosmos II, XIV, XVII, and XVIII - May 1963
02 p0235 N67-11991
Equatorial and horizontal coordinates for observations of Sputnik 1960 Epsilon, Vostok V and Cosmos II, VIII, and XVII - June 1963
02 p0235 N67-11992
Equatorial and horizontal coordinates for observations of Sputnik 1960 Epsilon, and Cosmos II, XIV, and XVII - July 1963 and 1963 supplements
02 p0236 N67-11993
Equatorial and horizontal coordinates for observations of Sputnik 1960 Epsilon and Cosmos II, XVII, and XIX - August and September 1963
02 p0236 N67-11994
Equatorial and horizontal coordinates as observed March 1963 for Sputnik 1960 Epsilon and Cosmos II, V, VIII, XI, and XIII
02 p0966 N67-12837
United States and Soviet policies on outer space and arms control
[NASA-CR-80653] 04 p0626 N67-14280
Soviet space program highlights 1961-1966
[JPRS-39880] 05 p0781 N67-15170
Soviet research and development relating to orbiting, maneuvering, deorbiting, reentry, and recovery of spacecraft using aerodynamic lifting and ballistic reentry techniques
[ATD-66-81, PT. I] 12 p2214 N67-24378
Summary of extraterrestrial biological research in U.S.S.R. satellite experiments
12 p2024 N67-24428
Medical and psychological tests for U.S.S.R. manned space flight
[FTD-HT-66-352] 12 p2934 N67-24862
U.S.S.R. satellites and international law
[T-78] 13 p2437 N67-25296
Classification of Soviet spacecraft missions and evaluation of launch vehicles
[ELDO-TM-F-16] 15 p2794 N67-27927
News reports of Soviet Luna 10 launch and orbit around moon
[RAE-LIB-TRANS-99] 15 p2796 N67-28062
Press releases on Soviet exhibit at International Aeronautical and Astronautical Exhibit in Paris
[NASA-CR-84881] 15 p2799 N67-28929
Rumors, speculations, and facts of Soyuz-1 flight
[ATD-67-31] 17 p3166 N67-30633
Development history of space biology and medicine in Russia
23 p4199 N67-39036

UH-1 HELICOPTER
Flight test evaluations of vertical flight contact analog pictorial display system

conducted in UH-1 helicopters
[D228-420-009] 06 p0790 N67-16461
Fluidic sensing amplification and hydraulic yaw rate damping system for control of UH-1B helicopter and V/STOL aircraft
[REPT.-15-003R] 16 p2817 N67-29056
Nondestructive inspection of adhesive bonded metal helicopter rotor blades 20 p3647 N67-34478
UHTREX
S ULTRAHIGH TEMPERATURE REACTOR EXPERIMENT /UHTREX/
UK-A
S ARIEL I SATELLITE
UK-C
S ARIEL II SATELLITE
UK-E
Press kit on United Kingdom UK-E third Ariel satellite launching
[NASA NEWS RELEASE-67-96] 11 p1983 N67-23537
UK-1
S ARIEL I SATELLITE
UK-2
S ARIEL II SATELLITE
ULLAGE ROCKET
Techniques for simultaneous ignition of retro and ullage motors on Saturn V launch vehicle
[NASA-CR-68171] 07 p1184 N67-18192
Heat transfer and ablation rate measurement in Saturn S-II ullage motor exhaust plume
[NASA-CR-82650] 06 p1365 N67-19320
ULM
S ULTRASONIC LIGHT MODULATOR /ULM/
ULTRA-SHORT-WAVE RADIO EQUIPMENT
Technical requirements and area applicability for television and ultra-shortwave radio satellite transmissions
[RF-78-O] 11 p1823 N67-22919
Industrial hygiene problems of working with ultra-short-wave transmitters used in radio and television broadcasting
[ATD-66-128] 12 p2023 N67-24410
ULTRAHIGH FREQUENCY
Signal and noise equivalent circuits for ultrahigh frequency transistors
[TIL/T-5665] 01 p0053 N67-10549
Frequency modulation of ultrahigh frequency fields and signals associated with linear electron accelerator
[CEA-R-2976] 01 p0117 N67-10622
Operational specifications for UHF telemetry transmission link
[NAVWEPS-8850] 01 p0041 N67-11047
Ultrahigh frequency antenna couplers which employ passive networks of tandem coaxial cavities as selective filters evaluated for use at remote communication air/ground facilities
[RD-65-124] 01 p0042 N67-11115
Use of UHF radar techniques to detect and map subsurface discontinuities in lunar surfaces 04 p0611 N67-13502
Thermal and electrical capabilities of ultrahigh frequency silicon power transitors for airborne communication systems applications
[RAE-TR-66175] 04 p0521 N67-14501
VHF and UHF high gravity telemetry instrumentation for HARP vehicles 06 p0822 N67-15382
Double square directional antenna for ultrahigh frequency transmission by radio station
[FTD-TT-65-1816] 08 p1244 N67-18300
HARP vehicles - VHF and UHF high-g telemetry instrumentation
[BRL-MR-1768] 09 p1424 N67-19542
Evaluation of small crossed-loop omnidirectional ultrahigh frequency prototype antenna for use as impact-measuring instrumented projectile
[NASA-CR-66295] 09 p1418 N67-19678
Electromagnetic noise environment at ultrahigh frequency on board aircraft
[ESD-TR-66-237] 09 p1419 N67-20194
Silicon monolithic ultrahigh frequency amplifier for use in integrated circuits
[ECOM-01813-1] 10 p1891 N67-20896
Ultrahigh frequency propagation in troposphere
[JPRS-39907] 10 p1585 N67-21167
Analysis of system problems in conversion of missile telemetry from very high to ultrahigh frequency
[NAFI-TR-753] 11 p1824 N67-23060
Ultrahigh frequency flight termination receivers used at missile testing ranges
[IRMFSG-906-64] 12 p2051 N67-23924
Interaction between ultrahigh frequency radiation and turbulent plasma 12 p2161 N67-24171
Heating of plasma electrons by ultrahigh frequency fields in adiabatic trap 12 p2185 N67-24194
Input admittances of imperfectly conducting dipole antennas measured in ultrahigh frequency range
[NASA-CR-84407] 14 p2491 N67-27368
Changes in tigroid substance of neurons of cats subjected to superhigh frequency field
[ATD-67-3] 14 p2463 N67-27381
Radio meteorology and ultrahigh frequency wave propagation, atmospheric circulation, and radar antenna design
[FTD-HT-66-40] 15 p2741 N67-28385
Nonintercepting grid design for ultrahigh and microwave frequency electron tubes
[RADC-TR-66-695] 15 p2878 N67-28394
Integrated circuitry for ultrahigh frequency amplifier and scale model tests
[REPT.-2] 15 p2881 N67-28718
Linear ultrahigh frequency tetrode testing
[AD-656614] 16 p2867 N67-29104
Antenna design for Gemini VHF-UHF polarization experiment to measure spatial and temporal distribution of free electrons in lower ionosphere
[NRL-6501] 16 p2883 N67-29235
Feasibility of parametric upconverter technique as ultrahigh frequency communications receiver preselector
[AD-651808] 17 p3024 N67-30517
Ultrahigh frequency transmitter and telemetry development 17 p3024 N67-30586
VHF-UHF antenna for long distance ground to air communication at Maui, Hawaii
[SRDS-RD-67-11] 18 p3229 N67-32099
Silicon ultrahigh frequency power transistor capable of delivering 20 watts output power at 450 mc
[NASA-CR-87319] 19 p3415 N67-33246
Log-periodic half loop antenna working against conducting ground plane in frequency range from 450 to 1150 mc
[RR-3] 19 p3404 N67-33273
Very high frequency and ultrahigh frequency communication antennas effect on performance of VOR/VORTAC facility
[RD-66-88] 20 p3601 N67-34423
Complex dielectric constant of protein solutions at ultrahigh frequencies - dielectric properties of hemoglobin bound water
[REPT.-68-01] 21 p3764 N67-35479
Linear power tube development - UHF tetrodes
[AD-655291] 22 p4010 N67-36849
Test results on high gain VHF/UHF communications system for air traffic control
[RD-67-48] 23 p4217 N67-39295
ULTRAHIGH TEMPERATURE REACTOR EXPERIMENT /UHTREX/
On-line process computer system for operation of UHTREX reactor, coolant loops, and coolant purification system 07 p1126 N67-17069
Ultrahigh temperature reactor experiment system dynamics study using mathematical model and digital computer programs
[LA-3561] 10 p1689 N67-21607
Technological developments with ultrahigh temperature reactor experiment facility
[LA-3605] 16 p2894 N67-29063
Ultrahigh temperature reaction experiment for graphite moderated and helium cooled reactor
[LA-3556 /REV./] 21 p3892 N67-36048
ULTRAHIGH VACUUM
Friction tests of aluminum specimens in ultrahigh vacuum chamber to check operational performance of equipment and instrumentation
[MD-66-2] 01 p0073 N67-10625
Stainless steel flange design using aluminum foil for bakeable ultrahigh vacuum systems
[UCID-4548, REV. 4] 01 p0079 N67-10917
Influence of oxygen on electrical properties of cadmium sulfide single crystals in ultrahigh vacuum
[AROD-4461-13] 02 p0294 N67-11078
Measurements of adhesion between silicate minerals with surfaces formed in ultrahigh vacuum by cleavage
[NASA-CR-80565] 02 p0415 N67-12239
Ultrahigh vacuum techniques on hydrogen permeation through tungsten and adsorbed gas replacement
[WERL-2823-21] 04 p0532 N67-13983
Mass spectrometry capabilities of cold cathode magnetron ion source for use in ultrahigh vacuum residual gas analysis
[NASA-CR-66257] 06 p0870 N67-15672
Ultrahigh vacuum adhesion between silicate minerals as related to lunar surface
[NASA-CR-81348] 06 p0869 N67-16611
Electrical breakdown in ultrahigh vacuum studied for electrostatic gyroscope development
[NASA-CR-82954] 09 p1485 N67-19045
Heated hydrogen condensation pump for ultrahigh vacuum system 11 p1849 N67-21968
Vortex stabilized arc, pressure arc facility, spectral irradiance measurements of light sources, and ultrahigh vacuum system in support of solar simulation testing 11 p1859 N67-22148
Adhesion-friction tests on annealed copper, titanium, and tungsten
[NASA-CR-66279] 11 p1897 N67-22884
Chemisorption of oxygen on molybdenum and niobium surfaces in ultrahigh vacuum
[SRIA-425-9] 12 p2039 N67-23665
Adhesion of silicates and other materials in ultrahigh vacuum chamber to simulate adhesion conditions on lunar surface
[NASA-CR-83647] 12 p2124 N67-23906
Adhesion between differing silicate minerals in which contact faces are formed simultaneously - ultrahigh vacuum adhesion 12 p2124 N67-23907
Mechanisms responsible for electrostatic charging and adhesional behavior in dielectrics cleaved in vacuum 12 p2124 N67-23908
Adhesional behavior of contaminated by air and vacuum formed clean silicate surfaces to simulate behavior of lunar silicates 12 p2124 N67-23909
Extraterrestrial biophysical and biological studies in West Germany - scientific satellite experiment, space simulation effects on animals, plants, and microorganism, and future projects 12 p2034 N67-24424
Ultrahigh vacuum space simulation tests on fungus and bacteria 12 p2035 N67-24442
Construction and instrumentation of ultrahigh vacuum chamber for biophysical experiments 12 p2032 N67-24443
Instrumentation of ultrahigh vacuum chambers for biological experiments 12 p2036 N67-24444
Lunar soil properties determination through simulation of rock grinding in ultrahigh vacuum
[NASA-CR-66276] 12 p2100 N67-24628
Ultrahigh vacuum friction-adhesion behavior of silicates as related to lunar surface
[NASA-CR-83926] 13 p2402 N67-25892
Cold welding of copper and cohesion coefficient in ultrahigh vacuum
[SA-B2368-4] 14 p2543 N67-26940
Adhesion and friction between surfaces in ultrahigh vacuum
[AD-634679] 15 p2751 N67-27957
Ultrahigh vacuum techniques - gas replacement studies
[WERL-2823-24] 18 p3852 N67-29626
Radioactive tritium isotope used to measure thin oil film in ultrahigh vacuum systems
[SGAE-PH-53/1967] 17 p3100 N67-30898
Experiences in checking production of ultrahigh vacuum systems at contractor establishment 18 p3260 N67-33503
Surface interaction between aluminum single crystals in ultrahigh vacuum 21 p3982 N67-36219
Ultrahigh vacuum techniques for accelerators and storage rings
[UCRL-17246] 21 p3989 N67-36617
Ultrahigh vacuum technology including cryopump, getter ion pump, diffusion pump, and pressure standardization studies
[NASA-CR-72006] 22 p4008 N67-37106
Ultrahigh vacuum studies of hydrogen permeation in tungsten and replacement of one adsorbed gas by second from gas phase
[WERL-2823-26] 22 p3992 N67-37914
Spin wave spectra and surface effects in nickel thin films deposited in ultrahigh vacuum
[ORO-2439-39] 23 p4288 N67-38584
Small volume, ultrahigh vacuum system for ionization gauge studies
[NASA-TN-D-4260] 24 p4655 N67-40008

ULTRALOW FREQUENCY
Electric and magnetic fields of naturally occuring ultralow frequency electromagnetic radiation
[AFCRL-66-675] 05 p0703 N67-14954
Hissing and choruses observed in natural ultralow frequency radiation at magnetically conjugate points in USSR and at Kerguelen Island in Indian Ocean - ionospheric storm prediction
[JPRS-39458] 07 p1075 N67-18115
Irregular pulsations of diminishing period events and generation in magnetosphere
[D1-82-0616] 21 p3838 N67-35749
Correlation of ULF radiation with polar aurorae, and ULF propagation in ionosphere 23 p4339 N67-38223
ULTRASONIC LIGHT MODULATOR /ULM/
Non-mechanical light beam scanning using optical signal processing techniques 05 p0431 N67-13075
Ultrasonic light modulator for correlating radar signals 03 p0368 N67-13061
ULTRASONIC MACHINING
Ultrasonic system for reliable measurements to contour bulkhead honeycomb structure surfaces using three-dimensional numerically-controlled milling machinery
[NASA-CR-82930] 09 p1520 N67-19923
ULTRASONIC RADIATION
Ultrasonic reverberation in solids for loss factors exclusive of scattering and diffraction
[AD-638645] 02 p0295 N67-11939
Electron microscopy method for direct observation of high amplitude ultrasonic stress wave effects on metal crystal dislocations
[NAVWEPS-9059] 02 p0267 N67-12283
Ultrasonic pulse reflections for nondestructive anisotropic ice layer measurements
[CRREL-RR-126] 05 p0704 N67-14976
Subharmonic generation of driver frequency in ultrasonic resonant cavity
[TR-2] 06 p0918 N67-16368
Ion association in electrolyte solutions using ultrasonic absorption measurements
[AROD-3417-5] 06 p0838 N67-16431
Metal wire drawing under ultrasonic energy radiation
[NOTS-TP-4170] 07 p1089 N67-17157
Exo-electron emission from various materials investigated by abrasion and ultrasonic techniques
[TM-630.3281-04] 07 p1176 N67-17239
Low frequency longitudinal ultrasonic attenuation of strong coupling superconductors
[TR-16] 09 p1500 N67-19713
Ultrasonic techniques using reradiated sound energies for nondestructive testing of weldments
[TR-66-33] 10 p1424 N67-20473
Ultrasonic nondestructive inspection technique for evaluation of weldments
[TR-66-19] 10 p1637 N67-20581
Electrical properties and temperature dependence of niobium, vanadium, and tantalum in superconducting state investigated by ultrasonic radiation
[TR-26] 10 p1746 N67-20603
Ultrasonic pulse-echo spectroscopic methods for nondestructive determination of defect characteristics and to distinguish microstructures of steel specimens
[AMRA-TR-66-36] 14 p2531 N67-26743
Ultrasonic radiation effects on electrodeposition of copper zinc, copper cadmium, and copper tin alloys from cyanide electrolyte baths
[BM-RI-6933] 14 p2480 N67-27399
Ultrasonic techniques using reradiated sound energies for nondestructive testing of weldments
[TR-67-21] 15 p2720 N67-28954
Bat echolocation theories involving use of ultrasonic pulses
[AD-650476] 15 p2851 N67-28957
Reradiated ultrasonic sound energy for nondestructive testing of steel butt welds
[QPR-5] 15 p2720 N67-28962
Second-order strain accumulation at ultrasonic frequency
[TR-56] 19 p3543 N67-32733
Ultrasonic energy effects on fluid flow in porous media
[BM-RI-6978] 19 p3432 N67-33251
Measurements of velocity of ultrasonic pulses in water at high pressures
[TR-3] 22 p4099 N67-37412
Delta ultrasonic inspection technique using reradiated sound energies for nondestructive testing of weldments
[TR-67-53] 24 p4480 N67-40400
ULTRASONIC SPEED
Ultrasonic measurements of longitudinal and shear velocities in aluminum alloys 07 p1088 N67-16961
Improvement in ultrasonic velocity measurement techniques
[AD-643681] 07 p1083 N67-17707
Method for obtaining specific volumes of water at high pressures from ultrasonic propagation measurements
[TR-3] 22 p4025 N67-37272
ULTRASONIC TESTING
Ultrasonic testing of cast iron, hydraulic pump part
[REPT.-6807.258/256] 01 p0077 N67-10016
Annotated bibliography on ultrasonic testing
[AMRA-MS-66-05] 01 p0075 N67-10963
Focused ultrasonic beams
[TR-66-40] 05 p0738 N67-14365
Performance of ultrasonic leak detectors for cryogenics and gases, and testing of their applicability to Saturn transfer and checkout operations
[NASA-CR-81124] 05 p0709 N67-15212
Development of nondestructive testing system, using ultrasonic techniques, for detecting disbonds in composite honeycomb heat shields of Saturn launch vehicle
[NASA-CR-81145] 05 p0714 N67-15279
Nondestructive testing of metal-metal bonds and honeycomb core laminates by ultrasonic pulse echo test apparatus
[TIL/T-3680] 08 p1284 N67-16274
Ultrasonic flaw detection in welded steel joints
[V-318-66-OE] 10 p1638 N67-20676
Refractory bimetallic tubing bond quality testing by metallographic and ultrasonic inspection
[NASA-CR-72302] 11 p1890 N67-23891
Nondestructive testing and inspection methods using infrared microscopy, X-ray television, and ultrasonic measurements - Conference
[NASA-SP-5062] 12 p2105 N67-23667
Shear wave refraction for ultrasonic detection of residual stress in cold-worked aluminum 12 p2105 N67-23670
Ultrasonic techniques to measure residual stress in surface of aluminum structures 12 p2105 N67-23671
Acoustic spectrometer system for ultrasonic nondestructive testing by triangulation method 12 p2105 N67-23672
Ultrasonic emission detector for nondestructive determination of bond strength 12 p2106 N67-23673
Ultrasonic in-process inspection of resistance spot welds
[R-1811] 12 p2109 N67-24786
Resonant beam and ultrasonic methods for evaluation of sintered powder steel compacts
[SA-TR19-1521] 12 p2111 N67-24987
Compaction products obtained from refractory metallides using ultrasonic activation
[NASA-TT-F-10774] 12 p2111 N67-25012
Nondestructive test development, including coil impedance, beat-frequency eddy current measuring device, ultrasonic detection, fiber optics, and monitoring U235 in core blanks for fuel plates 13 p2324 N67-25362
Ultrasonic energy and instrumentation for nuclear applications
[BMPR-31] 13 p2319 N67-25540
Prospects for ultrasonic testing of welded structures in India 13 p2329 N67-26950
Annotated bibliography on ultrasonic testing
[AMRA-MS-66-11, VOL. III] 14 p2543 N67-26949
Ultrasonic test methods used to determine transport properties of high temperature gases
[NASA-CR-789] 14 p2517 N67-27223
Nondestructive testing infrared and ultrasonic inspection, and high density slurries for propellant tank testing
[NASA-TM-X-53603] 14 p2547 N67-27751
Flaw detection by ultrasonic scanning using triangulation methods 14 p2541 N67-27754
Ultrasonic emission detector for adhesive bond strength determinations in stressed composite structures 14 p2547 N67-27755
Differential ultrasonic spectroscopy for defect and microstructure identification
[AMRA-TR-67-07] 15 p2715 N67-28950
Ultrasonic three-dimensional imaging using holographic techniques
[PE-TR-8523] 16 p2892 N67-29085
Nondestructive, ultrasonic testing - bibliography and abstracts
[AMRA-MS-67-03] 16 p2893 N67-29114
Mechanized ultrasonic scanning system for testing butt welds in large aluminum propellant tanks
[NASA-TM-X-53598] 16 p2898 N67-30169
Nondestructive inspection of structural materials 17 p3072 N67-30573
Optical methods for studying ultrasonic propagation in transparent media
[ORNL-P-2725] 17 p3122 N67-31318
Ultrasonic creep test stand for high temperature materials, and ultrasonic effects on copper and aluminum alloy microstructures
[FTD-TT-65-1408] 18 p3281 N67-32563
Break zone microstructure of copper samples after ultrasonic deformation 18 p3281 N67-32564
Creep test stand for ultrasonic studies on high temperature alloys 18 p3257 N67-32565
Ultrasonic instrumentation for nuclear applications - boiling detector and ultrasonic flow meter development
[NYO-3622-7] 19 p3455 N67-33756
Ultrasonic testing applied in machine and boiler construction to detect material flaws and determine strength
[ORNL-TR-1389] 20 p3645 N67-34001
Physical properties, biological, and other effects of ultrasound
[JPRS-41169] 20 p3572 N67-34348
Ultrasonic crack depth estimation in high strength steel and titanium structural weldments 20 p3647 N67-34471
Transverse magnetoresistance of germanium and ultrasonic absorption in aqueous suspensions
[FTD-HT-66-531] 20 p3686 N67-34609
Ultrasonic absorption in aqueous suspensions at low concentrations 20 p3688 N67-34611
Upset forging of billets, precision extrusion of uranium, heating salt evaluation, small-hole tube feasibility study, and ultrasonic measurements investigations
[RMI-8] 20 p3649 N67-34628
Methods, equipment, and procedures for ultrasonic inspection of bearings, axle, and rotor drive turbine
[REPT.-6701.280] 22 p4057 N67-37764
Ultrasonic weldments inspection on equipment tower
[REPT.-6701.279] 22 p4057 N67-37765
Ultrasonic testing method for wing spar attachment joints and lugs of Viscount aircraft
[REPT.-6606.253] 22 p4057 N67-37769
Ultrasonic inspection method for steel plate sets
[REPT.-6701.261] 22 p4057 N67-37770
Ultrasonic inspection method for Viscount aircraft propeller cylinders
[REPT.-6701.278] 22 p4057 N67-37776
Ultrasonic testing method for steel plate inspection
[REPT.-6606.264] 22 p4057 N67-37777
Ultrasonic inspection of steel plant trunnions
[REPT.-6609.272] 23 p4256 N67-38490
Ultrasonic investigation of steel plates and bodies
[REPT.-6702.283] 23 p4357 N67-38496
Ultrasonic testing to determine thickness of stainless steel cylinders
[REPT.-6611.274] 23 p4358 N67-38705
Ultrasonic inspection of steel plates
[REPT.-6612.277] 23 p4359 N67-38810
Radiographic and ultrasonic testing of welds in steel thicknesses up to 300 mm
[EURAEC-1850] 23 p4259 N67-38915
Ultrasonic attenuation and temperature dependence of nuclear spin-lattice relaxation time of magnetic materials
[REPT.-6906.2-RT] 24 p4516 N67-39731
ULTRASONIC WAVE
Intensification effect of ultrasonic waves on heat transfer process between liquids outside and inside tubes
[FTD-TT-65-1786] 01 p0167 N67-11980
Attenuation of transverse and longitudinal ultrasonic waves in presence of magnetic

field for various values of phonon wave number and electron mean free path
[NASA-TN-D-3723] 02 p0294 N67-11810
Lumped electric circuits and ultrasonic techniques for producing dispersion required by pulse compression systems 04 p0514 N67-13947
Electronic contribution to 9 GHz ultrasonic attenuation studied in thin tin films at low temperatures 05 p0750 N67-14622
Attenuation of ultrasonic waves in superconducting niobium
[NASA-TN-D-3817] 06 p0951 N67-16692
Kirchhoff approximation used to calculate backscatter of ultrasonic waves from rough layer
[NASA-CR-82390] 08 p1227 N67-18976
Ultrasonic wave propagation in magnesium lead crystals
[IS-1451] 10 p1753 N67-21790
Photoelastic observation of ultrasonic waves in transparent plate
[ORNL-TM-1671] 13 p2416 N67-25611
Ultrasonic vibration potentials in ammonium halide solutions
[TR-31] 15 p2863 N67-28908
Ultrasonic vibration potentials in polymer electrolyte solutions
[TR-30] 15 p2863 N67-28913
Improved ultrasonic cavitation methods for removing microorganisms from stainless steel strip surfaces
[NASA-CR-87429] 20 p3578 N67-34935
Characteristics of ultrasonic propagation in air
[CP-12] 21 p3897 N67-36470
Laser light diffraction by ultrasonic surface waves
[TR-2] 22 p4097 N67-36790

ULTRASONIC WAVE TRANSDUCER
Electronic test method for determining ultrasonic transducer frequency
[AMRA-TR-66-37] 06 p0880 N67-16109
Under-sodium scanning device using narrow-beam ultrasonic transducer for liquid sodium cooled reactors
[APDA-205] 24 p4454 N67-40482

ULTRASONIC WELDING
Ultrasonic welding process capability in electron tube manufacturing
[AD-639212] 02 p0383 N67-11270
Ultrasonic welding and other lead attachment techniques for crystal units - production engineering
[QR-8] 07 p1049 N67-16859
Ultrasonic welding of cartridges
[FA-R-1828] 10 p1648 N67-21849
Ultrasonic welding of covers on flatpack integrated circuits for producing hermetically sealed packages at high rates without exposure to high temperature
[NASA-CR-83918] 13 p2294 N67-26070
Reliability testing of ultrasonic welding for integrated circuits
[RADC-TR-67-138] 22 p4091 N67-36702

ULTRASONICS
Ultrasonic vibrator for producing stable, low concentration, bacterial spore aerosol
[NASA-CR-81147] 05 p0659 N67-15297
Anechoic water tank for ultrasonics research 08 p1251 N67-18494
Ultrasonic temperature measuring device
[NASA-CR-72157] 09 p1449 N67-19914
Low magnetic field ultrasonic attenuation of impure superconducting niobium
[NASA-CR-83423] 11 p1966 N67-23473
Ultrasonic properties of solids studied to obtain information about bulk systems near phase transitions or critical points 11 p1967 N67-22647
Abstracts of research on ultrasonics in solids, instrumentation, electronic design, acoustics, dielectrics, solid state, and statistical data reduction 11 p1837 N67-23479
Quality of hardware and faster methods for nondestructive testing techniques in industry, medicine, and space environment 12 p2166 N67-23676
Thickness control of stroke of ball point pen by ultrasonic process
[REPT.-6405.166] 13 p2329 N67-26043
Engineering design of generating devices with autoparametric frequency multiplication in ultrasonic range 15 p2876 N67-27823
Ultrasound used in combination with propylene oxide for sterilization of bacterial spores
[NASA-CR-87494] 20 p3573 N67-34413
Ultrasonic method for measuring thickness of nose cone annuli 20 p3648 N67-34462
Ultrasonic modeling system for simulating lunar excursion module landing trajectory on lunar surface
[NASA-CR-65479] 20 p3738 N67-34695
Ultrasound effects on physical properties of solids and metals 21 p3850 N67-35879
Soft tissue thicknesses of human chest measured by ultrasonics
[AEEW-R-493] 21 p3765 N67-35845
Ultrasonic attenuation at low temperatures in potassium and gold
[TR-27] 21 p3916 N67-35871
Ultrasonic state equation for tantalum crystal
[TR-10] 22 p4126 N67-37050
Radiation induced ultrasonic cavitation effects in organic liquids
[AERE-R-5486] 22 p4032 N67-37728

ULTRAVIOLET
SA FAR ULTRAVIOLET
SA VACUUM ULTRAVIOLET
Ultraviolet transmitting Lucite for dosimetric measurements of cobalt 60 gamma radiation
[BNL-965] 01 p0122 N67-10618
Engineering model of ultraviolet oxygen detector for photoelectric measurements of partial oxygen pressure
[AM-2360-201] 01 p0025 N67-10989
U centers in cesium bromide 10 p1744 N67-20469
Phase shift measuring method in dual light beam ultraviolet analyzer for high speed analysis of oil in solid petroleum paraffins 15 p2710 N67-28102
Solar iron abundance determination using lines in near ultraviolet
[NASA-CR-88743] 22 p4136 N67-37079

ULTRAVIOLET FILTER
Optical interference bandpass filters for ultraviolet spectral region
[NASA-CR-83800] 13 p2368 N67-25758

ULTRAVIOLET LIGHT
Fluorescent materials and ultraviolet lighting for improved visual flight simulation using color television displays
[SEG-TR-66-66] 19 p3390 N67-32734
Ultraviolet light irradiation and heat shocks affecting cell division in synchronized tetrahymena
[USNRDL-TR-67-36] 21 p3795 N67-35782
Far ultraviolet polarization analyser for rocket measurement of resonantly scattered sunlight
[NASA-TM-X-55946] 23 p4232 N67-38865

ULTRAVIOLET RADIATION
Ultraviolet light transmission of fluoberyllate glass with small additions of cerium group rare earth halides
[ERDL-T-1579-66] 02 p0276 N67-11802
Effects of ultraviolet radiation on thermal control surfaces, structural plastics, elastomers, polymeric films and solar cell covers, coatings, and adhesives 03 p0459 N67-13235
Inactivation and recovery of Escherichia coli and DNA after treatment with ultraviolet, X-rays, and nitrogen mustard 06 p0902 N67-15562
Replication of DNA transferred in Escherichia coli, and detection by ultraviolet irradiation 06 p0902 N67-15954
Emission wavelength, output power, decay time, and aging characteristics of ultraviolet emitting cathodoluminescent phosphors
[RADC-TR-66-497] 06 p0949 N67-16371
Low solar absorption emissivity coatings for low temperature spacecraft radiators - ultraviolet radiation tests
[NASA-CR-72130] 06 p0922 N67-16568
Microorganisms strain resistance to critical doses of ultraviolet rays
[NASA-TT-F-10720] 08 p1227 N67-18958
F center formation by ultraviolet irradiation in mixed and pure crystal systems
[MSC-817] 09 p1466 N67-19690
Spectral properties of ultraviolet gratings, original and replica, before and after exposure to simulated space environment
[NASA-CR-82928] 09 p1474 N67-19690
Ultraviolet radiation effects on macromolecule synthesis of Escherichia bacteria
[NYO-3511-2] 10 p1642 N67-20960
Photosensitivity of polyvinylcinnamate and its nitro derivatives to ultraviolet radiation
[FTD-HT-66-145] 10 p1778 N67-21279
Ionizing and ultraviolet radiation mechanisms in mammalian cell cultures
[EUR-3366.I] 10 p1965 N67-21763
High resolution spectrometer for measuring absorption cross sections between 1000A and 2000A 11 p1823 N67-22779
Ultraviolet corrections for positive electron plus negative electron yields positive muon plus negative muon plus photon process, and validity limit of Bloch Nordsieck method
[LNF-66/51] 11 p1960 N67-23622
Solar extreme ultraviolet and corpuscular radiation effects on upper atmospheric temperature
[NASA-TM-X-55749] 11 p1972 N67-23219
Approximation method of obtaining ozone parameters from satellite measurements of backscattered ultraviolet radiation 12 p2093 N67-24207
Thermophysics, emissivity physics, thermal similitude, ultraviolet interactions with control surface materials, Pegasus satellite measurements, and infrared instrumentation
[NASA-TM-X-53557] 12 p2168 N67-24641
Ultraviolet interactions with zinc oxide type pigmented thermal control coatings used on spacecraft 12 p2227 N67-24845
Subsonic D-region probe experiment using ultraviolet source to produce ions and free electrons
[AFCRL-67-0650] 13 p2396 N67-24956
Temperature effect and irradiation on characteristics of ultraviolet ion chambers 13 p2324 N67-26465
Planar retarding-potential analyzers examining photoelectron emission from solid tungsten, nickel, and semitransparent aluminum cathodes exposed to extreme ultraviolet radiation
[AFCRL-66-718] 14 p2681 N67-26658
Electron, X-ray, and ultraviolet radiation effects on oxidized silicon surfaces and planar devices
[SR-2] 14 p2504 N67-26754
Modified stethoscope acceptability and effectiveness for use in areas of high noise levels on aircraft carrier
[AFCRL-66-528] 16 p2896 N67-29838
Theoretical studies in infrared and ultraviolet radiation of polyatomic molecules
[R67SD19] 17 p3139 N67-31481
Survival of selected microorganisms exposed to high ultraviolet flux equivalent to Martian surface
[NASA-TM-X-55653] 19 p3376 N67-32486
Martian and Cytherean atmospheric composition determinations using entry probe measurements of ultraviolet and X-ray attenuation
[DAC-60627] 19 p3580 N67-33756
Upper atmospheric temperature response to changes in solar extreme ultraviolet radiation and geomagnetic activity
[NASA-TM-X-60155] 20 p3629 N67-34234
New spectrophotometer for measuring ultraviolet sky brightness and direct solar radiation
[AFCRL-67-0410] 22 p4048 N67-37162
Solar corona above active regions - comparison of extreme ultraviolet line emission with radio emission
[NASA-TM-X-55923] 22 p4136 N67-37191
Ultraviolet radiation from late-type stars 22 p4137 N67-37624
Lyman alpha radiation observations from AIS Venera 2 and 3 flights
[NASA-CR-88983] 23 p4340 N67-39497
Phosphorus compounds synthesized to increase ultraviolet emission efficiency of cathode ray tubes
[ECOM-00264-F] 24 p4514 N67-39988
ESRO TD-2 satellite experiments on solar X-ray and ultraviolet radiation
[ESRO-SN-53] 24 p4525 N67-40053
Additives used to provide surface recombination centers on thermal control coatings and thus stop optical degradation
[NASA-CR-89565] 24 p4517 N67-40089
Protein antibodies which react specifically with DNA damaged by ultraviolet radiation, produced in rabbits by immunization
[NASA-TT-F-11340] 24 p4526 N67-40184
Chemical and physical properties of new class of compounds formed by reaction of fluorosulfuryl isocyanates with various fluorine-containing free radicals
[AR-4] 24 p4529 N67-40290
Ultraviolet radiation used in study of effect of alpha-substituents on photochemical reaction of saturated ketones
[DISS-3699] 24 p4529 N67-40292
Photographic observations of Milky Way ultraviolet radiation from stable platform located outside atmosphere

[NASA-TT-F-11234] 24 p4531 N67-40318
ULTRAVIOLET REFLECTION
Thermoluminescent spectral analysis on ultraviolet irradiated calcite
[BNL-10561] 08 p1351 N67-18842
ULTRAVIOLET SPECTROGRAPH
Ultraviolet reflectivity of Mars measured by objective grating spectrograph on Aerobee rocket, and represented by model with atmosphere of nitrogen, carbon dioxide, and argon 03 p0462 N67-12755
Ultraviolet calibration procedures for determining spectral reflectivity of lunar surface for use in Gemini experiments
[NASA-TM-X-53009] 19 p3498 N67-33422
ULTRAVIOLET SPECTROMETER
Optical instruments for ultraviolet measurements in planetary atmospheres 07 p1192 N67-17793
Image tube spectrometers for observation of aurora, airglow, and nuclear tests adapted for aircraft installation
[DASA-1874] 10 p1620 N67-20618
Fluorometry, gas chromatography and optical resolution, mass spectrometry, computer managed instrumentation, and ultraviolet microspectrometry in exobiology studies
[NASA-CR-83898] 13 p2258 N67-25870
ULTRAVIOLET SPECTROSCOPY
Ultraviolet spectroscopy of electron irradiated polyethylene
[COO-1099-21] 01 p0034 N67-10647
Solar X-ray ultraviolet spectroscopic observations from stabilized Skylark rockets
[ESRO-SM-67] 07 p1185 N67-17818
Infrared and ultraviolet absorption spectroscopic data used to prepare energy level diagram of titanium oxide 08 p1352 N67-19165
Atomic absorption cross section measurements of lithium and sodium between 600 and 1000 Angstrom using photoelectric techniques
[TR-1001/9260-01/-5] 19 p3507 N67-33632
ULTRAVIOLET SPECTRUM
Line blocking prediction in ultraviolet spectrum of B star 03 p0464 N67-12952
Incident and reflected ultraviolet and infrared electromagnetic background at Saturn complex and in area of hydrogen flame
[NASA-CR-80857] 05 p0708 N67-14917
Sodium salicylate fluorescent properties utilized in coatings of integrating sphere reflectometers for vacuum ultraviolet spectral regions
[NASA-TM-X-55445] 06 p0919 N67-16547
Comparison of visible and near ultraviolet spectra from low density, arc heated nitrogen plasma, and argon plasma
[AEDC-TR-66-139] 07 p1162 N67-16997
Astronomical observations through X-ray, ultraviolet, and radio astronomy 08 p1366 N67-19023
Chromospheric problems and investigation by satellite observations of extreme ultraviolet solar spectrum, filtergrams, spectroheliograms, and radio flux measurements 12 p2206 N67-24465
Continuous spectrum of sun and brightness at center of disk obtained by combined photography and spectrography
[NASA-CR-84103] 13 p2405 N67-26405
Short wave ultraviolet image and spectrum of sun obtained during course of X-ray flare
[NASA-CR-84087] 13 p2400 N67-26419
Ultraviolet and visible absorption spectra of electrons, unstable radicals, and ions
[UJV-1625] 15 p2659 N67-28411
Electron transport in photosynthesis - measurement of ultraviolet difference spectrum in Chlorella cells by periodic flash technique 18 p3385 N67-31759
Simulated proton space environment effects on ultraviolet transmittance of optical materials
[NASA-TM-X-55911] 21 p3897 N67-36569
Eight color narrow band photometry of bright stars
[NASA-CR-86382] 22 p4138 N67-38711
Photoelectric spectrometer to measure absorption line series and autoionization resonance in ultraviolet spectrum of strontium vapor
[NASA-CR-89361] 24 p4495 N67-39725
UMBRA
S LUNAR SHADOW
UNCERTAINTY
Sensitivity of light and heavy water moderated reactor characteristics to neutron cross section uncertainties below 100 eV 08 p1313 N67-18782
Sensitivity of reactor multiplication values to thermal neutron cross sections 08 p1313 N67-18786
Sensitivity of SNAP reactor calculations to zirconium absorption cross section uncertainties 08 p1314 N67-18787
Sensitivity parameters of fast power reactor to neutron cross section uncertainties in 100 eV to 100 keV energy range 08 p1316 N67-18811
Sensitivity of fast reactor parameters to cross section uncertainties 08 p1317 N67-18847
Theory of sets with uncertain or ambiguous boundaries
[AD-645235] 12 p2128 N67-23629
Uncertainty as motivating variable in increasing strength of information acquisition
[AD-653413] 19 p3376 N67-33409
Uncertainty analysis approach to study of dynamic systems
[BCL-8.0] 21 p3797 N67-35455
UNDERGROUND EXPLOSION
Subarray patterns and geometry of large aperture seismic arrays
[TN-1965-64] 03 p0387 N67-12529
Construction of earth crust models for seismic wave propagations from underground explosions and earthquakes
[AFOSR-67-0519] 14 p2521 N67-28888
Granular, foam, honeycomb, concrete and other elastoplastic and plastic-elastic for reducing blast loads on buried protective structures
[AD-634691] 15 p2797 N67-27969
Mathematical model of distortions in seismic waves due to crustal layers
[AFOSR-67-2077] 24 p4437 N67-39801
UNDERGROUND NUCLEAR EXPLOSION
SA PLOWSHARE PROGRAM
Analysis of Long Shot nuclear explosion data from Canadian seismograph stations
[SR-13] 01 p0070 N67-11196
Formation of radioactive fallout and isotope fractionation after underground nuclear shot
[JPRS-38744] 02 p0257 N67-12612
Method of determining natural earthquake focal depths applied to underground nuclear explosions
[AFCRL-66-570] 06 p0675 N67-16468
Seismic data recorded from LONG Shot underground explosion
[AWRE-O-67/66] 07 p1075 N67-18070
Measurements on capture cross section of uranium 238 with bomb source neutrons 08 p1340 N67-18843
Fission cross section of uranium 235 measured by time of flight using neutrons generated by underground nuclear explosion 08 p1318 N67-18858
Fission cross section of plutonium 239 measured by time of flight using neutrons from underground nuclear explosion 08 p1341 N67-18859
Influence of shock or stress events induced by underground nuclear explosions on low temperature thermoluminescence of halite 09 p1439 N67-19399
Recovery of actinides produced by nuclear explosion in volcanic tuff or desert alluvium
[DP-1065] 10 p1580 N67-21001
UNDERGROUND STORAGE
Storage and other capabilities of massive underground ice wedges in northern regions
[AD-634664] 15 p2697 N67-27947
Elastic response of steel cylinder buried in sand to blast loading
[AD-634649] 15 p2798 N67-27992
UNDERWATER ENGINEERING
Fouling, corrosion, and heat transfer study for underwater nuclear power system
[R-470] 03 p0427 N67-13096
Screening of flame resistant materials and comparison of helium with nitrogen for diving atmospheres
[AGR-1] 17 p3010 N67-30618
Pathological aspects of deep sea diving operations
[MBL-1967-6] 22 p3970 N67-37214
UNDERWATER EXPLOSION
One-dimensional inviscid flow equations for calculating transient hydrodynamic shock wave propagation caused by explosion 07 p1063 N67-17027
Underwater shock wave propagation in vicinities of sloping bottom, icecap, and sedimentary bottom
[U-246-174] 09 p1441 N67-19635
Sonar transducer analysis to determine hydraulic and mechanical shock streams induced in ceramic drive element by underwater explosion 13 p2412 N67-25166
Formation and propagation of air blasts from underwater explosions
[BBN-1434] 20 p3823 N67-34655
Shock tests of cantilever beams on floating platform
[DTMB-2191] 23 p4356 N67-38365
Increasing brightness of discharge column using underwater electrical explosion of wire
[NASA-TT-F-11266] 24 p4497 N67-40373
UNDERWATER SOUND
Acoustic method for measuring characteristics of ocean sound scattering layers
[JPRS-38379] 01 p0067 N67-10385
Rules for scale models to investigate sound radiation from ship to surrounding water
[TDCK-46172] 01 p0115 N67-10572
Extremely low frequency surface electric and magnetic fields and underwater electric field noise measurements
[NEL-1379] 01 p0040 N67-10929
Improved high resolution seismic reflection refiling system for obtaining visual analog of underwater geologic cross sections
[AD-639199] 02 p0254 N67-11254
Communist Chinese studies on underwater sound measuring devices, acoustics, cavitation bubble motion, and noise transmission
[JPRS-39185] 06 p1387 N67-18511
Environmental factors effect on voice communication in spacecraft and underwater operations
[REPT.-485] 09 p1416 N67-19743
Far field sound radiation from randomly vibrating structure oscillating in acoustic medium
[TR-15] 09 p1519 N67-19768
Communication system for connecting nine personnel stations and public address system for underwater operations - zero G simulation
[NASA-TM-X-53547] 11 p1823 N67-22844
Experiments for studying acoustic transmission property stability in Norwegian coastal waters
[U-191] 11 p1930 N67-23134
Personnel training in sound reverberation patterns to determine effects on Doppler discrimination
[STB-67-13] 13 p2280 N67-25974
Transient underwater signal analysis by means of approximation using orthonormal functions
[USL-798] 15 p2868 N67-28514
Comparison of audibility threshold performance of human ear submerged in water and in air
[REPT.-3] 16 p2854 N67-28961
Monostatic acoustic scattering from ocean volume measured in Atlantic and compared with model calculations
[NRL-6533] 17 p3119 N67-30430
Statistical determination using mathematical models of underwater reverberant sound power frequencies
[FR-67-11-148] 17 p3119 N67-30463
Coherence of underwater acoustic signals reflected from complex structures
[AD-651650] 17 p3120 N67-30640
Predictive horizontal temperature gradient model of upper 750 feet of ocean
[NEL-1445] 22 p4035 N67-36925
Method of computing ray paths in ocean where velocity gradient varies continuously with depth
[USL-829] 22 p4090 N67-37052
Transducer calibration facility
[MPL-U-14/67] 22 p4020 N67-37194
Normally-incident reflectivity of sea floor and its correlation with physical and geological properties of sediment
[REPT.-67-16] 22 p4037 N67-37317
Measurements of velocity of ultrasonic pulses in water at high pressures
[TR-2] 22 p4099 N67-37412
Review of theory of oblate spheroidal wave functions and formulas and tables for numerical calculation of oblate radial functions of first and second type
[NRL-6543] 23 p4293 N67-38387
Two Fortran programs for computing electroacoustical behavior of transmitting

sonar arrays
[USL-791] 23 p4213 N67-38393
Conversion tables for underwater noise levels of submarines measured on various acoustical ranges
[REPT.-706.103/3] 23 p4295 N67-38935
UNDERWATER TEST
Underwater degradation and applied voltage effects on polyethylene insulated wire
[AD-646545] 14 p2550 N67-36801
Irradiance pattern measured for propagation of collimated beam of light underwater, using neodymium-doubled green laser
[AD-647791] 14 p2561 N67-36953
Acoustic scattering coefficients and size distribution of underwater resonant scatterers, and sound scattering in surface layers of the ocean
[JPRS-40765] 17 p3057 N67-31461
Underwater operation evaluation of standard impact wrench, regulator valve for pressure suits, and S-IVB workshop hatches
[NASA-TM-X-53614] 18 p3235 N67-31849
Individual and group reaction to extreme conditions of psychological stress in field situation - project Sealab II
[TR-1] 19 p3371 N67-32729
Body heat loss of divers wearing variety of foam neoprene wet suits studied while immersed at 30-32 deg F in arctic pool
[NEL-1406] 19 p3372 N67-32371
Human performance and underwater equipment evaluation in Sealab II 45-day saturation dive
[ONR-ACR-1245] 19 p3374 N67-33115
UNDERWATER VEHICLE
SA SUBMARINE
Fuel specifications for heat source using cobalt 60 for small underwater craft
[AGN-8163, VOL. III] 07 p1130 N67-17438
Automatic instrumented deep sea diving assembly
[NOLTR-66-165] 10 p1627 N67-21740
Filament wound glass fiber reinforced plastic and composite materials for ring stiffened cylindrical pressure hulls for use in deep submergence vehicles
[DTMB-1824] 11 p1998 N67-23116
Structural design requirements of deep-diving vessel for oceanographic research
[JPRS-40527] 14 p3635 N67-37306
Archimedes bathyscape for deep sea exploration
[JPRS-40791] 14 p3635 N67-37396
Information retrieval system for underwater feature data
[IR-67-13] 22 p4170 N67-37466
UNIAXIAL STRAIN
Stable fractures in uniaxial stress field
[SR-66-1249] 12 p2219 N67-23490
Time hardening, strain hardening, and life fraction hypotheses for describing uniaxial creep deformation of metals
[ARC-CP-919] 16 p2912 N67-29933
Dislocation dynamics applied to impact induced deformation under uniaxial strain through use of mathematical models
[SC-DC-67-1402] 20 p3741 N67-34991
Structural optimization of flat, corrugated core and web core sandwich panels under in-plane shear loads and combined uniaxial compression and in-plane shear loads
[NAEC-ASL-1110] 22 p4183 N67-37080
Deformation of neo-Hookean material during uniaxial compression
[NASA-CR-89566] 24 p4542 N67-39478
UNIFIED FIELD THEORY
Unified theory of nuclear reaction that agrees with Bohr theory
06 p0923 N67-15562
Four coil systems with prolate volume of uniformity
11 p1929 N67-23763
Equally spaced, coaxial coil system design to produce uniform magnetic field
11 p1929 N67-23763
Unified explanation of forbidden modes of decay by introducing meso-strong interactions between baryons and mesons
11 p1940 N67-22995
Basic structure of infrared glasses
[REPT.-7516-8-F] 11 p1994 N67-23150
UNIFORM FLOW
Radiation attenuation effects upon relativistic particle motion in uniform magnetic field
[NASA-CR-90179] 03 p0291 N67-12363
Laminar boundary layers with uniform fluid properties similar solutions to velocity equations involving mass transfer
[ARC-CP-857] 05 p0694 N67-14440
Uniform two-zone perfect gas expansions in convergent-divergent nozzles
[NASA-CR-65596] 06 p1255 N67-18943
Generalized forces on infinite cylindrical shell oscillating harmonically in uniform airflow
[RAE-TR-65296] 11 p1986 N67-22786
UNIQUENESS
Uniqueness proof of parallel three-dimensional shear flow in channel with arbitrary cross section
[IMM-355] 22 p4024 N67-37057
UNIQUENESS THEOREM
Asymptotic uniqueness for viscous flow of incompressible fluid in elastic tube satisfying Windkessel condition
[R67SD9] 11 p1963 N67-23464
Nonuniqueness of analytic functions
13 p2129 N67-23706
Uniqueness theorem for concentrated surface loading problems in linear theory of coupled stress elasticity
[TR-4] 13 p2419 N67-36230
Unified convergence theory for class of iterative processes
[NASA-CR-85606] 17 p3092 N67-30779
UNIT
S ASTRONOMICAL UNIT
S INERTIAL MEASURING UNIT
S STORAGE UNIT
UNITARITY
Problem of dynamical groups in quantum mechanics
[INR-667/VII/PH] 01 p0119 N67-10137
Hadron form factors according to SL/6,C/
[IC/66/84] 01 p0125 N67-10678
Hypothesis of conserved tensor currents and SU/6/ group
[JINR-P-2696] 01 p0125 N67-10679
Meson-nucleus reactions study for estimating cross sections of various processes involving elementary particles - tests of unitarity symmetry in nuclei
[BNL-10430] 01 p0128 N67-10618
SU/3/ symmetry used to obtain relations between cross sections for baryon-baryon reactions
[TR-545] 03 p0447 N67-13223
Derivation of expression for matrix elements of Lorentz transformation in case of unitary concept based on canonical concept executed in Hilbert space
[JINR-P-2777] 04 p0591 N67-14072
Geometric theory of unitary equivalence of matrices
04 p0569 N67-14143
Lorentz transformation in Pauli algebra matrix set
[AD-639651] 06 p0901 N67-15405
Proper rotations of three-dimensional orthogonal frame
[NASA-TN-D-3806] 06 p1296 N67-18357
Homogeneous functions for unitary representations of symmetry groups
[JINR-P-2886] 08 p1531 N67-18526
Infinite-dimensional irreducible representations of Lie algebras of compact unitary groups
[IC/66/101] 08 p1323 N67-18590
Decomposition of most degenerate unitary irreducible representation of arbitrary noncompact rotation group
[IC/66/99] 08 p1324 N67-18619
Unitary representations of U-2,2 and massless fields
[NASA-CR-82369] 08 p1342 N67-18961
Degenerate unitary representations of SU/2,2/ group realized in space of homogeneous functions
[JINR-P5-2950] 10 p1717 N67-21462
Statistical model of multiple particle production in broken unitary symmetry
[JINR-P5-2956] 10 p1720 N67-21519
Theory of SL/n,C/ group unitary representations
[JINR-P5-2977] 10 p1734 N67-21584
Statistical model with breaking unitary symmetry for annihilation processes
[JINR-P2-2981] 10 p1739 N67-21674
Unitarity representations of similitude group of space-time - explicit construction of Wigner spin matrixes and new formulation of Bargmann-Wigner analysis
[IC/67/7] 11 p1986 N67-23481
Unitarity representations of space-time similitude group
11 p1986 N67-23482
Su-3 Wigner coefficients in angular momentum space
[IC/66/108] 11 p1990 N67-23501
Degenerate unitarity representations of SU/2,2/ group and elementary particle symmetry
[JINR-P2-3078] 12 p2180 N67-23979
Theory of elementary particle symmetry
[NASA-TT-F-10618] 14 p2584 N67-36365
Derivation of Orear formula of high energy elastic scattering from Regge theory and unitarity
[TUEP-67-8] 15 p2756 N67-37511
Annihilation of stopping antiprotons into kaons
[R-575] 15 p2767 N67-38533
Branching diagrams for SU/2/, SU/3/, U/2/, and U/3/
19 p3506 N67-32062
Field theory with infinite multiplets for two series with degenerate unitary group representation
[JINR-P2-3200] 21 p3965 N67-36490
Superconvergent sum rules derived for meson baryon scattering, and relationship to U/6,6/
[ICTP/67/17] 22 p4106 N67-37489
Unitarity representations of Lorentz group and functions with spin that form basis for integral representations of scattering amplitudes
[JINR-E2-3294] 22 p4110 N67-37529
Asymptotic unitarity constraints on Regge multipoles and cuts
[NP-16869] 23 p4305 N67-38831
Unitarity and radiative decay processes
[TH/206] 23 p4312 N67-39008
Covariant theory of pion deuteron elastic scattering
[TH/213] 24 p4502 N67-40250
UNITED STATES
SA ALASKA
Space law development, emphasizing roles of U.S.S.R., United States, and international law
[FTD-TT-66-381] 01 p0149 N67-10976
Impact of current defense spending on United States budget and economy
[NASA-CR-80116] 02 p0330 N67-12364
Analysis of role and effect of technology on national economy of United States
03 p0476 N67-12823
Transfer and utilization of new technology in United States
[NASA-SP-5067] 03 p0478 N67-13187
United States and Soviet policies on outer space and arms control
[NASA-CR-80853] 04 p0536 N67-14350
Military technology and United States Metalworking Processes and Equipment Program
06 p0894 N67-15309
United States and U.S.S.R. use of scientific satellites, sounding rockets, and space probes for upper atmosphere studies
[NASA-TT-F-330] 06 p1270 N67-18567
Cosmos V registration of fragment gamma radiation following United States nuclear explosion over Johnston Island
10 p1757 N67-20291
Meteorological aspects of constant level balloon operations in southwestern United States
[AFCRL-66-706] 11 p1918 N67-23146
Reactors and critical assembly facilities in United States
[TID-8200, 19TH REV.] 14 p2577 N67-37325
Performance and characteristics of United States launch vehicles
[ELDO-TR-F-30] 15 p2794 N67-37922
Mission characteristics of space vehicles launched by United States
[ELDO-TM-F-14] 15 p2796 N67-37940
History and future projects of United States space program
15 p2799 N67-38285
Congressional hearings in January and February 1967 on government and industry policy planning of aeronautical research and development
15 p2800 N67-38290
Economic implications of United States supersonic transport aircraft upon airport and enroute support services - executive summary
[PRC-R-800, VOL. I] 17 p2966 N67-30257
Telecommunications satellites of Europe, U.S.S.R., and United States
17 p2968 N67-30733
Case study of frontal wave cyclone development over midwestern United States
17 p3007 N67-30760
Comparison of U.S.S.R. and United States computers
18 p3240 N67-32615
Flynn Creek crater, Tennessee, geologic history and probable meteoritic impact origin
19 p3440 N67-32184
Mapping, lithology, and stratigraphy of Sierra Madera structure, Texas
19 p3441 N67-32185
Proposed solution for improving present

method of gravimetric reduction of first order spirit leveling in United States
[REPT.-73] 20 p3631 N67-34416
Heat budget at Arctic Ocean-air interface, based on American and Russian data 20 p3674 N67-34853
Radar echo distributions over United States
[AFCRL-67-0332] 22 p4000 N67-37561
Western phosphate industry and resources
[BM-RI-6935, PT. 5] 23 p4250 N67-39367
Geophysical subsurface structure analyses of tectonically active valley basin in Nevada - seismic and gravity measurements, aerial magnetic and geodetic surveys, and elevations
[AFCRL-66-848] 24 p4443 N67-40021
UNIVAC 490 COMPUTER
General purpose interface for channel 5 of Haystack Univac 490 digital computer
[ESD-TR-66-454] 05 p0680 N67-14985
Digital equipment organization and operation of Univac 490 Haystack antenna pointing system
[ESD-TR-66-453] 05 p0676 N67-15085
UNIVAC 1107 COMPUTER
General purpose matrix interpretive computer routine written to operate with Univac 1107
[REPT.-19] 14 p2563 N67-27689
UNIVERSAL TIME
UT-component in Sq-field variations according to IGY data 19 p3446 N67-33671
UNIVERSE
Louis Pasteur conjecture on asymmetry of universe substantiated by discovery of non-conservation of parity in certain fundamental particle interactions 03 p0461 N67-12727
Qualitative arguments against theory of singular origin of universe
[NASA-TM-X-57251] 07 p1194 N67-18193
Evolution of earth and universe 14 p2815 N67-27639
UNIVERSITY PROGRAM
Scientific NASA program conference in cooperation with West Coast universities
[NASA-SP-122] 02 p0328 N67-11943
Equilibrium systems form dialectical or tensional point of view
[NASA-CR-80069] 02 p0329 N67-12259
Future directions for space research in planetary and lunar exploration, astronomy, geophysics, physics, rockets, satellites, universities, biology, medicine, physiology, and mans role
[PUBL.-1403] 03 p0465 N67-12095
Hybrid computer and differential analyzer design and development for university instruction program
[NASA-CR-80711] 04 p0516 N67-13801
University hybrid computer facilities and instruction program for engineering students 04 p0517 N67-13686
Activities of Casting Laboratory of University of Uruguay 05 p0711 N67-14803
Discrete and continuous models, multivariable and adaptive control, information theory, and design methods - NASA-university conference on manual control
[NASA-SP-128] 06 p0606 N67-15850
University research projects in materials science in applied mathematics, chemistry, engineering, geology, and physics departments
[AD-641465] 06 p0646 N67-15997
Theoretical and experimental research summaries on suboptimal self-adaptive binary communication systems
[NASA-CR-81438] 07 p1094 N67-16931
Southampton university program and research projects in acoustic and structural vibrations 07 p1204 N67-17849
Celestial spectra and atmospheric effects mainly in infrared region 10 p1618 N67-20490
Satellite and space probe firings, space technology applications, Apollo project flights and university programs summary report
[NASA-TM-X-59454] 10 p1760 N67-21021
Experimental and theoretical research activities at university in nuclear and high-energy physics
[COO-1371-26] 12 p2157 N67-23351
University participation in NASA scientific space programs 12 p2340 N67-24427
University research in nuclear physics, lasers, thermodynamics, hydrodynamics, radiation physics, and programming
[UCRL-50001-66-1] 13 p2333 N67-25400
University, industrial, and state government resource support for Regional Dissemination Center for New England - NASA Technology Utilization Project
[NASA-CR-83785] 13 p2440 N67-25490
University research in materials, plasma, and engineering for direct energy conversion
[NASA-CR-82039] 13 p2384 N67-25643
University program on disseminating aerospace technology to industry, and information retrieval experiments
[NASA-CR-84154] 14 p2634 N67-26510
University of Illinois research project on engineering, physics, and certain chemical problems 14 p2635 N67-26601
Chemical engineering research on interface phenomena, reactor design, heat transfer, and certain other topics 14 p2474 N67-26604
Completed Air Force sponsored projects in field of chemistry 14 p2479 N67-27171
Applicability of automatic activation analysis facilities of Texas A and M University to problems involving public benefit and interest 16 p2942 N67-29393
Relationship between major area of study in college and performance in naval flight officer training
[AD-651935] 17 p3009 N67-30260
Harvard University Cyclotron Laboratory research activities
[AD-652616] 19 p3500 N67-32779
Columbia University studies of automatic scanning system for bubble chamber film 21 p3811 N67-36279
Materials science and engineering activities dealing with chemical and solid state physics, material properties and device applications, and magnet instrumentation and Lincoln laboratories
[AD-652583] 21 p3924 N67-36571
Applied research concepts, evolving nature of research and technology, and roles of industry, government, and universities 23 p4367 N67-38509
Engineering education and training in United States and cooperative efforts between government, industry, and universities 23 p4369 N67-38522
University program to accelerate industrial application of aerospace technology
[NASA-CR-89745] 24 p4555 N67-40489
UNLOADING WAVE
Quasi-static and dynamic response of granular soils
[TR-3] 01 p0163 N67-11194
UNMANNED SPACECRAFT
SA MANNED SPACECRAFT
Transonic aerodynamic investigation of tension shell and blunted 100 deg conical shapes for unmanned entry vehicles
[NASA-TM-D-3700] 01 p0003 N67-10747
Propulsion system and launch vehicle stage requirements for automated space missions 03 p0467 N67-12901
Failure modes of metallic components in unmanned spacecraft and rocket boosters during simulated service testing
[NASA-TM-X-55607] 03 p0468 N67-13223
Low power thermionic reactor development for unmanned spacecraft applications 06 p0912 N67-15726
System requirements and design concepts of remote control command loop for future unmanned spacecraft
[NASA-CR-81523] 07 p0998 N67-17120
Aerothermoelastic effects on unmanned entry vehicles for Mars
[NASA-CR-81648] 07 p1196 N67-17999
Minimal energy ballistic trajectories for manned and unmanned space flights to Mercury
[NASA-TM-D-3900] 11 p1978 N67-23291
Legal liability and status of unmanned space vehicles 13 p2439 N67-25812
Manned and unmanned space flights, ground support system, international cooperation, and advanced technology and nuclear propulsion - NASA report for January through June 1966
[NASA-TM-X-59654] 13 p2440 N67-25648
Design of thermionic reactor power source for unmanned spacecraft
[BMWF-FBK-66-30] 13 p2382 N67-25936
Reasons, targets, and map for scientific analysis of lunar surface and geology by unmanned probes
[NASA-CR-84125] 13 p2410 N67-26443
Payload capability of unmanned interplanetary probes using solar electric propulsion
[NASA-TM-X-52316] 16 p2976 N67-30140
Breadboard model of spaceborne synchronous clock pulse generator for spinning spacecraft 18 p3246 N67-31592
Risk estimating techniques for unmanned space missions
[NASA-CR-86665] 18 p3326 N67-31842
Spacecraft attitude control gas systems analysis
[NASA-CR-86661] 18 p3345 N67-32369
Solar cells and thermoelectric generators for scientific exploration of solar system
[NASA-CR-89744] 24 p4378 N67-40089
Telemetry methods for manned and unmanned spacecrafts measurement of physiological, physical and operational data
[NASA FACTS S-3/8-67] 24 p4411 N67-40538
UNSATURATION
Retardation effect of water on gelation and polymerization of unsaturated polyester resin
[RAE-TR-66191] 04 p0567 N67-14286
UNSTABLE BURNING
Combustion instability and oscillatory burning behavior of solid propellant
[REPT.-793] 24 p4521 N67-39710
UNSTEADY FLOW
SA OSCILLATING FLOW
SA PULSATING FLOW
Flow temperature and friction coefficients in channels with unsteady flow of heat transfer medium 02 p0324 N67-11232
Equations for describing friction coefficients of unsteady flows in pipes 02 p0249 N67-11234
Unsteady flow in parallel channels
[AEEW-R-446] 04 p0533 N67-14121
Variational method for unsteady one-dimensional plasma flow of type V perpendicular to B
[AFOSR-66-2454] 05 p0745 N67-15012
Nonlinear problems of supersonic steady and unsteady flow over cones, smooth bodies of arbitrary axisymmetric shape, and bodies with discontinuities in slope
[AFOSR-66-1945] 06 p0668 N67-16386
Two-dimensional unsteady flow in traveling wave plasma accelerator studied using small perturbation theory
[NASA-CR-81298] 06 p0944 N67-16528
Flutter analysis of flat rectangular panels based on three-dimensional supersonic unsteady potential flow
[NASA-TR-R-256] 06 p0788 N67-16675
Centered one-dimensional unsteady expansion calculated for reacting gas mixture subject to vibrational and chemical nonequilibrium
[NASA-TN-D-3851] 07 p1067 N67-17797
Unsteady forces acting on two-dimensional oscillating airfoils calculated by Newtonian snowplow theory
[RM-4415-ARPA] 07 p0990 N67-17907
Numerical method of integrating Navier-Stokes equation for unsteady compressible flow, and application to separated flows 08 p1271 N67-19268
Theory and calculations of unsteady forces on finite wings in transient motion, and comparison of initial and final aerodynamic forces
[ARC-R+M-3456] 09 p1392 N67-20363
Hypersonic flows, dynamic stability of vehicles, and flutter analyses reviewed to direct future research
[ARC-CP-901] 09 p1393 N67-20366
Unsteady piston-generated flow in rarefied gas treated as initial or boundary value problem
[DAC-59160] 10 p1613 N67-21176
Unsteady convective heat transfer with oscillating cylinder transversely or parallel to air flow 11 p1906 N67-22044
Theory and experiments of unsteady flow at flat plate rotated impulsively from rest to uniform angular velocity
[NU-HYDRO-027-TS] 12 p2089 N67-24756
Linearized unsteady nonequilibrium flows of compressible gas
[NASA-TT-F-10330] 12 p2091 N67-25085
Corrections to parametric representations of nonsteady one-dimensional flows
[BRL-1343] 14 p2510 N67-26916
Unsteady flow fields and dynamic stability for hypersonic reentry vehicles
[FDL-TDR-64-149, PT. III] 16 p2870 N67-29089
Numerical analysis of inviscid flow field about right circular cone in unsteady planar flight using modified perturbation method
[FDL-TDR-64-148] 16 p2913 N67-29668

Theoretical predictions of weak shocks and Prandtl-Meyer expansions in unsteady flow and three-dimensional steady supersonic flow
[NASA-TM-X-60079] 17 p2992 N67-36006
Unsteady flow of compressible media with shock waves, hydrocarbon microorganisms, diffusion theory of adhesion applied to elastomer bonding, and rare earth chalcogenides 18 p3356 N67-31666
Unsteady motion of compressible media with blast waves 18 p3356 N67-31667
Unsteady channel flow in shock tunnel magnetohydrodynamic generator
[AVCO-EVERETT RES. REPT.-271] 19 p3514 N67-32976
Unsteady two-dimensional potential flow for two lifting bodies
[DAC-33553] 21 p3753 N67-35565
Unsteady force and cavity experimental measurements for forced and naturally ventilated hydrofoils of finite span submerged below free surface
[REPT.-85] 24 p4430 N67-39568
Unsteady transonic flow of compressible gas past corner
[NASA-TT-F-11307] 24 p4434 N67-40321
UPCONVERTER
Feasibility of parametric upconverter technique as ultrahigh frequency communications receiver preselector
[AD-651898] 17 p3024 N67-30517
Analyses of Marzolf tunnel diode inverter, dc to dc regulated converter, and self-regulating dc to sine wave inverter for use in spacecraft power conditioning systems
[NASA-CR-88975] 23 p4182 N67-35849
UPPER AIR
Interpretation of data recorded by high speed measuring device in upper air layers 11 p1911 N67-23003
Surface and upper air analyses for sparse data regions based on meteorological satellite cloud photograph interpretations 24 p4486 N67-39884
UPPER ATMOSPHERE
SA IONOSPHERE
SA MAGNETOSPHERE
SA MESOSPHERE
Ionospheric echo absorption data for January through June, 1966
[REPT.-15] 01 p0063 N67-10020
Observations to determine Injun III orbital parameters for upper atmosphere rotation studies
[RAE-TR-66196] 01 p0156 N67-10079
Thermal radiation effects in upper atmosphere
[NASA-TT-F-8413] 01 p0064 N67-10183
Measurement of atmospheric turbulence inner scale as function of dissipated energy and kinematic viscosity of alkaline clouds
[NASA-TT-F-10300] 01 p0065 N67-10210
Upper atmosphere dynamics effect on noctilucent cloud formation
[NASA-TT-F-10301] 01 p0065 N67-10211
Upper atmosphere humidity measurements by balloon-carried spectrophotometer
[NASA-TT-F-10303] 01 p0065 N67-10213
Evaluation of rocket soundings of noctilucent clouds in upper atmosphere
[NASA-TT-F-10304] 01 p0065 N67-10214
Seasonal and latitudinal temperature effects on noctilucent cloud distribution in mesopause region
[NASA-TT-F-10305] 01 p0066 N67-10215
Atmospheric dynamics in upper atmosphere and noctilucent clouds
[NASA-TT-F-10306] 01 p0066 N67-10216
Rocket photometer measurement of altitude profile of daytime sodium in upper atmosphere
[NASA-CR-79293] 01 p0068 N67-10741
High altitude balloon-top measurements of cosmic dust
[NASA-CR-79623] 02 p0255 N67-11696
Temperature coupling investigated of oxygen, helium, and hydrogen ions in ionosphere by theoretical analysis
[NASA-CR-79492] 02 p0255 N67-11736
Telemetry systems for gun-launched upper atmosphere probes
[ERD-743] 02 p0234 N67-11866
Rocket experiment designed to measure density and molecular scale temperature by means of free molecular flow analysis
[UTIAS-117] 02 p0236 N67-11937
Upper atmospheric dimensions of meteorites
[NASA-CR-80177] 02 p0208 N67-11265
Ionospheric data for January, 1966 from Woomera meteorological station
[CPD-1966/1/W/] 02 p0288 N67-12891
Meteorological rocket network sounding data from December, 1965, firings
[IRIG-169-62, VOL. LII] 02 p0420 N67-12627
Upper atmosphere model for minimum solar activity
[RPU-537] 04 p0607 N67-13616
Vertical ionospheric drifts produced by pressure gradients of upper atmosphere winds 04 p0543 N67-13269
Three-dimensional mathematical model for estimating transport and dispersion of falling particles released in atmosphere at altitudes of 10 to 90 km
[SC-CR-66-2030] 04 p0543 N67-14135
Aeroelastic bending of upper atmosphere sounding rocket and its application to payloads on Nike-Capache 04 p0480 N67-14182
Rotational speed of upper atmosphere determined from satellite orbit inclinations and movement of vapor trails
[RAE-TR-66313] 04 p0546 N67-14261
Utilization of gun systems to launch meteorological and upper atmospheric research probes - Project HARP
[BRL-MR-1771] 05 p0704 N67-15046
Model atmospheres representing conditions for summer and winter at latitudes to 60 degrees as functions of solar flux and time-of-day above 120 kilometers
[AFCRL-66-564] 05 p0707 N67-15236
HARP Project use of guns for scientific probing of upper atmosphere 06 p0660 N67-15381
Turbulence in upper atmosphere according to radio echo observations of meteor trains 06 p0671 N67-15454
Optical radar detection of backscatter from upper atmosphere 06 p0690 N67-16016
Radio frequency section for three-frequency dispersive Doppler receiver for use in upper atmosphere research
[BRL-MR-1756] 06 p0640 N67-16072
Upper atmosphere winds measured by gun launched projectiles
[BRL-MR-1747] 06 p0675 N67-16439
Upper atmospheric microorganism detection by modified dust collector on Aerobee rocket
[NASA-TM-X-55642] 06 p0606 N67-16545
Mathematical theories of upper atmosphere turbulence
[WRE-PAD-118] 07 p1070 N67-17311
Upper atmosphere neutral particle composition measured by mass spectrometer mounted in Centaur rocket nose cone
[ESRO-SN-21 /ESLAB/] 07 p1074 N67-17841
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A112] 07 p1075 N67-18174
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A114] 07 p1075 N67-18175
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A115] 07 p1075 N67-18176
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A117] 07 p1076 N67-18177
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A121] 07 p1076 N67-18178
Ionospheric and radio propagation data collected in India during 1964, and 1965
[RRC-A122] 07 p1076 N67-18179
Hydrogen diffusion in upper atmosphere near critical level
[NASA-TM-X-57177] 08 p1276 N67-18442
United States and U.S.S.R. use of scientific satellites, sounding rockets, and space probes for upper atmosphere studies
[NASA-TT-F-390] 08 p1276 N67-18987
Charged particle temperatures and electron thermal conductivity in upper atmosphere
[NASA-CR-82435] 08 p1278 N67-19124
Reaction cross section rate calculations for molecular ion chemistry of upper atmosphere
[LMSC-3-12-66-4] 08 p1344 N67-19220
Physical properties of various thermistors for upper atmosphere measurements
[DLR-FB-66-72] 08 p1384 N67-19266
Rocket measurements at high altitudes 09 p1429 N67-19412
Electron microscopic study of micrometeoritic material collected in upper atmosphere 09 p1800 N67-19985
Aluminum monoxide resonant spectrum for upper atmosphere temperature determination
[AFCRL-66-314] 09 p1441 N67-19648
Electron and ion temperatures and electron thermoconductivity in the upper atmosphere
[A-48-1966] 09 p1442 N67-19977
Characteristics of optical auroral emissions generated in upper atmosphere at high latitudes
[R-329] 09 p1443 N67-20024
Diffusion of artificial strontium and barium clouds in upper atmosphere
[MPI-PAE-EXTRATERR.-34/66] 09 p1443 N67-20199
Ionospheric data tabulation for February 1966 from Woomera station, Australia
[WRE-CPD-1966/2/W/] 09 p1442 N67-20264
Optical and mass spectrometric measurements of neutral element composition in upper atmosphere 10 p1758 N67-20284
Photochemical equilibrium and ionic composition of upper atmospheric layers 10 p1617 N67-20289
Distribution of hydrogen in Earth upper atmosphere 10 p1617 N67-20292
Electronic and ionic reactions in atmospheric gases
[GA-7419] 10 p1606 N67-20550
Midlatitude clouds in upper atmosphere
[ECOM-5009] 10 p1636 N67-21325
Stimulated emission and nonlinear absorption spectrometers for upper atmosphere measurements
[CARDE-TR-457/63] 10 p1594 N67-21416
Direct measurement of electrostatic field strength near surface of craft flying in upper atmosphere or interplanetary space 11 p1876 N67-22626
Flight data and results of radiochemical analyses of radioactive debris air filter samples from stratosphere and troposphere
[HASL-176] 11 p1866 N67-22506
Dynamics of upper atmosphere investigated through analysis of motion of sodium vapor trails ejected from sounding rockets
[NASA-CR-82394] 11 p1869 N67-22436
Spectrometer for measuring mobility spectra of ions in earth upper atmosphere
[AVSSD-0209-66-RR] 11 p1892 N67-22536
Geophysical research in high magnetic fields and upper atmospheric physics, and study of relation between dust and rainfall 11 p1870 N67-22540
Solar extreme ultraviolet and corpuscular radiation effects on upper atmospheric temperature
[NASA-TM-X-55749] 11 p1872 N67-22319
Upper atmosphere geophysical data - airglow, cosmic rays, aurora, geomagnetism, and solar activity 11 p1873 N67-22473
Development of sounding rockets for upper atmosphere research 11 p1889 N67-22430
Upper atmosphere wind statistics for Australia 12 p2136 N67-23991
Balloon flight data on spectral absorption by earth atmosphere over long slant path at high altitude
[AFCRL-66-813] 12 p2096 N67-24365
Legal terminology for upper atmosphere and outer space needed to formulate international astronautical laws 13 p2429 N67-26231
Orographic effects on atmospheric precipitation
[ECOM-65712-2] 13 p2351 N67-26421
Upper atmosphere review, and satellite orbit analysis of atmospheric properties and variations
[ESRO-SP-14] 13 p2312 N67-26681
Payload engineering fabrication, checkout, and launching of Black Brant III sounding rockets
[SRFB-668] 13 p2469 N67-26850
Annotated bibliography on electromagnetic wave propagation and upper atmosphere
[ATD-66-144] 13 p2315 N67-26919
Abstracts of scientific articles in fields of astronomy, meteorology, oceanography, terrestrial geophysics, upper atmospheric, and space research
[JPRS-36436] 13 p2316 N67-26936
Upper atmosphere structure and environmental effects caused by electromagnetic and corpuscular radiation 13 p2317 N67-26937
Optical radar and airglow observations of noctilucent clouds 14 p2522 N67-27020
Use of Fabry-Perot interferometers for

resolution of infrared water vapor spectrum in upper atmosphere
[BMWF-FB-W-66-02] 14 p2537 N67-27197
Abstracts and news summaries in geophysics, astronomy, meteorology, and upper atmosphere
[JPRS-40106] 14 p2526 N67-27388
Abstracts and news summaries of Sino-Soviet Bloc activities in astronomy, oceanography, meteorology, upper atmospherics, and terrestrial geophysics
[JPRS-40291] 14 p2526 N67-27389
Abstracts and news summaries of Soviet-Sino Bloc activities in astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmospherics
[JPRS-40863] 14 p2526 N67-27390
Air density fluctuations in upper atmosphere caused by increased solar activity
[RAE-TR-66350] 14 p2515 N67-27634
Diurnal variation of upper atmospheric very low frequency phenomena in southern auroral zone
[SU-SEL-66-124] 14 p2538 N67-27719
Observations of hydroxyl emission in upper atmosphere 15 p2696 N67-27887
Variations of alpha emission and distribution of hydrogen in upper atmosphere and geocorona 15 p2696 N67-27891
Structure, composition, energy spectra, particle interactions, and temperature of upper atmosphere 15 p2697 N67-27939
Humidity measurements in upper atmosphere 15 p2699 N67-28030
Dynamics of upper atmosphere and noctilucent clouds 15 p2700 N67-28033
Upper atmosphere pressure measurements by parachute suspended thermoconductivity gauges released from Arcas rockets
[ECOM-5116] 15 p2705 N67-28696
Comparison of atmospheric densities obtained from orbit decay and instruments
[RAE-TR-66370] 15 p2706 N67-28925
Chemical release experiments in upper atmosphere
[NASA-CR-84871] 15 p2684 N67-28934
Atmospheric transmission of infrared radiation from 2 to 5 microns for slant paths between 35,000 feet and upper limit of atmosphere
[NASA-TN-D-4008] 16 p2860 N67-29380
Reviews and abstracts of Soviet-bloc research in meteorology, oceanography, upper atmosphere and space, terrestrial geophysics, and related subjects
[JPRS-41057] 16 p2890 N67-30076
Gas phase reactions
[AFOSR-67-0919] 17 p3014 N67-30361
Performance characteristics of 280-mm gun device for launching upper atmospheric probes
[SC-RR-66-149] 17 p3043 N67-30486
Aeronomy of upper atmosphere - structure and composition 17 p3053 N67-30568
Variations of standard atmospheres at upper atmospheres 17 p3053 N67-30576
Band intensity of aluminum oxide trails in upper atmosphere for temperature measurement
[NASA-CR-85008] 17 p3056 N67-31199
Multiple regression analysis of upper atmosphere density data and variable density models
[AWS-TR-196] 17 p3056 N67-31312
Distributions and lifetimes of nitrogen atom and nitric oxide in upper atmosphere
[NASA-CR-85618] 18 p3260 N67-31506
Nike-Apache sodium vapor trails used in determining dynamics of upper atmosphere
[NASA-CR-85905] 18 p3261 N67-31742
Noctilucent cloud formation and extraterrestrial dust concentrations in upper atmosphere 18 p3265 N67-32073
Measurement of upper atmosphere ionization and wind profiles in E region
[NASA-CR-86812] 18 p3265 N67-32115
D-region fair weather electric field
[ECOM-5139] 19 p3436 N67-32706
Short wave solar spectrum and intensity, and diurnal variation in ionization rate in upper atmosphere caused by short waves 19 p3529 N67-32818
Model atmospheres information on atmospheric structure of intervening layer
[P-3566] 19 p3439 N67-32960
Diurnal and seasonal-latitudinal variations in upper atmosphere
[NASA-CR-87275] 19 p3442 N67-33283
Flight and wind tunnel experiments of nitric oxide and oxygen chemiluminescence
[MC-65-197-R2] 19 p3392 N67-33328
Rocket measurements of diurnal and semidiurnal S-N wind components in upper atmosphere 19 p3443 N67-33406
Geomagnetic and radio data for polar upper atmosphere conditions 20 p3629 N67-34230
Upper atmospheric temperature response to changes in solar extreme ultraviolet radiation and geomagnetic activity
[NASA-TM-X-60155] 20 p3629 N67-34234
Abstracts and bibliographies from Soviet-Bloc on astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmospherics
[JPRS-42941] 20 p3631 N67-34410
Soviet-Bloc research in astronomy, meteorology, oceanography, terrestrial geophysics, upper atmosphere, and space science
[JPRS-41856] 20 p3634 N67-34814
Observations on release of artificial cloud containing barium atoms and ions in upper atmosphere
[AFCRL-67-0144] 21 p3837 N67-35620
Measurements of upper atmosphere tidal oscillations
[AFCRL-67-0131] 21 p3838 N67-35753
Diurnal variation of ozone in upper atmosphere
[ECOM-5124] 21 p3838 N67-35834
ESRO sounding rocket project - study of comet tail photochemistry by observing fluorescent emission from ammonia cloud ejected into upper atmosphere at twilight
[ESRO-SN-67] 21 p3938 N67-35932
Density, temperature, and composition measurements in atmospheric region above 200 km
[NASA-CR-88351] 21 p3843 N67-36451
Relations between cometary, solar and upper atmospheric processes - molecular spectroscopy
[AFCRL-67-0303] 22 p4139 N67-36809
Analysis of upper atmospheric pressure measurements from cone cylinder pitot-static probes of Nike-Apache rockets
[SC-RR-251] 22 p4037 N67-37169
Upper atmosphere measuring techniques and reaction kinetics of atmospheric gases
[AFCRL-67-0371] 23 p4039 N67-37597
Spectrographic and photomultiplier measurements of light phenomena due to ammonia release into upper atmosphere 23 p4049 N67-37686
Electromagnetic wave propagation and upper atmosphere - bibliography
[ATD-67-36] 23 p4049 N67-37698
Dust content in upper atmosphere of earth
[NASA-TT-F-11316] 23 p4042 N67-37990
Upper atmosphere temperature corrections to bead thermistor
[PAD-121] 23 p4241 N67-38144
Chemiluminescence of nitrogen dioxide in upper atmosphere
[CPD-116] 23 p4241 N67-38153
Climate prediction based on study of upper air wind data
[AFCRL 67-0313] 23 p4277 N67-38286
Compilation of Soviet articles on astronomy, meteorology, oceanography, terrestrial geophysics, and upper atmosphere and space research
[JPRS-43674] 23 p4243 N67-38415
Interaction between upper and lower atmosphere
[NASA-TM-X-55951] 23 p4246 N67-38955
Abstracts on Soviet-Bloc activities in astronomy, meteorology, oceanography, upper atmospherics, and terrestrial geophysics - with accompanying bibliographies
[JPRS-43236] 23 p4248 N67-39147
Auroral molecular oxygen dissociation and infrared hyroxyl emission
[NASA-TM-X-55975] 24 p4435 N67-39294
Atomic-molecular oxygen ratio and recombination rates at upper atmospheric pressures
[NASA-CR-89962] 24 p4437 N67-39535
Conference papers on meteorological satellite data interpretation, solar and upper atmospheric phenomena, tropical meteorology, and weather forecasting techniques
[AWS-TR-196] 24 p4485 N67-39902
Interaction between measuring instrument cavity and rarefied gas flow
[T-R-659] 24 p4423 N67-39945
Integrated meteor radar system for wind and density measurements in upper atmosphere
[SEL-67-046] 24 p4440 N67-39949
Research in astronomy, meteorology, oceanography, geophysics, upper atmosphere, and space science
[JPRS-43221] 24 p4443 N67-40001

UPPER IONOSPHERE

Program to measure horizontal drifts in lower and upper ionospheres 05 p0700 N67-14649
Electron density and plasma scale height in upper ionosphere based on Alouette I topside sounder ionograms - Tables
[NASA-SP-3033, VOL. III] 05 p0757 N67-14921
Analysis of rocketborne ion probe data from upper ionosphere, for planar and spherical probe geometries
[NASA-CR-83322] 11 p1869 N67-22357
Ionospheric data for July 1966 from Woomera, South Australia
[WRE-CPD-1966/7/W/] 17 p3052 N67-30414

URANIUM

Tables of 10-10 uranium unit cost components
[K-OA-1313] 02 p0327 N67-11707
Fission product spectra of slightly irradiated uranium and plutonium obtained by lithium-drifted germanium detector
[AE-241] 02 p0286 N67-11908
Fuel cycles in CANDU and pressurized water reactors - uranium production and discharge irradiation 03 p0423 N67-12600
Uniform lattice experiments with thorium-uranium fuel in heavy and light water moderators 03 p0423 N67-12601
Literature review of conditioning treatments for electrodes used in potentiometric analysis, with reference to uranium titrations
[EUR-3119.F] 03 p0359 N67-13091
Uranium and cesium ion separation from fission products, isotope effects, and radiolysis
[AE-232] 04 p0500 N67-13563
Uranium separation from fission products by freezing 04 p0500 N67-13564
Uranium atom emission from uranium dioxide and uranium metal surfaces for radiation damage by fission fragments 04 p0500 N67-13565
Influence of interfacial tension on partition coefficient of uranium in system with various diluents
[REPT.-490/C] 04 p0501 N67-13647
Determination of iron and nickel in uranium by atomic absorption spectrophotometry
[RFP-698] 04 p0506 N67-14019
Electrolytic recovery of scrap uranium metal in uranium fuel element fabrication
[MCW-1494] 04 p0506 N67-14022
Uranium process material characteristics and correlation with industrial personnel lung damage due to radiation exposure
[Y-1544-A] 04 p0496 N67-14130
Potentiometric high precision assay method for determining uranium in uranium metal
[PG-647/S/] 06 p0617 N67-15425
Anomalous pattern of scattering cross sections of neutrons at small angles on uranium and plutonium 06 p0925 N67-15858
Open gas furnace for preparing phosphors in fluorimetric determination of uranium 06 p0822 N67-16229
Uranium sorption on peat from dilute solutions and reactor waste waters 06 p0823 N67-16249
Stripping of uranium for tri-n-octylamine extracts by sodium carbonate solutions 06 p0824 N67-16274
Uranium /VI/ and iron /III/ extraction from cations with electronic configurations differing from those of inert gases 06 p0826 N67-16304
Titles of reports presented at Yugoslav-Polish uranium technology and metallurgy conference 06 p0915 N67-16512
Uranium extraction from raw materials by gaseous chlorination 06 p0827 N67-16314
Colorimetric and coulometric methods for quantitative determination of uranium in purified solutions from dissolution of irradiated uranium carbide 07 p1025 N67-17146
Uranium purification from fission products 07 p1025 N67-17147
Crossed-progeny fuel cycles for combining

advantages of thorium and uranium fuel cycles
[BNWL-289] 07 p1129 N67-17406
Routine handling procedures and container design and utilization criteria for uranium hexafluoride
[ORO-651] 07 p1027 N67-17462
Alkaline-peroxide colorimetric methods for determination of uranium
[MCW-1499] 07 p1027 N67-17465
Formation of uranium, zirconium, and thorium oxide microspheres by ammonium hydrolysis of sols
[ORNL-TM-1508] 07 p1028 N67-17563
Heat capacity measurements at zero pressure and at 10 kbar of superconductivity in alpha uranium
[UCRL-17026] 07 p1178 N67-17576
Binary alloy composition relation to electron backscatter yield, infrared spectral study of metal nitrate complexes, and machining of uranium fuel cores
[NLCO-980] 07 p1029 N67-17587
Swelling mechanisms of metallic uranium - fission gas bubble coalescence, crack formation, surface diffusion, and suppression
[JAERI-4037] 07 p1103 N67-17700
Methods for accurate determination of nuclear fuel burnup - measurement of U-233 and U-235 thermal fission yields 08 p1309 N67-18307
Self-diffusion coefficients of uranium and plutonium measured in uranium oxide at 2400 deg C
[GEAP-4877] 08 p1311 N67-18563
Present state of experimental inelastic neutron scattering from aluminum, iron, and uranium 08 p1237 N67-18624
Fission cross section ratios of uranium 238, neptunium 237, and uranium 235 08 p1338 N67-18627
Heat treatment and uranium texture evaluation
[MCW-1504] 08 p1293 N67-19005
Phase studies of uranium-iron-silicon ternary system with electron microprobe
[MCW-1502] 08 p1292 N67-19019
Spectrophotometric determination of trace amounts of uranium in high purity plutonium metal after anion exchange separation in hydrochloric acid
[LA-3551] 08 p1239 N67-19065
Physical concepts, comparisons, and description of plutonium, uranium, thorium assembly reactivity code /PLUTHARCO/
[EUR-3141.E] 08 p1322 N67-19179
Infinite multiplication constant of natural uranium/graphite lattices in RB-1 critical assembly measured by zero reactivity method
[EUR-3126.I] 08 p1322 N67-19194
Deuteron and proton optical models, excitation energies for 23 levels of Er 94, stripping and other direct reactions, and neutron capture and fission cross sections of uranium 08 p1346 N67-19322
Critical experiments on sphere containing uranium, parameters of cylindrical annuli, Monte Carlo calculations, SORA design, and safety factors 08 p1323 N67-19333
Potentiometric assay method for determination of uranium metal
[PG-730] 09 p1411 N67-20213
Phase analysis of uranium iron aluminum ternary system with electron microprobe
[MCW-1505] 09 p1411 N67-20214
Personnel, equipment, and tasks considered in application of safeguards to uranium nuclear fuel processing plant
[BNWL-301, APPEND.] 10 p1674 N67-20745
Sintering-extrusion prepared uranium rods subjected to thermal cycling
[CEA-R-2972] 10 p1675 N67-20762
Electronically controlled universal compression testing machine for cyclic testing of uranium at elevated temperatures
[NLCO-984] 10 p1638 N67-20902
Friction tests between thorium and uranium alloys and Zircaloy 4
[KAPL-3166] 10 p1670 N67-20950
Adjoint Monte Carlo calculations for enriched uranium core assemblies
[K-DP-1637] 10 p1690 N67-21791
Monocarbide mononitride monoxide region of quaternary system investigated in production of high temperature nuclear reactor fuels 11 p1806 N67-22391
Sorption kinetics of uranium from nitric acid solutions on anion exchange resin
[LA-3541] 11 p1806 N67-22309
Midget impinger for sampling uranium dusts and pyrolytic graphite aerosols
[SC-RR-66-597] 11 p1854 N67-22321
Fluorometric determination of uranium traces in aqueous solutions
[AECL-2647] 11 p1812 N67-22004
Uranium extraction from sulfuric acid solutions by trinitro phosphine oxide in benzene
[REPT.-754/XIII/C] 11 p1813 N67-22013
Collection and determination of trace amounts of uranium using cellulose phosphate ion exchange paper
[AECL-2648] 11 p1813 N67-22073
Color metallography technique for optically identifying carbon, iron, aluminum, and silicon particles in uranium metal 12 p2108 N67-24244
Nonaqueous electrolytic polishing ethanediol bath saturated with sodium hypophosphite for uranium
[RFP-816] 12 p2044 N67-24552
Freezing points of ternary alloys derived from uranium chloride-potassium chloride mixture
[LA-3579-MS] 12 p2044 N67-24571
Equilibrium anion exchange of uranium /VI/ from nitric acid solution
[LA-3540] 12 p2044 N67-24575
Uranium fabrication development, primary extrusion of fuel element, basic extrusion techniques, and billet preparation by piercing
[RMI-5] 13 p2357 N67-25421
Uranium purification by zone-refining techniques
[Y-1564] 13 p2367 N67-25430
Calculated thermodynamic functions of various uranium and thorium nuclear compounds
[ORNL-TM-1506] 13 p2423 N67-25501
Partial vapor pressures of uranium and carbon over uranium monocarbide at high temperatures
[NASA-TT-F-10669] 13 p2370 N67-25504
Critical mass, fission ratios, and reactivity coefficients for computing nuclear parameters of fast plutonium and uranium assemblies
[BNWL-347] 13 p2382 N67-25935
Physical and chemical studies of clad uranium dioxide in potential meltdown environments 14 p2575 N67-26091
Policy, criteria, and outlook of First Target Program for European Atomic Energy Community - uranium and thorium supplies, economic markets for electric and nuclear energy
[EUR-3773.E] 14 p2579 N67-27551
Improved Kjeldahl method for determining nitrogen in plutonium mononitride and uranium nitrides
[AERE-R-5329] 14 p2484 N67-27622
Vaporization kinetics of thorium, uranium, americium, plutonium, and curium - possible atomic reactor fuels
[NASA-TT-F-10998] 15 p2657 N67-28234
Isotope dilution mass spectrometric method for determining burn up of irradiated uranium nuclear reactor fuels
[AERE-R-5310] 15 p2756 N67-28239
Uranium diffusion out of uranium carbide pellets in porous graphite at high temperatures
[LA-TR-66-61] 16 p2844 N67-28275
Effect of uranium on transverse ductility of resulfurized chromium stainless steel rolled plate
[R-179] 16 p2899 N67-29754
Consumable electron arc welding of uranium
[NLCO-916] 16 p2922 N67-29763
Computer program for calculating composition of uranium plasma as function of plasma-temperature and pressure
[NASA-CR-85368] 16 p2907 N67-29943
Process developed for recycling sintered uranium dioxide and zirconium dioxide fuel wafers 17 p3108 N67-29995
Self-diffusion measurements and fission product transport and release mechanisms in high temperature nuclear uranium fuels
[BMWF-FBE-66-32] 17 p3107 N67-30009
Fast reactor technology, radiation safety problems pertaining to corrosion and activation of reactor structural materials, and interaction of tetravalent U with chloride-fluoride melt
[JPRS-40694] 17 p3107 N67-30096
Interaction of tetravalent uranium with NaCl-KCl-NaF chloride-fluoride melt 17 p3014 N67-30130
Separation of 234 uranium from 239 plutonium
[AERE-R-5360] 17 p3015 N67-30417
Phase relations in uranium monocarbide region of ternary system uranium carbon oxygen at 1700 deg C
[RI-6988] 17 p3015 N67-30692
Computer program for integrating burnup equations for thorium and uranium fuels
[AECL-2693] 17 p3150 N67-30695
Dilatometric determination of sintering mechanism of uranium powders in alpha, beta, and gamma phases
[CEA-R-2993] 17 p3112 N67-31075
Two new intermetallic compounds found when studying uranium iron silicon ternary system
[LFEN.73/ALPHA/] 17 p3062 N67-31215
Ternary fission of uranium 236
[INP-529/PL] 17 p3130 N67-31402
Uranium loss in mines subject to action of rain water
[LFEN-NI.35/ALPHA/] 18 p3261 N67-31561
Physical properties of plutonium uranium zirconium ternary system reactor fuel
[MLM-1346] 18 p3298 N67-31717
Prototype laminated uranium metal shipping cask for large shipments of cobalt 60
[KY-521] 18 p3255 N67-31902
Experiment design, assembly, and operation of uranium zirconium hydride fuel element irradiations in large Hanford-type reactor 18 p3299 N67-32435
Uranium fuel element fabrication processing
[RMI-7] 19 p3461 N67-32761
Extrusion pressure, temperature, and grain structure of normal uranium as function of billet preheat temperature, press ram speed, die approach angle, and reduction ratio
[REPT.-4] 19 p3470 N67-32949
Infrared detector for measuring and recording uranium tube temperature variations during extrusion 19 p3462 N67-32962
Alpha-decay products of bombarding uranium-233, uranium-235, and plutonium-239 with neon-22, neon-20, and oxygen-16 ions
[JINR-E7-2981] 19 p3508 N67-33018
Electroplating nickel onto uranium and anodic etching techniques for uranium
[BNWL-SA-1030] 20 p3589 N67-34169
Breeder characteristics of graphite-moderated high temperature spherical pile reactor for thorium 232 - uranium 233 breeding cycle
[JUL-474-RG] 20 p3479 N67-34325
Diffusion of carbon from carbide of uranium into molybdenum and tungsten 20 p3686 N67-34376
Independent yields in thermal fission of uranium 235, plutonium 239, plutonium 241, and uranium 233
[AERE-R-5488] 20 p3697 N67-34490
Upset forging of billets, precision extrusion of uranium, heating salt evaluation, small-hole tube feasibility study, and ultrasonic measurements investigations
[RMI-8] 20 p3649 N67-34529
Pyrolytic carbon coated uranium fuel particle oxidation with water vapor
[ORNL-4014] 20 p3690 N67-34760
Stabilized hypostoichiometric uranium-plutonium monocarbide fuel pellets and stainless steel pellets comparison
[WCAP-3791-3] 20 p3694 N67-35117
Gas diffusion plant, organizational, uranium fuel, and manpower resources at Lanzhou nuclear base, and rocket delivery capabilities
[JPRS-41810] 20 p3738 N67-35141
Uranium, scientific manpower, scientific research organizations, and gas diffusion plant resources of Lanzhou nuclear base 20 p3622 N67-35142
Self-shielded cross sections of thorium 232, uranium 238 and 235, and plutonium 239 for representing correct values in multigroup analysis of reactors
[AEET-173] 20 p3703 N67-35157
Cross sections and resonance parameters for U-235, U-238, Pu-239, and Pu-241
[NAA-SR-11900, VOL. V] 20 p3695 N67-35227
Sorption of uranium /VI/ from hydrofluoric acid solutions by weak-base anion exchange resins 21 p3770 N67-35319
Sorption of uranium /VI/ from hydrofluoric acid solutions by strong-base anion exchange resin 21 p3770 N67-35320
Sorption of uranium /VI/ on anion

exchange resins from sulfuric acid-hyrogen fluoride solutions 21 p3790 N67-35521
Sorption of uranium /VI/ from HCl-HF solutions by anion exchange resins 21 p3780 N67-35522
Determining parameters of uranium heavy water moderated lattices using few fuel rods [AECL-2503] 21 p3807 N67-35832
Far infrared spectrum of several salts of quadrivalent uranium [UCLA-34P103-3] 21 p3792 N67-36483
Direct current liquid bridge for determining conductivity of electrolytic solutions for treatment of uranium minerals [NP-16723] 21 p3793 N67-36521
Neutron spectrum resonance in erbium nitrate solution - neutron spectra in uranium and plutonium lattices [GA-7683] 21 p3793 N67-36536
Thermodynamic properties of self-diffusion in alpha-uranium 22 p4160 N67-36959
Polonium-210 half-life determination, polonium fluorine neutron sources, uranium-234 separation and purification, neutron activation analysis and nuclear magnetic resonance [MLM-1388] 22 p3989 N67-37617
Core physics calculations and economics of water moderated thorium - uranium epithermal breeder reactor [BNL-11463] 23 p4093 N67-37779
Evaluation of uranium heat vaporization from behavior of uranium-carbon system [LA-DC-8790] 23 p3992 N67-37928
Uranium fuel charge near equilibrium burnup in reactor reactivity change [AECL-2845] 23 p4006 N67-37997
Geological criteria for use in evaluating distribution pattern of uranium occurrences in Precambrium shields [EUR-3481.E] 23 p4243 N67-38237
Uranium content of uranium and uranium-aluminum solutions determined by potential control of coulometry [EUR-3691.F] 23 p4308 N67-38939
Bibliography of aluminum nickel uranium bonding - bonding processes, plating, and diffusion [BNWL-CC-1185] 23 p4260 N67-38992
Electroplating of uranium with protective nickel coating [SCL-DR-67-43] 23 p4261 N67-39289
Improved electroplating process for protective nickel coating of uranium [SCL-DR-67-44] 23 p4261 N67-39290
Resonance transparency factor measurements in uranium lattices [RT/FI/67/13] 24 p4494 N67-40549

URANIUM ALLOY

Spectrographic determination of silicon in uranium carbon silicon alloys using spark excitation under controlled argon atmosphere [CEA-R-2966] 01 p0022 N67-10777
Crystallographic study of orientational relationships between gamma to alpha phase transformations for uranium-molybdenum alloys [CEA-R-2973] 03 p0413 N67-13288
Beta to alpha isothermal transformation in pure and weakly alloyed uranium [CEA-R-2956] 03 p0414 N67-13332
Coulometric determination of carbon in plutonium and in uranium-molybdenum alloys [CEA-R-2968] 03 p0363 N67-13334
Analyses and techniques to determine mechanical and chemical properties of uranium, thorium, aluminum oxide, and magnesium fluoride metals and compounds [NLCO-920] 05 p0664 N67-14436
Preparation of single crystals of rare earth tungsten bronzes and uranium tungsten bronzes - X-ray diffraction, and electrical and magnetic properties of samples 07 p1175 N67-16972
Reactor stand, core design, and burst operation effects of uranium-molybdenum alloy fast burst reactor at White Sands Missile Range 07 p1125 N67-17062
Experimental results and calculations of reactivity effects in uranium-zirconium hydride fueled power excursions for SNAP reactor safety 07 p1125 N67-17065
Metallographic techniques for uranium sample preparation, and electron microscopy of uranium structures [MCW-1501] 06 p1291 N67-18875
Beta to alpha transformation characteristics of several dilute uranium alloys [MCW-1506] 06 p1291 N67-18888
Mechanical properties of dilute uranium alloys at elevated temperatures - tensile strength and hardness [MCW-1505] 11 p1896 N67-22391
Interdiffusion in zinc-uranium system, and determination of activation energy and coefficient [INR-752/XIV/PS] 11 p1930 N67-22959
Optical and electron microscopy studies of isothermal annealing characteristics of eutectoidal decomposition of uranium-base dilute aluminum alloys in beta phase 12 p2118 N67-24245
Metallographic preparation of irradiated zirconium 10 w/o uranium hydride 12 p2148 N67-24247
Notch tensile strength and mechanical properties of aluminum, titanium, uranium, and steel alloys [AMRA-TR-66-13] 12 p2119 N67-24412
Simplified metallographic techniques for uranium alloys, beryllium, and stainless steel [RFP-863] 12 p2120 N67-24551
Swelling of uranium aluminide-aluminum alloy fuel element compacts [ORNL-4056] 12 p2149 N67-24553
Structure of uranium alloys containing niobium affected by aging treatment [RT/MET/66/1] 13 p2337 N67-25609
Heat treatment effects and mechanical properties of uranium alloy determined in rolled and forged conditions [M67-1-1] 15 p2726 N67-28510
Metastable phases in uranium alloys with low niobium content and their thermal decomposition [RT/MET/66/2] 16 p2910 N67-29612
Rapid determination of carbon in uranium carbon alloys by thermoconductivity [CEA-R-3155] 17 p3015 N67-30687
Recovery of cesium 137 from uranium-molybdenum alloy fission product solutions [EUR-3451.F] 17 p3118 N67-31364
Separating forces, dimensional changes, and grain structures of rolled alloyed and unalloyed uranium billets [NLCO-990] 18 p3293 N67-31741
NaK encapsulation techniques - irradiation growth and cavitation swelling in uranium and uranium alloys [DP-MS-66-1] 18 p3298 N67-32424
Bench-scale studies on irradiated highly-enriched uranium alloy fuels in engineering development of fluid-bed fluoride volatility processes [ANL-6994] 19 p3493 N67-33734
Spectrophotometric determination of iron and aluminum in low-alloyed uranium alloys [UJV-1631] 20 p3597 N67-35118
Uranium alloy fuel element fabrication process development [EUR-3471.I] 20 p3885 N67-35137
Thermoconductivity, corrosion behavior, phase fields, eutectic points, and other properties of uranium plutonium carbon titanium alloys [CEA-R-3301] 21 p3868 N67-35635
Tensile properties of gamma quenched and aged uranium rich niobium alloys [RFP-933] 22 p4061 N67-37112
Irradiation of uranium-silicon alloy specimens clad in Zircaloy 2 [AECL-2884] 23 p4283 N67-38370
Small-quantity additions of molybdenum, zirconium, and niobium considered for improving behavior of uranium under neutron irradiation [EUR-3479.I] 23 p4285 N67-38837
Metallurgical properties of alpha-gamma uranium alloys from uranium molybdenum niobium vanadium titanium system [AMRA-TR-67-10] 24 p4467 N67-39997

URANIUM CARBIDE

Boron traces in uranium monocarbide, sintered aluminum powders, and terphenyls used in Orgel reactors [EUR-3073.I] 02 p0228 N67-11908
Corrosive action of hydrogen chloride on pyrolytic carbon coated uranium dicarbide beads [LA-3486] 03 p0358 N67-13866
X-ray studies on structure of pyrolytic carbon coatings deposited on spherical particles of uranium dicarbide [REPT.-752/IV,II/C] 04 p0566 N67-13897
Irradiation behavior of uranium carbide-silicon carbide dispersed fuel rods [TRG-1215/S/] 04 p0569 N67-14166
Powder metallurgy used for production of uranium monocarbide pellets [Y-1510] 06 p0914 N67-16825
Methods for burnup determinations in irradiated uranium carbide fuel specimens by measuring uranium 235 depletion, fission products, plutonium, and neutron flux [EUR-3123.E] 07 p1127 N67-17141
Calculation of neutron fluxes and related parameters for uranium carbide specimens 07 p1127 N67-17142
Dissolution of uranium carbide samples 07 p1025 N67-17143
Neutron flux measurements at surface of uranium carbide specimens using monitors dilute alloys of cobalt and silver in aluminum 07 p1127 N67-17151
Measurement of uranium 238 resonance neutron capture integral of uranium carbide clustered fuel elements containing moderating coolants [EUR-3152.E] 07 p1129 N67-17355
Irradiation behavior of unalloyed hypostoichiometric uranium carbide [NAA-SR-11440] 08 p1230 N67-18916
SAP clad uranium carbide fuel elements for NRX reactor [AECL-2571] 10 p1680 N67-20068
Post-irradiation metallographic examination of arc-cast hypostoichiometric uranium monocarbides 13 p2108 N67-24346
High temperature reactor research on carbides for fuel and structural applications 14 p2575 N67-26908
Preparation and stability of uranium carbide for determination of oxygen, hydrogen, and nitrogen by fusion under high vacuum [JEN-170-DQ/I-66] 14 p2480 N67-27326
Evaporation rates of thermal cathodes made of zirconium carbide, uranium carbide, and solid solutions [JPRS-40060] 14 p2804 N67-27385
Dissolution and precipitation of uranium carbides [NLCO-TR-8] 15 p2660 N67-28449
Effect of oxygen, nitrogen, and carbon on lattice parameter uranium monocarbide [ORNL-TR-1433] 16 p2961 N67-29276
Preparation of uranium carbide fuel rods from uranium hexafluoride and uranium oxide pellets [EUR-3467.D] 17 p3107 N67-30445
Uranium carbide-plutonium carbide for sodium cooled fast reactors [BMI-1799] 19 p3490 N67-33412
Measured physics parameters in zoned fast uranium carbide core [ANL-7281] 19 p3493 N67-33739
Chemical reactions of uranium, uranium dioxide, and uranium carbide with air and water vapor in temperature range from 600 to 1200 deg C [BMWF-FBK-67-13] 20 p3588 N67-34126
Uranium monocarbide prepared by reaction of uranium and carbon in liquid zinc magnesium alloy medium [ANL-7301] 20 p3592 N67-34406
Powder metallurgy of sintered uranium plutonium carbides [LA-DC-8675] 22 p4055 N67-37082
Modified melting, casting, and grinding techniques to improve surface finish of uranium carbide fuel slugs for heavy water organic cooled reactor [AI-CE-48] 24 p4491 N67-39859
Electron microscopy of irradiated uranium carbide fuel [AECL-2701] 24 p4493 N67-40359

URANIUM COMPOUND

Neutronics characteristics of fast reactors using uranium and plutonium fuels [BNWL-283] 01 p0110 N67-10849
Measuring apparatus for instant density determination of uranium ore [CEA-R-2919] 01 p0129 N67-10855
Reactor materials and components, ceramic and cermet fuels, uranium-plutonium nitride fuels, smoke photometer, and corrosion resistance of materials in fuel recovery process [BMI-1774] 02 p0385 N67-11709
Reactor materials and components, ceramic and cermet fuels, uranium-plutonium mononitride fuels, smoke photometer, coated particle fuels, and corrosion in fuel recovery process [BMI-1771] 02 p0385 N67-11710
Reactor heat rate and energy release studied on critical assemblies with beryllium oxide moderator and nonuniform uranium fuel distribution [JPRS-38833] 03 p0287 N67-12067

Synthesis of anhydrous uranyl nitrate 06 p0632 N67-16233
Irradiation stability of uranium oxide-zirconium oxide in comparison to uranium oxide and uranium oxide-beryllium oxide fuels
[BMI-1782] 06 p0914 N67-16385
Influence of thermal rating and bulk density on irradiation performance of fused uranium dioxide tubular fuel elements
[DP-1060] 07 p1131 N67-17470
Fraction determination of tributyl phosphate complexed by uranium and total concentration determination of tributyl phosphate in refinery solvent
[MCW-1435] 07 p1030 N67-17892
Spectrochemical method for determining individual rare earth elements in uranium ore concentrates and high purity uranium compounds
[MCW-1496] 08 p1238 N67-18773
Thermodynamic properties of uranium trichloride dissolved in molten alkaline chlorides
[EUR-3153.F] 09 p1413 N67-20338
Anomalous heat capacity of uranium dicarbide
[ORNL-TM-1595] 10 p1652 N67-20658
Spectrochemical analysis of sodium uranate
[JEN-164-DQ/I-67] 10 p1560 N67-21652
Stability of uranium /IV/ nitrate studied in aqueous nitric acid phase, in organic phase, and in emulsion of aqueous phase with organic phase
[NP-16328] 10 p1562 N67-21784
Hydrous uranium dioxide precipitates and sols examined by electron microscopy, electron diffraction, and spectrophotometry
[ORNL-3963] 11 p1808 N67-22324
Vapor-liquid equilibria of binary system uranium hexafluoride-niobium pentafluoride
[ORNL-TM-1663] 12 p2038 N67-23600
Metallurgy research in high temperature carbides, powder techniques, furnace equipment, spin casting, thorium, uranium, and tungsten alloys
[USBM-RC-1249] 12 p2107 N67-23953
Density, hardness, and thermal conductivity evaluated in production of uranium oxycarbide and oxycarbonitride specimens by powder techniques 12 p2117 N67-23957
Uranium nitride as nuclear fuel for high temperature reactors of high power densities 13 p2335 N67-25358
Critical constants of uranium dioxide assessed from low temperature vapor pressure and specific heat measurements to derive limits for equation of state
[TRG-1344/R/] 13 p2357 N67-25439
Compatibility of dispersion strengthened aluminum with uranium monocarbide
[ORNL-TM-1705] 13 p2359 N67-25594
Determination of nitrogen in uranium nitrides by inert gas fusion
[AERE-R-5247] 15 p2654 N67-27814
Aqueous corrosion and irradiation behavior of uranium silicide nuclear fuel used in CANDU type reactors - energy cost
[AECL-2874] 17 p2998 N67-30942
Uranium chlorides converted to uranic by gas-phase reduction hydrolysis
[ORNL-TM-1701] 17 p3151 N67-31357
Uranium-plutonium mononitride fuel for fast reactor application 18 p3293 N67-31902
Ceramic-coated uranium nitride and plutonium-base particle fuels for general use 18 p3293 N67-31904
Uranium plutonium nitride fuel materials for liquid metal fast breeder reactors 18 p3294 N67-32355
Applications of spectrophotometric titrations to analysis of uranium-containing solution
[CEA-R-3140] 19 p3385 N67-33655
Formation of uranium nitrides, LiF, and other complexes by chemical vapor deposition techniques
[ORNL-TM-1812] 19 p3397 N67-33898
Experimental studies of chemical reactions of uranium, uranium dioxide, and uranium carbide with air and water vapor at high temperatures
[BMWF-FBK-67-12] 20 p3589 N67-34100
Phase studies, X-ray, and metallographic examination of uranium nitrides and carbonitrides for reactor fuel application
[JUL-473-RW] 20 p3589 N67-34164
Metallographic preparation of pyrolytic carbon and/or tungsten coated uranium oxide and uranium carbide fuel spheres
[LA-DC-8676] 22 p4090 N67-37231
High melting point carbides, thorium alloy systems, UC-UN-UO for high temperature reactor fuel production, and W-Re-Mo alloys
[USBM-RC-1288] 23 p4074 N67-37901
Direct carbon replication of uranium tetrafluoride films on uranium dioxide
[LA-3705] 23 p4200 N67-38189
Synthesis and fabrication of uranium nitride - diffusion, creep, crystallogenics, particle size distribution, and solubility of high temperature nuclear fuels
[UCID-15125, PT. 1] 23 p4292 N67-38818
Neutron diffraction study of antiferromagnetism of polycrystalline uranium antimony and uranium bismuth coordination compounds
[INR-P-796/II/P6] 24 p4514 N67-39429
URANIUM FLUORIDE
Service life of reduction reactor vessels used for bomb reducing batches of uranium fluoride to uranium metal
[RFP-741] 01 p0165 N67-10525
Catalog of nuclear reactors fueled with uranium hexafluoride, gases, or plasmas
[ANL-7180] 06 p0915 N67-16523
Electrolytic reduction of uranium hexafluoride to uranium metal - molten barium fluoride-lithium fluoride-uranium tetrafluoride electrolyte mixture
[MCW-1497] 10 p1573 N67-20985
Conversion of uranium halides and uranium-zirconium fluorides to carbides
[EUR-3170.F] 10 p1574 N67-21019
Molal freezing point depression curve of uranium hexafluoride and application to method of analysis
[K-1667] 12 p2042 N67-24152
Construction of gaseous uranium fluoride cavity reactor critical experiment
[GEMP-472] 13 p2361 N67-25902
Mass spectrometric analysis of impurities in uranium hexafluoride
[CEA-R-3123] 19 p3395 N67-33654
Uranium hexafluoride specifications study for power reactor use
[ORO-656] 23 p4210 N67-39291
Solubility of uranium tetrafluoride in aluminum salt solutions
[JPRS-43026] 24 p4394 N67-39573
URANIUM OXIDE
Oxidation and chlorination of uranium oxide and plutonium oxide
[ORNL-3977] 01 p0031 N67-10732
Mechanism of failure in uranium oxide/stainless steel cermets
[TRG-1278/S/] 02 p0289 N67-11751
Knock-out coefficient of sintered uranium dioxide wafers following thermal neutron irradiation
[EUR-3050.E] 02 p0286 N67-11805
Cooling rate effects on post-irradiation structures of uranium oxide fuel elements
[AECL-2587] 03 p0423 N67-13475
Irradiation experiment to determine uranium oxide compatibility with refractory metals, oxides, and graphite
[AECL-2601] 03 p0426 N67-13583
Oxidation risks during uranium dioxide sintering and characterization of excess oxygen
[CEA-R-3003] 03 p0361 N67-13382
High temperature tests on tungsten coated uranium oxide-molybdenum cermets for thermionic nuclear fuel elements
[BMWF-FBK-66-06] 03 p0427 N67-13386
Thermal conductivity values of uranium dioxide for use in superheater design
[ORNL-TM-1450] 03 p0475 N67-13239
Melting points of hypostoichiometric uranium dioxide
[BNWL-234] 04 p0658 N67-13622
Effects of graphite electrodes on carrier distillation of impurities in uranium oxide
[NLCO-976] 04 p0501 N67-13653
Elasticity and anelasticity of uranium oxides at room temperature
[ANL-7161] 04 p0659 N67-13839
Uranium oxide and plutonium oxide fuel element clusters for high power density core of plutonium recycle test reactor
[BNWL-231] 04 p0676 N67-14080
Buckling measurements of uranium dioxide and deuterium oxide made by flux mapping for application to pressure vessel reactors
[AE-354] 04 p0660 N67-14141
Interaction of chlorine with uranium oxide in raw material 06 p0827 N67-16230
Continuous process for peroxide precipitation of uranium from nitrate solutions
[ISO-397] 06 p0630 N67-16581
Sintering behavior and phase structure characteristics of europium oxide-uranium oxide binary system
[GEAP-5098] 07 p1177 N67-17405
Cost of vibrational compacted or pellet oxide fuel elements enriched with uranium-235 or plutonium
[BNWL-273, VOL. 1] 07 p1130 N67-17444
Apparatus for handling uranium dioxide specimens irradiated with different neutron flux doses for releasing fission gases from samples
[EURAEC-1667] 07 p1134 N67-17575
Effect of milling upon microstructure of uranium dioxide powder
[TRG-1361/S/] 07 p1136 N67-17983
High temperature effects on tungsten coated uranium oxide-molybdenum cermets for thermionic reactor 08 p1308 N67-18219
Self-diffusion coefficients of uranium and plutonium measured in uranium oxide at 2400 deg C
[GEAP-4877] 09 p1311 N67-18983
Irradiation behavior of uranium oxide and plutonium oxide fuels in plutonium recycle test reactor
[BNWL-SA-791] 09 p1311 N67-18991
Fabrication of uranium oxide-plutonium oxide vibratory compacted fuel rods
[EURAEC-1964] 09 p1230 N67-19099
Electrical conductivity of uranium dioxide - single crystals
[BNWL-296, PT. 1] 09 p1352 N67-19099
Slacked-cions solvent extraction contactor, power reactor fuel processing, thorium fuel cycle, uranium oxide-sol preparation, and fluidized bed volatility processing
[ORNL-3995] 09 p1406 N67-19510
Oxide spherule preparation for thorium or thorium uranium oxide cycling 09 p1406 N67-19513
Uranium oxide-sol preparation in sol-gel process development for ceramic fuel cell mixtures 09 p1406 N67-19514
Laboratory process for electroreduction of uranium oxides to uranium metal in molten fluoride-salt electrolyte
[MCW-1500] 09 p1412 N67-20215
Examination of zircaloy clad uranium dioxide fuel bundle defect from NPD reactor
[AECL-2966] 09 p1481 N67-20218
Uranium oxide fuel for thermionic energy conversion
[CONF-661005-9] 10 p1670 N67-20943
Sol-gel preparation of lanthanum oxide microspheres, and characterization of sols and gels of lanthanide hydroxides, thoria, uranic, and plutonia
[ORNL-TM-1582] 10 p1572 N67-20990
Irradiation behavior of low density uranium oxide-SS cermet fuel for fast breeder ordered bed reactor
[BNL-16521] 10 p1670 N67-20910
Dynamic steam corrosion tests on Zircaloy-4 clad uranium dioxide to determine amount of oxide, oxygen-saturated metal, and unaltered metal at various temperatures 11 p1802 N67-22021
Out of pile evaluation of tungsten rhenium thermocouple systems for use in measuring plutonium oxide and uranium oxide fuel temperatures
[GEAP-5166] 12 p2040 N67-23597
Tests and analysis of experimental assembly of nuclear fuel with sintered uranium dioxide cores in zirconium alloy jackets with maximum uranium burnup
[IAE-1181] 12 p2145 N67-23734
Autoradiography method for differentiating plutonium dioxide from uranium dioxide in irradiated mechanically mixed oxide fuels
[APCRL-65-747, PT. I] 12 p2149 N67-24240
Thermal release of krypton from thin uranium dioxide layers, and determination of activation energy
[EUR-3257.f] 12 p2044 N67-24296
Liquid curve for uranium-dioxide uranium system at high temperature
[CEA-R-3060] 12 p2045 N67-24681
Characteristics of uranium oxides produced by thermal and oxygen-ion bombardment techniques
[RFP-963] 13 p2356 N67-25216
Growth of uranium oxide, various lanthanides, and other single crystals 13 p2359 N67-25342

Fabrication cost effects on plutonium dioxide uranium dioxide fuel element design parameters and model for cost estimates
[BNWL-1318] 14 p2574 N67-26824
Release of fission gases from uranium dioxide samples irradiated to various doses
[EURAEC-1772] 14 p2577 N67-27345
Phase relations in beryllium-oxide plutonium-oxide uranium-oxide pseudo ternary system
[BNWL-350] 14 p2579 N67-27595
Preparation of dense uranium oxide gels and aggregates from uranyl nitrate solution
[AERE-R-5241] 14 p2484 N67-27625
Fission product migration studies using lithium drifted germanium detector for gamma scanning experiments on irradiated uranium dioxide pellets
[AE-272] 15 p2743 N67-27854
Comparisons of theoretical and experimental data on control rods of water moderated uranium dioxide reactor
[RT/FI/66/10] 15 p2748 N67-28447
Sintering uranium and thorium oxides
[WAPD-TRANS-41] 15 p2731 N67-28461
Sintered thorium oxide-uranium oxide ceramic fuel
[WAPD-TRANS-42] 15 p2749 N67-28462
Behavior of crystals and voids in centrally heated uranium dioxide green pellets
[WAPD-TRANS-47] 16 p2961 N67-29274
Examination of failed Zircaloy sheathed fuel rod operating with molten uranium dioxide zirconium dioxide calcium oxide fuel
[WAPD-TM-593] 16 p2931 N67-29731
Neutron absorbers and pulsed neutron research in Nora reactor uranium oxide and water lattices
[IAEA-2496-16] 16 p2932 N67-29781
Fission gas diffusion and release of cylindrical uranium oxide fuel rods
[HMI-B-49] 16 p2932 N67-29785
Reactor tests on high power density fuel bundle cores
[GEAP-5486] 16 p2933 N67-29786
Thermodynamic, crystallographic, optical, and electric measurements on structural defects in uranium oxide crystals
[CEA-S-5] 17 p3105 N67-30322
One-module, two-module, and three module cores, containing highly enriched uranium dioxide seeds and thorium dioxide blankets, studied to compare design calculations with measured core parameter
[WAPD-TM-621] 17 p3110 N67-30911
Feasibility of aqueous reprocessing of zirconium dioxide-uranium dioxide fuels
[IN-1069] 17 p3111 N67-30927
Plant-scale fluid-bed denitrator for producing highly reactive uranium trioxide
[MCW-1500] 17 p3017 N67-31045
Irradiation behavior of vibrationally compacted uranium oxide-plutonium oxide fuel elements under power reactor conditions
[BNWL-366] 18 p3292 N67-31702
Uranium oxide-plutonium oxide fuel pellets for irradiation testing
18 p3294 N67-31906
Reaction of molten uranium dioxide with water at various water temperatures
[BNWL-363] 18 p3294 N67-32106
Uranium dioxide plutonium dioxide fuel elements for gas cooled fast reactor irradiation experiment
18 p3295 N67-32358
High burnup effects on uranium dioxide cerium dioxide and uranium dioxide zirconium dioxide reactor fuels
18 p3295 N67-32359
Capsule design for isothermal irradiation of uranium dioxide fuel
18 p3297 N67-32418
In-pile measurement of thermal electromotive force of uranium dioxide fuel core during irradiation
[BNWL-SA-680] 18 p3299 N67-32427
Dilatometer for measuring axial displacement of uranium dioxide fuel pellets during irradiation
[ORNL-P-2179] 18 p3299 N67-32429
Preparation of uranium-plutonium mixed oxides for fast reactor application using gel addition process
[BAW-3714-2] 19 p3491 N67-33235
Tests conducted to determine transport behavior of iodine and uranium dioxide aerosols in air
[ORNL-4056] 19 p3490 N67-33245
Preparation and characterization of uranium oxide for high flux isotope reactor fuel pellets
[ORNL-4062] 19 p3490 N67-33393
Polarographic determination of uranium oxide composition
[CEA-R-3186] 19 p3392 N67-33404
Nuclear properties of water-moderated slightly enriched uranium dioxide lattices perturbed by clusters of gold-indium-cadmium poison pins and dissolved boric acid
[BAW-3647-3] 19 p3491 N67-33653
Plutonium-uranium mixed oxide fuel pellet for experimental fast oxide reactor
[GEAP-5285] 19 p3494 N67-33845
Zircaloy-2 clad uranium oxide fuel rod design for irradiation in power reactor
[GEAP-5402] 19 p3495 N67-33899
Irradiation properties of high energy rate pneumatically impacted uranium oxide and plutonium oxide reactor fuels
[BNWL-356] 20 p3683 N67-34784
Uptake of plutonium in different valence states by urania gels in nitric acid solution
[BAW-3714-1] 20 p3597 N67-35127
Physical characteristics of U02 fuel specimens for Army PM reactor fuel experiments to study radiation effects in pressurized water reactor
[ORNL-TM-1783] 21 p3885 N67-35388
Atmospheric effect on sintering high surface area uranium dioxide powders
[NLIS-R-501] 21 p3874 N67-35746
Fabrication of uranium dioxide plutonium dioxide and thorium dioxide plutonium dioxide fuel elements
[AECL-2675] 21 p3889 N67-36185
Precipitation-peptization method for preparation of mixed thoria-urania sols
[ORNL-TM-1782] 21 p3785 N67-36295
Production engineering for cylindrical seed and blanket type nuclear fuel pellets
[WAPD-TM-578] 21 p3890 N67-36397
Irradiation testing of six high performance uranium dioxide fuel assemblies in power reactor
[GEAP-5487] 21 p3890 N67-36516
Phase relations, production, and characteristics of substoichiometric oxide fuels - uranium oxide and uranium plutonium oxide
[KFK-545] 21 p3892 N67-36594
High conversion critical experiments for extending range of measured nuclear parameters of light water moderated slightly enriched uranium dioxide lattices
[ANL-7209] 21 p3893 N67-36595
Calculation methods for phase diagrams of binary oxyde systems from thermodynamic data
[TUBIK-2] 21 p3876 N67-36647
Fission product gas pressure measurements of uranium dioxide fuel elements during operation
[AECL-2662] 22 p4090 N67-37069
Convective heat transfer in molten center uranium dioxide fuel rods
[BNWL-418] 22 p4090 N67-37108
Thermal conductivity measurements on magnesium oxide, beryllium oxide, thorium oxide, thorium uranium oxide, and aluminum uranium oxide
[ORNL-4121] 22 p4163 N67-37420
Chemical thinning of pneumatically impacted uranium oxide for electron transmission microscopy
[BNWL-416] 22 p3966 N67-37422
Method for depositing depleted and enriched uranium oxide coatings by flame spraying with oxyacetylene powder-feed type gun
[LA-3677] 22 p4054 N67-37431
Effects of uranium oxide crystalline binding on Doppler coefficient calculations for fast reactor systems
[BNWL-442] 22 p4092 N67-37434
Improving uptake of plutonium on uranium oxide gel spheres, decreasing attrition and losses of gel spheres, and determining plutonium distribution in contacted gel and fired oxide spheres
[BAW-3714-3] 22 p3966 N67-37486
Chlorine fluorides for reprocessing Zircaloy clad uranium oxide and plutonium oxide nuclear fuels
[ANL-TRANS-478] 22 p3969 N67-37871
High temperature compatibility of uranium dioxide fuel contained in tungsten-rhenium alloy
[NASA-CR-72283] 22 p4093 N67-37945
Thermal decomposition of uranium oxides in vacuum
[JPRS-42361] 23 p3991 N67-37950
Irradiation behavior of uranium oxide-plutonium oxide and thorium oxide-plutonium oxide fuel assemblies
[AECL-2674] 22 p4094 N67-37971
Nondestructive testing of plutonium dioxide and uranium dioxide fast reactor fuels
[NUMEC-3534-27] 22 p4095 N67-37989
Monte Carlo calculation on neutron flux distribution in urania rod cluster
[BNWL-SA-1176] 22 p4095 N67-37993
Rodded uranium oxide fuel bundles for high power reactor output
[AECL-2945] 23 p4283 N67-38073
Design of Zircaloy-2 uranium oxide nuclear fuel elements for Canadian heavy water power reactor
[AECL-2949] 23 p4283 N67-38101
Preliminary calculations for water-moderated lattices of uranium dioxide-4 wt. percent plutonium dioxide fuel rods
[BNWL-CC-1205] 23 p4287 N67-38632
Behavior of Zircaloy-2 and Zr-2.5 percent Nb clad uranium dioxide fuel in organic coolant
[AECL-2661] 23 p4287 N67-38644
Optical absorption spectra of uranium oxide and its solid solutions
[WAPD-318] 23 p4308 N67-38964
Preparation of ceramic high density pellet compacts of uranium dioxide from powder form
[Y-DA-1733] 23 p4280 N67-39024
Specific surface measurements of sintered uranium oxide samples by BET method using xenon 133
[EURAEC-1863] 23 p4270 N67-39221
Oxygen self-diffusion profile in solid uranium dioxide samples
[CEA-R-3179] 23 p4271 N67-39250
Fission gas collection technique for quantitative gas retention measurements in irradiated molybdenum-uranium dioxide cermet fuel
[LA-3718] 23 p4210 N67-39297

URANIUM 232
Tabulation of total neutron cross section of uranium 232 determined with materials testing reactor fast chopper
[IN-1015] 12 p2169 N67-24559

URANIUM 233
Fission fragment angular distributions in neutron fission of plutonium 239, uranium 233, and uranium 235
[LA-TR-66-41] 07 p1148 N67-17412
Neutron cross section of uranium 233 fission from 20 eV to 2 MeV
08 p1340 N67-18851
Analytical fits to absorption and fission neutron cross sections of uranium 233, uranium 235, plutonium 239, and plutonium 241
08 p1341 N67-18860
Neutron energy detection in yield of high kinetic fission fragments from uranium 233, uranium 239, and plutonium 239
[IN-1033] 12 p2169 N67-24573
Burnup determination of nuclear fuels, measuring fission products and capture-fission ratio for uranium 233 and 235
[IDO-14678] 13 p2357 N67-25391
Fabrication of fuel rods containing U-233 pelletized oxide fuels
[WAPD-TM-588] 15 p2747 N67-28359
Uranium 233 fission and capture cross sections and their analysis at low energies
[LA-3676-MS] 19 p3504 N67-33945
Neutron capture and fission cross sections for uranium 233 used in reactor design applications
[ORNL-TM-1781] 19 p3509 N67-33778
Differential neutron energy spectrum measurements on uranium 233 and uranium 235 fuelled beryllia moderated assemblies in Moata reactor
[AAEC/E171] 20 p3679 N67-34187
Calculated critical radii of plutonium 239 and uranium 233 with various spherical reflectors
[RFP-956] 22 p4092 N67-37495
Solvent extraction process for separating uranium from thorium, plutonium, polonium, iron and cobalt
[BNWL-440] 24 p4398 N67-39751

URANIUM 235
PHOEBE computer code for calculating decay properties of uranium 235 fission products
[ORNL-3921] 01 p0130 N67-10886
Ratio of capture to fission cross sections of uranium 235 and plutonium 239
[AECL-2618] 03 p0441 N67-13936
Uranium fueled reactor experiments for

checking nuclear data on uranium 235 and 238 over 10 to 500 keV energy range [AWRE-R-5/66] 04 p0575 N67-13961
Mixing and sampling characteristics of enriched uranium 235 fluid in cylindrical storage tanks [Y-1502] 07 p1024 N67-17080
Methods for burnup determinations in irradiated uranium carbide fuel specimens by measuring uranium 235 depletion, fission products, plutonium, and neutron flux [EUR-3123.E] 07 p1127 N67-17141
Isotopic determination of uranium 235 at low concentration by optical spectrography 07 p1023 N67-17144
Measurement of uranium 235 content in uranium by activation technique 07 p1023 N67-17145
Fission fragment angular distributions in neutron fission of plutonium 239, uranium 233, and uranium 235 [LA-TR-66-41] 07 p1148 N67-17413
Elastic and inelastic neutron scattering, U 235 and Pu 239 reactions, target neutron spectrum and angular distributions, gamma ray ratios, and radiative capture research 08 p1229 N67-18247
Thermal neutron ratio for lithium 6 and uranium 235 fission cross sections 08 p1340 N67-18842
Critical evaluation of fast fission cross sections of uranium 235, uranium 238, plutonium 239, and plutonium 240 08 p1317 N67-18846
Measurements and calculations of Doppler effect on uranium 238, uranium 235, and plutonium 239 reactions with neutrons 08 p1341 N67-18855
Preparation of microscopic cross sections of uranium 235 for high temperature reactor calculations 08 p1317 N67-18856
Fission cross section of uranium 235 measured by time of flight using neutrons generated by underground nuclear explosion 08 p1318 N67-18858
Analytical fits to absorption and fission neutron cross sections of uranium 233, uranium 235, plutonium 239, and plutonium 241 08 p1341 N67-18860
Epithermal neutron induced fission cross section of uranium 235 08 p1341 N67-18862
Assay method of uranium 235, uranium 238, and neptunium 237 fission foils by two pi and low geometry alpha counters 08 p1341 N67-18863
Direct zero power reactor measurements of neutron capture-to-fission ratio, and results of uranium 235 measurements 08 p1342 N67-18871
Beta dose rates from neutron irradiated uranium 235 carbide particles [USNRDL-TR-1062] 09 p1479 N67-19774
Time of flight measurements of neutron spectra in uranium 235 and tungsten [GA-7427] 09 p1480 N67-20160
Energy sensitive, average, cross section ratios for fast neutron spectra at center of bare and natural uranium-reflected spheres of Pu-239, U-233, and U-235 [LA-DC-7851] 10 p1732 N67-21787
Mixing and sampling enriched uranium 235 fluids in cylindrical storage containers [Y-1561] 11 p1854 N67-22332
Interaction of neutrons with uranium-235 to determine average cross sections of fission and radiation capture [FTD-HT-66-338] 11 p1935 N67-22443
Exposure rate from products of fast neutron fission of U-235 and U-238 [USNRDL-TR-1106] 11 p1937 N67-22674
Neutron energy detection in yield of high kinetic fission fragments from uranium 233, uranium 235, and plutonium 239 [IN-1033] 12 p2169 N67-24573
Critical dimensions of systems containing uranium 235, plutonium 239, uranium 233, and concepts of nuclear safety [ORNL-P-2741] 13 p2359 N67-25525
Beta radiation spectra uranium 235 fission products at selected times after fission [NASA-CR-84001] 13 p2380 N67-26173
Chemistry and nuclear chemistry of heavy elements [COO-347-28] 16 p2950 N67-29714
Burning process of nuclear fuels - uranium 235 thermal fission yields and spectrophotometric method for determining technetium fission yields for uranium 233 and 235 [IN-1064] 16 p2994 N67-29856
Recoil range of fission fragments 17 p3104 N67-30175
Gamma radiation spectrum produced by uranium 235 fission products, and effective absorption coefficients 17 p3114 N67-31257
Critical mass reduction of uranium 235 in polyethylene reactor core [LA-3651] 19 p3488 N67-33099
Experiments with mass spectroscopically separated fission product ions from uranium 235 [BMWF-FBK-67-02] 19 p3495 N67-33916
Comparison of resonance absorption theory used in GYMEA and PEAS codes with exact solutions for resonances in thorium 232, uranium 235, and plutonium 240 [AAEC/TM363] 20 p3673 N67-34377
Uranium 235 fuel increase required for insertion of enriched boron rod in Mesta reactor [AAEC/E181] 20 p3680 N67-34384
Relative spectral intensities of light charged particles associated with thermal neutron fission of uranium 235 [INR-765/IA/PL] 20 p3702 N67-35126
Prompt neutron emission from uranium-235 fission fragments [AWRE-O-43/67] 24 p4494 N67-40419
URANIUM 238
Uranium resonance shielding of epicadmium reactions in uranium, plutonium, and manganese detectors [AEEW-R-483] 02 p0885 N67-11744
Uranium fueled reactor experiments for checking nuclear data on uranium 235 and 238 over 10 to 500 keV energy range [AWRE-R-5/66] 04 p0575 N67-13961
Measurement of uranium 238 resonance neutron capture integral of uranium carbide clustered fuel elements containing moderating coolants [EUR-3152.E] 07 p1129 N67-17335
Spontaneously fissionable isomer produced in carbon 12 reactions with uranium 238 [JINR-P-2941] 07 p1153 N67-17597
Crystalline binding energy effects on resonance line shapes of uranium-238 in uranium oxide lattice 08 p1314 N67-18791
Measurements on capture cross section of uranium 238 with bomb source neutrons 08 p1340 N67-18843
Measurements and calculations of Doppler effect on uranium 238, uranium 235, and plutonium 239 reactions with neutrons 08 p1341 N67-18855
Assay method of uranium 235, uranium 238, and neptunium 237 fission foils by two pi and low geometry alpha counters 08 p1341 N67-18863
Ternary fission of uranium 238 induced by neon 22 ions [JINR-E7-2924] 10 p1719 N67-21489
Chemistry and nuclear chemistry of heavy elements [COO-347-28] 16 p2950 N67-29714
Pulsed neutron measurements on capture and transport cross sections in lead and uranium 238 [KFK-451] 16 p2948 N67-29799
Representation of resonance cross section of uranium 238 and plutonium 239 in calculations of fast and intermediate reactors [BNL-TR-119] 16 p2994 N67-29836
Effective resonance integral and Doppler coefficient of uranium 238, thorium 232, and plutonium 240 using code complex LUBRA [AAEC/E168] 20 p3682 N67-34662
Ternary fission of uranium 238 and thorium 232 nuclei by 2.9 MeV neutrons [INP-547/PL] 24 p4561 N67-40699
URANUS
Flyby and orbiter missions to Saturn, Uranus, Neptune, and Pluto using nuclear electric low thrust stage and Saturn-Centaur launch vehicles [NASA-CR-89046] 04 p0614 N67-14253
URANYL
Preparation of mixed fission products insoluble aerosols using ion exchange of uranyl nitrate with montmorillonite clay [LF-31] 08 p1304 N67-19229
Density-concentration ratios of aqueous uranyl nitrate solutions [JEN-166-DMA/I-30] 10 p1580 N67-21646
Half-life of radioactive elements, plutonium 238 valence instability, thorium 229 recovery, uranyl nitrate hydrolysis, and radium 228 decay [MLM-1942] 13 p2371 N67-25432
Molecular spectroscopy - multiplicities of phosphorescent states of organic molecules, polarization of absorption of uranyl nitrate, and electronic structure of S-S bond [TID-23756] 17 p3132 N67-30928
Uranyl nitrate purification by zone refining 21 p3777 N67-33804
Sorption isotherms of uranyl sulfate complexes by anion exchange resins 21 p3779 N67-33818
UREA
Blood-urea method for analysis of heavy muscular work effect on human renal function [NASA-TT-F-11190] 24 p4386 N67-40220
URETHANE
SA POLYURETHANE
SA POLYURETHANE FOAM
Solvent-resistant urethane-type sealants with high mechanical properties and excellent adhesion to aluminum substrates [AD-656315] 16 p2943 N67-29821
Preparation and physical properties of rigid ferrocene-urethane foam [SC-DC-67-1831] 23 p4270 N67-38833
URINE
Comparing laboratory accelerator effects with space flight effects on excretion of 17-oxycorticosteroids in urine 02 p0123 N67-11439
Physiological assessment of pilots on 18-hour flight in F-4C aircraft from postflight urinalysis [SAM-TR-66-59] 03 p0340 N67-12482
Ammonium molybdophosphate as sorbent for determining cesium 137 in water and urine 06 p0821 N67-16226
Biochemical stabilization of aqueous solutions of urine by unsaturated flow through columns of sand ripened with settled municipal sewage [NASA-CR-81671] 07 p1017 N67-18131
Prototype development of water recovery system for manned spacecraft based on electrochemical treatment of urine [NASA-CR-66223] 11 p1901 N67-22324
Water recovery analysis of human urine and atmospheric condensate [AMRL-TR-66-127] 18 p3230 N67-32980
Chemical method of astronaut urine volume measurement by tritium tracer dilution system [NASA-CR-85822] 20 p3577 N67-34513
Collection and preservation of blood, urine, and feces and sweat samples obtained during space flights [NASA-CR-89236] 23 p4196 N67-37561
Hydrogen ion concentration fluctuations in urine, and correlation with simultaneously measured carbon dioxide tension in arterial blood [NASA-TT-F-11393] 24 p4385 N67-40006
UTILITY AIRCRAFT
Test program of flexible wing light utility glider [USAAVLABS-TR-66-2] 06 p0789 N67-15898
Wind tunnel studies of flight characteristics of model parawing utility vehicle [NASA-TN-D-3673] 08 p0798 N67-16004

V

V/STOL
Feasibility of V/STOL propulsion concepts for short haul transport aircraft [NASA-CR-670] 05 p0621 N67-14709
Flight tests with helicopter on V/STOL approach system [FAA-RD-66-69] 12 p2012 N67-23012
Helicopter flight tests on V/STOL approach system [RD-66-95] 14 p2373 N67-27728
Weight standardization, tilt and stopped rotor optimization, and noise sensitivity analysis of V/STOL concepts for short-haul transport aircraft [NASA-CR-73111] 19 p3196 N67-33476
Economic and technical feasibility of all weather vertical short takeoff and landing transportation system [RD-67-36] 22 p3980 N67-36397
Longitudinal aerodynamic characteristics in ground effect of V/STOL model with four tilting ducted fans in dual tandem arrangement [NASA-TN-D-4218] 24 p4374 N67-39859
V/STOL AIRCRAFT
SA STOL AIRCRAFT
SA VTOL AIRCRAFT
Technical and economic evaluation of

V/STOL aircraft for intercity short haul transportation
[E390] 02 p0174 N67-12024
Engine inlet temperature rise of jet V/STOL aircraft in ground effect
[REPT.-2000-928003] 05 p0632 N67-15015
Longitudinal aerodynamic characteristics of large semispan V/STOL tilt-wing configuration with single propeller rotating in both left and right directions
[NASA-TN-D-3754] 07 p0969 N67-17622
V/STOL aircraft stability parameters for hovering through transition for improving ground
[FTC-TR-66-29] 07 p0992 N67-17673
Importance of low speed control for V/STOL aircraft
[AEDC-TR-66-295] 10 p1554 N67-29708
Supersonic transport, jet, and V/STOL aircraft for future air transportation
11 p2002 N67-22265
Dynamic model monorail track for studying dynamic stability and control of helicopters and V/STOL aircraft
[USAAVLABS-TR-66-73] 11 p1855 N67-23608
Wind tunnel tests to determine longitudinal aerodynamic characteristics of large scale semispan V/STOL tilt-wing configuration with single propeller
[NASA-TN-D-3884] 12 p2009 N67-23793
Thermodynamic, aerodynamic, mechanical, and systems studies of lift fan concepts for V/STOL transport and supersonic fan-in-wing fighter aircraft
[NASA-CR-761] 12 p2016 N67-25046
Flight test of V/STOL height control requirement for hovering and low speed flight under visual conditions
[NASA-TN-D-3977] 12 p2016 N67-25058
Low speed wind tunnel measurements of yaw damping derivative on A.R.9 jet-flap complete model of V/STOL aircraft
[ARC-CP-869] 13 p2347 N67-26152
Feasibility of V/STOL concepts for short-haul transport aircraft
[NASA-CR-743] 15 p2640 N67-28369
Low speed wind tunnel tests of powered scale model of open-ocean V/STOL aircraft
[DTMB-2161] 16 p2817 N67-29049
Fluidic sensing amplification and hydraulic yaw rate damping system for control of UH-1B helicopter and V/STOL aircraft
[REPT.-15-003R] 16 p2817 N67-29058
Correlation of wind tunnel and flight test aerodynamic data for five V/STOL aircraft
[AGARD-520] 16 p2818 N67-29536
Moving belt rig for ground effect simulation in low speed wind tunnels, and boundary layer ground measurements
[ARC-R+M-3451] 16 p2874 N67-29866
Performance characteristics and flow patterns of box type high intensity combustors for V/STOL aircraft gas turbines
[NAL-TR-126] 16 p2964 N67-30102
Performance characteristics of box type high intensity combustors for V/STOL aircraft gas turbines
[NAL-TR-118] 16 p2964 N67-30103
Conceptual design study for V/STOL jet aircraft
[NASA-CR-66420] 16 p2220 N67-30153
Bibliography containing abstracts and indexes on V/STOL aircraft
17 p2994 N67-30799
Principal noise problems for propeller and jet powered V/STOL aircraft, large high altitude supersonic aircraft, and special mission aircraft for supersonic flight at low altitudes
19 p3386 N67-33078
Hot gas fluidic diverter valve for V/STOL aircraft
[HDL-TR-1348] 19 p3389 N67-33293
Aerodynamic characteristics of V/STOL transport model powered by lift and rotating cruise fans
[NASA-TN-D-4092] 19 p3367 N67-33454
Northrop modified T-38A V/STOL jet operation research aircraft design
[NASA-CR-66719] 19 p3368 N67-33579
Specifications, propulsion, thermodynamic data, weight, and balance analyses for V/STOL jet operations research aircraft
[NASA-CR-66421] 19 p3368 N67-33925
Stability, control, structure, cockpit, and subsystem design studies for V/STOL turbojet operations research aircraft
[NASA-CR-66422] 19 p3568 N67-33926
Specifications for Northrop N-260 NASA V/STOL jet operations research aircraft
[NASA-CR-66417] 20 p3565 N67-34463
Variation of net thrust and power with airspeed for V/STOL aircraft
[LR-470] 20 p3566 N67-34660
Design specification guidelines for experimental fighter-type V/STOL aircraft
[NASA-CR-66418] 20 p3566 N67-34706
Longitudinal aerodynamic characteristics of large scale semispan V/STOL tilt-wing configuration having single propeller
[NASA-TN-D-4030] 20 p3563 N67-35206
Preliminary design and specifications for N-300 NASA V/STOL jet operations research vehicle
[NASA-CR-66063] 21 p3756 N67-36593
Aerodynamic characteristics of wings with gated spoilers and handling quality problem in tilt-wing V/STOL aircraft
[NSRDC-2466] 22 p3955 N67-38940
Injectors for simulating jet lift engine intake and exit flows of V/STOL low speed wind tunnel models
[ARC-R+M-3464] 22 p4133 N67-37120
Helicopter rotor and V/STOL propeller testing system in sonic wind-tunnel
[TP-494/1967/] 22 p4020 N67-37319
Feasibility of V/STOL concepts for short haul transport aircraft
[NASA-CR-902] 23 p4177 N67-38332
Review of studies on V/STOL aircraft jet exhaust into subsonic crossflow
[AEDC-TR-67-163] 24 p4373 N67-39617
Standardized list of definitions associated with Vertical and Short Takeoff and Landing /V/STOL/ aircraft terminology
[AFFTC-SP-67-1001] 24 p4374 N67-39741
Aerodynamic characteristics of V/STOL transport model with wing-mounted lift fans - large-scale wind tunnel investigation
[NASA-TN-D-4233] 24 p4375 N67-40198
V-5 AIRCRAFT
S XV-5 AIRCRAFT
V-9 AIRCRAFT
S XV-9A AIRCRAFT
VACILLATION
S PERIODICITY
VACUUM
SA HIGH VACUUM
SA ULTRAHIGH VACUUM
Combustion of mixtures containing potassium perchlorate oxidizer and metal fuels in vacuum
[ATD-66-76] 08 p1380 N67-18215
Vacuum techniques in high voltage accelerator program
09 p1430 N67-19450
Technique for growing superconducting tunnel diodes using substrate holder in vacuum
[AFCRL-66-750] 11 p1837 N67-22541
Force cycle of vacuum gasket seals
[IA-1089] 12 p2106 N67-23737
Vacuum-enclosed Fabry-Perot interferometric observations of krypton 86 and xenon 136 infrared spectra
12 p2154 N67-23783
Electric breakdown and insulation of high voltages in vacuum
19 p3434 N67-33907
Rare earth chelate lasers, helium production, gas lasers, cryogenics, noise in magnetic films, seismology, cosmic rays, vacuum physics, and geomagnetic field and paleomagnetism
20 p3849 N67-34818
Mechanical properties of lubrication system components in vacuum environment
21 p3862 N67-36217
Vacuum fusion technique for determining gases in metals and alloys
[BARC-377] 23 p4201 N67-38248
Vacuum evaporation of thin film nuclear targets
[AWRE-O-32/67] 24 p4504 N67-40492
VACUUM CHAMBER
Friction tests of aluminum specimens in ultrahigh vacuum chamber to check operational performance of equipment and instrumentation
[MD-66-2] 01 p0073 N67-10625
Vacuum chamber testing of astronomical instrument mirrors
07 p1059 N67-17180
Lubricant leakage rate through noncontact slinger pump and screw seal assembly to simulated space vacuum environment
[NASA-TN-D-3843] 07 p1092 N67-17506
Effect of test chamber pressure level on accuracy of deep space heat transfer simulation
[NASA-TM-X-1356] 07 p1209 N67-17513
Vacuum chamber designs for proton and electron synchrotrons
09 p1430 N67-19379
High solid angle alpha counter - detector, vacuum chamber, electronics, geometry, and performance in measuring activity of americium-241
[NP-TR-1428] 10 p1711 N67-26971
Experimental analysis of vacuum deterioration due to nozzle geometry of charge-exchange chamber for supersonic gas jet
11 p1857 N67-21989
Vacuum chamber characteristics and tungsten, tungsten oxide, gold tunnel junction fabrication for tunnel emission cold cathodes
11 p1785 N67-22161
Longitudinal instability of azimuthally uniform beams in circular vacuum chamber with walls of arbitrary electric properties
[CERN-67-2] 11 p1993 N67-22991
Elevated temperature fatigue of TZC molybdenum alloy determined in high frequency and high vacuum tests
[NASA-CR-72241] 14 p2556 N67-27228
Various facets of thermal testing of space vehicles in cold vacuum chambers, with and without solar simulation
[AEDC-TR-67-38] 16 p2963 N67-28897
Vacuum chambers for particle irradiation of thermal control coatings, and testing of paint samples of alkali silicates and methyl silicones
18 p3284 N67-32601
Gebhart method applied to calculate radiative heat transfer of satellite exposed to solar simulator radiation in vacuum chamber
[ESRO-TN-13] 19 p3426 N67-33641
Program, facility, and equipment for vacuum chamber simulation of ELDO A second and third stage separation
19 p3542 N67-33879
Insulation effect between vacuum chamber sections on resistive instability
[BNL-11236] 20 p3686 N67-34321
Ceramic vacuum chamber for injector sychrotron magnet
[UCRL-17254] 20 p3619 N67-34398
Space molecular sink simulator facility with prototype vacuum chamber for studying surface effect phenomena
21 p3827 N67-36304
Reactivity and expansion characteristics of Aerozine-50 and nitrogen tetroxide from vacuum chamber tests
[NASA-CR-65749] 23 p4335 N67-38488
VACUUM DEPOSITION
Vacuum deposition techniques for thin film tunneling device
[ECOM-2718] 01 p0052 N67-10425
Thin film silicon monoxide capacitor vacuum deposition and intact removal from substrate to study breakdown characteristics
[NASA-CR-79925] 02 p0243 N67-11885
Vacuum diffusion of indium antimonide and indium arsenide thin semiconducting films on glass and ceramic supports
[ERDL-T-1877-66] 06 p0945 N67-15489
Apparatus and procedures for vacuum co-evaporation of thick CdS films for application to frequency selectivity in RF integrated circuits up to 150 MHz
[ECOM-02045-2] 09 p1426 N67-20001
Test instrument and measurement technique to study electromagnetic shielding properties of vacuum deposited thin metallic films for applications in microelectronic circuitry
[ECOM-2775] 12 p2062 N67-23618
Cesium deposition on stainless steel
[GA-7433] 12 p2153 N67-23677
Microstructural phase discrimination by vacuum deposition of surface films
12 p2106 N67-24243
Vacuum evaporation of oxide films on polished metal surfaces and other metallography studies
13 p2325 N67-25375
Reactive sputtering and electron beam evaporation techniques for depositing glass coverslips on silicon solar cells
[NASA-CR-84065] 13 p2344 N67-26177
Vacuum deposition methods for placing soft, thin metal gold film on metal surfaces for lubrication purposes - vapor deposition, sputtering, and ion plating
[NASA-TM-X-52305] 14 p2544 N67-27319
Fabrication method for high resistance film resistor based on vacuum sublimation of alloy and dielectric
[FTD-HT-66-702] 15 p2678 N67-28235
Thin film production by sputtering and ultrahigh vacuum deposition
[UCRL-TRANS-10063] 15 p2718 N67-28465
Apparatus for measuring and controlling thickness of thin film deposited on quartz in vacuum
[NASA-TT-F-10461] 16 p2891 N67-29001
New apparatus for depositing thin film electrical components and related microcircuitry
18 p3243 N67-31569

Improved spatterproof vacuum evaporation source for use in depositing thin solid films on substrate 18 p3342 N67-31570
New thin film microdeposition unit for operating with various combinations of substrates, masks, and evaporation sources 18 p3342 N67-31571
Properties of vacuum deposited thin film nichrome resistors for microelectronic circuit applications 18 p3343 N67-31573
Deposition of protective coatings of carbides of titanium, zirconium, and niobium and of aluminum nitride on graphite 18 p3380 N67-32390
Vacuum deposited film process for miniature rhenium resistors [NADC-AE-6711] 20 p3549 N67-34367
Vacuum evaporated thin film resistors [NASA-CR-88468] 22 p4011 N67-36927
Spin wave spectra and surface effects in nickel thin films deposited in ultrahigh vacuum [ORO-2490-39] 23 p4328 N67-38384
VACUUM EFFECT
Impact strength of titanium unaffected by heating time during vacuum heating 02 p0275 N67-11796
Body vibration rate effect on heat and mass transfer during sublimation under vacuum conditions 05 p0774 N67-14388
Pack carburization of iron under vacuum conditions [IS-T-166] 06 p1250 N67-18596
Vacuum environment effects on evaporation, friction, adhesion, and wear properties of lubrication system materials [NASA-TM-X-52394] 11 p1892 N67-33312
Decompression of chimpanzees to near vacuum and recovery [ARL-TR-67-3] 13 p2258 N67-25158
High temperature vacuum fatigue tests of 316 stainless steel and Inconel X with resonance-type machine [NRL-6489] 16 p2979 N67-29490
Thermal decomposition of uranium oxides in vacuum [JPRS-42561] 22 p3991 N67-37800
VACUUM EQUIPMENT
Analytical chemistry technology in vacuum equipment, instrumental analysis, and analytical group solution [UCRL-14767] 03 p0361 N67-12258
Vacuum distillation process and related equipment for large scale separation of polonium 210 from irradiated bismuth 05 p0666 N67-14837
Survey of vacuum switchgear technology [NASA-SP-5063] 08 p1257 N67-19626
Electrical breakdown in ultrahigh vacuum studied for electrostatic gyroscope development [NASA-CR-82954] 09 p1485 N67-19945
Contaminant effects on properties of electronic and vacuum equipment materials and cleaning methods [SC-TM-66-426] 10 p1567 N67-21606
Head restraint device based on vacuum bladder technique for use in vestibular studies [NASA-CR-83949] 13 p2363 N67-25968
Demountable vacuum scanner and vacuum sealed crystal specimens [ARL-65-186] 13 p2323 N67-26252
Environmental testing of compound pressure and vacuum relief valve [NASA-CR-84076] 13 p2332 N67-26989
Conference data on high and superhigh vacuum physics [JPRS-41096] 17 p3121 N67-30620
Nonlinear vacuum spring in suspension system for shock and vibration protection 18 p3349 N67-31897
Thermal vacuum testing and irradiation of replica diffraction gratings [NASA-CR-86978] 18 p3371 N67-32151
Thermal, weightlessness, and corpuscular radiation environments, meteoritic damage, and vacuum equipment for spacecraft testing - conference [ESRO-SP-13] 18 p3343 N67-32161
Vacuum pumps and gauges, kinetic theory of gases and gas-solid interactions in vacuum 18 p3357 N67-32163
Vacuum fusion apparatus for determining certain gases in metals [CNEA-186] 20 p3597 N67-35156
Device for protecting and uncovering instrument sensor in vacuum [FTD-HT-66-669] 21 p3646 N67-35302
Operating principles of vacuum probe microbiological sampler [NASA-CR-88381] 22 p3975 N67-36710
High temperature thermal insulation development for radioisotope power systems [ALO-3634-5] 22 p4006 N67-36912
Oxide barrier effect on exchange and gettering kinetics for reactions between erbium deuteride films and hydrogen gas [AWRE-O-50/67] 24 p4402 N67-40567
VACUUM FURNACE
Fibrous crystals of magnesium oxide grown by condensation of vapor phase in vacuum furnace with graphite heater 00 p1351 N67-19489
Infrared pyrometer for measuring remelt furnace pour temperatures 00 p1447 N67-19645
Metallurgy research in high temperature carbides, powder techniques, furnace equipment, spin casting, thorium, uranium, and tungsten alloys [USBM-RC-1249] 12 p2107 N67-23953
Low voltage motor-generator power supply for induction furnace used for melting reactive metals 12 p2107 N67-23956
Metallurgical reduction processes and equipment for vacuum electrothermy [JPRS-41540] 18 p3222 N67-31894
Potassium reduction in vacuum furnaces with inside heaters and corresponding temperature and vacuum regimes 18 p3255 N67-31895
Potassium production by vapor condensation in vacuum furnace 18 p3223 N67-31896
Reduction in vacuum furnace of calcium oxide with ferrosilicon yielding molten slag 18 p3279 N67-31899
Controlled inert atmosphere chamber and high temperature vacuum furnace for refractory metal working [JPRS-41651] 19 p3462 N67-32904
High temperature, high vacuum furnace for annealing high purity refractory metals 19 p3462 N67-32905
Analysis of impurities in magnesium oxide materials by mass spectrographic, chemical, thermogravimetric, vacuum-fusion furnace, quarts tube graphite crucible furnace techniques [NASA-CR-86493] 22 p3981 N67-36692
VACUUM GAUGE
SA PIRANI GAUGE
In-chamber vacuum gauge calibration method and application to cryopumping measurements [AEDC-TR-66-234] 12 p2098 N67-23636
Calibration of vacuum gauges for low pressure measurements [AFFDL-TR-66-190] 16 p2895 N67-29507
Construction, testing, and refining of vacuum gauges - ionization gauge cross section ratios [NASA-CR-85978] 18 p3269 N67-31709
Theory of oscillating-vane vacuum gauges based on effects of cosine law scattering and nonzero accommodation coefficients [RAE-TR-67034] 20 p3641 N67-34733
Portable calibrator to facilitate calibrations of intermediate range pressure transducers [AFDC-TR-67-83] 21 p3851 N67-36167
Construction improvements of vacuum gauges, pumps, and seals [UCRL-70369] 22 p4056 N67-37710
Manometric gauge with outside collector for very low pressure applications [NASA-TT-F-11349] 24 p4482 N67-40158
VACUUM MELTING
Casting properties of vacuum melted and teemed austenitic steel and nickel alloys 03 p0411 N67-12813
Preparation method for stainless steel containing controlled quantities of carbon [EURAEC-1643] 06 p1289 N67-18624
Quartz ampoule for growing single crystals of gallium arsenide [FTD-HT-66-675] 13 p2390 N67-25447
VACUUM PUMP
Dual purpose exhaust system and leak detector for high vacuum pumping system [AECD/EP/11] 03 p0382 N67-12380
Molecular beam chamber used for cryopumping and adsorption pumping studies [AEDC-TR-66-135] 07 p1660 N67-17782
Fabrication and environmental testing of cryosorption pump designed for mass spectrometer for use in atmospheric soundings [AFCRL-66-708] 21 p3830 N67-36015
Sorption pumps to remove inert gases and attain higher vacuum by periodic flushing with gaseous nitrogen [FTD-HT-67-17] 23 p4033 N67-37237
Vacuum pumping unit for weakly absorbent inert gases [FTD-HT-67-19] 23 p4056 N67-37737
Experimental three-stage hot water ejector facility with fixed mixing tube dimensions [DLR-FB-67-40] 23 p4233 N67-38054
VACUUM SPECTROSCOPY
Strengths of lines in nu-1 and nu-3 infrared bands of water vapor [W+S-TR-42] 17 p3015 N67-30547
VACUUM SYSTEM
Out of vacuum electron beam welding with X-ray shielding and auxiliary inert gas shielding 03 p0401 N67-12762
Mathematical analysis of leak measurement in vacuum component using helium mass spectrometer [RAE-TR-66158] 04 p0533 N67-14265
Remote controlled motion transfer device for vacuum system [SGAE-PH-41/1966] 05 p0669 N67-14838
Vacuum system apparatus for experimental determination of radiative heat transfer between parallel flat metal plates [ARL-66-0163] 06 p0981 N67-16455
Ion gun, neutralization chamber, differential pumping system, and plasma trapping chamber for vacuum system of Ogra-II [NP-TR-1396] 07 p1165 N67-17441
Partial pressure measurements of residual gas mixtures in high vacuum systems by time of flight mass spectrometry [AEDC-TR-66-150] 10 p1633 N67-21238
Theoretical and experimental studies on plasma physics in U.S.S.R. 1963 11 p1947 N67-21981
Experimental determination of zeolite absorbing power at low pressures and for clean vacuum 11 p1991 N67-21983
Vacuum theory, adsorption, desorption, and diffusion phenomena, pumping systems, pressure measuring devices, and leak detection methods [ESRO-TM-48] 11 p1855 N67-22503
Process for vacuum forming thin sheets of plastic material into control and display panel mockups [AMRL-TR-66-175] 14 p2543 N67-26905
Chemical high vacuum system for desorption and manipulation of volatile organic contaminants in closed cabin atmospheres [AMRL-TR-65-61] 14 p2472 N67-27004
Radiation chemistry technology - radiolysis of ammonia, oxygen, and olefin systems, and development of vacuum gas handling systems high pressure facility, and instrumentation [JLI-2901-75] 15 p2861 N67-28582
Current pulse generator, vacuum system, expansion chamber with gas feeder, air core electromagnet, and control system construction in development of rod plasma gun [INR-713/XVIII/PP] 15 p2775 N67-28594
One-watt refrigerator used for attaining clean room conditions in vacuum system of space simulator [NASA-TN-D-4066] 16 p2967 N67-30121
Motor and solid film lubricant for vacuum operation at cryogenic temperatures 17 p3071 N67-30624
Helium-xenon continuous wave gas lasers for space communications - testing of ultrahigh vacuum system and cascade pumping techniques [NASA-CR-82977] 18 p3277 N67-31738
Evaluation of low pressure performance of orbitron ionization gauge [NASA-CR-886] 21 p3947 N67-35872
Ultrahigh vacuum techniques for accelerators and storage rings [UCRL-17126] 21 p3829 N67-36017
Improved tee connections for vacuum-jacketed transfer lines [LA-DC-8721] 22 p4006 N67-37702
Magnetic and vacuum properties and acceleration ring characteristics of Frascati microtron [LNF-67/46] 23 p4238 N67-38055
Testing of cycloiding beam amplifier in vacuum [ECOM-02360-4] 24 p4421 N67-40242
Vacuum system for forging refractory metals [JPRS-42015] 24 p4490 N67-40243
Ozone effect on stability of Do-704 fluid in

diffusion pump vacuum system
[NASA-CR-89770] 24 p4474 N67-40550
Small volume, ultrahigh vacuum system for ionization gauge studies
[NASA-TN-D-4208] 24 p4455 N67-40566
VACUUM TUBE
Power supply requirements for vacuum modulator tubes with electron beam focused by magnetic field
[ECOM-2734] 03 p0372 N67-12339
Pedestal technique of transistorized analyzers for improving precision and zero intercepts in calibration plots applied to large signal vacuum tube logic
03 p0394 N67-12616
Welded tubular tee connections made by drawing die of circular cross section through elliptical cutout in wall of main tube followed by butt welding of extension tube to opening
[LA-3517] 11 p1889 N67-22388
Dc analysis of typical hybrid circuit as practical approach to transistor and vacuum tube amplifiers
[REPT.-44] 20 p3612 N67-34911
VACUUM ULTRAVIOLET
Sodium salicylate fluorescent properties utilized in coatings of integrating sphere reflectometers for vacuum ultraviolet spectral regions
[NASA-TM-X-55645] 06 p0819 N67-16547
Light sources and detectors for vacuum ultraviolet radiation between 1000 and 100 angstroms
07 p1085 N67-17795
Production of recombination continua in spark discharge for absolute intensity measurement in vacuum ultraviolet
[JUL-360-PP] 07 p1167 N67-17865
Atomic density measurements in decaying highly ionized hydrogen plasma by vacuum ultraviolet absorption
[UCRL-17177] 14 p2596 N67-27491
Low inductance three electrode spark source for vacuum ultraviolet
[NASA-TM-X-55823] 16 p2940 N67-30149
Optical properties of sodium in vacuum ultraviolet
[ORNL-TM-1776] 20 p3715 N67-34986
Absorption spectrum of iron in vacuum ultraviolet
[NASA-CR-88742] 23 p4143 N67-37787
VALENCE
Studies of structure and stability of hydrated electron and hydrated hydrogen ion in gamma irradiated aqueous solutions using valence bond method
06 p0825 N67-16282
Divalent state and crystal growth of lanthanides
21 p3789 N67-36351
VALKYRIE AIRCRAFT
S XB-70 AIRCRAFT
VALSALVA MANEUVER
Quantitative arterial blood pressure change during Valsalva maneuver after bed rest
[NASA-CR-180] 02 p0212 N67-11946
VALUE
S BOUNDARY VALUE
S EXTREMUM VALUE
VALVE
SA CONTROL VALVE
SA FUEL VALVE
SA GAS VALVE
SA HYDRAULIC VALVE
SA RELIEF VALVE
Vortex valve performance power index
[NASA-TM-X-52257] 02 p0175 N67-11238
Hydroproof, pneumatic proof, cycle, and seat erosion qualification tests on low torque three piece valve sets with various material components for upper seat ring
[NASA-TM-X-53286] 05 p0712 N67-14918
Manufacturing, failure analysis, and clinic for valves with aerospace applications
[NASA-TM-X-53419] 08 p1235 N67-19032
Fluid logic foil switching device
10 p1668 N67-21104
Testing and evaluation of 2-inch duo-check valve for Saturn IB program
[NASA-CR-83117] 10 p1640 N67-21164
Performance test data for check valve used in ground support equipment
[NASA-CR-84011] 13 p2331 N67-26382
Operational and environmental testing of manually operated gate valve
[NASA-CR-86127] 21 p3861 N67-36121
Test program for relief valve used to prevent over pressurization in pneumatic control systems
[NASA-CR-86116] 21 p3861 N67-36156
High temperature bellows-sealed valves for liquid metals and gases
21 p3891 N67-36542
Transrotor engine, high temperature platinum resistance thermometer, dynamic analog correlation system and safety valve developments
[NBS-TN-295] 22 p4043 N67-36739
Fast-acting strip electrodynamic valve for peripheral gas admission
[IAE-1116] 23 p4258 N67-38658
Functional and environment testing of 8-inch valve used in vaporizer units and umbilical tower hydrogen vent
[NASA-CR-89769] 24 p4458 N67-39986
Test program for 3/8-inch angle valve for use in pneumatics system of Launch Complex 34 ground support equipment
[NASA-CR-89778] 24 p4458 N67-39988
Acceptance testing of check valve used in piping for spacecraft support system
[NASA-CR-89774] 24 p4458 N67-39989
Test results for valve used in pneumatic supply system of Launch Complex 34
[NASA-CR-89687] 24 p4459 N67-40219
VAN ALLEN BELT
SA INNER RADIATION BELT
SA OUTER RADIATION BELT
Plasma turbulence in Van Allen belt
[NASA-CR-81257] 06 p0958 N67-16511
Sensors signal conditioning, and power supply instrumentation for Van Allen belt dosimetry system
[NASA-CR-65629] 14 p2530 N67-26590
Analysis of Explorer IV satellite telemetry records concerning geomagnetically trapped radiation
[DASA-1889] 17 p3155 N67-31099
Energetic electrons in Van Allen radiation belts surveyed by Hitch-Hiker I orbiting satellite
18 p3224 N67-31788
Atmospheric electric field relation to ionospheric irregularities, and absorption mechanisms for synchrotron radiation from trapped electrons in Van Allen belts
18 p3322 N67-32503
Particle measurement by ESRO satellite in highly eccentric polar orbit for investigation of neutral points in magnetosphere
[ESRO-SN-50] 19 p3445 N67-33533
Energetic electron observations in Van Allen belt in auroral zone by means of IMP satellites
20 p3731 N67-34152
Pegasus satellite measurement of near earth meteoroid environment - Van Allen belt radiation, and earth albedo data
[NASA-TM-X-53629] 20 p3733 N67-34548
Van Allen belt measurements by artificial satellites and space probes
[FTD-MT-65-417] 22 p4136 N67-36929
Primary and secondary particle radiation doses shielded from solar flare and Van Allen belt protons by aluminum and polyethylene slabs
[NASA-CR-88879] 22 p4137 N67-37829
Plasma dynamics in Van Allen belts - effect of magnetic field generated by belt particles compared to geomagnetic field
[NASA-CR-89563] 24 p4525 N67-39911
VAN DE GRAAFF ACCELERATOR
Magnetic quadrupole lens for use in ion beam handling facilities at Van De Graaff accelerator
03 p0300 N67-12610
Nuclear reaction and structure studies by modified Van de Graaff accelerator
[AERE-254] 03 p0441 N67-12900
Van de Graaff accelerator experiments on neutron decay spectrometer for cross section measurement
06 p1318 N67-18849
Vacuum techniques in high voltage accelerator program
09 p1430 N67-19450
Proton linear accelerator and Van de Graaff accelerator performance and experiments
[TID-23395] 10 p1635 N67-21602
Radio frequency chopping and klystron type bunching system for generation of ion bursts in Van de Graaff accelerator
[AWRE-O-53/65] 10 p1738 N67-21627
Electron energy dissipation in polystyrene and carbon for well-collimated electron beams generated from Van de Graaff accelerator
11 p1901 N67-22234
Theoretical and experimental low energy nuclear physics studies with tandem accelerator
[AFOSR-67-0656] 14 p2580 N67-26589
Adaptation of dc electron Van de Graaff accelerator for pulse radiation damage investigations in semiconductors
[DNR-764/II,III/E] 15 p2686 N67-27979
Gamma ray spectroscopy in Van de Graaff accelerator research
[BNL-10863] 15 p2763 N67-28418
Separated high voltage electrode charging and accelerating systems
19 p3429 N67-33068
Description of Van de Graaff irradiation facility, fluorescent properties of doped gallium phosphide, radiation damage in gallium phosphide, and other recombination studies
[SR-2] 21 p3917 N67-36181
Terminal voltage fluctuations of tandem Van De Graaff accelerator
[RLO-1282-22] 21 p3828 N67-36299
Particle scattering method for establishing energy calibration of analyzing magnet in tandem Van de Graaff accelerator
[LA-3699] 22 p4105 N67-37433
Pulsation device for proton beam emitted from Van de Graaff accelerator and application to measurement of lifetimes of nuclear excited states
[LYCEN-6648] 22 p4110 N67-37863
Fast neutron scattering measured by time of flight method using Van de Graaff accelerator
[BMWF-FBK-67-04] 22 p4112 N67-38014
Characteristics of recoil-proton Perlow-type neutron spectrometer simulated by Monte Carlo code
[RT/FI/66/36] 24 p4455 N67-40556
VAN DER WAALS FORCE
Thermodynamic properties of Van der Waals fluid in two-phase region
[BM-RI-6950] 19 p3554 N67-33578
VANADATE
Fluorescent inorganic rare earth compounds derived from orthovanadates
21 p3797 N67-36231
VANADIUM
Vanadium 51 proton-neutron chromium 51 reaction mechanism
03 p0434 N67-12554
Proton induced reactions on vanadium 51
03 p0434 N67-12555
Carbon 13 alpha-neutron oxygen 16 and vanadium 51 proton-neutron chromium 51 reactions
03 p0434 N67-12556
Radiative capture, inelastic scattering, and polarization in reactions of nucleons with nuclei described by optical model
06 p0923 N67-15583
Transformation curves for continuous cooling of manganese-molybdenum-vanadium steel determined under argon
[EURAEC-1677] 07 p1104 N67-17810
Electron spin resonance of excited 2E level of chromium and vanadium ions in magnesium oxide
[NYO-2156-18] 08 p1236 N67-18448
Solubility of vanadium in liquid plutonium
[LA-3594] 10 p1568 N67-20405
Electrical properties and temperature dependence of niobium, vanadium, and tantalum in superconducting state investigated by ultrasonic radiation
[TR-36] 10 p1765 N67-20502
Angular distributions, absolute cross sections, and spectroscopic factors in nuclear /p,d/ and /p,t/ reactions involving argon, vanadium, and chromium
[PUC-937-211] 10 p1704 N67-20925
Grazing-incidence spectrometer and low inductance spark source used to study lines of high degrees of ionization of Sc, Ti, and V
[NASA-TM-X-55734] 11 p1931 N67-22060
Preparation and purification of thorium, ytirium, vanadium, and refractory metal systems for reactor materials
[IS-RD-8] 13 p2362 N67-25907
Phase behavior, crystal structure, and vaporization of titanium vanadium oxygen system
[COO-1140-152] 15 p2655 N67-27911
Phase diagram of titanium vanadium carbon system in high temperature environment
[NASA-TT-F-11012] 15 p2734 N67-28230
Electrotransport properties of oxygen, nitrogen, and carbon in vanadium
[IS-T-135] 16 p2844 N67-29527
Molten salt electrorefining process for producing ductile vanadium
[BM-RI-6972] 16 p2851 N67-29651
Hummerite, new hydrated vanadium of sodium and magnesium from Huemul mine, Mendoza, Argentina
[CNEA-169] 16 p2888 N67-29945
Calculation of energy level scheme of vanadium 52 by shell model
[ZFK-PHA-25] 21 p3903 N67-36091
Double electron beam melting and arc melting purification processes for vanadium

. chemical analysis, hardness, and microstructure of melt
[CEND-3742-311] 23 p4210 N67-39152
Molten-salt electrolytic refining process for vanadium scrap conversion into ductile metal
[BM-RI-7086] 23 p4261 N67-39342

VANADIUM ALLOY
Phase diagram of titanium vanadium niobium molybdenum system
02 p0270 N67-11765
Improvements in consolidation and fabrication of vanadium-titanium alloy tube blank extrusion, tube reducing, and drawing
[ANL-7127] 07 p1103 N67-17735
Stress corrosion cracking of titanium aluminum vanadium alloy in methyl alcohol
[NASA-TN-D-3868] 07 p1105 N67-18154
High temperature magnetic metals and alloys - iron, iron-cobalt, and cobalt-vanadium -
[FTD-HT-66-196] 10 p1651 N67-20660
Tensile and creep properties of niobium-vanadium alloys as influenced by strain rate
[KAPL-3145] 10 p1652 N67-20638
Mechanical properties of thick plate titanium aluminum vanadium alloy
[MEL-266/66] 11 p1899 N67-23115
Load and fatigue tests on titanium aluminum vanadium alloy sheet metal
[NASA-CR-83076] 11 p1901 N67-23475
Temperature and notch radius effects on mechanical properties of titanium alloyed aluminum, vanadium, tin, and zirconium
[AMRA-TR-66-26] 13 p2120 N67-34653
High strength vanadium alloys for application as fuel element cladding in liquid metal cooled fast breeder reactor
[WCAP-3487-15] 13 p2360 N67-25538
Support facilities and transportation equipment for missile and space systems - Annotated bibliography
[BM-RI-6929] 13 p2341 N67-26350
Design, fabrication, and test of titanium vanadium chromium aluminum alloy composite rocket motor case
[PWA-2894] 14 p2607 N67-26818
Vanadium alloy screening studies and fabrication of V-Ti-Cr tubing for cladding for sodium cooled fast reactors
[ANL-7206] 14 p2575 N67-27059
Evaluation of effective gettering elements for purifying high interstitial vanadium
[CEND-3742-288] 16 p2851 N67-29832
Corrosion and tensile strength tests of vanadium base alloys used in fabrication of cans for fast reactors
[CEA-R-3153] 19 p3473 N67-33680
Three dimensional graph of quarternary titanium aluminum molybdenum vanadium system
22 p4062 N67-37124
Heat resistance of titanium aluminum molybdenum vanadium system alloys
22 p4067 N67-37155
High strength vanadium alloys for fuel cladding in liquid metal cooled fast breeder reactors
[WCAP-3487-16] 23 p4266 N67-38910
Metallurgical properties of alpha-gamma uranium alloys from uranium molybdenum niobium vanadium titanium system
[AMRA-TR-67-18] 24 p4467 N67-39907

VANADIUM CARBIDE
Specific heats of vanadium, molybdenum, and niobium carbides in 3 deg to 9 deg K range
[ONERA-TP-480/1967/] 19 p3533 N67-33425
Bonding, structure, and mechanical behavior of vanadium carbide single crystals
[NASA-CR-88804] 22 p4070 N67-37215

VANADIUM COMPOUND
Condensed phase and vaporization equilibria in vanadium halide-iodine systems
[IS-T-41] 01 p0032 N67-10811
Chemistry of vanadium, niobium, and tantalum in compounds and solvents
[ARL-66-0062] 05 p0664 N67-14718
Width of homogeneity region of intermetallic phases in niobium tin and vanadium gallium systems
[ATD-66-101] 06 p0691 N67-15770
Low magnetic saturation garnets characterized by pentavalent vanadium substitutions
[ECOM-01305-7] 12 p2194 N67-34563
Composition, growth technique, and properties of single and polycrystalline low magnetic saturation garnets
[EJ-220-0056-6] 23 p4128 N67-37206
Magnetic resonance spectra of vanadium chloride and other paramagnetic species
[UCRL-17406] 23 p4294 N67-38622

VANADIUM OXIDE
Network former effects on electric properties determined for semiconducting vanadium oxide glasses
[TR-3] 13 p2389 N67-35338
Seebeck coefficient of semiconducting glasses based on vanadium pentoxide
[TR-4] 14 p2602 N67-36873
Large area metal, vanadium pentoxide, silicon semiconductor diodes with highly variable capacitances
[ECOM-2815] 20 p3610 N67-34129

VANE
SA GUIDE VANE
SA JET VANE
Feasibility of using ductile nickel-chromium alloy claddings to protect chromium alloy turbine vanes and blades
[NASA-CR-85865] 17 p3081 N67-31162
Performance of cascaded bend with different geometries on fluid flow
[RR-6] 20 p3623 N67-34199
Turning-vane parapet for improved flow over helicopter landing site
[NPL-AERO-1299] 20 p3562 N67-34931

VAPOR
SA CESIUM VAPOR
SA FILM BOILING
SA GAS
SA LIQUID-VAPOR EQUILIBRIUM
SA LIQUID-VAPOR INTERFACE
SA MERCURY VAPOR
SA METAL VAPOR
SA SODIUM VAPOR
SA WATER VAPOR
Remote sensing of vapors for air pollution, geologic, and oceanographic applications
04 p0528 N67-13523
Heat transfer during film condensation of liquid potassium vapor
[NASA-CR-81695] 07 p1210 N67-18028
Determinations of potassium vapor condensate drop sizes for thermodynamic expansion processes
[TID-23257] 12 p2234 N67-23765
Void fraction measurement by gamma radiation attenuation method
[RT/ING/66/11] 16 p2851 N67-29620
Design evaluation of vapor absorbing refrigerator systems operating independently of gravity
[NASA-CR-836] 18 p3200 N67-32550
Fluid design for three-stage potassium vapor test turbine
[NASA-CR-72249] 18 p3200 N67-32562
Operation and performance of rubidium 85 vapor magnetometer flown aboard SE-5 satellite
[TG-890] 18 p3347 N67-32838
Thermodynamics of magnesium silicate/magnesium silicon oxygen vapor system
[RM-5337-PR] 20 p3745 N67-34527
Mathematical model for two-phase flow of high velocity vapor condensing in tube
[NASA-CR-87683] 20 p3836 N67-35253
Photoionization cross sections of calcium vapor
[TR-1001/9300-01/-6] 21 p3775 N67-35428
Volumetric void fraction measurement of vapor by gamma or X-ray attenuation method
[RT/ING/66/16] 21 p3904 N67-36139
Heat transfer from bare soil under varying stability conditions and fluxometer accuracy in estimating vapor flux from bare soils
[AD-654790] 21 p3943 N67-36461
Prediction of void fraction in subcooled boiling, annular flow, and ideal bubbly flow
[GEAP-5414] 21 p3951 N67-36596
Equilibrium thermodynamic properties of high-temperature nitrogen - alkali metal vapor mixture
[NASA-TN-D-4106] 23 p4300 N67-38379

VAPOR DEPOSITION
Self-diffusion coefficients of copper and silver evaporated deposits
[RAE-TR-66095] 01 p0137 N67-10089
Fabrication of beryllium oxide radomes by pyrolitic deposition
[AD-632219] 01 p0077 N67-10906
Thermochemical analysis of vapor plating process which involves diffusion, adsorption, desorption, and chemical reaction
[ORNL-TM-1454] 01 p0089 N67-10621
Literature search on deposition of molybdenum, tungsten, and rhenium by thermal decomposition of their carbonyls
[BMWF-FBK-66-09] 03 p0341 N67-12577
Intermolecular bonding of metals and alloys by thermochemical vapor deposition
[NASA-CR-80721] 04 p0538 N67-13671
Vacuum evaporation studies of mercury and cadmium tellurides
[NOTS-TP-4186] 06 p0698 N67-16416
Optical characteristics of vapor deposited coating systems for thermal control of spacecraft structural surfaces
[NASA-CR-73025] 07 p1090 N67-17182
Impurity effects in nucleation of selenium vapor onto Pyrex glass
[NASA-CR-81704] 07 p1022 N67-18042
Galvanomagnetic properties of mercury telluride monocrystals - Fibrous magnesium oxide crystals obtained by condensation in vapor phase
[FTD-HT-66-218] 08 p1250 N67-18497
Growth characteristics and properties of boron carbide whiskers obtained by vapor deposition method, or in graphite resistance furnace
[NASA-CR-82447] 08 p1294 N67-19132
Deposition of carbon on diamond seed crystals
[SR-4] 09 p1500 N67-19711
Geometric effects on deposition of radioactive molecules from stagnant gas to vessel walls
[TID-23351] 10 p1707 N67-20988
Glass deposition process for metallized integrated circuits
[REPT.-4] 11 p1841 N67-23254
Reactive sputtering and electron beam evaporation techniques for depositing glass coverslips on silicon solar cells
[NASA-CR-84005] 13 p2344 N67-26177
Vapor deposition of rhenium and rhenium-tungsten composites by thermochemical reduction of rhenium hexafluoride with hydrogen
[BM-RI-6915] 13 p2273 N67-26366
Low energy accelerated ion vapor film deposition technique
[RFP-686] 14 p2543 N67-26834
Vapor deposition of tungsten, molybdenum, and rhenium coating by carbonyl decomposition or hydrogen reduction
[NASA-TT-F-10014] 14 p2558 N67-27521
Structure of amorphous vapor-deposited films of germanium and silicon
[AERE-TRANS-1058] 15 p2777 N67-27697
Chemical vapor deposition as method for producing materials or coatings for use in vacuum electron devices and microwave tubes
[S-936] 15 p2727 N67-28611
Dispersion-hardened corrosion resistant nickel alloys by vapor plating in fluidized bed of oxide particles
[NASA-CR-54580] 15 p2738 N67-28798
Vapor deposition of carbon on diamond seed crystals
[AFCRL-67-0155] 16 p2888 N67-29111
Casting, powder metallurgy, chemical vapor deposition, and electroforming techniques for making stainless steel shapes
[NASA-TM-X-53977] 16 p2907 N67-29427
Nonmetallic additive effects on properties of vapor deposited tungsten
[NASA-CR-83906] 17 p3051 N67-31223
Solid phase deposition of zirconium nitride on graphite sphere
18 p3200 N67-32597
Vapor deposition of protective molybdenum silicide coatings on graphite
18 p3200 N67-32598
Vapor deposition and precipitation hardening methods for producing dispersion chromium alloys
[NASA-CR-54612] 18 p3230 N67-32830
Formation of uranium nitrides, LiF, and other complexes by chemical vapor deposition techniques
[ORNL-TM-1812] 19 p3397 N67-33928
Liquid and solid cesium deposition on rhenium substrates by vapor deposition
[S-67-1065] 22 p4125 N67-38611
Evaluation of fabrication process and structural properties of chemically vapor deposited alumina and magnesia
[S-966] 22 p4077 N67-37254
A15-type phase in vapor-deposited W-Re alloys
[ORNL-P-2161] 22 p4262 N67-38298
Direct process of chemical vapor deposition for producing tungsten tubing
[ORNL-P-2152] 23 p4230 N67-38694
Statistically designed parametric study to evaluate factors affecting chemical vapor deposition of tungsten
[ORNL-TM-1850] 23 p4300 N67-38922
Chemical vapor deposition of tungsten and

tungsten-rhenium alloys for structural applications - process development
[UCRL-70340, PT. 1] 23 p4267 N67-39208
Chemical vapor deposition of tungsten molybdenum rhenium ternary alloy
[LA-DC-8605] 23 p4268 N67-39220
VAPOR PHASE
Preparation of high-perfection ruby monocrystals by vapor phase growth
[AD-638007] 01 p0028 N67-10498
Condensed phase and vaporization equilibria in vanadium halide-iodine systems
[IS-T-41] 01 p0032 N67-10811
Vapor-phase growth technique for development of growth of ruby single crystals
[RADC-TR-66-456] 05 p0726 N67-15283
Vapor phase isomerization of ortho-carborane
[TR-33] 06 p1233 N67-18292
Fibrous crystals of magnesium oxide grown by condensation of vapor phase in vacuum furnace with graphite heater 06 p1251 N67-18499
Adiabat flame temperature calculation for aluminum oxide colloid formation by vapor phase chemical reaction, for electric thrustor propellant 10 p1755 N67-30516
Vapor-liquid equilibria of binary system uranium hexafluoride-niobium pentafluoride
[ORNL-TM-1683] 12 p2038 N67-25600
Water vapor transfer and water balance during summer and winter months over eastern China
[EMM-65-29] 14 p2567 N67-36741
Vapor phase growth of ruby single crystals
[AD-648386] 15 p2657 N67-38066
Bibliography of works on high temperature physics and chemistry of gases and plasmas published 1964-1966
[REPT.-23] 20 p3594 N67-34593
Computed thermodynamic property data for potassium from melting point to 2100 Kelvin
[NASA-TN-D-4165] 21 p3947 N67-35776
Chemical kinetics of vapor phase chlorination of niobium oxytrichloride using carbonyl chloride
[IS-T-146] 21 p3783 N67-35882
VAPOR PRESSURE
High temperature research on cobalt vapor pressure and chemical activities of cobalt and platinum in cobalt-platinum alloys
[GAM/MC/66B-8] 01 p0068 N67-11187
Density and vapor pressure measurements for and gas solubility and oxygen and hydrogen diffusivities in potassium hydroxide solutions
[NASA-CR-80376] 03 p0359 N67-12994
Electrical resistivity of molten cadmium and gold cadmium solutions, and vapor pressures of gold cadmium and cerium cadmium solutions
[LA-3526] 11 p1809 N67-22381
Calculation of vapor pressure and heats of vaporization and sublimation for xenon
[TR-3] 11 p2001 N67-23462
Vapor pressure of tetrafluoromethane from 86-146 deg K
[TR-2] 12 p2047 N67-24828
Critical constants of uranium dioxide assessed from low temperature vapor pressure and specific heat measurements to derive limits for equation of state
[TRG-1344/R/] 13 p2357 N67-25439
Partial vapor pressures of uranium and carbon over uranium monocarbide at high temperatures
[NASA-TT-F-10869] 13 p2270 N67-25804
Strobridge equation digitally calculated for vapor pressure and temperature relationships for saturated pure liquid nitrogen
[BM-IC-8332] 13 p2274 N67-26347
Vapor pressures, densities, and viscosities of hydrazine ammonia rocket fuel mixtures as functions of compositions
[DLR-FB-67-21] 14 p2606 N67-27254
Temperature and vapor pressure measurements at various system points of freon ejector solar refrigerator designed for cooling air in room 15 p2802 N67-28169
Transpiration method for measuring vapor pressures of liquid gold and plutonium compounds
[AERE-R-5332] 15 p2714 N67-28841
Accuracy of Poynting equation for predicting effect of inert gas pressure on vapor pressure of liquid
[MEL-456/66] 16 p2931 N67-29775
Isopiestic balance technique for determining vapor pressure of cadmium over molten lead cadmium alloys containing small amounts of lead
[LA-3657] 18 p3220 N67-31558
Density, viscosity, surface tension, electrical resistivity, thermoconductivity, enthalpy, specific heat, and vapor pressure thermophysical properties of potassium
[NASA-TN-D-3120] 18 p3279 N67-31919
Vapor pressures measured of selected mixtures in binary system stannous chloride-zinc chloride
[RI-7022] 21 p3792 N67-36474
Vapor pressures of fluorocarbon solutions at low temperature, liquid-liquid phase diagrams, mixing studies, solubility of solids, hydrogen bonding, and other fluorocarbon studies
[UCLA-34P13-22] 22 p3993 N67-37978
Thermodynamic analysis of binary vapor liquid equilibria
[NASA-TT-F-11265] 22 p4168 N67-38004
Vapor pressure of lithium determined at temperatures from 1881 to 2286 deg F and pressures from 0.96 to 7.86 psia
[AGN-8191, VOL. 2] 23 p4365 N67-38995
Predicted high temperature vapor pressure data for refractory materials with low thermal absorption cross sections
[NASA-TN-D-4147] 24 p4550 N67-39690
VAPOR PRESSURE APPARATUS
Thermoelectric vapor pressure osmometer for solute characterization in prepolymer evaluations
[NOTS-TP-4247] 14 p2532 N67-28914
Transport properties and boiling characteristics of wicks for vapor-chamber fins
[NASA-CR-812] 17 p3178 N67-31148
VAPORIZATION
SA ABLATION
SA BOILING
Smoke generator using vaporized oil for flow visualization in wind tunnel
[ARL/A-233] 01 p0071 N67-10080
Solid state physics - semiconductor energy gap materials, crystal structure, epitaxial vacuum vaporization, magnetic behavior, and optical transmission
[NASA-CR-80478] 03 p0454 N67-13103
Dynamic response of droplet vaporization process excited by traveling transverse acoustic oscillations derived by linear analysis
[NASA-TN-D-3749] 03 p0474 N67-13169
Vaporization kinetics and mechanism of actinides and their compounds
[UJV-1598] 03 p0362 N67-13320
Reliquefier design and cycles studied to reduce boiloff in extraterrestrial cryogenic propellant storage
[NASA-CR-80730] 04 p0602 N67-13672
Physical principles of vaporizing combustion chamber for gas turbine engine
[FTD-TT-65-1855] 05 p0755 N67-14968
Chemical equilibria at high temperatures and vaporization mechanisms in galvanic cell
[COO-505-13] 10 p1579 N67-21566
Heat transfer, oxidation, and vaporization rates for metal particles during hypersonic reentry
[R66SD52] 10 p1659 N67-21880
Chemical properties of vaporized carbon at high temperatures
[AFOSR-67-0944] 11 p1816 N67-23374
Vaporization of liquid propellant injected into rocket combustion chamber
[DLR-FB-66-83] 13 p2425 N67-26086
Phase behavior, crystal structure, and vaporization of titanium vanadium oxygen system
[COO-1146-153] 15 p2655 N67-27911
Vaporization kinetics of thorium, uranium, americium, plutonium, and curium - possible atomic reactor fuels
[NASA-TT-F-10909] 15 p2657 N67-28234
Water droplet vaporization with heat limiting heat transfer from carrier gas
[ARL-66-0237] 16 p2985 N67-29656
Heat transfer and fluid flow during forced convection vaporization of high temperature potassium
[NASA-CR-843] 19 p3551 N67-33147
Blasius boundary layer equation solution for vaporization and combustion on flat wall behind normal shock
[NASA-CR-72235] 20 p3745 N67-34546
Flow patterns in high pressure two-phase flow with heat addition
[WAPD-T-1834] 21 p3832 N67-36140
Phase migration in monothermal field - nonequilibrium process of forced vaporization of water, carbon tetrachloride, chlorobenzene, and butanol
[ITTRI-C212-11] 21 p3792 N67-36479
Vaporization and transverse acoustic oscillation effects on liquid jet breakup
[NASA-CR-72356] 22 p4159 N67-36766
Mass spectrometric study of zirconium, hafnium and thorium dioxides vaporization
[NASA-TT-F-11306] 23 p4210 N67-39246
VAPORIZATION HEAT
Thermodynamic properties of propellant combustion products, and vaporization heat data on lithium
[QLR-66-4] 03 p0775 N67-15015
Calculation of vapor pressure and heats of vaporization and sublimation for xenon
[TR-3] 11 p2001 N67-23462
Flow calorimetric measurements on molar vapor heats of benzene, diphenyl, and terphenyl
[EUR-3278.D] 14 p2476 N67-27139
Evaluation of uranium heat vaporization from behavior of uranium-carbon system
[LA-DC-8790] 22 p3992 N67-37929
VARACTOR
ELDO second stage stainless steel structures and third stage structure and development, varactor performances for parametric amplifiers, and orbiting satellite attitude stability 06 p1370 N67-18421
Varactor performances for parametric amplifiers used in receiver system of downrange guidance station 06 p1256 N67-18434
All-varactor limiters for Ku band semiconductor transmission-receiver devices
[QPR-2] 09 p1426 N67-20019
Solid state microwave electronics developments on range techniques, high power varactor multipliers, and computer design of varactor circuits 14 p2509 N67-27066
VARACTOR DIODE
Strip form iterated traveling wave parametric amplifier using series connected diodes
[AD-642706] 06 p0852 N67-15864
Series resistance of tuning varactor in variable capacitance diode production engineering measures program
[QR-1] 06 p0855 N67-16418
Production engineering measure for silicon mixer diode
[QPR-5] 09 p1425 N67-19629
Harmonic generation using varactor capabilities of plasma sheath
[TR-EE66-23] 11 p1909 N67-22706
Noise sources in varactor p-n junction diode and use in parametric amplifier circuit to reduce total output noise power
[RCS-OSD-1366] 11 p1824 N67-23106
Diode-iris controlled waveguide slot radiators
[NASA-CR-763] 12 p2067 N67-23715
Epitaxial GaAs varactor diodes for microwave avalanche oscillators
[AD-634689] 15 p2677 N67-27987
Controllable broadband differential phase shifter for low-power application using periodic loading of transmission lines with varactors
[DISS-3928] 24 p4420 N67-40089
VARACTOR DIODE CIRCUIT
Developments reported in varactor multipliers, crystal mixers, and diodes for microwave application 05 p0633 N67-14634
Research and development of semiconductor diodes for harmonic generator applications using single diodes
[QPR-1] 16 p2869 N67-29015
Thin film interconnect patterns developed for three hybrid satellite resistor, diode, and transistor circuit applications 19 p3416 N67-33363
VARIABLE
S COMPLEX VARIABLE
S DEPENDENT VARIABLE
S INDEPENDENT VARIABLE
S RANDOM VARIABLE
VARIABLE GEOMETRY STRUCTURE
Principle of construction of searchless adaptive variable structure automatic control system
[JPRS-39389] 04 p0534 N67-14139
Feasibility of variable geometry guide vanes for controlling rotor inlet flow parameters
[NASA-TN-D-3823] 06 p0983 N67-15066
Variable aperture limiter to study behavior of hydrogen afterglow plasma

column 23 p4318 N67-38727
Load settlement behavior of geometric shapes in silty clay
[NASA-CR-66463] 22 p4359 N67-39060
VARIABLE LIFT
Variable lift control to obtain maximum velocity reduction through aerodynamic braking for Mars entry
[NASA-CR-66363] 21 p3922 N67-36172
VARIABLE MASS SYSTEM
Trajectory optimization for variable mass system
[ATD-66-91] 04 p0611 N67-13612
Quasi-energy integrals of motion equations for variable mass mechanical points and systems when Lagrange condition is time dependent 13 p2369 N67-36184
Free vibrations of variable mass body 15 p2802 N67-38816
Effects of weight limitations on optimal motion of variable mass body with limited velocity jet
[NASA-TT-F-10439] 22 p4145 N67-37996
VARIABLE PITCH PROPELLER
Flight test of integral gearbox and variable camber propellers
[HSER-4076] 04 p0481 N67-12901
Thrust and blade spindle torque measurements of 5 variable pitch propellers for minesweeper
[DTMB-2225] 22 p4132 N67-36857
VARIABLE STAR
RR Lyrae variable star radial velocity observations 01 p0149 N67-10001
Radial velocity observations of 18 RR Lyrae variable stars 01 p0149 N67-10002
Photometric observations of RR Lyrae variable stars for radial velocity studies 01 p0149 N67-10003
Variable stars and problems of stellar formation 04 p0610 N67-13415
Characteristics of T-Tauri variable stars associated with Orion nebula 04 p0610 N67-13418
Fabry photometry of bright Southern stars and observations of variable stars 04 p0613 N67-14167
Variable stars in Small Magellanic Cloud 08 p1368 N67-19217
Sequential photoelectric observations on solar energy output variations
[AFCRL-66-792] 12 p2312 N67-34804
Artificiality criteria for radio sources, variable star emission, and background 17 p3157 N67-36334
Light curves in two colors for seven cepheids in omega Centauri with periods greater than one days 17 p3157 N67-36570
Photoelectric UBV observations of RR Lyrae variable stars -
Tables 17 p3160 N67-36881
Absorption lines in spectra of nonstationary variable stars, mechanisms of atomic excitation, emission line intensity, and forbidden lines 17 p3161 N67-31629
Emission spectra of nonstationary stars 17 p3161 N67-31630
Photographic magnitudes of variable stars in globular cluster M92 20 p3729 N67-35654
Variable stars in globular cluster M92, and evaluation of six RR-Lyrae stars 20 p3729 N67-35655
VARIABLE SWEEP
Rolling stability derivatives of variable sweep tactical fighter aircraft model at subsonic and transonic speeds
[NASA-TN-D-3945] 07 p0993 N67-18150
Skewed wing tip control effects on variable sweep wing-fuselage configuration
[NASA-TN-D-3847] 06 p1230 N67-18963
Variable-sweep and fixed-wing SCAT design study 18 p3191 N67-31612
Stability and high-lift characteristics of variable-sweep supersonic transport configurations 18 p3191 N67-31618
Static, longitudinal stability, and lateral aerodynamic characteristics of variable wing sweep STOL configuration at Mach number 2.20
[NASA-TM-X-329] 18 p3193 N67-32017
Lateral and longitudinal aerodynamic characteristics of three-engine supersonic transport model having low aspect ratio variable sweep warped wing
[NASA-TM-X-1011] 18 p3194 N67-32144
Wing pivot location effect on longitudinal aerodynamic characteristics of variable sweep wing having M planform
[NASA-TM-X-1023] 18 p3196 N67-32145
Aerodynamic characteristics of variable sweep supersonic aircraft with pivoted wind
[NASA-TM-X-745] 18 p3196 N67-32553
Low speed, longitudinal aerodynamic stability characteristics of supersonic aircraft with variable sweep wings and double pivot
[NASA-TM-X-744] 18 p3196 N67-32554
Subsonic wind tunnel studies of static longitudinal and lateral stability characteristics of variable sweep supersonic transport model
[NASA-TM-X-619] 18 p3196 N67-32558
Aerodynamic information for development of variable-sweep multimission military aircraft 19 p3366 N67-33073
Aerodynamic characteristics of family of wings with variable sweep
[ONERA-TP-272/1965] 21 p3756 N67-36231
Flight simulator study of pitch maneuver speed margins for variable-sweep wing supersonic transport configuration
[NASA-TN-D-4170] 22 p3961 N67-37674
Static aerodynamic characteristics of variable sweep wing aircraft model studied in wind tunnel
[DTMB-AL-38] 24 p4372 N67-40268
VARIANCE
SA COVARIANCE
SA REGRESSION ANALYSIS
Method of selecting variables in succession for best linear discrimination - pattern recognition
[IRA-100-10] 06 p0905 N67-16472
Fixed-width confidence interval for common mean of two distributions having unequal variances with one known variance
[TR-58] 09 p1469 N67-19791
Gauss-Markov theorem extended to complex multivariate linear models
[ARL-66-0183] 12 p2132 N67-34927
Asymptotic variances and covariances of maximum likelihood estimators from censored samples of four-parameter generalized gamma population
[ARL-66-0158] 14 p2562 N67-36670
Valid equations derived for approximate continuous nonlinear minimal variance filtering - mathematical models
[NASA-CR-84517] 14 p2566 N67-37675
Minimum variance method for estimating state vector with acceptable accuracy constraints in orbit calculation
[NASA-CR-84795] 15 p2736 N67-38763
Analysis of variance, data interpretation, and consequences of sampling and randomization
[ARL-66-0340] 17 p3068 N67-30181
Testing for equality of covariance matrices against certain alternatives when underlying populations are multivariate normal
[ARL-67-0044] 19 p3483 N67-33872
Mathematical model for computing noise variance matrices for radar tracking systems
[RO-S-67-2] 21 p3789 N67-35827
VARIATION
S ANNUAL VARIATION
S DIURNAL VARIATION
S MAGNETIC VARIATION
S SEASONAL VARIATION
S TWENTY-SEVEN DAY VARIATION
S VOLTAGE VARIATION INDICATOR
S WIND VARIATION
VARIATION METHOD
Power of F-test for nonnormal distributions and unequal error variance
[RM-5073-PR] 02 p0281 N67-12188
Calculation of correlation energy of multi-electron system by variation method 03 p0432 N67-12382
Functional analysis applied to theory of optimal control and variation problems 03 p0375 N67-12502
Solutions for optimal control problems by variation method in space of states 03 p0376 N67-12506
Dynamic programming used in analytical construction of digital regulators for systems controlling disturbed motion 03 p0377 N67-12518
Inverse variational method for solving boundary value problems with natural boundary conditions 03 p0417 N67-12961
Theory based on Vlasov general variational method to analyze beams and plates on elastic foundations
[NASA-TT-F-357] 04 p0630 N67-14232
Variation method for solving optimization problems of object recognition against nonhomogeneous backgrounds 05 p0849 N67-14351
Variation method and maximum principle for calculating optimal conditions of heating metal 05 p0710 N67-14364
Variational methods used to solve pursuit-evasion differential game and manual control 06 p0812 N67-15875
Current distribution on dipole antenna with nonreflecting resistive loading, expressed using variation method
[NASA-CR-61239] 06 p0827 N67-15899
Variational methods and degenerate perturbation theory
[NASA-CR-70027] 07 p1156 N67-17772
Approximate solutions to fluid dynamics and heat transfer problems by variational technique based on least squares method
[NASA-CR-82501] 08 p1368 N67-19077
Compressibility of filler of sandwich plates of variable thickness calculated by equations obtained by variational methods 09 p1518 N67-19484
Shell theory and variation method for calculating large panel buildings as three-dimensional systems 09 p1525 N67-20052
Variation method of calculating principal terms in series representation of long range ion-atom interaction
[AFCRL-66-817] 10 p1716 N67-21852
Variation method for reducing solution of two-dimensional heat conduction equation to set of linear differential equations
[ANL-TRANS-998] 10 p1772 N67-21886
Numerical results of one-dimensional unsteady variational method in magnetohydrodynamic flows
[AFOSR-67-0677] 12 p2187 N67-34425
Variational problems of supersonic gas dynamics in determining shape of minimum drag axisymmetric bodies
[NASA-TT-F-10640] 13 p2312 N67-35631
Variational method for scattering matrix through narrow slot, and direct method for internal wave diffraction and wave propagation in irregular waveguides 13 p2365 N67-35811
Time step variation method for forecasting atmospheric winds and temperatures
[SRDS-RD-66-02] 14 p2567 N67-36482
Automatic synthesis of optimum systems of automatic control, including variational methods 14 p2580 N67-36869
Variation method for solving potential equation in steady magnetogasdynamics
[SR-39] 14 p2585 N67-36979
Vlasov variational method used for analysis of circular cylindrical shell under local loading 16 p2982 N67-39081
Optimum use of star tracker data to monitor and correct for drift of gyro stabilized orientational reference platform using minimum variation estimation theory
[NASA-CR-85582] 17 p3101 N67-30082
Variational methods for solving heat conduction problems
[NASA-CR-85816] 17 p3189 N67-31495
Digital computer program develops minimum variance method of determining geophysical constants from artificial satellite motion
[ER-14617, VOL. I] 23 p4245 N67-39723
Atomic collisions and developments in classical methods, variational methods and bounds, and Faddeev equations
[NASA-CR-85261] 23 p4310 N67-39804
General variational equations for ground and time dependent nuclear excited states
[UR-875-317] 23 p4314 N67-39824
Parameter variation method applied to nonlinear functional equations
[NASA-TT-F-11272] 24 p4401 N67-39982
VARIATIONAL CALCULUS
Nominalistic interpretation of mathematics
[JPRS-38190] 01 p0054 N67-10259
Geometric derivation of transversality and corner conditions of variational calculus via dynamic programming
[RM-5099-PR] 05 p0739 N67-15004
Variational method used to derive hypersonic profile with minimum drag at assigned bending strength
[NASA-TT-F-10639] 06 p0795 N67-15699
Basic similarities in calculus of variations and optimum control theory for rocket flight between two points 07 p1113 N67-17529
Conjugate point and dynamic programming
[NASA-CR-81438] 07 p1113 N67-17825
Sufficiency theory based on Hilbert independence integral for least time problem of optimal control
[MRC-TSR-654] 09 p1469 N67-19721
Recursive functions and consistency proofs considered in study of axiomatic systems for expressing classical mathematical truth

[TR-4] 10 p1665 N67-20617
Variational theory of nonlinear operators and equations
[MRC-686] 10 p1665 N67-20644
Consistency proofs and representable functions
[REPT.-220] 10 p1665 N67-20689
Mathematical prediction of flight trajectories for various types of aircraft
[FTD-HT-66-343] 10 p1554 N67-20706
Dynamic programming techniques applied to discrete time variational problems
[RM-5189-PR] 11 p1845 N67-22580
New method for treating optimal trajectories
[NASA-CR-744] 11 p1909 N67-23306
Necessary conditions for optimal lunar trajectories with discontinuous state variables and intermediate point constraints
[NASA-TM-X-1353] 11 p1979 N67-23335
Evolution of elliptic partial differential equation theory under influence of variational calculus
[JPRS-39638] 11 p1900 N67-23407
Galerkin method for solutions of structural mechanics problems and theory of elasticity
[NASA-TT-F-10854] 13 p2417 N67-25603
Determining fuel-optimum ascent trajectories in vacuum - classical calculus of variations, Pontryagin maximum principle, dynamic programming, and gradient method
[NASA-TT-F-10745] 14 p2611 N67-26627
Variational calculation of ground state energy of liquid helium 4 and liquid helium 3
[TH/185] 14 p2594 N67-27765
Variational principles associated with neutron diffusion in solids
[MRC-TSR-711] 15 p2760 N67-28280
Some mathematical properties of multichannel variational synthesis equations and two-dimension numerical studies
[KAPL-M-6588] 15 p2764 N67-28454
Second variation method for computation of optimal control problem with terminal constraint
[NASA-CR-84847] 15 p2737 N67-28831
Conference presentations on applied mathematics in optimum thrust programming, extremization problems, and orbital calculations
[DLR-MITT.-65-18] 17 p3157 N67-30381
Correlations between optimization by means of dynamic programming and variational calculus demonstrated using simple problems 17 p3090 N67-30386
Impulsive solution used to solve optimum trajectory problems with bounded thrust magnitude
[NASA-TN-D-4869] 17 p3189 N67-30622
Variational calculus, gradient methods, maximum principle, and dynamic programing methods of optimal control theory of space vehicles
[NASA-CR-628] 20 p3735 N67-35169
Excitations as ground state variational parameters
[NIJB-R-496] 21 p3900 N67-35673
Equivalence of perturbation method, Newtons method, and adjoint-perturbation method for solving boundary value problems from variational calculus treatment of optimal control problems
[NASA-CR-89329] 23 p4346 N67-39037
Optimal smoother derived for linear time-varying systems using measurements containing colored noise by means of calculus of variations
[NASA-CR-89757] 24 p4410 N67-40366

VARIATIONAL PRINCIPLE
SA RAYLEIGH-RITZ METHOD
Variational principle for neutron diffusion equation using discontinuous trial functions
[WAPD-T-1866] 01 p0134 N67-10666
Boltzmann equation, variational principle, and mathematical models of collision operator in relation to kinetic theory and rarefied gas dynamics
[TP-979/1966/] 02 p0351 N67-11919
Computation of steady potential flow around two-dimensional or three-dimensional bodies by finite difference methods combined with variational techniques
[NLR-TN-T.127] 02 p1290 N67-12382
Strain components on middle surface of thin shells determined by variational principles of linear moment theory 09 p1588 N67-20141
Some variational principles for nonlinear eigenvalue problem
[MRC-678] 09 p1471 N67-20343
Variational principle for neutron diffusion equation using discontinuous trial flux functions - Lagrange multiplier method
[WAPD-TM-610] 12 p2158 N67-23562
Variational principles derived for boundary value problem of fully coupled linear thermoelasticity for inhomogeneous anisotropic continuum
[REPT.-66-21] 12 p2222 N67-23925
Derivation of variational principle equations for bending of laminated elastic plates
[MHR-66-63] 12 p2059 N67-24042
Variational principle for intensity of forbidden transition
[NASA-TT-F-10619] 12 p2175 N67-25038
Scattering variational principles 19 p3502 N67-32942
Variational principle for stationary magnetohydrodynamic equilibria
[MATT-676] 19 p3519 N67-32629
Variational principles of elastoplastic media 19 p3549 N67-32943
Restricted variational principle and solution of radiative transfer equation for gray gas
[PIBAL-1020] 21 p3947 N67-35925
Development of variable principle for stationary, bounded, magnetohydrodynamic flow 23 p4321 N67-38747
Motion constants and variational principle for stationary magnetohydrodynamic flow in toroid 23 p4321 N67-38748
Redefined energy-variational principle for steady state magnetohydrodynamic flow in toroid 23 p4321 N67-38749

VARNISH
SA FILLER
Polymerized resin varnish for surface protection against radioactive contamination 06 p0899 N67-16256
Heat resistance of enamaled wires, varnishes, and insulating materials for electric insulation
[TIL/T-5699] 13 p2295 N67-26127

VASCULAR SYSTEM
SA CARDIOVASCULAR SYSTEM
Decrease of pulse wave propagation speed in muscular blood vessels under influence of hypodynamis - muscular tonus change 02 p0186 N67-11460
Method for sounding arterial vascular canal in dogs 02 p0302 N67-11598
Hemorheological studies of spider-shaped arterial branching in human skin 05 p0646 N67-14592
Immediate and delayed changes in retina and its vascular bed in pigs exposed to intense unfocused light from xenon lamp 16 p2831 N67-29345
Cerebral air embolism - basic studies
[REPT.-493] 17 p3091 N67-30254
Vascular responses and wound repair in mice exposed to moderate and severe hypoxia
[NASA-CR-88517] 22 p3971 N67-37309

VASOCONSTRICTION
Retinal vascular response to oxygen at increased partial pressures 07 p1011 N67-17604

VECTOR
SA STATE VECTOR
Reaction between bare and physical mass of vector bosons interacting with fermions for two-dimensional field theory
[IC/66/114] 11 p1945 N67-22385
Source encoding in presence of random disturbance
[NASA-CR-84656] 15 p2665 N67-28012

VECTOR ANALYSIS
Indirect measurement of bound magnitudes - matrix algebra solution
[MT-147] 01 p0095 N67-10078
Electric and magnetic field intensity vectors in solving boundary value problem of electromagnetic oscillations 04 p0581 N67-13884
Mathematical points in solution of nonlinear equation for vertical component of velocity vortex 05 p0722 N67-14294
Rocket motion in central force field with constant reaction-acceleration vector 05 p0763 N67-14878
Vector correlation coefficients of upper winds in central Rocky Mountain range
[ECOM-5061] 05 p0723 N67-14965
Fortran IV matrix and vector operations programming system 06 p0848 N67-15905
Vector analysis approach to algebra of rotations with applications to least-squares rotation and rigid body motion
[NASA-TM-X-57187] 06 p1300 N67-18708
Newton method applied to value-vector problem for linear operator
[MRC-TSR-665] 10 p1664 N67-20688
ALGOL convolution procedures and fast Fourier transforms for vector computation
[AD-646628] 12 p2132 N67-24789
Linear rankings of finite dimensional pattern vectors
[SEL-66-091] 12 p2132 N67-24974
Functional analysis for studying distributions, distributions and applications of Fourier and Laplace transforms, and theory of vector valued distributions
[BN-431] 14 p2564 N67-27088
Applications of linear differential vector equations
[RADC-TR-66-595] 14 p2508 N67-27618
Finite rotations of body under effect of internal rotating flywheels 14 p2583 N67-27739
Polar vector analysis of wave interactions in steady flow
[AS-66-16] 16 p2876 N67-29073
Lossless N-port networks characterized by step-up vectors
[SEL-67-004] 16 p2871 N67-29219
Characterization of class of nonlossless scattering matrixes by biorthonormal step-up vectors
[SEL-67-005] 16 p2871 N67-29246
Proof of fundamental algebraic result for vector epsilon algorithm
[MRC-TSR-685] 17 p3091 N67-30441
Contact transformations
[NASA-CR-85853] 17 p3094 N67-31290
Vector generating techniques for Cathode Ray Tube /CRT/ display systems
[NASA-TM-X-55828] 17 p3039 N67-31302
Vector-matrix method for determining intensity of diffusely scattered light from cone and paraboloid of revolution
[RE-288] 17 p3122 N67-31466
Smoothing by means of functions analogous to Spline functions
[ONERA-TP-463/1967/] 19 p3483 N67-33854
Solutions to electromagnetic inductics problems using vector potential
[ORNL-TM-1843] 21 p3894 N67-35367
Vector and spinor current algebra and N/D method
[AFOSR-67-1640] 22 p4102 N67-36980
Vector analysis used to study two-impulse transfers between elliptical orbits
[NASA-CR-88480] 22 p4142 N67-37086
Introduction to problem of low thrust orbital transfer
[ELDO-TM-101] 23 p4343 N67-38438
Variable tangential acceleration in orbital transfer
[ELDO-TM-102] 23 p4344 N67-38448
Numerical analysis of spectral lines on photographic plates of nebulae to determine characteristic curves of spectrophotometric emulsion
[ARL-67-0125] 24 p4453 N67-40174
Optimization on Chebyshev points in regression analysis
[AD-659864] 24 p4483 N67-40461

VECTOR CALCULUS
Cluster expansions in calculating expectation values of many-fermion system observables with respect to dynamically correlated state vectors
[NASA-CR-85591] 17 p3132 N67-30666

VECTOR CURRENT
Formulation of current commutation relations in framework of general quantum field theory
[DESY-66/19] 04 p0591 N67-14071
Lectures on vector current theories, elastic and inelastic neutrino reactions SU/3/ symmetry for weak interactions, intermediate vector boson, and Goldberger-Treiman relation
[NP-16232] 07 p1148 N67-17414
Divergences of axial and vector hadronic currents
[JINR-E2-3089] 10 p1728 N67-21610
Nonconservation of charge vector current and minimum of electromagnetic interactions
[NP-16545] 13 p2378 N67-25569
Derivation in classical Lagrange field theory of equations giving divergence of weak vector and axial currents in presence of electromagnetic and weak interactions
[TH/178] 13 p2375 N67-25609
Regge pole concept combined with algebra of currents by generalizing latter to commutation relations on light cone from

conventional equal time commutators
[UR-875-179] 14 p2587 N67-37055
Derivation of sum rules for isovector nucleon form factor from divergence condition
[DESY-67/3] 16 p2947 N67-39740
Divergences of vector and axial-vector currents in strong interactions and application to meson photoproduction
[JINR-E02-3196] 19 p3501 N67-32931
Generalization of Cabibbo-Radicati relation to case of nonminimal electromagnetic interactions
[JINR-E2-3339] 23 p4110 N67-37913
VECTOR MESON
Influence of absorption corrections on peripheral photoproduction of pions and vector mesons, and joint photoproduction of vector mesons and first pi-N resonance on nucleons
[ER-19] 01 p0125 N67-10675
Massless spinor interaction with massive vector mesons in two dimensions
[NYO-1932-115] 10 p1718 N67-21477
Collinear production of vector mesons and SU-3 symmetry
[JINR-P2-2967] 10 p1738 N67-21656
Reaction between bare and physical mass of vector bosons interacting with fermions for two-dimensional field theory
[IC/66/114] 11 p1945 N67-23285
Neutral vector mesons and hadronic electromagnetic current studied in field theory context
[NYO-1932-116] 13 p2373 N67-25550
Spark chamber measurements on electron decay modes of neutral vector mesons
[JINR-E1-3148] 14 p2591 N67-37459
Kinematical constraints on Regge pole residues for processes with external spins - vector meson production and charged pion photoproduction
[TH/196] 17 p3138 N67-31376
Absorption model analysis of kaon-resonance reactions using pion and vector meson exchange
[AD-652836] 18 p3310 N67-32316
Solution of Bethe-Salpeter equation for lepton scattering via vector meson interaction
[ITF-67-4] 21 p3902 N67-36023
Photoproduction of multipion systems
[DESY-67/17] 24 p4502 N67-40381
VECTOR SPACE
SA BANACH SPACE
SA HERMITIAN POLYNOMIAL
SA HILBERT SPACE
Engineering applications of function space concepts to finite signals and systems - linear processing of finite data - vector spaces
[RADC-TR-65-399] 01 p0093 N67-10215
Subspaces of vector spaces of finite field of elements analyzed for purpose of coding
[AFCRL-66-477] 06 p0905 N67-16591
Lectures on functional analysis devoted to theory of Riesz spaces
[EUR-3140.E] 07 p1113 N67-18068
Extremum principle and linear inequalities in eigenvalues of self-adjoining linear operators
[REPT.-3543] 10 p1668 N67-21780
Difference analogs of Gauss theorem and Greens formulas
[MRC-TSR-695] 17 p3060 N67-30108
Relationship among sigma T, matrix T, and matrix 1/T for linear operators in normed finite dimensional vector spaces
[MRC-TSR-737] 17 p3069 N67-30251
Construction of energy functions for Morse system of vector fields on manifold
[NASA-CR-85614] 17 p3095 N67-31494
Survey of basic problems, theorems, and constructions for flow networks and generalized extension to frames of real vector spaces and blocking systems
[RM-5368-PR] 18 p3282 N67-32479
Structure of isotropic transport operators in three independent space variables resulting in regular and generalized eigenfunctions
[ANL-7328] 23 p4199 N67-38311
Optimal scaling of matrices with respect to vector norms, matrix bounds, and condition numbers of matrices
[ITR-15] 24 p4462 N67-40034
VECTORCARDIOGRAM
Vectorcardiographic changes during intracoronary injections
[NASA-CR-84435] 14 p3464 N67-37436
Digital computer program for analysis of vectorcardiogram data
[TI-66110-67-10] 18 p3218 N67-32374
VEGETATION
Radar sensor tests of effects of vegetation on detection and measurement of subsurface properties
[NASA-CR-79924] 02 p0234 N67-11854
Aerial photography interpretations of tropical and subtropical forests and vegetation 03 p0397 N67-12842
Aerial photograph interpretation of fresh water swamp forest structure and vegetation 03 p0397 N67-12850
Interpretation of aerial photographs on mangrove forest vegetation 03 p0397 N67-12851
Vegetative, soil, and photographic factors affecting tone in agricultural remote sensing 04 p0535 N67-13475
Vegetation analysis with radar imagery 04 p0537 N67-13509
Semiconductor hot-wire anemometers and electronic psychrometer for microclimatological studies of herbaceous vegetation 11 p1874 N67-21992
Measurement of dielectric constant of vegetation at microwave frequencies by cavity perturbation method
[NASA-CR-83925] 13 p2368 N67-25893
Relief features, climate, surface waters, soil mantle, vegetation cover, and animal inhabitants of Sinkiang province of Central Asia
[JPRS-40290] 14 p2586 N67-37383
Role of sky and lateral waves on electromagnetic propagation in forest environments
[AD-651639] 17 p3054 N67-30720
Field studies of Oregon vegetation and its relation to polarization radar imagery
[NASA-CR-88210] 21 p3849 N67-36024
Wind tunnel studies of photosynthesis and transpiration of forage stands to determine energy budget at earth surface
[ECOM-2-661-2] 23 p4241 N67-38147
VEHICLE
S AERODYNAMIC VEHICLE
S AEROSPACE VEHICLE
S AIR CUSHION VEHICLE
S AIRCRAFT
S BALLISTIC VEHICLE
S FLIGHT VEHICLE
S HYPERSONIC VEHICLE
S LAUNCH VEHICLE
S LUNAR ROVING VEHICLE /LRV/
S MILITARY VEHICLE
S MISSILE
S NONLIFTING VEHICLE
S POWER-LIMITED VEHICLE
S REENTRY VEHICLE
S RESEARCH VEHICLE
S ROCKET
S ROCKET VEHICLE
S ROTATING VEHICLE
S SATELLITE
S SHIP
S SPACE VEHICLE
S SPACECRAFT
S SURFACE VEHICLE
S TEST VEHICLE
S TRANSPORT VEHICLE
S UNDERWATER VEHICLE
S WATER VEHICLE
S WINGED VEHICLE
VEIN
Feasibility of noninvasive venous pressure measuring methods during weightlessness
[NASA-CR-87444] 20 p3573 N67-34451
Systems analysis of mechanical properties of veins
[NASA-CR-88978] 23 p4187 N67-38431
VEITCH DIAGRAM
Arithmetic forms of Boolean equations and application to circuit reliability calculations, and use of Veitch diagram 13 p2297 N67-25728
VELA PROJECT
Source location problem and least squares solution for ray theoretical models
[TR66-82] 11 p1900 N67-23154
VELOCITY
SA ACCELERATION
SA ACOUSTIC VELOCITY
SA AIR SPEED
SA ANGULAR VELOCITY
SA ESCAPE VELOCITY
SA FLOW VELOCITY
SA GROUND SPEED
SA GROUP VELOCITY
SA HYPERVELOCITY
SA PHASE VELOCITY
SA PROPAGATION VELOCITY
SA RELATIVISTIC VELOCITY
SA SOUND VELOCITY
SA WIND VELOCITY
Magnetic field line motion concept, and effect of conducting medium on velocity of field
[NASA-TM-X-55584] 02 p0450 N67-12322
Extracorporeal determination of difference in mean velocities of red cells and their suspending phase 05 p0645 N67-14590
Effects of cross sectional area changes in convergent-divergent nozzles on shock wave velocity
[AFOSR-68-2892] 05 p0696 N67-15000
Entropy production, dissipation, and critical velocities in superfluid helium
[LA-DC-8185] 07 p1065 N67-17486
Interplanetary gas and solar wind plasma velocities from orientations of ionic comet tails
[NASA-CR-81808] 07 p1185 N67-18070
Geometric factors affecting trilateration solutions for position and velocity
[RISO-3-66] 09 p1410 N67-19822
Flight tests to determine effects of altitude and weight on height-velocity diagram of single engine helicopter
[FAA-ADS-84] 11 p1784 N67-23430
Radial velocity of delta Ceti derived from spectrograms
[PUBL.-187] 12 p2389 N67-24040
Molecular beams, and velocity of sound surfaces in lithium
niobate 14 p [illegible]
Radio astronomical studies o[illegible] spectrum, radial velocity, constants, and emissions 14 p[illegible]
Perturbation velocities in [illegible] spanwise direction for thin rec[illegible] wings of low aspect ratio without lift in compressible subsonic flow
[DLR-FB-67-18] 15 p3239 N67-29[illegible]
Calculation method for wind tunnel wall interference velocities for tunnels of arbitrary cross section
[NASA-CR-845] 17 p3045 N67-30023
Aerodynamic effects of increased speed and altitude on sounding rocket flight
[TP-441/1967] 17 p3167 N67-31885
Factoring Newton equation for gravitation by velocity of light 17 p3122 N67-31494
Velocity shock recorder for measuring shock inputs experienced by shipping containers 19 p3452 N67-32[illegible]
VELOCITY DISTRIBUTION
Pressure, temperature, and velocity distributions of symmetric airfoil models in boundary layer wind tunnel
[DLR-FB-66-57] 04 p0479 N67-13798
Nature, size, and velocity distribution of random scatterers gathered by pulse radar on two wavelengths using vertical fixed beams 04 p0512 N67-13829
Experimental determination of velocity distribution in surface-scattered molecular beam
[D1-82-0649] 07 p1149 N67-18068
Rotational behavior of stars and formation of planetary systems
[NASA-CR-89656] 08 p1269 N67-19114
Velocity distribution of turbulent flow in vicinity of porous wall with homogeneous blowing and sucking
[AVA-FB-66-68] 08 p1269 N67-19163
Electron temperature, transport, and velocity obtained for electric field in polar semiconductor
[SR-8] 10 p1748 N67-[illegible]
Velocity and temperature distributions in thermally stratified boundary layer
[AD-645021] 11 p1915 N67-23[illegible]
Electron-electron relaxation rates determined from time-dependent electron velocity distribution 11 p1927 N67-23[illegible]
Particle aspect analyses of electromagnetic and electrostatic instabilities due to anisotropic velocity distributions
[IPPJ-56] 11 p1932 N67-23[illegible]
Microinstabilities due to anisotropic velocity distribution function of particles in homogeneous plasma
[CEA-R-3074] 12 p2179 N67-[illegible]
Quasi three-dimensional compressible flow analysis to determine aerodynamic velocity distribution on turbine blades
[NASA-TM-X-1304] 14 p2819 N67-[illegible]
Lasers and resonant scattering used to determine velocity distribution in plasma
[ARL-66-0224] 16 p2[illegible] N67-[illegible]
Eddy viscosity model for predicting

velocity distribution in wall boundary layer for variable shear flow
[NYU-AA-66-65] 16 p3279 N67-29628
Velocity distributions associated with bounded quiescent plasmas
[LA-DC-8213] 16 p3956 N67-29663
Flow on airfoil profiles with blowing out from nose slots - measurement of pressure, temperature and velocity distributions in boundary layer wind tunnel
[NASA-TT-F-10006] 18 p3186 N67-31950
Velocity distribution of compressible flow past symmetrical circular arc thin airfoil at subsonic speeds
[LGR-ER-0041] 19 p3344 N67-33973
Instability of particle velocity distribution in toroidal plasma
[CTO-366] 20 p3694 N67-34445
Integral equations for solving one-velocity neutron flux distribution in cylindrical lattice cell
[AECL-2700] 20 p3694 N67-34496
Surface interactions in free molecule flow - reflected particle velocity density function model
[AFM-66-17] 20 p3624 N67-34622
Equations for flow of compressible or heated rotating jet, and expressions for axial and radial distributions of velocity and enthalpy
[TAE-65] 21 p3833 N67-36173
Turbulence and spectral distributions of velocity and density fluctuations in stratified atmosphere
[R67SD43] 22 p4036 N67-37041
Polar flux contour maps for velocity and angular distributions of potassium bromide from crossed beam reactions K plus HBr and K plus DBr
[COO-1238-22] 22 p4105 N67-37274
Velocity distribution of metastable H atoms produced by dissociative excitation during electron bombardment
[COO-1112-120] 23 p4305 N67-38540
Plasma instabilities due to anisotropic velocity distributions
[ORO-2596-1] 23 p4317 N67-38576
Impact-force and velocity-change methods for calibrating shock accelerometers
[SC-DC-67-1785] 23 p4252 N67-38609
Seismological studies including work on mode filters, earth core models, surface wave velocity, wave excitation, and seismograph array data processing techniques
[AD-657007] 23 p4348 N67-39156
Preliminary evaluation of series of earth core models 23 p4348 N67-39159
Methods of measuring velocity distribution, pressure loss, and voidage fraction for randomly packed beds of spheres
[AAEC/E178] 24 p4493 N67-40356
Optical heterodyne measurements for mapping spatial velocity distribution in turbulent flow
[NASA-CR-89614] 24 p4434 N67-40512
VELOCITY ERROR
Probability distribution estimation for errors in discrete velocity measurement 05 p0393 N67-12423
Charts for determining reentry errors due to errors in retardation velocities imparted to satellites in circular orbit
[REPT.-66SD911] 20 p3727 N67-34719
Initial errors expected in satellite polar orbit after injection by ELDO A-8 launch vehicle and velocity correction estimation
[DTA-50-4644, APPEND. V] 21 p3864 N67-35739
Altitude and velocity errors in placing spin stabilized apogee stage ELDO satellite into polar orbit
[DTA-50-4644, APPEND. I] 21 p3935 N67-35913
Satellite position and velocity perturbations due to errors at injection
[MDC-TR-67-78] 23 p4343 N67-38252
VELOCITY MEASUREMENT
SA ACCELEROMETER
SA TACHOMETER
SA WIND VELOCITY MEASUREMENT
Combustion oscillations in propulsion systems and design and construction of shock tunnel for velocity measurement studies
[BIC-74] 01 p0163 N67-10085
Design and construction of shock tunnel test section for velocity measurement studies 01 p0057 N67-10086
Electromagnetic method for measuring direction and velocity of ocean currents from turning ship
[JPRS-38383] 01 p0067 N67-10096
Dislocation velocity measurements and microstrain characteristics of molybdenum single crystals of low dislocation density
[Q-R2196-2] 01 p0067 N67-11021
Sound wave velocities measured in tektites and other natural glasses
[NASA-TM-X-55593] 03 p0391 N67-13224
Methods for obtaining velocity and range information from continuous wave radars 04 p0513 N67-13939
Flow patterns observed and torque and angular velocity measured to study velocity field induced in Newtonian liquid by rotating cone 05 p0693 N67-14516
Visual particle velocity measurement of blood flow in live tissue 05 p0646 N67-14595
Laminar boundary layers with uniform fluid properties similar solutions to velocity equations involving mass transfer
[ARC-CP-857] 05 p0694 N67-14640
Thin film, heat flux probe for measuring gas velocities in unstable rocket combustor
[NASA-TM-X-1233] 06 p0882 N67-16678
Ultrasonic measurements of longitudinal and shear velocities in aluminum alloys 07 p1098 N67-16961
Flight path accelerometer used for determining flight test performance parameters 07 p1077 N67-16964
Improvement in ultrasonic velocity measurement techniques
[AD-643081] 07 p1083 N67-17707
Photographic measurements of shock wave velocity from gas released at high altitude by Skylark rocket determine atmospheric temperature 07 p1074 N67-17820
Optical method for measuring flow velocity in arc heated wind tunnel
[ARC-R+M-3439] 08 p1215 N67-18257
Velocity distribution function measurement of gas based on laser beam attenuation
[SUDAAR-275] 08 p1287 N67-18270
Flow separation bubble data, and comparisons with velocity and pressure measurements 08 p1219 N67-19307
Velocity measurements of particles in rotating plasma using Fabry-Perot interferometer with photoelectric recording
[FTD-HT-66-522] 09 p1490 N67-20342
Muzzle velocity measurement for tube-launched meteorological probes
[ECOM-5083] 10 p1598 N67-20456
Sea water current velocity measurements based on recording of Doppler frequency shifts in radiation scattered by water 11 p1880 N67-22371
Electric spark technique applied to measurement of velocity in leading edge vortex flow
[RAE-TN-AERO-2947] 11 p1859 N67-22710
Measurement of radial velocity of stars in the direction of the large Magellanic cloud 13 p2405 N67-26466
Photographic determination of radiants, altitudes, and velocities of meteors
[NASA-TT-F-10968] 15 p2789 N67-28228
Masses of meteors calculated from radiation, velocity, composition, and structural measurements
[NASA-TT-F-10690] 15 p2857 N67-28231
Hypervelocity impact of solid particles with obstacles at various angles 15 p2801 N67-28814
Space time correlations of longitudinal velocity fluctuations measured in turbulent boundary layer
[AFOSR-67-0060] 16 p2876 N67-29135
Doppler radar vertical incidence observations of turbulence in thunderstorm
[AFCRL-67-0015] 16 p2925 N67-29605
Measurements of luminous front velocity of plasma generated by rod plasma gun
[INR-716/XVIII/PP] 16 p2954 N67-29727
Ion velocity and electron temperature in hydrogen and air measured in coaxial plasma gun with monochromator
[INR-731/XVIII/PP] 17 p3142 N67-30706
Speeds, directions of arrival, and mass of dust particles measured from OGO-1 satellite to determine orbits of dust particles 18 p3323 N67-32070
Thermistor used to obtain temperature and velocity measurements of gas flow 18 p3260 N67-32384
Up-down counter for synchronization of instrumentation used with pressure driven shock tube
[HDL-TM-67-5] 19 p3450 N67-32855
Smoke-wire technique for measuring velocities in air
[USAAVLABS-TR-67-39] 19 p3431 N67-32981
Low density plasma tunnel status, small angle electron scattering for plasma diagnostics, and time of flight velocity analyzer using metastable molecules
[AD-653366] 19 p3515 N67-33009
Spherical dust particle terminal velocities in model Venus atmosphere
[LMSC-6-77-67-16] 20 p3725 N67-34896
Experimental arrangement for continuous velocity measurement of shock waves based on Doppler effect of microwaves
[ISL-T-26/65] 21 p3829 N67-35484
Measurements of velocity of ultrasonic pulses in water at high pressures
[TR-2] 22 p4099 N67-37412
Accurate velocity measurement by means of laser interferometer
[ONERA-TP-450/1967] 22 p4059 N67-37921
Equipment for controlling water levels in tidal river model and instrumentation for remote recording of water level and velocity
[NRC-9858] 23 p4251 N67-38188
Shock wave velocity measurement in rarefied gas, using counter to measure time between markers 23 p4232 N67-38708
Elastic wave velocity curve variations of calcite under hydrostatic pressure
[AD-659036] 24 p4446 N67-40240
VELOCITY POTENTIAL
Integrated cross section of helium with velocity-dependent potential 03 p0456 N67-12378
Energy level of oxygen 18 with soft core potential 03 p0456 N67-12571
Expansion for disturbance velocity potential of symmetric sonic flow past two-dimensional body
[RAE-TR-66030] 15 p2890 N67-28079
VELOCITY PROBE
Probe for determining molecular speed ratio in low density flows from nonequilibrium nozzle and free-jet expansions
[CAL-AF-2041-A-1] 10 p1607 N67-20534
Impact pressure of pitot velocity probe in low density flow
[AGARD-525] 16 p2878 N67-29533
VELOCITY PROFILE
Liquid rotation and vortexing during draining 06 p0666 N67-13899
Seismological studies of velocity structure in earth mantle and wave propagation in atmosphere-ocean system
[AFOSR-67-0178] 07 p1074 N67-17539
Velocity defect relationship for outer part of equilibrium and near equilibrium turbulent boundary layers
[ARC-CP-885] 08 p1264 N67-18369
Space receiver observations of Jovian decameter flux
[NASA-CR-82654] 08 p1359 N67-19113
Velocity, temperature, and concentration profiles on boundary layer of isobaric turbulent mixture in supersonic flow 08 p1372 N67-19210
Velocity and temperature profile measurements for adiabatic boundary layers on cylindrical bodies in transonic parallel accelerated flows
[NASA-TN-D-3882] 09 p1435 N67-19689
Velocity and temperature profiles in boundary layer above unstable evaporating film under influence of hot gas stream
[JPC-429] 11 p1861 N67-23179
Effects of nonuniform velocity profiles on straight channel flow subject to cross-flowing injection jet
[AFOSR-66-0987] 12 p2089 N67-24693
Tangential velocity profile in Ranque-Hilsch vortex tube by static pressure measurements at wall
[RISO-116] 15 p2689 N67-27934
Hall effect and initial velocity profile influence on magnetohydrodynamic flow in entrance region of parallel plate channel
[AEDC-TR-67-79] 16 p2953 N67-29625
Mathematical method for approximating velocity depth profile with segmented curve having continuous first derivatives
[USL-905] 17 p3119 N67-30809
Sequential spark method for velocity profile measurements across wake of hypersonic and supersonic spheres 22 p4089 N67-37611
North Atlantic velocity profile atlas for latitudes 40 to 60 degrees N
[NADC-AE-6647, VOL. I] 23 p4346 N67-38169

North Atlantic velocity profile atlas for latitudes 20 to 40 degrees N [NADC-AE-6647, VOL. II] 23 p4346 N67-38989
Shear layer over supersonic flow cavity, and velocity and shear-stress coefficient profiles 24 p4429 N67-39477
VENT
Bubble mechanics, boiling heat transfer, and propellant tank venting in zero gravity environment - storage and handling of cryogenic liquid propellants in orbit [NASA-CR-653] 03 p0302 N67-12700
Venting system for use with cryogenic propellants to control tank pressure during zero-gravity coast [NASA-CR-72113] 13 p2300 N67-25068
Vent subsystem design specifications for use in fuel cell assembly [NASA-CR-83955] 13 p2303 N67-25080
Inspection, proof pressure, and functional testing of check valve used in tank vent line of liquid hydrogen fuel system [NASA-CR-84075] 13 p2322 N67-26370
Environmental and function testing of hand operated gate valve used in liquid hydrogen storage tank vent system [NASA-CR-88003] 21 p3861 N67-36104
VENTILATION
SA HYPERVENTILATION
Thermal performance of air ventilated suits as heat exchangers measured on heated manikin [FPRC/1239] 01 p0023 N67-10546
Gain in thermal insulation due to air flow through material studied in relation to air ventilated suit [FPRC/1233] 04 p0477 N67-13656
Turbocooler for air conditioning systems in hermetically sealed sections of aircraft [FTD-HT-66-100] 09 p1542 N67-19043
External flow effect on internal expansion propelling nozzle incorporating ventilation by ambient air [ARC-CP-897] 10 p1551 N67-21199
Protective clothing for cooling and ventilation for military application [TR-66-97] 10 p1567 N67-21712
Protective clothing, and head ventilation device for flying personnel [FPRC/1237] 13 p2262 N67-25589
Radioactive xenon 133 used in determining inequality of ventilation and perfusion in flying personnel studies [FPRC/1236] 13 p2255 N67-25590
Posture effect on distribution of ventilation and perfusion within lung measured with xenon 133 [FPRC/1238] 13 p2256 N67-25600
Thermal assessment of convective air ventilated suit and water conditioned suit for personal cooling [ARC-CP-955] 22 p3960 N67-37729
Design of portable vent gas treatment plant for radioactive contaminant removal and fission product control 23 p4289 N67-38900
VENTILATOR
SA FAN
Motor and air noise levels measured on centrifugal ventilator designed for submarines [REPT.-668.116, VIII] 13 p2367 N67-25740
Sound measurements on submarine ventilator and electric motor to reduce noise [TDCK-67319] 13 p2328 N67-26032
VENTURI TUBE
Gas content, size temperature, and velocity effects on Venturi cavity inception [NASA-CR-79514] 02 p0253 N67-13220
Thermodynamic property effects of water and ethyl alcohol on cavitation processes in venturi tube [NASA-TT-F-10013] 14 p3819 N67-37523
Effects of gas content, size, temperature, and velocity on cavitation inception, primarily in Venturi tube [TID-23421] 17 p3048 N67-30058
Venturi tube separator for removing dust during metallurgical processes 20 p3451 N67-35107
VENUS
Mission planning for exobiological measurements on Venus [NASA-CR-79756] 02 p0314 N67-13073
Radio astronomy studies in 18-cm line emission sources, fringe visibility of bright radio sources, and spectral features of Venus and Jupiter 06 p0739 N67-14435
X-band gain measurement of Venus Deep Space Instrumentation Facility antennas 06 p0839 N67-15913
Trajectory and guidance analyses of Earth-Venus-Mercury mission in 1973 [NASA-CR-81636] 07 p1193 N67-17827
Comparison of surface and atmospheric characteristics of Earth and Venus [NASA-TM-X-57351] 08 p1361 N67-18435
Infrared balloon astronomy of Venus [AFCRL-66-616] 09 p1514 N67-20047
Estimates and definitions on characteristics of Venus lower atmosphere [P-3513] 11 p1976 N67-22577
Nominal natural environment values for advanced manned planetary space flights to Venus and Mars [NASA-SP-3016] 12 p2213 N67-25042
Meteorological data for Mars and Venus [NASA-CR-786] 13 p2402 N67-25652
Two planet or double flyby of Venus and Mars 14 p3817 N67-36531
Manned orbiting stopover round trips to Venus studied for departure dates between 1975 and 1986 [NASA-TM-X-52311] 14 p3813 N67-37239
Critical test of electric discharge model for Venus microwave emission [NASA-CR-84417] 14 p3614 N67-37376
Masses of Venus and Moon, and astronomical unit determined by Mariner II radio tracking data [NASA-CR-84976] 18 p2986 N67-29180
Handbook of physical properties, theories, and scientific observations for planet Venus [NASA-SP-3029] 17 p3185 N67-31439
Mission planning and experiment design for future Mariner-type Venus space probes [NASA-CR-86687] 18 p3236 N67-32577
Venus/Mercury swingby with Venus capsule - preliminary science objectives and experiments for use in advanced mission studies [NASA-CR-88488] 22 p4148 N67-37358
Earth-Venus trajectories analysis for launches scheduled in 1973 [NASA-CR-89529] 24 p4528 N67-39729
VENUS ATMOSPHERE
Instruments for measuring altitude dependent physical properties of Venus atmosphere from entry capsule 06 p0971 N67-15764
Spectroscopic and photometric analysis of Venus and Mars atmospheres to determine luminescence and other properties [NASA-TT-F-394] 07 p1186 N67-16861
Spectroscopic investigation of Venus atmosphere to determine nitrogen, oxygen, carbon dioxide, water vapor, and other components 07 p1186 N67-16862
Luminescence from lower atmospheric layers and ionosphere observed in Venus night airglow 07 p1187 N67-16863
Ionosphere model to explain spectrum of brightness temperatures found in radio emission from Venus atmosphere 07 p1187 N67-16864
Atmospheric model compared with astronomical observations to determine effect of cloud cover and resulting high effective temperature of radio emission from Venus in centimeter range 07 p1187 N67-16865
Curves of monochromatic albedo for limb and terminator of Venus 07 p1187 N67-16866
Shock layer radiation predictions from molecular band systems in Martian and Venusian atmospheres [NASA-TN-D-2956] 07 p1866 N67-17629
Atmospheric data for Earth, Mars, and Venus 08 p1507 N67-19032
Chemical reactions between polar hydrogen and carbon monoxide in Venus atmosphere [NASA-CR-82960] 09 p1512 N67-19984
Ignition temperatures of powdered metals in simulated Mars and Venus atmospheres [NASA-CR-83878] 09 p1544 N67-20163
Lunar and planetary studies dealing with Coude facility with 24-inch telescope, Dicke-type radiometer to measure emission from Venus, and emission spectra of silicates 13 p2398 N67-25660
Mariner Venus project design changes for flyby mission and sensing of Venus atmosphere 13 p2488 N67-25684
Upper limits on liquid water in Venus atmosphere due to presence of hydrogen chloride [NASA-CR-84691] 15 p2788 N67-28681
Derivation of atmospheric parameters for greenhouse model of Venus atmosphere [NASA-TM-X-52497] 16 p2990 N67-29923
Atmosphere, temperature, and cloud cover of Venus [NASA-CR-86835] 18 p3235 N67-32390
Spherical dust particle terminal velocities in model Venus atmosphere [LMSC-6-77-67-18] 20 p3735 N67-34696
Twilight cusp extensions of Venus and application to deriving heights of scattering atmosphere [P-3621] 21 p3939 N67-35841
Venus twilight sky investigated for discrepancies between predicted and observed shape and periodic appearance of planet [RM-5286-PR] 22 p4140 N67-37343
Two-layer atmosphere model of Venus [NASA-CR-88988] 23 p4343 N67-38948
VENUS FLY TRAP ROCKET
SA COLLECTOR
Electron diffraction patterns of olivine and enstatite as control study for Venus Fly Trap rocket experiments 18 p3233 N67-32600
VENUS PROBE
Summary reviews of flight of various Soviet spacecraft, and Venus probe [FTD-HT-66-226] 01 p0155 N67-11160
Multiple planet flyby missions to Venus and Mars in 1975 to 1980 time period [NASA-TM-X-52511] 02 p0804 N67-11823
Payload capabilities of Saturn IB-Centaur for launch opportunities to Mars in 1971, 1973, and 1975 and to Venus in 1972 and 1973 [NASA-TM-X-1227] 02 p0465 N67-12177
Estimates of planetary contamination probabilities due to flight of Venus 2 [NASA-CR-81286] 06 p0969 N67-16512
Cosmic ray intensity variation measured by Zond 3 and Venus 3 interplanetary probes [NASA-CR-83427] 06 p1238 N67-18908
Technical requirements study for applicability of lunar orbiter subsystems to Venus and Mars orbiters [NASA-CR-86362] 10 p1782 N67-21428
Flights of Venus 2 and 3, including spacecraft configuration, telemetry, trajectory, and orbital elements [RAE-LIB-PRESS-TRANS-97] 14 p3817 N67-36481
Mariner V - Venus scientific space probe [NASA NEWS RELEASE-67-136] 14 p3610 N67-37316
Feasibilty study of inflatable buoyant station for deployment in Venus atmosphere [NASA-CR-66404] 18 p3265 N67-32288
Deployment methods using parachutes for balloon inflation, and altitude cycling for inflatable buoyant Venus station [NASA-CR-66406] 18 p3265 N67-32289
Scientific instrumentation for inflatable buoyant Venus station [NASA-CR-66406] 18 p3236 N67-32290
Telecommunication and power supply requirements for inflatable buoyant Venus station [NASA-CR-66407] 18 p3245 N67-32291
Compatibility of small 250-lb inflatable buoyant Venus station with Atlas Centaur launch vehicle [NASA-CR-66408] 18 p3245 N67-32292
Feasibility of 2000-lb inflatable buoyant Venus station, and balloon and control development [NASA-CR-66405] 18 p3266 N67-32293
Scientific objectives and supporting experiments for Mariner-type spacecraft missions to Venus [NASA-CR-75200] 18 p3236 N67-32630
Trajectory and experiments for Mariner V Venus flyby mission [NASA NEWS RELEASE-67-227] 22 p4280 N67-36284
Lyman alpha radiation observations from AIS Venera 2 and 3 flights [NASA-CR-89788] 22 p4240 N67-36497
VENUS RADAR REFLECTION
Venus Deep Space Station experimental activities and equipment performance and improvements 06 p0949 N67-15788
VERMICULITE
Particle self-diffusion coefficients of sodium in vermiculite using thin bed technique 04 p0502 N67-13761
VERNEUIL TECHNIQUE
Alumina crystal structures - automation of Verneuil process [REPT.-5119-10-F] 18 p3718 N67-32236
VERTEBRAL COLUMN
Dynamic strength measurements of human vertebrae under axial compression [NASA-CR-83819] 22 p4060 N67-37660

VERTEX FUNCTION
Fubini sum rules for vertex functions
[AFOSR-67-1637] 22 p4102 N67-36916
Electromagnetic current vertex and axial current divergence examined to determine limitations of pion pole dominance
[AFOSR-67-1652] 23 p4297 N67-38158
Covariant propagators and vertex functions for nuclear spins
[AFOSR-67-1609] 23 p4296 N67-38190
VERTICAL AIR CURRENT
Mesoscale and turbulent vertical currents inside peak of cumulonimbus 05 p0732 N67-14391
Vertical air motion effects on temperature changes during stratospheric warming 15 p2740 N67-28138
Calculation of air vertical velocity rate over Finland on basis of precipitation rates
[REPT.-65] 23 p4282 N67-39345
VERTICAL AND SHORT TAKEOFF AND LANDING
S V/STOL
VERTICAL DISTRIBUTION
Vertical distribution of ozone and atmospheric circulation 03 p0419 N67-12903
Vertical incidence absorption measurements by ionospheric sounding and automatic recording system 05 p0700 N67-14643
Simulation approach to vertical diffusion rates in nonuniformly stratified atmospheres during study of low level diffusion of exhaust gases due to inadvertent fuel spills
[NASA-CR-61163] 07 p1118 N67-17631
Methods for analyzing vertical thermal structure of atmosphere from satellite remote radiation soundings 12 p2139 N67-24303
Laser radar returns from lower troposphere compared with vertical ozone distributions
[PMR-TM-67-2] 16 p2903 N67-29542
ESRO sounding rocket payload experiment for creation of artificial cloud of barium ions and for measurement of vertical ozone distribution in atmosphere between 30 and 90 km
[ESRO-SN-66] 17 p3167 N67-31170
Vertical distribution of stratospheric dust to determine total meteoric dust influx over earth surface 18 p3234 N67-32075
Artificial earth satellite observations of planetary distribution of ozone
[NASA-CR-87182] 19 p3449 N67-33867
VERTICAL FIN
Solving heat conduction boundary problems of vertical finned reactor fuel elements
[UJV-1622] 19 p3496 N67-33940
VERTICAL MOTION
Measurement of high altitude balloon gas and air temperatures for improvement of mathematical model describing vertical motion of zero pressure balloons
[C-62944] 06 p0790 N67-16343
Vertical accelerations due to structural vibrations of slender aircraft flying in continuous turbulence - aeroelastic response
[ARC-CP-842] 06 p1375 N67-18379
Vertical influence of dynamic disturbances between stratosphere and troposphere
[EMM-66-66] 09 p1471 N67-19480
Vertical motion of raindrops inside hurricane rainbands computed from airborne Doppler winds 10 p1671 N67-20434
Second order theory of cylinders oscillating vertically in free surface
[NA-66-7] 10 p1666 N67-20693
Theoretical analysis of ion vertical motion in central region of relativistic cyclotron
[JINR-P9-2917-1] 10 p1740 N67-21677
Production and maintenance of large scale cloud systems, and relationship between calculated fields of large scale vertical motion and Tiros cloud photography 12 p2138 N67-24292
Vertical water motions in ocean
[REPT.-17] 15 p2695 N67-27866
Vertical air motion effects on temperature changes during stratospheric warming 15 p2740 N67-28128
Doppler radar vertical incidence observations of turbulence in thunderstorm
[AFCRL-67-0015] 16 p2925 N67-29665
Flow fields created by single vertical jets directed downwards to horizontal surface
[ARC-CP-912] 16 p2915 N67-29925
Numerical calculation of three-dimensional trajectories using balanced horizontal and vertical motions 17 p3098 N67-30787
Dynamical structure of tropical atmosphere based on experiments with diagnostic numerical model 17 p3098 N67-30788
Fluid free surface proximity effect on sphere vertically accelerated from rest
[E-134.2] 22 p4034 N67-37099
Contribution of infrared cooling to vertical motion field, and effect in atmospheric energetics - adiabatic cooling 23 p4280 N67-38804
Test flight to obtain balloon gas and air temperature measurements for mathematical model of vertical motion of high altitude zero pressure balloons 23 p4180 N67-37283
VERTICAL PERCEPTION
Vertical and oblique view use in photograph interpretation
[AD-643242] 11 p1886 N67-23127
VERTICAL TAKEOFF AND LANDING /VTOL/
S VTOL
S VTOL AIRCRAFT
VERTIGO
Ataxia on normal humans and those with vestibular defects and vertigo
[NASA-CR-83815] 13 p2262 N67-25675
VERTOL MILITARY HELICOPTER
Effects of simultaneous development and production program on reliability of Vertol military aircraft 05 p0636 N67-15209
VERY HIGH FREQUENCY
Very high frequency radio set operating from single crystal source
[PD-5536] 03 p0365 N67-12388
Soil layering effects on use of VHF radio waves for remote terrain analysis 04 p0538 N67-13514
VHF and UHF high gravity telemetry instrumentation for HARP vehicles 06 p0822 N67-15382
Production engineering measures for very high frequency quartz crystal units
[QR-5] 06 p0855 N67-16421
Autonomic and cardiovascular disorders from chronic exposure to super high frequency electromagnetic fields
[ATD-T-66-124] 07 p1018 N67-16186
Improved Doppler very high frequency omnidirectional range monitoring system
[RD-66-49] 08 p1244 N67-18309
HARP vehicles - VHF and UHF high-g telemetry instrumentation
[BRL-MR-1768] 09 p1424 N67-19542
Analysis of system problems in conversion of missile telemetry from very high to ultrahigh frequency
[NAFI-TR-753] 11 p1834 N67-23060
New theory of transequatorial very high frequency radio wave propagation anomalies
[WRE-TN-CPD/T/-121] 13 p2282 N67-26191
Modified micrometer method for dielectric constant and loss measurements at 100 MHz
[HDL-TR-1329] 15 p2684 N67-28189
Antenna design for Gemini VHF-UHF polarization experiment to measure spatial and temporal distribution of free electrons in lower ionosphere
[NRL-6501] 16 p2883 N67-29226
Radar tracking of meteors at very high frequencies
[T-R-636] 17 p3157 N67-30199
VHF-UHF antenna for long distance ground to air communication at Maui, Hawaii
[SRDS-RD-67-11] 18 p3229 N67-32095
Foreshortened center-fed VHF antenna installed on military vehicle for radio communication
[AD-653843] 20 p3599 N67-34057
Very high frequency and ultrahigh frequency communication antennas effect on performance of VOR/VORTAC facility
[RD-66-88] 20 p3601 N67-34422
VHF surface wave electron density measurements in positive column of sustained mercury vapor arc 22 p4114 N67-36956
Design and fabrication of very high frequency filter crystals
[ECOM-2813] 22 p4012 N67-37104
Very high frequency closed ring magnetic dipole spark transmitter development
[TN-1967-34] 22 p4014 N67-37547
ATS-1 VHF channels for aircraft position fixing, and digital computer model for position error analysis of satellite navigation systems
[NASA-CR-86971] 23 p4089 N67-38002
Tabulated data of VHF propagation obtained over irregular terrain at 20, 50, and 100 MHz
[IER-38-ITSA-38] 23 p4212 N67-38146
VERY HIGH FREQUENCY RADIO EQUIPMENT
Solid state, low power, very high frequency transceivers for air traffic control towers
[FAA-RD-66-38] 07 p1038 N67-17619
Very high frequency Omni Range /VOR/ system radial stability and propagation error analysis
[EER-11-1] 07 p1040 N67-17621
Cross modulation frequency response of very high frequency preselector
[ECOM-2756] 10 p1565 N67-21681
Very high frequency instrument landing system beam calibration techniques
[RAE-TR-65196] 13 p2354 N67-26141
Techniques for designing solid state broadband transmitters in very high frequency range
[EDL-M1022] 16 p2861 N67-29382
RF intermodulation characteristics of VHF telemetry preamplifiers and receivers
[SC-DR-67-296] 20 p3601 N67-34429
High-efficiency VHF transistor CW RF power amplifiers for portable radio equipment
[ECOM-2836] 22 p4011 N67-36910
Test results on high gain VHF/UHF communications system for air traffic control
[RD-67-46] 23 p4217 N67-39245
VERY LOW FREQUENCY
Very low frequency long range hyperbolic radio navigation technique for air and sea transport requirements
[TDCK-45074] 01 p0103 N67-10079
Ground based observations of VLF ionospheric radio noise or hiss at 8 kc/sec in Arctic
[REPT.-20] 01 p0035 N67-10078
Very low frequency experiment and theory, and full-wave solutions of coupled wave equations 05 p0700 N67-14643
VLF emissions on 8 kc/s recorded simultaneously along chain of station in N-S direction to study latitude variation of polar VLF
[AFCRL-66-624] 05 p0704 N67-15039
Amplitude probability distribution of received noise and current in lightning discharges and of ELF and VLF radio noise
[RR-511] 06 p0870 N67-15439
Injun V very low frequency experiment - mechanical configuration, electric system, calibration procedure, and equipment
[REPT.-66-43] 06 p0973 N67-16139
Propagation of VLF waves below anisotropic stratified ionosphere with transverse static magnetic field
[RR-515] 07 p1027 N67-17551
Topside sounder, background radio noise, very low frequency, energetic particle, and electrostatic probe experiments of Alouette II satellite
[NASA-TM-X-57352] 08 p1370 N67-18431
Probe theory for impedance source calculation of satellite born very low frequency antenna
[NASA-TM-X-55668] 08 p1247 N67-18649
Dual frequency VLF data related to solar activity
[NASA-TM-X-55702] 08 p1248 N67-18779
Very low frequency pulse sounding system for receiving lower ionospheric radio signals
[AD-640735] 10 p1585 N67-21688
Analysis of Green function for coastal refraction of electromagnetic waves
[NYO-1480-55] 11 p1868 N67-22222
Experimental long range VLF relative navigation system used on research vessel Atlantis II
[AD-646056] 11 p1918 N67-23139
Very low frequency electromagnetic measurements of ionosphere using Rubis rocket 11 p1979 N67-23885
Very low frequency sferics of very large virtual source strength
[AFCRL-66-829] 12 p2094 N67-24779
Two-loop superdirective VLF receiving antenna for ionosphere D region measurements during total solar eclipse
[NOLC-694] 12 p2054 N67-24798
VLF propagation and solar microwave radio emission measurements at Brazil radio astronomical observatory
[GRAM-23] 13 p2276 N67-25161
Personnel and equipment at radio astronomical observatory, and VLF measurements during 20 May solar eclipse 13 p2276 N67-25162

Very low frequency tracking stations for radio astronomy, and initial signal analyses 13 p2277 N67-25143
Sudden ionospheric disturbances at very low frequencies, and waveguide mode propagation 13 p2277 N67-25144
Calibration curves for very low frequency radio receivers 13 p2277 N67-25145
29 May 1965 annular solar eclipse effects on VLF radio propagation 13 p2277 N67-25146
Computer program for amplitude average propagation effects of very low frequency radio signals 13 p2277 N67-25147
Spectrum of electromagnetic radiation in 2 to 16 Hz frequency range observed with east-west and north-south horizontal wire antenna from January - July, 1966 [SR-3] 14 p2456 N67-25748
Computer program for very low frequency ray tracing in model ionosphere [NASA-CR-84425] 14 p2536 N67-27360
Diurnal variation of upper atmospheric very low frequency phenomena in southern auroral zone [SU-SEL-66-124] 14 p2528 N67-27719
Natural phenomena in very low and extremely low frequency ranges - whistlers, transverse propagation, ionic plasma waves, resonance effects, and hydromagnetic wave propagation [ESRO-SN-31] 15 p2787 N67-27930
Mechanisms of whistler propagation and very low frequency emission generation [AFOSR-67-0461] 15 p2702 N67-28324
Low frequency and very low frequency ionospheric attenuation calculated on basis of wave theory [RM-5296-PR] 16 p2855 N67-29131
Airborne instruments for tracer studies in clouds and frequency control of VLF stations [PB-174051] 16 p2969 N67-29573
Frequency control of Navy very low frequency stations 16 p3061 N67-29575
Semiautomatic system for measuring and recording phase and amplitude of very low frequency transmissions [NRL-MEMO-1773] 17 p3022 N67-30468
Multiple-frequency oblique-incidence very low frequency ionospheric sounder [NOLC-722] 17 p3025 N67-30655
Anomalous sunrise effects observed on long transequatorial very low frequency propagation path in South Australia [WRE-TN-APD-7] 17 p3036 N67-30772
Very low frequency signal propagation, electron and solid state physics, automatic control processes, communications and networks, ferromagnetism, and electromagnetic waves [NASA-CR-85587] 18 p3350 N67-32215
Diurnal average and standard deviation of phases in modulated very low frequency signals 18 p3392 N67-32216
Very low frequency capacitance bridge [REPT.-66-C-333] 20 p3600 N67-34061
Periodic fading of very low frequency radio signals received from transmitter over polar path during sunset and sunrise [KGO-672] 20 p3600 N67-34221
Frequency dependence of dielectric constant and electric conductivity of water-containing rock determined to evaluate VLF and LF wave propagation through earth interior [AFCRL-67-0362] 21 p3837 N67-35621
Statistical measurement of spectral amplitudes and phases for atmospherics in VLF ranges [NASA-TM-X-55903] 21 p3840 N67-35964
Radiation efficiency of variable wave velocity horizontal antenna [NOLC-730] 22 p3995 N67-36821
Empirical study of ELF and VLF shielding materials [USL-891] 22 p4006 N67-36892
Digital data processing system for very low frequency radio noise and propagation experiment aboard OGO-I [NASA-CR-88618] 22 p3997 N67-37021
"USS Gyatt /DD-712 evaluation of Navy navigation satellite system /NAVSAT/ and very low frequency hyperbolic navigation system /Omega [IR-67-61] 23 p4282 N67-38113
Effect of off-path ionospheric reflections on very low frequency radio waves [NEL-1467] 23 p4213 N67-38266
VLF radio noise at low altitudes near magnetic equator from Injun III satellite observations [NASA-CR-89280] 23 p4249 N67-38348
Measurement and prediction of group velocity at very low radio frequencies [TR-585] 24 p4408 N67-39511
Injun 3 satellite observation of electron microbursts and very low frequency chorus emissions association [NASA-CR-89864] 24 p4437 N67-39658
Terrestrial propagation model for extremely low frequency and very low frequency waves below disturbed ionosphere [RR-536] 24 p4447 N67-40272

VESSEL
SA CIRCULATORY SYSTEM
SA PRESSURE VESSEL
Motion analysis for heavy liquid enclosed in partially filled vessel under weightlessness [NASA-CR-81711] 07 p1068 N67-18049
Metallurgy of stress-relief annealing for nuclear reactor vessel [EUR-3317.F] 14 p2576 N67-27126
Ionization method of measuring radiative heat transfer in water moderated reactor vessels 17 p3116 N67-31271
Method for locating and measuring nuclear material accumulations within process vessels at nuclear processing plants to obtain accurate material inventories [RFP-856] 23 p4263 N67-38456

VESTIBULAR APPARATUS
Vestibular motion sensor role in human dynamic space orientation and manual vehicle control [NASA-CR-638] 01 p0016 N67-10751
Effects of vibration, acceleration, and space flight on otolithic function of vestibular apparatus of guinea pig 02 p0130 N67-11420
Effect of vestibular apparatus under stress on organisms response reaction to radiation effects 02 p0181 N67-11423
Pharmacological protection of vestibular apparatus from radiation effects 02 p0181 N67-11424
Differential sensitivity of vestibular apparatus in tolerating accumulation of vestibular effects 02 p0183 N67-11423
Interaction of vestibular apparatus and vegetative components of motion sickness in dogs 02 p0183 N67-11435
Stimulation of vestibular apparatus by angular and Coriolis acceleration for determining changes of visual afterimage 02 p0184 N67-11446
Separate and combined action of vestibular and optokinetic stimuli in rabbits studied by electrodes implanted in cerebral cortexes 02 p0189 N67-11487
Increasing resistance of vestibular apparatus and human tolerance to extreme conditions by physical training program 02 p0218 N67-11489
Role of cholinoreactive and adrenoreactive systems in regulating vestibular reaction to nystagmus 02 p0199 N67-11578
Vestibular apparatus of rabbits subjected to prolonged Coriolis accelerations 02 p0204 N67-11618
Human tolerance of brief gyrations and angular accelerations 02 p0207 N67-11683
Interaction between visual and vestibular analyzers during weightlessness 02 p0207 N67-11653
Vestibular apparatus effects in adaptive reactions of organisms 02 p0210 N67-11675
Acute alcohol ataxia in relation to vestibular function [NASA-CR-89433] 03 p0047 N67-13190
Excitation and inhibition signal configurations in receptive field of vestibular analyzer causing motion sickness syndrome 04 p0486 N67-13438
Decelerator tests performed at forces between 54 G and 180 G to determine effects on vestibular apparatus of chimpanzees [NASA-CR-89719] 04 p0490 N67-13873
Ionizing radiation effect on functioning of vestibular apparatus [NASA-TT-F-10814] 04 p0491 N67-13790
Torque motor servorotator for vestibular application [NASA-CR-89763] 04 p0497 N67-13917
Cerebral cortex and function of vestibular apparatus, including bibliography [FTD-TT-66-20] 05 p0649 N67-14703
Vestibular changes, human equilibrium and orientation, and adaptation of gravitoinertial receptor mechanisms during space missions - conference [NASA-SP-115] 05 p0654 N67-15121
Vestibular changes encountered by Russians during space flights, parabolic flight of aircraft, and simulated laboratory experiments 05 p0654 N67-15122
Anatomical structure of vestibular sensory organ system 05 p0654 N67-15125
Dimensional study of vestibular end organ apparatus in human, squirrel monkey, and cat 05 p0654 N67-15126
Morphological polarization of mechanoreceptors of vestibular and acoustic systems in birds, fishes, mammals, and frogs 05 p0655 N67-15127
Functional significance of ultrastructure of sensory hair cells in vestibular end organs 05 p0655 N67-15128
Neuronal connections in sensory epithelia and pathological aspects of vestibular epithelia in squirrel monkeys and cats 05 p0655 N67-15129
Vestibular nuclear complex of cat, afferent and efferent fiber connections and synaptic arrangements, and dissimilarity in functioning of cell groups and parts of nuclei 05 p0655 N67-15131
Otolith and nonotolith information influence in perception of visual horizontal by rotating human subjects with normal and defective labyrinthine functions 05 p0656 N67-15134
Angular and linear acceleration effects influence upon cupula with resulting changes in human nystagmus - central converging otolithic influence upon cupula 05 p0656 N67-15135
Control engineering approaches to study of vestibular organs and human orientation in space 05 p0662 N67-15139
Needs, plans, and identification of pathologic effects on vestibular organs with prolonged exposure to weightlessness 05 p0657 N67-15142
Kinematics nomenclature for physiological accelerations, particularly vestibular applications [NASA-CR-81715] 07 p1016 N67-18005
Description of acceleration platform for vestibular research [NASA-CR-82403] 08 p1283 N67-18972
Physical properties of labyrinth fluids in human vestibular system [NASA-CR-82977] 09 p1402 N67-19883
Review of vestibular function, spatial disorientation, and motion sickness [AD-637943] 10 p1809 N67-20543
Adaptation to vestibular disorientation - influence of interrupting nystagmic eye movements with opposing stimuli [AM-66-37] 11 p1798 N67-23807
Kinematics nomenclature for physiological accelerations and special reference to vestibular apparatus [NASA-CR-83566] 11 p1796 N67-23231
Reaction of single neurons in visual region of cat cerebral cortex to rocking stimulation of vestibular apparatus 18 p3236 N67-30814
Functional state of otolithic part of vestibular analyzer of guinea pigs after chest and back exposure to acceleration 18 p3238 N67-32644
Oxygen consumption of brain in rats with partially destroyed auditory system and vestibular apparatus during repeated vibration exposure 18 p3239 N67-32648
Chronic gamma radiation effects on vestibular apparatus of guinea pigs and role of time factor in radiation reactions of nervous system 18 p3239 N67-32656
Effects of vibration before and after gamma irradiation on functional state of vestibular apparatus in guinea pigs 18 p3239 N67-32657
Vestibular disorientation to angular accelerative and bilateral caloric stimulation following unilateral caloric habituation [FAA-AM-67-2] 18 p3235 N67-32659
Reflex excitation of spinal motoneurons in recording electrical stimulation effects on human vestibular apparatus 22 p4186 N67-36116
Relationships between vestibular nystagmus and visual acuity [NAMI-1000] 24 p4388 N67-38670
Water immersion and body position effect on perception of gravitational vertical [NADC-MR-6708] 24 p4383 N67-39102
Theoretical and clinical studies on human and animal vestibular apparatus - radiation and space flight effects, functions of otolithic formations, and astronaut selection

[JPRS-42843] 24 p4287 N67-40569
Survey on theoretical and clinical studies of vestibular reactions to various stimulations 24 p4288 N67-40570
Astronaut selection by test evaluation of vestibular apparatus functional stability 24 p4288 N67-40571
Damaging radiation effects on vestibular apparatus in rabbit 24 p4288 N67-40572

VESTIBULAR EFFECT
Cardiovascular activity and vestibular disturbance effects in man under flight conditions 02 p0179 N67-11412
Performance of human subjects in vertical writing tasks after being rotated - evaluation of post-rotary vestibular nystagmus 02 p0184 N67-11447
Effect of metamizil, pentaphene, and aminazine on certain vestibular disorders - cholinolytes and adrenalytes as motion sickness drugs 02 p0185 N67-11456
Vestibular functioning and motor activity under space flight conditions 02 p0192 N67-11512
Rotary test to determine latent forms of motion sickness in astronauts under conditions of weightlessness - vestibular effect 02 p0195 N67-11548
Influence of adequate vestibular stimuli of external respiration functioning in man 02 p0204 N67-11621
Correlation between human sensory reaction and vestibular analyzer after radial acceleration 02 p0221 N67-11650
Egocentric localization of visual horizontal in normal and labyrinthine-defective observers as function of head and body tilt [NASA-CR-83525] 11 p1794 N67-23251
Review of conference on NASA mission-oriented vestibular research [NASA-CR-83833] 13 p2257 N67-25743
Nyctometric studies and effect of vestibular excitation on dark adaption [NASA-TT-F-11143] 22 p3971 N67-37422
Adaptation to vestibular disorientation - eye movements and subjective turning responses to angular acceleration [AM-67-6] 23 p4196 N67-38956
Adaptation to vestibular disorientation - visual fixation affecting nystagmus and sensations of turning [AM-67-12] 23 p4192 N67-39027
Vestibular responses to lateral canal stimuli of various accelerations [NASA-CR-89670] 24 p4383 N67-39776
Nystagmus responses of men and cats to equivalent vestibular stimuli of angular accelerations [NASA-CR-89669] 24 p4383 N67-39777

VESTIBULAR TEST
Ataxia on normal humans and those with vestibular defects and vertigo [NASA-CR-83815] 13 p2263 N67-25675
Head restraint device based on vacuum bladder technique for use in vestibular studies [NASA-CR-83949] 13 p2263 N67-25968

VHF OMNIRANGE
S VOR SYSTEM

VIABILITY
Viability of microorganisms under conditions of extreme dryness, irradiation, and temperature approximating those on Mars [NASA-TT-F-10721] 15 p2649 N67-28222
Viability of cat brain frozen for long periods and comparison of cryoprotective agents for preservation of brain [J-295-1] 19 p3272 N67-32875

VIBRATION
SA ACOUSTIC VIBRATION
SA BENDING VIBRATION
SA FLUTTER
SA FORCED VIBRATION
SA FREE VIBRATION
SA LATTICE VIBRATION
SA MAGNETOELASTIC VIBRATION
SA OSCILLATION
SA RANDOM VIBRATION
SA RESONANT VIBRATION
SA SELF-INDUCED VIBRATION
SA STRUCTURAL VIBRATION
SA TORSIONAL VIBRATION
SA TRANSVERSE VIBRATION
Limitations on inertial sensor testing produced by test platform vibrations [NASA-TN-D-3663] 01 p0071 N67-10224
Upper and lower bounds for eigenvalues of vibrating beams and flat plates with varying axial load [NASA-CR-653] 01 p0160 N67-10784
Combined action of vibration and ionizing radiation on central nervous system 02 p0199 N67-11579
Action of vibration and ionizing radiation on conditioned reflexes 02 p0199 N67-11580
Transfer matrices and stiffness matrices for uniform beams in steady state vibration [NASA-CR-79533] 02 p0315 N67-11686
Magnetic moments of vibrational states in even-even nucleus 03 p0436 N67-12575
Elastic-plastic loading-wave vibrations of finite rods 03 p0470 N67-12946
Method to test specimens and panels of airplane skin for vibration resistance in shell with propeller-engine unit [FTD-TT-65-1742] 05 p0771 N67-14657
Vibration attenuation concepts for helicopter design problems 05 p0832 N67-15182
Mechanism of octupole vibrational states found in inelastic scattering and vibrational states of type two-plus found in nuclei with partially filled shells 06 p0934 N67-15651
Vibrations of supersonic gas flowing in finite channel with oscillating walls 06 p0935 N67-15649
Vibration isolation mount for low frequency excitation 07 p1198 N67-16907
Statistical energy analysis for predicting sound and vibration transmission in shroud-enclosed spacecraft [NASA-CR-81688] 07 p1205 N67-16035
Integral operator method in theory of vibrations of anisotropic bodies with creep 08 p1374 N67-18218
Vibrations of two eccentrically disposed cylindrical shells in inviscid fluid flow 08 p1376 N67-18560
Buckling and vibration of eccentrically stiffened shallow shells of double curvature [NASA-TN-D-3836] 08 p1377 N67-18767
Nonseparable solutions of Helmholtz wave equation examined for application to vibrational problems [TR-01944.01-1] 09 p1518 N67-19550
Shock and vibration environment of Ranger Block III during surface transportation [NASA-CR-71771] 09 p1520 N67-19656
Vibratory motion of flexible shells subjected to random forces 09 p1526 N67-20059
Spherical shell vibrations under continuously distributed load over surface solved by Fourier method 09 p1532 N67-20096
Asymptotic method applied to natural vibration problems of rectangular elastic sandwich plates 09 p1532 N67-20163
Gamma vibrational bands in 182 osmium and 184 osmium [UCRL-16986] 10 p1709 N67-20932
Theoretical analysis of flow-induced vibration of blade suspended in flow channel [KAPL-M-6559] 10 p1616 N67-21651
Vibration of blades in axial flow turbines [REPT.-1088-1] 11 p1986 N67-23738
Vibration analysis of cantilevered square plate by stiffness matrix method 11 p1992 N67-23832
Vibration analysis, and eigenvalue solution of Titan III twenty percent dynamic model characteristics 11 p1992 N67-23837
Propeller-excited vibration forces on model ship hull [DTMB-2306] 13 p2411 N67-25140
Conference on shock and vibration [AD-647644] 13 p2411 N67-25161
Shock and vibration problems in ballistic and space vehicle technology 13 p2411 N67-25162
Perspective of shock and vibration technology 13 p2412 N67-25163
Vibration effects on critical currents of superconducting magnets [NASA-TN-D-3954] 13 p2592 N67-25793
Capacitive pressure transducers for conditions of high noise intensity, large frequency range, strong vibrations, and high heat flux [TP-413/1966/] 13 p2369 N67-26123
Longitudinal vibration characteristics of scaled dynamic model of liquid propellant multistage launch vehicle [NASA-TN-D-3975] 14 p2627 N67-27415
Harmonic linearization analysis of autovibrations in servomechanism with step-by-step servomotor 15 p2682 N67-28113
Solution to motion equations for nonlinear vibrations of one-dimensional elastic body under free flight conditions 15 p2682 N67-28819
Nonlinearity in elastic and aerodynamic characteristics and its influence on vibrations of rod in gas flow 16 p2816 N67-30054
Determining vibrational matrix elements of carbon monoxide from infrared spectra of molecules excited to high vibrational states by chemiluminescence or vibraluminescence 17 p3012 N67-30273
Vibration and acoustics effect on vehicle structural design 17 p3171 N67-30666
Vibration, shock, and structural reliability and design - conference [AD-651404] 18 p3348 N67-31688
Sources and control of mechanical vibrations affecting machine tool performance quality [RIA-67-103] 18 p3373 N67-31713
Shock and vibration conference proceedings on data analysis and instrumentation [AD-651403] 19 p3545 N67-33122
Absolute calibration of vibration generators with time sharing computer as integral part of system 19 p3452 N67-33137
Prophylaxis of vibration diseases in application to cybernetic machine tools [JPRS-41154] 20 p3572 N67-34369
Miyatas synthesis procedure applied to linear mechanical vibration systems 20 p3742 N67-35133
Vibration analysis of shipboard rotating machinery using mathematical model [AD-654196] 21 p3943 N67-36183
Vibration transmission characteristics of flexible pipe connections for Dacron and steel lined hoses [NSRDC-2441] 24 p4456 N67-39936
Non-symmetric, free, elastic vibrations of thin domes of revolution [TR-68-14-OSD] 24 p4546 N67-40231
Vibration loading on polymer materials [FTD-HT-67-197] 24 p4547 N67-40471

VIBRATION DAMPER
Vibration control in horizontal milling machine using torsional dampers in drive system [NEL-207] 03 p0405 N67-13089
Tuned viscoelastic damper effects on frequency response of multispan structures 13 p2414 N67-25191

VIBRATION DAMPING
Vibration damping of operating turbine blades [NASA-TT-F-10248] 01 p0002 N67-10205
Relation between modal damping characteristics and section dampers in lumped-parameter system for approximating longitudinal launch vehicle motion [NASA-TN-D-3637] 02 p0316 N67-11955
Resonance frequency and damping of internal visceral body structures determined from whole body vibration [AMRL-TR-66-162] 06 p0803 N67-16187
Effectiveness of lightweight flexible and rigid ring baffles for damping liquid oscillations in large scale cylindrical tanks [NASA-TN-D-3878] 09 p1434 N67-19088
Noise reduction and vibration control measures aboard Soviet ships [JPRS-39676] 12 p2106 N67-23941
Literature review and methods for reducing noise and vibration aboard ships 12 p2107 N67-23942
Noise reduction and vibration control aboard Soviet diesel-powered river barge 12 p2107 N67-23943
Vibration and viscoelastic damping in joints, beams, multispan structures, and composite materials - Conference [AD-647645] 13 p2413 N67-25189
Mathematical model of linear damping in cantilever beam vibrations 13 p2414 N67-25192
Air damping effects on structural fatigue failure 13 p2414 N67-25193
Structural laminates with viscoelastic material for damping vibration from machinery foundations to ship hull 13 p2414 N67-25194
Logarithmic damping factor of helical springs [MTB-010033] 13 p2415 N67-25440
Numerical methods and computer program for analyzing lateral plane vibration characteristics of simple structure possessing hysteresis damping [NASA-CR-83994] 13 p2416 N67-25604
Mathematical model for representing restoring force in hereditary springs showing hysteretic damping

[NASA-CR-83995] 13 p2418 N67-26005
Integral transforms used to calculate dynamic vibrations of thick walled elastic anisotropic cylinders and spheres with internal damping 14 p2626 N67-27070
Vibration frequency and damping behavior of Stored Tubular Expendable Member /STEM/ booms
[NASA-TN-D-3996] 14 p2444 N67-27290
Free vibration in damped structures, and application of A-P algorithm to matrix eigenvalue problems
[REPT.-27] 14 p2628 N67-27547
Application of A-P algorithm to non-proportion damped vibration problems represented by non-selfadjoint matrix differential equation 14 p2629 N67-27711
Aerodynamic damping prediction for blade vibration in turbine
[ONERA-TN-107/1967/] 16 p2815 N67-29942
Comparison of materials for vibrating structures under hysteretic damping
[ISAV-158] 16 p2938 N67-29972
Self-adapting rotor-induced vibration balancing device for helicopters 18 p3349 N67-31696
Damped vibrations of elastically supported rigid body with coupling between translation and rotation 18 p3349 N67-31700
Methods for evaluation of resonance curves generated by sinusoidal force vectors to determine critical frequencies and structural damping characteristics
[CRREL-SR-97] 18 p3306 N67-32489
Experimental structural damping with model of Saturn I launch vehicle
[NASA-CR-88873] 22 p4150 N67-37878
Model scale effect on structural joint damping
[NASA-TN-D-4192] 23 p4236 N67-38597
Aerodynamic damping of compressor blades and turbine buckets
[ONERA-TP-493/1967/] 23 p4175 N67-38621

VIBRATION EFFECT
Combined effects of acceleration, vibration, and radiation on mitotic activity of bone marrow cells of mice 02 p0181 N67-11425
Influence of vertical vibrations on human organism 02 p0196 N67-11552
Multiple vibration and fractionated irradiation effect on latent period of unconditioned defensive motor reaction 02 p0198 N67-11571
Vibration effects on natural convection and fluid transport properties in cryogenic systems
[NASA-CR-79540] 02 p0325 N67-11690
Spherical chromosomal fragments determined in exposure of Tradescantia microspores to periodic vibrations
[NASA-CR-79510] 02 p0310 N67-11740
Bioscience technology progress on radiation protection, toxicology, physiological response, immunology, cardiology, and other topics for industrial applications
[JPRS-38868] 03 p0337 N67-12290
Spectral analysis to assess vibration effect on humans 03 p0338 N67-12292
Relations for errors of sensitive elements during parametric excitation due to vibration obtained by correlation theory 03 p0378 N67-12770
Device to measure residual stresses by method of electrochemical etching and vibration to reduce friction effects in moving joints 03 p0396 N67-12782
Cardiovascular changes and noise reduction in electrocardiograph signals studied on human and dog during vibration
[NASA-CR-80356] 03 p0346 N67-13900
Mechanism of heat and mass exchange during vibrations of subliming body under free convection conditions in rarefied gas medium 05 p0773 N67-14387
Body vibration rate effect on heat and mass transfer during sublimation under vacuum conditions 05 p0774 N67-14388
Hand control designs and manual operator performance evaluated under random vertical vibration 06 p0811 N67-15870
Dynamic response of liquids during vertical excitation of propellant tanks 06 p0976 N67-15893
Interaction between liquid propellants and elastic structure 06 p0976 N67-15894
Literature survey on effects of shipboard vibrations on humans
[TDCK-46436] 07 p1023 N67-17941
Self-exciting vibrations in high performance and large load carrying axial compressors 09 p1518 N67-19490
Vibrational and cascade dissociation of hydrogen ions by collision with gas molecules
[CEA-R-3963] 09 p1489 N67-20157
Vibration effect, and optical activity in infrared region
[REPT.-3731] 10 p1696 N67-21747
Vibration effects on mass and convective heat transfer under vacuum sublimation conditions 11 p1997 N67-23050
Heat and mass transfer rate dependence on vibration velocity of body undergoing vacuum sublimation with steady state free convection conditions 11 p1997 N67-23051
Compaction products obtained from refractory metallides using ultrasonic activation
[NASA-TT-F-10774] 12 p2111 N67-25012
Vibration and temperature effects on dynamic response of composite material 13 p2414 N67-25196
Generalized spherical functions for solving problem of motion of axisymmetric solid with spherical cavity filled with viscous fluid around fixed point 13 p2419 N67-26183
Low frequency vibrations in big helicopters and transmission to pilot
[NASA-TT-F-471] 14 p2467 N67-26599
Human performance of tracking and loading tasks, and physiological effects of long term vibration
[ER-7979-12] 15 p2654 N67-28885
Propeller blade thickness and appendage asymmetry effects on propeller-appendage interaction
[REPT.-66-24] 16 p2980 N67-29663
Two different interpretations of measured dissociation rate constants and effects on coupled vibrational dissociational flows of oxygen over wedge
[NASA-TN-D-4028] 16 p2880 N67-30028
Bubble dynamics in vibrated liquids under normal and simulated low gravity environments
[NASA-CR-85575] 17 p3047 N67-30591
Intravascular gas bubble formation during decompression experiments with rats determined following preventive vibration treatment
[DLR-FB-67-24] 17 p3004 N67-30791
Vibration effects on flow field behind cylinder
[D1-82-0619] 17 p3049 N67-31226
Equipment and methods for studying effects of vibration on cardiovascular system of humans and animals
[NASA-CR-85611] 18 p3209 N67-31859
Effect and control of chatter vibration in machine tool processes
[QTR-1] 19 p3462 N67-32787
Analytic solution for acoustic pressure statistics in closed rectangular cavity behind supported rectangular plate excited by boundary layer turbulence
[USL-327] 20 p3689 N67-34913
Mathematical models, experimental test cells, and theoretical studies of vibration effects on heat transfer in cryogenic fluids
[NASA-CR-87996] 21 p3944 N67-35895
Stimuli frequency, number, and locus studied for intensity dependence of vibration-evoked cortical response in man
[NASA-TT-F-11193] 21 p3766 N67-35921
Vibration and noise effects on human performance in timed work situations
[NASA-TT-F-11143] 22 p3970 N67-37352
Bibliography and discussion of non-auditory effect of high-intensity noise and low frequency vibration on humans
[A66/KLU/639] 22 p3971 N67-37413
Analytical model for describing combustion chamber disturbances during start transient and steady state operations of hypergolic liquid rocket engines
[NASA-CR-86065] 22 p4167 N67-37886
Noise measurement under certain vibration and temperature effects
[ONERA-TP-448/1967] 23 p4181 N67-37967
Computer assisted analysis of vibration of flat rectangular plates with clamped and simply supported boundary conditions, using rectangular finite element technique
[ISVR-161] 23 p4256 N67-38265
Chemical kinetics and vibrational excitation in atom switching reactions 23 p4266 N67-38668
Effect of vibration and noise on mental faculty of man under time stress 23 p4191 N67-38822
Shock and vibration design criteria manual for transportation and handling
[NASA-CR-84606] 23 p4261 N67-39312
Vibration effect on carbohydrate metabolism in rats
[NASA-TT-F-11224] 24 p4399 N67-40130
Visual acuity during vibration measured as function of frequency, amplitude, and subject display relationship
[AMRL-TR-66-151] 24 p4302 N67-40244
Vibration effects on endocrine glands of white mouse
[NASA-TT-F-11226] 24 p4307 N67-40465

VIBRATION MEASUREMENT
Structural impedance and vibration measurement
[MEL-200/66] 10 p1706 N67-21374
Feasibility of optical holography for detection and measurement of vibrational characteristics of solid state transducers
[REPT.-7590-F] 14 p2826 N67-27162
Experimental methods for measuring vibrations using laser interferometer
[TM-9-67] 16 p2968 N67-30020
Vibrations induced in thin-walled cylindrical pipes by passage of internal turbulent water under varying flow conditions
[NASA-CR-86819] 18 p3251 N67-32116
Direct and iterative methods for determining eigenvalues and eigenvectors in vibration and flutter calculations
[REPT.-66-046] 19 p3543 N67-33737
Vibration measurement data reduction techniques applied to Saturn S-II vehicle 19 p3609 N67-33124
Cross reference index of lunar photos, FPAC supporting data, sequence of events, anomalies, V/H sensor performance, and telemetered vibration data from Lunar Orbiter II
[NASA-CR-66435] 19 p3836 N67-33584
Acoustical vibration measurements applied to shipbuilding
[JPRS-43402] 21 p3944 N67-36561
Spectral density analysis on Fire Project flight vibration data
[NASA-TM-X-1415] 22 p4148 N67-37300
Seismological study of ground vibration characteristics at site of future linear accelerator facility
[LA-DC-8718] 23 p4247 N67-38000

VIBRATION MEASURING APPARATUS
SA SEISMOGRAPH
SA SEISMOMETER
Vibrating plate gauges for measuring pulsing forces 03 p0396 N67-12781
Accelerometer used as transducer to measure precordial vibrations of dog hearts 07 p1030 N67-16905
Michelson interferometer and laser source for measuring oscillatory motion for calibration of miniature accelerometers 09 p1445 N67-19468
Design, fabrication, testing, and operation of microminiature rate of turn vibratory sensor
[NASA-CR-86715] 22 p4046 N67-37252

VIBRATION MODE
Natural vibration modes of cylindrical shells in hypersonic flow 04 p0618 N67-13709
Vibration behavior of circular conical shells
[NASA-TT-F-10313] 06 p0974 N67-15556
Ultrasonic vibratory modes, frequencies, power levels, and pulse times for torque system of wrench-tightening aluminum and stainless steel flared tubing connections
[NASA-TM-X-53550] 07 p1000 N67-17020
Calculation of absolute ft value for first forbidden transitions to collective gamma-vibrational states
[IC/66/116] 08 p1329 N67-18372
Estimation of pressure distributions for lifting surface for arbitrary vibration modes
[NLR-TR-F.280] 08 p1285 N67-18377
Axisymmetric vibrations of hemispherically-shaped elastic thin shell filled with fluid 09 p1518 N67-19492
Small parameter method used for calculating periodic vibrations of flexible shallow shells and plates 09 p1529 N67-20072
Vibrations, deflections, and equilibrium conditions of plate lying on elastic foundation, allowing for mass of moving load 09 p1530 N67-20087
Axisymmetrical flutter of cylindrical shells in supersonic gas stream, allowing for inertia forces of all displacements 09 p1531 N67-20092
Vibration mode characteristics of panel flutter in supersonic gas stream

flow 09 p1532 N67-20101
Quadratic matrix equations for determining vibration modes and frequencies of continuous elastic systems 11 p1991 N67-22829
Vibration mode shape and frequencies of orbiting radio telescope [NASA-CR-83972] 13 p2419 N67-26163
Vibrational energy distributions in complex structural mode shapes 14 p2625 N67-27064
Finite element method extended for dynamic analysis of complex continuum bodies - direct stiffness technique 14 p2625 N67-27065
Maximum acceleration response of asymmetrical trapezoidal pulse on single degree of freedom vibrating system 14 p2626 N67-27071
Relaxation and continuous vibration modes in semiconductor polyphase multivibrator 15 p2683 N67-28104
Vibration modes and transverse eigenfrequencies of conical and cylindrical shells [NASA-TT-F-11017] 16 p2977 N67-29009
Fortran IV program for dynamic design analysis, using influence coefficient matrix to generate normal vibration modes and fundamental frequencies 19 p3546 N67-33132
Nonlinear flexural vibration analysis using Galerkin method in thin-walled circular cylinders [NASA-TN-D-4090] 19 p3548 N67-33446
Extension of calculated frequency data for nonsymmetric mode vibrations of clamped-edge shallow spherical shell [TR-1001/2246-30/-11] 21 p3940 N67-35624
Estimating lifting surface pressure distributions for arbitrary vibration modes [NLR-TR-F.250] 21 p3851 N67-36128
Stress response to inertial loadings and vibration modes of blunt conical glass fiber sandwich planetary entry capsule shell in launch configuration [NASA-CR-66465] 24 p4545 N67-40134

VIBRATION PICKUP

Methods and equipment for measuring oscillatory derivatives on sting-mounted wind tunnel models [RAE-TR-66197] 23 p4176 N67-39221

VIBRATION PROTECTION

Nonlinear vacuum spring in suspension system for shock and vibration protection 18 p3349 N67-31697

VIBRATION TESTING

Fundamental vibration of arterial pulse wave [NASA-TT-F-9572] 01 p0013 N67-10197
Global method applied to vibration problems [TP-405] 04 p0569 N67-14196
Inertia constants determination by ground vibration testing and results obtained with rigid and flexible aircraft scale models [TP-396] 04 p0582 N67-14304
Dynamic response of sloshing propellants, tank configurations and construction, and vibration testing of dynamic launch vehicle models 06 p0866 N67-15890
Vibration analysis of safety and relief valves in 4-inch steam pipeline of sodium components test installation [NAA-SR-MEMO-11961] 07 p0909 N67-17586
Aerospace technology studies through vibration ground testing 08 p1376 N67-19661
Procedure for designing localized shell and finite difference computer program applications to Saturn V vibration testing project [NASA-CR-83627] 11 p1994 N67-22355
Automatically controlled low frequency air spring suspension system for vibration testing [NASA-TN-D-3891] 11 p1861 N67-23287
Nimbus satellite design study - failure rate data sheets, vibration tests of pulse code modulation and telemetry electronics, encoding accuracy, and metal oxide silicon field effect transistors [NASA-CR-83729] 12 p2218 N67-24621
Damping properties of viscoelastic materials from vibration tests on symmetric beam specimens 13 p2414 N67-25190
Theoretical and applied mechanics research programs for mathematical analyses of stresses, vibrations, fluid flow and materials behavior 14 p2622 N67-26612
Shock and vibration testing conference papers [AD-646983] 14 p2622 N67-26642
Acceleration measurements and force in specifying and monitoring laboratory vibration tests 14 p2622 N67-26643
Feasibility of force controlled spacecraft vibration testing using notched random test spectra 14 p2622 N67-26644
Comparison of Mariner assembly level and spacecraft level vibration test 14 p2623 N67-26645
Acoustically induced vibration testing of spacecraft components 14 p2623 N67-26646
Reproduction of complex and random waveforms at various points on test item 14 p2623 N67-26647
Multiple shaker ground vibration test system designed for XB-70A aircraft 14 p2511 N67-26648
Vibration testing to determine helicopter performance 14 p2623 N67-26649
Shock and vibration testing of spacecraft and Saturn launch vehicle using four shaker system 14 p2623 N67-26651
Design techniques for horizontal driver 14 p2511 N67-26652
Flight level vibration testing of lifting body reentry vehicle 14 p2624 N67-26653
Hydraulic exciter combined environment tests 14 p2511 N67-26654
Vibration testing, and vibration feedback control signal averaging 14 p2624 N67-26655
Multishaker control during sinusoidal and random vibration testing 14 p2511 N67-26656
Bond strength, temperature cycling, vibration, and infrared testing of aluminum to aluminum diffusion bonds [RADC-TR-67-62] 17 p3025 N67-30461
Vibration and thermal radiation effects on filter wedge infrared spectrometer used in spacecraft studies of planetary atmospheres [NASA-CR-85797] 17 p3070 N67-31236
Dynamic behavior of gear hobbing machines, test rig for rotational excitation of gear drives, and transfer function measurement setup for use in control of machine tool chatter vibration [QTR-3] 18 p3273 N67-31548
Spacecraft vibration qualification test effects on vibration reliability during launching 18 p3339 N67-31689
Fatigue, vibration, and environment testing of Saturn S-IC stage hardware 18 p3339 N67-31690
Structural reliability analysis, and vibration and shock testing 18 p3349 N67-31691
Vibration testing and dynamic analysis of ATS-B model 18 p3339 N67-31692
Localized structure for laboratory vibration testing of shell structure-mounted components for Saturn V launch vehicle [NASA-CR-87100] 19 p3543 N67-33851
Mechanical signature obtained during vibration test for detecting loose parts and free objects in sealed electronic equipment 19 p3546 N67-33129
Vibration and shock tests on reentry nose configurations [NASA-CR-66467] 21 p3944 N67-36559
Environmental test data for high resolution nighttime cloud cover radiometer [NASA-CR-86759] 23 p4047 N67-37382
Vibration testing of pressurized toroidal shell [NASA-CR-884] 23 p4356 N67-38378

VIBRATION TESTING MACHINE

Coupled power amplifier- providing high output impedance, low phase shift, and response to dc for vibration testing [RAE-TR-66231] 11 p1839 N67-22923

VIBRATIONAL FREQUENCY

Computation of vibrational frequencies of hydrazine molecule [FTD-TT-65-1990] 05 p0665 N67-14749
Vibration analysis of cylindrically curved panels with simply supported or clamped edges [NASA-TN-D-3791] 06 p0979 N67-16689
Vibration frequencies of elastic plate having cavities filled with incompressible moving fluid 07 p1201 N67-17100
Energy method and Fortran computer program for calculating vibrational characteristics of large complex space vehicles [NASA-CR-82665] 08 p1379 N67-19186
Approximate solution using single-frequency vibrations to determine nonstationary flutter of shallow cylindrical panels in supersonic gas stream 09 p1533 N67-20109
Frequencies of natural vibrations in built-up shells determined by dynamic rigidities method 09 p1535 N67-20124
Vibrations and stability of anisotropic and sandwich cylindrical shells of arbitrary cross section 09 p1536 N67-20128
Vibrational frequencies and critical frequencies of exciting loads of elastic and viscoelastic cylindrical shells partially filled with ideal liquids 09 p1538 N67-20142
Fortran force constant adjuster program for obtaining least squares fit to observed vibrational frequencies of molecules and crystals [IN-1077] 18 p3315 N67-31637
Error estimation of operator needed for approximate expression for natural vibration frequencies of free beam with variable parameters 20 p3740 N67-34869
Tabulated vibrational frequencies for study of atomic and molecular properties [NSRDS-NBS-6, PT. 1] 21 p3791 N67-36437
Exact solutions for vibrations of hollow elastic cylinder bonded to thin casing of different material [NASA-TN-D-4221] 24 p4542 N67-39663

VIBRATIONAL RELAXATION

Relaxation of non-dissociated nitrogen in hypersonic wind tunnel measured by use of one-dimensional flow equations, transformations, and numerical integration 02 p0252 N67-11964
Exchange of vibrational energy between components of air behind normal shock wave front 04 p0529 N67-13706
Relaxation phenomena behind strong shock in hydrogen - attainment of vibrational equilibrium state [RISO-35] 04 p0598 N67-14586
Coupled vibration and dissociation relaxation behind strong shock wave in carbon dioxide [NASA-TR-R-253] 07 p1154 N67-17616
Molecular vibrational relaxation effect on structure of unsteady rarefaction waves in oxygen and oxygen/argon mixtures [ARC-CP-730] 08 p1264 N67-18265
Vibrational relaxation of molecular interactions in gases [ARC-CP-725] 11 p1859 N67-23796
Shock tube studies of vibrational relaxation and chemical induction zone phenomena in gaseous detonations and low temperature hydrogen oxidation [REPT.-66-GC-0336] 12 p2238 N67-24783
Numerical solution for problem of supersonic airflow around sphere taking into account vibrational relaxation 13 p2309 N67-26391
Determination of thermodynamic state of relaxing hypersonic gas flows by electron beam technique [DGRR/WGLR PAPER-66-114] 15 p2803 N67-27925
Diffusion concept in chemical kinetics, rotational relaxation in diatomic molecules, impact velocity, and quantum mechanical treatment of dissociation energy [ARL-67-0061] 18 p3227 N67-32589
Energy transfer probability in collision between diatomic molecule and atom, and vibrational relaxation of diatomic molecules 18 p3227 N67-32591
Spectrophotometric measurements of vibrational relaxation of CO in shock wave and nozzle expansion-flow environments [NASA-CR-87276] 19 p3550 N67-33015
Thermodynamics of gases with vibrational relaxation and materials with memory [REPT.-67-15] 19 p3550 N67-33121
Relaxation and radiation behind normal compression shock in supersonic airflow 19 p3432 N67-33581
Breakdown of near-equilibrium solutions in expanding non-equilibrium flows for vibrationally relaxing gas [ARC-CP-923] 20 p3634 N67-34720
Vibrational relaxation of diatomic gas of anharmonic oscillators [CAL-AF-2022-A-3] 21 p3829 N67-35347
One-dimensional inviscid nozzle flows with coupled vibrational and dissociational nonequilibrium [NASA-CR-66474] 22 p4025 N67-37359
Comparison of sodium D-line reversal temperatures and nitrogen vibrational temperatures in region of vibrational relaxation behind incident shock waves 23 p4364 N67-38606
Infrared emission from shock heated hydrogen chloride and vibrational relaxation times 23 p4305 N67-38697

Sound absorption and velocity measurements in carbon dioxide and heavy water mixtures
[AD-657198] 23 p4367 N67-39259
Electron excitation spectroscopy for measuring vibrational temperature dynamics of relaxing hypersonic gas flow
[NASA-TT-F-11258] 24 p4552 N67-40436
VIBRATIONAL SPECTRUM
SA SHOCK SPECTRUM
Vibrational spectra, normal modes, and dynamic and thermodynamic properties of disordered harmonic lattices
[LA-3510] 02 p0294 N67-11715
Franck-Condon factors calculated for vibrational energy level transitions in molecular hydrogen band systems
[NASA-CR-72107] 02 p0291 N67-11962
Vibrational spectra of relatively simple hydrogen-bonded compounds investigated by normal coordinate analysis
[AROD-3899-8] 09 p1410 N67-19807
Fiber optic device for measuring missile vibration spectrum
[NASA-CR-82856] 09 p1450 N67-20553
Infrared vibrations of benzene rings in condensed thiophenes
[BM-RI-6911] 13 p2373 N67-28310
Vibrational levels of nitrogen band system of polar aurora observed at different latitudes
15 p2696 N67-27593
Changes of rotation-vibration spectrum of simple molecules during dissolution
[NASA-TT-F-11027] 16 p2842 N67-29014
Measurement of relative oscillator strengths in arc spectrum of iron by emission method
18 p3334 N67-31707
Electric modeling of bond oscillations in nucleic acid and determination of nucleotide sequence
20 p3575 N67-34511
VIBRATIONAL STRESS
Influence of vibrational stimuli on functional interrelationships between brain and central nervous system and oxygen metabolism in sensory-motor and visual areas
02 p0200 N67-11585
Influence of vibration on radiation injury in mice and dogs
02 p0200 N67-11586
Effectiveness of tuned viscoelastic vibration dampers in aerospace vehicles
07 p1309 N67-16959
Problems of seismic force, vibrational resistance, and hydraulic structures in earthquake engineering
07 p1071 N67-17334
Probability density of extreme values of deflections and stresses of elastic shell nonlinear vibrations under random loads
09 p1537 N67-20066
Natural vibrations and stability of rectangular plates of variable thickness calculated for various boundary conditions
09 p1537 N67-20132
Transfer function used to calculate expected vibration levels at locations of Scout Launch Vehicle from noise levels during flight
14 p2625 N67-27068
Army research and development activities in electronics, theoretical and applied physics, ballistics, pyrotechnic chemistry, and weapon system technology
[AD-634616] 15 p2806 N67-27971
Transfer function analysis on human response to mechanical vibration
[AD-634632] 15 p2853 N67-27982
Multiple exposure to vibration and functional state of spinal reflex arc in guinea pigs
16 p2838 N67-29245
Effect of vertical vibration and noise on conditioned reflexes of rats
16 p2839 N67-29246
Functional significance of changes in bioelectric activity of rat brain during vibration
16 p2839 N67-29247
Oxygen consumption of brain in rats with partially destroyed auditory system and vestibular apparatus during repeated vibration exposure
16 p2839 N67-29248
Respiratory changes and oxygen metabolism in rats exposed to vibration
16 p2839 N67-29250
Effects of vibration before and after gamma irradiation on functional state of vestibular apparatus in guinea pigs
16 p2839 N67-29257
Effect of vibration and vibrostand noise, both in combination with X-ray irradiation, on conditioned reflexes of rats
16 p2839 N67-29258
Design theory for vehicle suspension system with increased speed capability over rough terrain
18 p3256 N67-31924
Influence of adjoint volumes on characteristics of axial flow compressor and vibration stresses of blades
23 p4236 N67-39129
VIBRATOR
SA CHOPPER
Multiposition machine for fatigue testing of flat specimens using ring-shaped vibrator and electric heater
[FTD-TT-65-1291] 05 p0711 N67-14738
Ground motion due to surface sources determined by use of mechanical vibrator
[REPT.-3-158] 11 p1670 N67-22548
Wideband dummy dipole vibrator antenna configuration utilizing coaxial line made of high resistance alloy to insure precise production of input impedance
[FTD-HT-66-760] 15 p2667 N67-28267
Ideal pulse former compare to monostable vibrator and Schmitt trigger
[SGAE-E-7/1967] 21 p3820 N67-36818
VIBRATORY FINISHING
Radius generation in vibratory deburring determined from graphs representing generation versus running time
[BDX-613-65] 07 p1091 N67-17437
VIBRATORY LOADING
Mass loading effects on localized vibratory environments of rocket vehicles
[NASA-CR-79512] 02 p0319 N67-12236
Operating principles of vibratory floating gyroscope
03 p0393 N67-13422
Mathematical prediction and analysis of structural vibrations - shock and vibration symposium
[AD-646983] 14 p2634 N67-27081
Theoretical analysis of response of thin cylindrical shell to random vibratory loading
[NASA-CR-65977] 18 p3350 N67-31716
VIBROCARDIOGRAM
Accelerometer used as transducer to measure precordial vibrations of dog hearts
07 p1020 N67-16905
Vibrocardiogram used to measure cardiac intervals in human subjects
[NASA-CR-84512] 14 p2665 N67-27678
Measurement of heart stroke volume by vibrocardiogram
[NASA-CR-84513] 14 p2665 N67-27679
VIDEO DATA
Deep Space Instrumentation Facility FR-900 rotary head magnetic tape recorders for acquiring video data from lunar orbiter
06 p0899 N67-15927
Pattern recognition techniques to identify and classify objects in video data
[NASA-CR-80012] 09 p1419 N67-20167
Parameter extraction technique, based on algebraic approach, to video data displayed in histogram form and implemented for IMP flights
14 p2498 N67-27410
Pattern recognition techniques for extracting information from video data and for reducing amount of data to convey this information - decision mechanisms and property filters
[NASA-CR-85004] 17 p3028 N67-30065
Radar video data processor for deriving aircraft position, identity, and altitude
[NS-67-1] 21 p3797 N67-35663
VIDEO EQUIPMENT
Generation of horizontal jitter requirements in analog scan video system
06 p0879 N67-15732
Multi-audio video tape recording and automatic television audio editor for starting sound-effects tape
11 p1626 N67-23419
Slow motion video tape recorder using tape recorded under standard conditions
[NHK-10] 16 p2896 N67-30117
Method of finding envelopes of correlation functions
20 p3629 N67-34230
Video film converter for data processing, linear feedback shift registers, and woven plated wire memory storage units for science missions
20 p3660 N67-34774
Video tape recorder evaluated for recording radar data to reconstruct air traffic situations
[RD-67-24] 21 p3848 N67-35982
General purpose video input device for digital computer
[BBN-1537] 22 p4026 N67-37236
Electrical, mechanical, and circuit design of ultraminiature television camera
[NASA-CR-80625] 24 p4450 N67-39742
Videometer for measuring solar flare area, peak intensity, and integrated intensity as functions of time
24 p4450 N67-39810
Interpretation of line-scan pictures produced by flying-spot scanner system - image degradation by addition of noise and by varying line frequency
[IZF-1967-16] 24 p4482 N67-40027
VIDICON
SA FIBER OPTICS
Vidicon scan converter and super bright radar display system
[FAA-RD-66-40] 07 p1121 N67-18079
Infrared spectrometer and interferometer, stable pulse amplification system, sterilizable vidicon, and other space instruments
12 p2006 N67-25657
Sterilizable ruggedized vidicon for lunar and planetary photography
[NASA-CR-83685] 13 p2284 N67-28275
Experimental investigations of two-dimensional aperture correction of television camera tubes using vidicon storage unit
[RAE-LIB-TRANS-1364] 15 p2676 N67-27796
Topographic mapping using monoscopic photographs and surface photometric properties, and testing photoconductors for slow-scan vidicons
16 p2893 N67-29156
Spark chamber double-arm magnetic spectrometer with automatic vidicon readout system
17 p3004 N67-30004
Noise threshold sensitivities of television camera image orthicon tubes and vidicons
19 p3419 N67-32819
Noise measurement in secondary electron conduction vidicons and channel multipliers
[ECOM-01880-3] 20 p3611 N67-34279
Cosmic gamma radiation searched with vidicon spark chamber flown in high-altitude balloon
[NASA-CR-87420] 20 p3692 N67-34290
VIETNAM
United States Army logistics support operations in Viet Nam
11 p1650 N67-21985
VIEW FACTOR
Orbit, viewing geometry, coverage, and resolution pertinent to satellite observation of earth
04 p0537 N67-13382
Optical and physical properties of projection viewing screens
[NAVTRADEVCEN-IH-63]
12 p2183 N67-24739
Numerical analysis on stellar view field size in relation to star brightness
[NASA-TR-R-297] 14 p2572 N67-27281
Pilot performance of landing maneuver in T-33-A jet trainer with restricted fields of view
[NASA-TN-D-4018] 14 p2448 N67-27294
VIGILANCE
Role of temporal expectancy in vigilance performance of human subjects presented with different signal patterns
[TR-718-3] 16 p2830 N67-29128
Vigilance performance and physiological responses under fixed and variable signal schedules
[NAVTRADEVCEN-IH-71]
22 p3790 N67-37271
Auditory vigilance performance and effects of assigning differential protask instructions
[AD-656942] 23 p4197 N67-38244
VINTI THEORY
Differential corrections applied to Vinti accurate reference satellite orbit with inclusion of third zonal harmonic
[NASA-TM-X-53630] 08 p1265 N67-18765
Orbital prediction and differential correction using Vintis spheroidal theory for artificial satellites
[NASA-TN-D-3903] 09 p1511 N67-19862
Differential method of orbit improvement for Vinti spheroidal theory of artificial satellite motion about oblate planets with inclusion of planetary gravitational effects
[NASA-TN-D-4088] 20 p3720 N67-35284
Accuracy and speed comparison of Vinti and Brouwer orbit prediction methods
[NASA-TM-X-55941] 23 p4243 N67-38240
VINYL
Decomposition of benzoyl cyanide, studies of vinyl nitrene and diene isocyanates, and other aspects of nitrogen chemistry significant to primordial biological systems
[NASA-CR-81765] 07 p1017 N67-18128
Reactions of N-vinylcarbazole with azonic initiator
08 p1256 N67-18820
Radiation induced polymerization of vinyl monomers impregnated in wood
[ORO-2945-2] 20 p3600 N67-34668
Gamma radiation induced ionic polymerization of vinyl monomers
[BNL-11944] 21 p3782 N67-35942
VINYL COPOLYMER
Preparation of carborane containing

fluorovinyl side chains for temperature resistant elastomers
[RIA-67-1422] 22 p2991 N67-37852
VINYL POLYMER
SA POLYVINYL ALCOHOL
SA POLYVINYL CHLORIDE
Synthesis and characterization of vinylaromatic polymers
[NASA-CR-80125] 02 p0230 N67-12176
Ligand-containing vinyl polymer systems for evaluation as separator materials in Ag-Zn batteries
[NASA-CR-80530] 03 p0336 N67-13211
Viscoelastic properties of polyvinyl acetates - mechanical loss and molecular weight distribution 05 p0721 N67-14509
Relations between viscosimetric and thermodynamic properties of moderately concentrated solutions of vinyl aromatic polymers
[NASA-CR-81606] 07 p1107 N67-17994
Synthesis and characteristics of atactic and stereoregular vinylaromatic polymers and their reactions with alkali metals
[NASA-CR-82397] 06 p1238 N67-18978
Divinylbenzene bibliography
[NYO-3644-10] 09 p1411 N67-20263
Photosensitivity of polyvinylcinnamate and its nitro derivatives to ultraviolet radiation
[FTD-HT-66-145] 10 p1578 N67-21379
Color and structure changes investigated during mixing of aqueous polyvinylmethylether solutions with mineral acids
[REPT.-3793] 10 p1581 N67-21778
Electron spin resonance investigation of solid phase polymerization of N-vinyl carbazole initiated by electron acceptors 11 p1806 N67-22241
Polymerization of troxane, tetraoxane, and N-vinyl carbazole in chlorine and sulfur dioxide electron acceptors 11 p1806 N67-22242
Cationic polymerization of isobutyl vinyl ether and N-vinyl carbazole initiated by catalysts derived from ethereal maleic anhydride 11 p1806 N67-22244
Polymerization of N-vinyl carbazole by maleic anhydride as electron acceptor 11 p1807 N67-22245
Friction behavior of vinyl polymers in solution with both polarity and length of chain on side group varied
[AD-634682] 15 p2716 N67-27961
Fabrication techniques and physical properties criteria for gum rubber and polyvinyl plastisol bags used in isostatic pressing of powdered materials
[Y-1574] 16 p2852 N67-29659
Development and testing of vivyl polymer separator materials for sterilized silver-zinc secondary battery
[NASA-CR-84863] 17 p2998 N67-30918
Structure analysis on stereo-regular isomers of polymethyl methacrylate in solution to determine molecular shape and conformation 18 p3231 N67-31659
Degradation and branching of polyvinyl acetate in acetone solution under influence of cobalt 60 gamma irradiation
[BMWF-FBK-67-34] 21 p3794 N67-36098
VIRGO STAR CLUSTER
Multicolor photoelectric photometry of nuclei of galaxies, including Virgo star cluster region
[A66-4A] 09 p1510 N67-19673
VIRIAL THEOREM
Compressibility factors of He, N, and He-N mixtures in three-dimensional space of pressure, temperature, and gas composition related to Leiden form of virial equation of state - table
[BM-RI-6896] 11 p1810 N67-22474
Quantum mechanical calculations of second virial coefficients for hydrogen
[NASA-CR-83916] 13 p2379 N67-26072
Ground state of atomic two-electron systems in independent particle model determined by Hartree-Fock calculation
[SR-34] 24 p4500 N67-39612
VIRUS
SA BACTERIA
SA BACTERIOPHAGE
Solar activity influence and tick-borne encephalitis virus
[JPRS-38538] 02 p0211 N67-11827
Viral antibody production in animals exposed to space cabin environment
[SAM-TR-66-83] 06 p0965 N67-19417
Virus growth, gene repression hypothesis of radiation protection by auxin analogs
[DOUGLAS PAPER-4139] 12 p2621 N67-23870
Electron microscope techniques for studying ultrastructure of tumor virus cells
[JPRS-40538] 14 p2462 N67-37306
VISCERA
Resonance frequency and damping of internal visceral body structures determined from whole body vibration
[AMRL-TR-66-102] 06 p0803 N67-16187
VISCOELASTIC CYLINDER
Vibrational frequencies and critical frequencies of exciting loads of elastic and viscoelastic cylindrical shells partially filled with ideal liquids 09 p1538 N67-20142
Closed form solutions of stress wave propagation in nonhomogeneous elastic viscoplastic cylindrical bar 12 p2223 N67-24144
VISCOELASTIC DAMPING
Effectiveness of tuned viscoelastic vibration dampers in aerospace vehicles 07 p1200 N67-16959
Structural composite damping with viscoelastic shear-damping mechanisms
[NASA-CR-742] 08 p1389 N67-19318
Vibration and viscoelastic damping in joints, beams, multispan structures, and composite materials - Conference
[AD-647645] 13 p2413 N67-25186
Structural beam damping by viscoelastic links 13 p2413 N67-25188
Elastomers for viscoelastic damping of aircraft and missile structures 13 p2342 N67-25189
Tuned viscoelastic damper effects on frequency response of multispan structures 13 p2414 N67-25191
Transient and harmonic responses of plate with attached viscoelastic layer
[ATA-115] 18 p3347 N67-31512
VISCOELASTIC FLOW
Secondary flow phenomena in general viscoelastic fluids 05 p0692 N67-14475
Measurements of normal stresses exhibited by viscoelastic fluids in simple laminar shearing flow field 05 p0693 N67-14514
Measurement of two normal stress differences and of shearing stress of viscoelastic fluids under steady laminar flow conditions and at high rates of deformation 05 p0722 N67-14515
Stress-strain analysis on parallel flow stability of viscoelastic liquid
[REPT.-06505-2-T] 15 p2690 N67-28191
VISCOELASTICITY
Time dependent deflection of floating ice sheet, and solution for viscoelastic plate that obeys Maxwell model
[CRREL-RR-196] 01 p0070 N67-11108
Thermodynamic approach to fatigue failure in linearly viscoelastic materials
[NASA-CR-80378] 03 p0415 N67-13009
Nonisothermal deformation of viscoelastic medium based on thermodynamics of irreversible processes 04 p0619 N67-13861
Viscoelastic behavior of crystalline polymers 05 p0730 N67-14471
Viscoelastic relaxation in liquids and polymers 05 p0693 N67-14479
First-order nonlinear one-dimensional mathematical model of viscoelasticity using perturbation method 05 p0708 N67-14488
Constitutive equations for viscoelastic bodies with small deformations superimposed on initial static large deformation 05 p0708 N67-14489
Finite difference integration applied to spherical indentation problem for viscoelastic material time response function 05 p0708 N67-14492
Creep bending of viscoelastic beam column governed by integral operator 05 p0709 N67-14494
Viscoelastic compressibility effect in stress analysis 05 p0709 N67-14495
Transverse forced vibration of viscoelastic nylon filament under stretching and tension changes 05 p0709 N67-14496
Thermal cycling of prismatic, viscoelastic rod 05 p0709 N67-14497
Wave propagation in viscoelastic solids with measured relaxation or creep functions 05 p0709 N67-14498
Mathematical model for viscoelastic stress analysis 05 p0709 N67-14499
Gravitational stresses in circular cylindrical orthotropic viscoelastic solid propellant grain 05 p0754 N67-14500
Stress analysis of anisotropic viscoelastic cylindrical shell 05 p0709 N67-14501
Viscoelastic properties of polyvinyl acetates - mechanical loss and molecular weight distribution 05 p0721 N67-14509
Interpretation of glass transition in terms of viscoelastic state variables of temperature, frequency, and composition 05 p0721 N67-14510
Phenomenological viscoelasticity of soda-lime plate glass 05 p0722 N67-14517
Symmetric formulation of linear theory of viscoelastic materials - creep compliance and stressing viscosity, retardation fluidity and relaxation modulus, and basic operators 05 p0770 N67-14524
Dynamic stress waves in viscoelastic plastic bodies 05 p0770 N67-14527
Rheology of polymer melts - Viscoelastic parameters and their influence on flow under static conditions 05 p0723 N67-14529
Dynamic, viscoelastic properties of molten polyethylene with fillers 05 p0724 N67-14551
Viscoelasticity of slime mold protoplasm 05 p0643 N67-14574
Structural mechanics of deformation and fracture - responses of model viscoelastic materials to impact
[NASA-CR-80918] 05 p0771 N67-14798
Derivation of explicit form of dissipation function associated with thermomechanical phenomena of viscoelastic solids
[TR-1] 06 p0974 N67-15412
Boltzmann superposition principle applied to rheology of viscoelastic medium 06 p0896 N67-15954
Ionic forces in polymers - properties of polyphosphates in glass transition region
[TR-13] 06 p0821 N67-16649
Theory of propagating surfaces of discontinuity used to study one-dimensional stress waves in viscoelastic media that conduct heat
[TR-66-5] 07 p1200 N67-17015
Torsional creep and creep recovery behavior of organic liquids
[NASA-CR-71115] 07 p1030 N67-17772
Rheology of viscoelastic medium, including deformation, stress, and creep
[AD-644173] 10 p1664 N67-21982
Damping properties of viscoelastic materials from vibration tests on symmetric beam specimens 13 p2414 N67-25190
Structural laminates with viscoelastic material for damping vibration from machinery foundations to ship hull 13 p2414 N67-25194
Fracture mechanisms for viscoelastic materials
[NASA-CR-83878] 13 p2343 N67-25868
Nonlinear constitutive equations for viscoelastic-plastic continua and explicit restrictions derived from thermodynamics
[AM-67-2] 15 p2805 N67-28668
Constitutive relations for materials with memory formed for solution of boundary value problems
[AM-66-15] 16 p2977 N67-29947
Dynamic buckling of imperfect viscoelastic shallow arches with hinged ends under step loads of infinite duration
[TR-1] 17 p3169 N67-30249
Computer solutions in terms of molecular theories of linear viscoelasticity
[NASA-CR-86982] 18 p3352 N67-32353
Solution of axially symmetric plane strain problem for thick-walled hollow viscoelastic cylinder subject to axially symmetric but otherwise arbitrary temperature field
[TR-1] 21 p3942 N67-35886
Fracture mechanisms of viscoelastic materials investigated using electron paramagnetic resonance spectrometer
[NASA-CR-87970] 21 p3875 N67-36040
Failure criteria for viscoelastic materials - material characterization, crack geometry stress analysis, and sheet geometry crack propagation
[NASA-CR-88528] 22 p4076 N67-37681
Dynamics and thermodynamics of viscoelastic media including construction of experimental measuring apparatus
[AD-656943] 23 p4262 N67-38241
Relaxation properties of polyester based polyurethane under small deformations superposed on large deformations
[PIBAL-937] 24 p4471 N67-39442
VISCOMETER
Shear creep viscometer for measuring viscoelastic and viscous properties of elastomers 05 p0707 N67-14493
Nonnewtonian mathematical model and plotting method for analyzing variable head

viscometer data obtained on pseudo-plastic polymer solutions -
Rheology 05 p0693 N67-14525
Measurement of normal stress in viscoelastic flow using tube viscometer 05 p0694 N67-14544
Rotational viscometer to measure viscosity of inorganic glass in range between strain point and melting temperatures 05 p0707 N67-14550
Comparison of U tube and capillary-type viscometers 05 p0844 N67-14583
Capillary viscometer for measuring viscosity of blood in veins of living animals 05 p0645 N67-14584
Rising sphere rheometer, viscometer, and standard gel evaluated for measuring accuracy
[RK-TR-66-15] 06 p0867 N67-16131
Physical parameters of stainless steel capillary tubing used to construct working equations for absolute gas viscometer
[BM-RI-6949] 13 p3234 N67-26348
Nonuniformity correction for bore of capillary tube viscometer
[BM-RI-6979] 19 p3453 N67-33250
Steady-state laminar flow boundary conditions for stainless steel coiled-capillary gas viscometer
[BM-RI-6995] 19 p3435 N67-33990
VISCOMETRY
Viscometric dosimeter to determine total energy absorbed in mixed radiation field around accelerators
[CERN-67-14] 20 p3645 N67-35275
VISCOPLASTIC FLOW
Qualitative singularities of viscoplastic flow in cylindrical pipe under effect of pressure gradient 21 p3834 N67-36581
VISCOPLASTICITY
Pure bending tests to determine mechanical properties of materials in elastoviscoplastic domain
[NT-99/1966/] 13 p3416 N67-25578
Stress waves in viscoplastic medium 18 p3348 N67-31652
VISCOSITY
SA EDDY VISCOSITY
SA GAS VISCOSITY
Surface wave development on thin films of variable viscosity under hot gas flow 01 p0059 N67-10653
Nonisotropic eddy viscosity assumption in comparison of theory and observation for problem of solar differential rotation
[UTIAS-112] 01 p0152 N67-10561
Viscosity, Raman spectroscopy, and diffusion in molten salts
[NYO-1769-68] 03 p0361 N67-13273
Calculation of viscosity effects, thrust, mass flow rate in supersonic nozzles
[TP-408] 04 p0607 N67-14500
Nonnewtonian intrinsic viscosity of polymer solutions 05 p0720 N67-14469
Viscous heating and viscosity changes in capillary flow 05 p0774 N67-14487
Shear dependence of viscosity for concentrated polymer systems related to polymer molecular weight distribution 05 p0721 N67-14506
Dynamic viscosity and elasticity of nonaqueous dispersions 05 p0723 N67-14519
Temperature dependence of viscous and elastic properties of low density polyethylene melt 05 p0724 N67-14546
Viscosity of thixotropic suspensions at medium and large shear rates 05 p0724 N67-14552
Semiempirical method including variation in particle size for use in evaluating viscosity data - Rheology 05 p0725 N67-14554
Viscosity profile and other blood flow phenomena in nonuniform shear field 05 p0645 N67-14568
Cone-in-cone viscometer used to study viscosity changes during blood clotting 05 p0648 N67-14606
Viscosity of blood at low shear rates and its relation to volume concentration and size of red cells 05 p0648 N67-14608
Viscous sublayer in turbulent pipe flow
[AD-639804] 05 p0606 N67-15039
Viscosity and thermal conductivity coefficients for dilute nitrogen and oxygen
[NASA-CR-81126] 05 p0697 N67-15214
Physical effects due to viscosity introduced by numerical scheme in making Navier-Stokes time-dependent second-order difference analysis of one-dimensional relaxing flow 07 p1062 N67-16851
Relations between viscosimetric and thermodynamic properties of moderately concentrated solutions of vinyl aromatic polymers
[NASA-CR-81666] 07 p1107 N67-17904
Heat conductivity, electrical conductivity, and viscosity calculated for thermic argon and nitrogen plasmas
[DVL-569] 06 p1350 N67-19180
Handbook of supersonic aerodynamics - viscosity and heat transfer effects
[NAVORD-1488, VOL. 5] 09 p1542 N67-19044
Thermodynamic and transport properties of liquid cesium and rubidium viscosity
[AGN-8192, VOL. 2] 09 p1544 N67-20211
Surface viscosity of polydimethylsiloxane monolayers
[NRL-6420] 10 p1660 N67-20697
Physical acoustics - electric field associated with sound wave in weakly ionized gas, viscous effects in hydrodynamic plasma, and interference of light with light in plasma 11 p1959 N67-22851
Effect of viscosity on oscillatory disturbance of rigidly rotating fluid
[ARL/A-250] 11 p1861 N67-23991
Gyroviscosity of collisionless plasma in strong magnetic field
[UCRL-14466, REV. 1] 12 p2178 N67-23780
Viscosity coefficients of corrosive bromine trifluoride using porous medium
[K-1680] 12 p2044 N67-24561
Viscosity and thermoconductivity coefficients of dilute neon, krypton, and xenon
[NASA-CR-83899] 13 p2425 N67-25941
Viscosity of water alcohol mixtures and structure of water
[ISS-66/25] 13 p2371 N67-26693
Vapor pressures, pressures, densities, and viscosities of hydrazine ammonia rocket fuel mixtures as functions of compositions
[DLI-FB-67-21] 14 p2606 N67-27254
Viscosity and nonlinear flow effects on transition of shock waves, hydraulic jump, and vortex breakdown
[REPT.-65-39] 15 p2692 N67-28295
Viscosity and self diffusion of liquid metals and their correlation by simple kinetic theory of liquids
[RITU-1966-30] 16 p2853 N67-29677
Critical evaluation and compilation of viscosity and diffusivity data on gas, liquid, solid, and turbulent flow systems
[NASA-CR-85698] 17 p3030 N67-31416
Quasi-static, adiabatic responses of viscous material to cyclic and random loading and straining
[NASA-CR-86554] 18 p3350 N67-31821
Density, viscosity, surface tension, electrical resistivity, thermoconductivity, enthalpy, specific heat, and vapor pressure thermophysical properties of potassium
[NASA-TN-D-3130] 18 p3279 N67-31919
Surface tension, viscosity, and Raman spectra of fused salts
[ORO-3073-12] 19 p3394 N67-33580
Electronic equipment for automatic viscosity measurements on liquids
[ISS-67/7] 20 p3616 N67-35063
Viscosity coefficients of liquids near critical points
[NASA-TT-F-11101] 21 p3832 N67-36110
Ion viscosity effect on destabilization of sonic oscillations in magnetized plasma
[NP-16788] 21 p3911 N67-36526
Alkali metals studies of viscosity of liquid sodium and lithium
[AGN-8191, VOL. 5] 23 p4363 N67-38573
Density and viscosity of liquid metals, and crystal structure of strontium magnesium compounds
[NYO-3731-8] 23 p4307 N67-38911
Viscosity of liquid sodium-potassium alloys, and dilatometer density measurements of liquid metallic sodium and potassium, and sodium-potassium alloy
[JPRS-42035] 23 p4308 N67-39234
Viscosity of liquid sodium-potassium alloys 23 p4308 N67-39235
Numerical analysis of axisymmetric hypersonic flow with strong viscous interaction
[TR-1001/2340-10/-11] 24 p4431 N67-39697
VISCOUNT AIRCRAFT
Ultrasonic testing method for wing spar attachment joints and lugs of Viscount aircraft
[REPT.-6686.238] 23 p4867 N67-37769
Ultrasonic inspection method for Viscount aircraft propeller cylinders
[REPT.-6701.279] 23 p4867 N67-37776
VISCOUS DAMPING
Viscous damping of liquid motions and lateral sloshing in rigid tanks 06 p0866 N67-15868
Radiation effects on gyroscope silicone damping fluid
[RAE-TR-66300] 09 p1466 N67-20627
Vibrations of elastically restrained thin cylindrical shells subjected to viscous damping
[ONERA-TN-101/1966/] 11 p1982 N67-23070
Motion equation for forced transverse vibration of slender beam with viscous damping programmed for computer solution
[PA-TR-3490] 13 p2230 N67-24797
Frequency and viscous damping of liquids during weightlessness - liquid sloshing characteristics of liquid-vapor interface in zero Bond number environment
[NASA-TN-D-4123] 20 p3625 N67-34299
VISCOUS DRAG
Viscous drag model for plasma electrode boundary effect at ionic impact
[NASA-TN-D-3796] 06 p0942 N67-15920
Hypersonic viscous drag on cones in rarefied flow
[NASA-TN-D-4036] 16 p2811 N67-29027
Plane blast wave propagation and viscous attenuation of explosive shocks in tubes
[ORNL-TM-1813] 21 p3908 N67-35389
VISCOUS FLOW
SA INVISCID FLOW
Viscous flow in rectangular cut-out and static hole errors 01 p0059 N67-10136
Hydrodynamic stability of viscous flows
[D1-82-0537] 01 p0060 N67-10429
Sphere-sphere technique for sintering partially vitreous arsenic-sulfur-selenium systems, and viscous flow mechanism relationships
[IS-T-89] 01 p0129 N67-10062
Karman-Pohlhausen integral method for solving problem of unsteady laminar thermal boundary layer for viscous fluid flow over semi-infinite 02 p0234 N67-11231
Bibliographies compiled and data evaluated on diffusivity, viscosity, transport phenomena, and turbulent flow
[NASA-CR-79930] 02 p0250 N67-11360
Theoretical research on hypersonic viscous flow near sharp leading edge
[ARL-66-0183] 02 p0239 N67-12194
Large deformations and viscous flow in isomorphic and isotropic materials 05 p0702 N67-14482
Refined method of solving equations of slightly rarefied viscous gas motion 06 p1207 N67-18980
Linearized incompressible viscous flow in rotating systems
[TR-2] 09 p1434 N67-19727
Viscometric flows of incompressible, isotropic, nonnewtonian fluids
[TR-19] 10 p1615 N67-21277
Newtonian hypersonic strong interaction theory for flow past flat plate leading edge
[USCAE-102] 10 p1582 N67-21734
Asymptotic expansion method for solving certain classes of singular perturbation problems with application in viscous flow
[NASA-TN-D-3939] 11 p1860 N67-23067
Asymptotic solutions of Navier-Stokes equations for supersonic viscous flow near wall region with large local surface curvature
[TR-49] 12 p2067 N67-24330
Viscous flow around angular points and boundary layer calculation, and rotational coefficients for wing model during harmonic oscillations
[FTD-MT-65-222] 13 p2305 N67-25878
Viscous flow near angular points on solid body, and calculation of boundary layer and gas motion equation 13 p2305 N67-25894
Navier-Stokes equations for viscous compressible flow applied to Rayleigh problem
[R67SD18] 17 p3047 N67-30619
Flow of viscous fluid between fixed and blown rotating disks
[NASA-TT-F-10021] 18 p3269 N67-32113
Shock layer and viscous and nonviscous effects on sharp and blunt cones 18 p3189 N67-32139
Axisymmetric viscous interaction with small velocity slip and transverse curvature effects studied on slender cone
[E-67-2] 19 p3422 N67-33237
Viscous hypersonic flow determined behind parabolic axisymmetric shock wave 19 p3422 N67-33557

Instability of mode of distribution for an idealized viscous vortex model
20 p3623 N67-34185

Drag measurements of spheres and disks in flow of liquid sodium with aligned magnetic field
[NASA-CR-97514] 20 p3709 N67-34755

Equations developed for boundary layer, shock wave structure, and inviscid core in hypersonic viscous flow over slender bodies with sharp leading edges
[PIBAL-1016] 21 p3753 N67-35417

Difference methods for solving inviscid and viscous one-dimensional flow equations of compressible gas
[PIBAL-989] 21 p3831 N67-35714

Similarity solutions for viscous transonic spiral and radial flow
[REPT.-97146-3-T] 22 p4034 N67-37088

Viscous and nonviscous effects from apex blunting on flow around narrow-opening cones studied in hypersonic wind tunnel
22 p4026 N67-37349

VISCOUS FLUID

Nonstationary motion of viscous compressible fluid in thin elastic cylindrical tube investigated for end plate section motion
01 p0059 N67-10073

Wave motion of viscous fluid in elastic tubes
[REPT.-66-5] 01 p0061 N67-11139

Determination of forces exerted by viscous fluid on sphere accelerating under gravity
[CRREL-RR-190] 02 p0349 N67-11239

Photoviscuous technique for fluid flow studies - theory and experiments
[NASA-CR-79519] 02 p0263 N67-12210

Photoviscuous technique for fluid flow studies - equipment development
[NASA-CR-79520] 02 p0263 N67-12211

Wave motions in fluid-filled elastic tubes
[PUBL.-66-5] 03 p0304 N67-12950

Exact solution of Navier-Stokes equations for nonstationary viscous fluid flow between two parallel vibrating cylinders
03 p0304 N67-13086

Numerical solutions of Navier-Stokes equations for different problems in flow of viscous fluid and derivation of refined plate theory
[FTD-TT-65-1982] 04 p0625 N67-13396

Numerical solution of Navier-Stokes equations for different problems in flow of viscous fluid
04 p0528 N67-13397

Vortex flow analysis of viscous, incompressible, electrically conducting fluid between two plates under applied axial magnetic field
[NASA-CR-646] 04 p0593 N67-13420

Causes for striped pattern observed in viscoelastic liquids during rolling in mill - Rheology
05 p0710 N67-14634

Viscous corrections to Stewartson theory on stability of spinning top containing liquid
06 p0974 N67-15367

Numerical analysis of viscous fluid effects on wave resistance of ship hull
[AD-640633] 09 p1434 N67-19580

Transpiration cooling calculations for two porous concentric spheres with viscous incompressible fluid coolant and applied magnetic fields
[TM-PH-4-66] 11 p1961 N67-23937

Acoustic wave propagation in non-Newtonian viscous fluid
12 p3666 N67-34145

Generalized spherical functions for solving problem of motion of axisymmetric solid with spherical cavity filled with viscous fluid around fixed point
13 p3419 N67-36183

Validity of wave damping computation for viscous liquid of finite depth
[NASA-TM-X-55643] 13 p3360 N67-36328

Laminar flows of viscous fluids in porous elastic channels
[NASA-CR-86983] 18 p3260 N67-33329

Forces on sphere moving steadily along circular path in viscous fluid
[CRREL-RR-229] 19 p3431 N67-33934

Axisymmetric laminar boundary layer in swirling flow of viscous incompressible fluid
19 p3435 N67-33773

Free and forced oscillations of body with cavity partially filled with viscous fluid
[NASA-TT-F-11167] 19 p3549 N67-33971

Hydrodynamics of critical phase
[NASA-TT-F-11198] 21 p3833 N67-36178

Precession and nutation of deformable bodies - oscillations of incompressible viscous fluid globes
[D1-82-0619] 22 p4023 N67-36944

Generalized equation to determine tangential stresses on walls of tube during unsteady viscous fluid motion
22 p4033 N67-37839

Hydrodynamic forces computed for proximate cloud droplets moving slowly in viscous fluid
[RM-5357-PR] 23 p4235 N67-38389

VISIBILITY

SA HAZE

SA LIGHT TRANSMISSION

Multitransmissometer systems evaluated on basis of visibility and climatic conditions
[RD-66-45] 01 p0104 N67-11113

Visibility deterioration on approach of synoptic weather front
06 p0906 N67-15469

Correlation between astronomical visibility and atmospheric turbulence in low troposphere
06 p0871 N67-15470

Astronomical and climatic conditions of observatory site in Tadzhikistan, U.S.S.R.
06 p0872 N67-15474

Astronomical and climatic survey in Novosibirsk for observatory site selection
06 p0872 N67-15477

Daytime measurement errors of meteorological polarization visibility meters
11 p1875 N67-23017

Runway visual range evaluated for pilot visibility
[SRDS-RD-66-24] 11 p1855 N67-23554

Backscatter signatures indicative of horizontal and slant visual range
[RD-66-78] 11 p1836 N67-23436

Method to forecast surface visibilities less than 5-miles caused by ground fog, haze, or smoke
[AD-645090] 12 p2136 N67-24054

Landing light backscatter effect on target visibility in fog
[FAA-RD-66-60] 12 p2016 N67-24850

Frequencies of certain meteorological conditions unfavorable for aeronautics at 39 airports
[REPT.-57] 12 p2352 N67-26062

Refraction and visibility investigation of noctilucent clouds
15 p2699 N67-29024

Determining horizontal standard visibility by contrast measurements of forest and sky
[DLR-FB-67-11] 15 p2705 N67-28075

Wind conditions, state of sea, visibility, and air temperature data collected by meteorological stations along coastline of France
[REPT.-59] 16 p2925 N67-29936

Low visibility operation of supersonic transport Concorde using duplicate monitored systems to achieve automatic failure survival
[REPT.-289-TP-591] 20 p3567 N67-35099

Radioisotope zero visibility taxi guidance system for aircraft
[RD-67-35] 22 p4066 N67-36869

Computer programs for performance of visibility calculations
[NASA-CR-86157] 22 p3977 N67-36991

Theory and experimental studies of backscatter signature for horizontal and slant range visibility
[RD-67-24] 23 p4217 N67-39315

Onset-duration tables of specified ceiling and visibility categories for use as supplemental aid in short period weather forecasting
[AD-650038] 24 p4485 N67-39642

Entry acquisition and radio visibility computer program for optimization of tracking station locations - blackout prediction
[NASA-TM-X-55896] 24 p4409 N67-40185

Forecasting visibility at Suffolk County Air Force Base
[AD-650899] 24 p4489 N67-40241

VISIBLE RADIATION

Radio astronomical studies in OH interferometry, discrete radio sources, and spectrum measurements of Venus and Jupiter
[NASA-CR-79923] 02 p0304 N67-11853

Catalog of east-west visibility functions for extraterrestrial radio sources
[AD-645526] 12 p2208 N67-23622

VISIBLE SPECTRUM

Photoelectric polarimeter for measuring skylight polarization characteristics in visible spectrum
[NASA-CR-80192] 05 p0396 N67-12935

Slitless absolute spectral photometry method for atmospheric entry and astronomical radiation measurements
[NASA-TN-D-3785] 04 p0583 N67-14103

Nimbus II observation in visible and infrared regions to predict development of storms and frontal systems
[NASA-TM-X-55638] 05 p0733 N67-15128

Comparison of visible and near ultraviolet spectra from low density, arc heated nitrogen plasma, and argon plasma
[AEDC-TR-66-139] 07 p1162 N67-16997

Moon radiation flux measurements in infrared and visible spectral regions from Luna 10
[NASA-CR-83438] 08 p1366 N67-18996

Emission spectra of rarefied molecular gases excited by fast electrons
10 p1696 N67-20328

Spatial variations of nightglow in 5892 angstrom region
15 p2695 N67-27862

Visible spectral of auroral display
15 p2697 N67-27894

Ultraviolet and visible absorption spectra of electrons, unstable radicals, and ions
[UJV-1625] 15 p2659 N67-29411

Facilities for spectroscopic analysis of plasma flow in magnetic field, and photography of visible spectrum
19 p3517 N67-32389

VISION

SA BINOCULAR VISION

SA BLINDNESS

SA EYE

SA FLASH BLINDNESS

SA ILLUSION

SA MONOCULAR VISION

SA NIGHT VISION

SA PERSPECTIVE

SA STEREOSCOPIC VISION

Mathematical model of standard homogeneous visual processes in man and problems in theory of color television - Bionics
03 p0351 N67-12350

Subjective sharpness threshold in Maxwellian view and under normal viewing conditions
[AD-637096] 05 p0661 N67-15072

Microspectrophotometry and psychophysical measurements of color vision pigments in human retinas
[AD-640714] 06 p0797 N67-15857

Laminar organization and cell content of lateral geniculate complex of nocturnal owl monkey Aotes trivirgatus
[USAMRL-669] 06 p0797 N67-15408

Sensitivity of human vision in relation to level of adaptation, luminance and spectral distribution of available light, and visual tasks to be performed
[TR-2] 07 p1008 N67-17018

Dynamic performance of horizontal eye movement saccades in crayfish
[DSR-75002] 10 p1561 N67-20570

Comparative research on neurophysiology of vision
[AFOSR-66-2764] 11 p1793 N67-23050

Intermittent photic stimulation effect on pilot performance under simulated IFR conditions
[FAA-AM-66-39] 12 p2028 N67-24833

Basic mechanisms of intensity perception in visual system and sensory motor integration
[AFOSR-67-0402] 12 p2029 N67-24836

Visual effect of high intensity light flashes
[REPT.-1] 14 p2461 N67-26972

Relationship of visual illusions and aircraft accidents
[SAM-TR-67-26] 20 p3584 N67-34634

Model derived for human eye positioning mechanism
[SRL-67-0005] 21 p3771 N67-35543

Systematic biases in eye movement latency data
[PRP-27N] 23 p4188 N67-38659

Laboratory experiments and Voskhod flight data on vision sharpness, efficiency, and perception during space flights
[NASA-TM-X-60574] 24 p4390 N67-40060

VISIOPLASTICITY

Computer programs for calculating complete solutions of axisymmetric extrusions by visioplasticity method
[TR-3] 01 p0045 N67-11168

VISUAL ACCOMMODATION

Electrophysiological effects on central nervous system control of visual accommodation in cats
[SAM-TR-66-65] 05 p0649 N67-14734

Test equipment for determining visual recovery from high intensity flashes, and pupil reflex measurements
[AD-642731] 06 p0797 N67-15860

VISUAL ACUITY
Effect of brief intensive flashes on light sensitivity and visual acuity of human eye 02 p0194 N67-11553
Subjective sharpness threshold in Maxwellian view and under normal viewing conditions
[AD-637006] 05 p0661 N67-15073
Successive exposures of Landolt rings to study eye movement and effect on visual acuity
[TDCK-46508] 07 p1023 N67-18072
Effects on visual acuity of luminance contrast and wavelength in display systems
[ERF-RR-1/67-CR] 12 p3023 N67-24712
Measuring techniques for determining monocular and binocular visual acuity of rhesus monkeys
[ARL-TR-67-8] 13 p3253 N67-25327
Visual factors affecting precision of coordinate measurement in aerotriangulation
[GIMRADA-RN-21] 14 p3472 N67-27014
Loss of vision from high intensity light sources, and methods to protect eyes from flash blindness and retinal burns - conference 16 p3830 N67-29941
Effects on visual acuity and chorioretinal burns to eyes of two patients exposed to nighttime nuclear detonation during Fishbowl operation 16 p3831 N67-29942
Flash blindness related to luminosity intensity and visual acuity requirements of task to be performed 16 p3833 N67-29947
Preserving vision by protection from glare during exposure to high intensity light 16 p3836 N67-29949
Resistance of aircrew to dazzle, and visual acuity after exposure to flash blindness 16 p3839 N67-29954
Pseudo-color processing of electronic photographs to enhance visual discrimination
[RM-5397-PR] 17 p3969 N67-30442
Radiation effect of ultrashort, ultraviolet, and X-rays on automatic nervous system of man measured by changes in achromatic visual thresholds
[SAM-TT-R-680-0367] 24 p4381 N67-29546
Relationships between vestibular nystagmus and visual acuity
[NAMI-1068] 24 p4382 N67-29676
Visual acuity during vibration measured as function of frequency, amplitude, and subject display relationship
[AMRL-TR-66-181] 24 p4392 N67-40344
VISUAL AID
Visual shipboard landing aid that provides rate of descent error information to approaching aircraft
[NRL-6459] 16 p1674 N67-21370
Simulator training tests on adding peripheral vision to artificial horizon
[ARC-CP-731] 11 p1799 N67-22793
Depth of flash optical landing system
[NRL-6473] 17 p3101 N67-30490
VISUAL CONTROL
Visual automobile simulation tests of driver control for sudden changes in previewed path - television and oscilloscope remote controlled simulation
[NASA-CR-89272] 23 p4196 N67-38942
VISUAL CUE
Influence of correlated visual cues on auditory signal detection
[NASA-CR-87408] 20 p3500 N67-34604
Choice behavior in cued-recognition task
[NASA-CR-87398] 20 p3561 N67-34103
VISUAL DISCRIMINATION RECOVERY
Nyctometric studies and effect of vestibular excitation on dark adaption
[NASA-TT-F-11163] 22 p3971 N67-37438
Experimental critique of method of constant stimuli and alternative procedures
[NASA-CR-89383] 23 p4187 N67-38423
VISUAL DISPLAY
Relative legibility of Leroy and teletypewriter symbols during hourly sequence weather reports
[MTR-265] 06 p0616 N67-16484
Legibility of alphanumeric display symbols
[MTR-304] 07 p1019 N67-18899
Acoustic anemometer that provides instantaneous visual display of wind speed
[AFCRL-66-650] 07 p1079 N67-17317
Multiparameter monitoring visual displays for Apollo preiaunch checkout
[NASA-CR-81726] 07 p1048 N67-18017
Design problems in visual displays - factors in legibility of television displays
[MTR-303] 09 p1414 N67-19670
Thermochromic materials for use in display devices under wide ranges of ambient illumination
[NASA-CR-80016] 09 p1449 N67-19019
Device for visual readout of binary data on sea water measurements 11 p1661 N67-22375
Subroutines for IBM system/360 for visual display and man-machine relationships
[NWL-2074] 14 p3496 N67-26499
Ferroelectric transchargers used as storage and control elements in electroluminescent solid state matrix display
[AFFDL-TR-66-5] 15 p3676 N67-28389
Peripheral vision displays for presenting dynamic tracking information while landing high-speed aircraft, rendezvousing spacecraft, or performing other difficult control tasks
[NASA-CR-808] 16 p3839 N67-29960
Simulator study of pictorial navigation display in instrument departure of supersonic transport
[NASA-TN-D-4029] 16 p3927 N67-30027
Development of usable metric of information transfer from large scale visual displays
[RADC-TR-67-57] 17 p3069 N67-30307
Fluorescent materials and ultraviolet lighting for improved visual flight simulation using color television displays
[SEG-TR-66-66] 19 p3398 N67-33734
Photographic instrument synthesizer system for design evaluation of aircraft attitude director indicator with improved readability
[AFFDL-TR-67-36] 21 p3846 N67-35466
Survey of human operator response mechanisms, and development of visual-auditory display device to increase operator response speed, frequency, and flexibility
[NASA-CR-874] 21 p3772 N67-35672
Functional evaluation of electroluminescent pictorial display system for aircraft fuel and configuration status
[C7-1794/301] 23 p4043 N67-38715
Mechanical-graphic and electro-optical methods for digital computer visual data display units 22 p4098 N67-38011
Photoresponse measurements on semiconductor device junctions by modified flying spot scanner techniques to obtain topological photoresponse displays 23 p4323 N67-38465
Development and operation of graphic tablet display computer with time sharing system
[SP-2235/000/01] 24 p4415 N67-39823
VISUAL FIELD
Methods of analyzing electrophysiological responses to patterned visual fields
[AFOSR-66-2237] 09 p1400 N67-19023
Blind areas in visual field of humans simulated by afterimage of intense light source, and effects on detectability and legibility tasks 16 p3822 N67-29948
On-line computer controlled visual simulation and computation of post-stimulus time histograms of single neurons in cat visual cortex
[AFCRL-67-0145] 24 p4395 N67-40078
VISUAL FLIGHT
Modifications to interim visual space flight simulator
[NASA-CR-85659] 18 p3257 N67-32368
VISUAL OBSERVATION
Visual satellite observation data
[NASA-TT-F-9814] 01 p0151 N67-10233
Visual-photographic position observations and tracking data of artificial earth satellites
[FTD-TT-65-948] 02 p0232 N67-11293
Visual and photographic position observations of artificial earth satellites 02 p0232 N67-11294
Visual observation data on orbiting artificial earth satellites for January through December, 1963, from Rumanian observatory 02 p0232 N67-11295
Visual observation data on artificial earth satellites during 1962 from U.S.S.R. observatory 02 p0232 N67-11296
Connection between recognition and similarity of given images in receiving and processing information by visual observation 02 p0219 N67-11519
Probability of segment overlap by system of random segments investigated and applied to visual observation under cloudy conditions 09 p0676 N67-12587
Descriptions of routine flight onboard Soviet long range intercontinental strategic missile carrier jet aircraft and outer space views of earth by astronauts
[JPRS-38906] 03 p0254 N67-13021
Descriptions of outer space views of earth by astronauts 03 p0254 N67-13022
Visual observations of intrinsic brightness of comet Alcock 06 p0600 N67-15447
Human observations of curvature after-effects as function of magnitude of curvature of inspected material 07 p1012 N67-17611
Surveillance of solar activity from optical observations of satellites
[RAE-LIB-TRANS-1188] 09 p1507 N67-20230
Performance of ground observers in detecting, recognizing, and estimating range of low altitude aircraft
[TR-66-19] 11 p1759 N67-22042
Dim light photography and visual observations of space phenomena from Gemini spacecraft
[NASA-TM-X-58752] 12 p2308 N67-22300
Flight test of V/STOL height control requirement for hovering and low speed flight under visual conditions
[NASA-TN-D-3977] 12 p2016 N67-22660
Comparison of results of concurrent observation with two zenith telescopes at Kitab 15 p2701 N67-23070
Meteor radar echoes and visual observations 18 p3231 N67-32521
VISUAL PERCEPTION
SA COLOR PERCEPTION
Concept and image contrast of perception during emergency flight instrument readings 02 p0216 N67-11415
Psychophysiological evaluation of perception of aviation instruments and signal devices located in aircraft cabin 02 p0263 N67-11907
Interaction between visual and vestibular analyzers during weightlessness 02 p0207 N67-11658
Fatigue threshold index of flying personnel from excitability, lability, and cortical inductive process analyses 03 p0221 N67-11857
Experiments in simulation of processes of visual perception, particularly formation of visual shapes 03 p0230 N67-12048
Human discrimination between compact sets of images - visual perception 03 p0230 N67-12049
Influence of age on development of human visual discrimination of compact sets of images 03 p0050 N67-12350
Experiments to ascertain validity of mathematical model of vision radiation 03 p0251 N67-12354
Method of perception and amplitude time classification of image 04 p0622 N67-12420
Role of informational feedback in producing visual adaptation to visual rearrangement and to various head, eye, and arm positions
[NASA-CR-663] 04 p0498 N67-14219
Light adaptation device providing homogeneous field for visual perception
[AM-66-36] 05 p0662 N67-15119
Otolith and nonotolith information influence in perception of visual horizontal by rotating human subjects with normal and defective labyrinthine functions 05 p0630 N67-15124
Visual recovery time from flash blindness in F-4C flight simulator
[SAM-TR-66-72] 07 p1022 N67-17012
Optical and photometric properties of lunar surface and implications for human visual performance
[NASA-CR-81756] 07 p1023 N67-18085
Sensory deprivation effects on human sensory, perceptual, and physiological mechanisms
[NASA-CR-727] 09 p1226 N67-18836
Diffusion model of perceptual memory
[NASA-CR-82568] 09 p1402 N67-19022
Application of Land color-vision effect to television systems
[RCS-OSD-1264] 11 p1824 N67-22947
Affective factors in stereoscopic perception of persons and objects
[TR-38] 11 p1800 N67-22120
Egocentric localization of visual horizontal in normal and labyrinthine-defective observers as function of head and body tilt
[NASA-CR-82525] 11 p1794 N67-22351
Role of sensation, perception, and identity in sensory cognition
[FTD-HT-66-431] 12 p2026 N67-24620
Rated association values of 281 control colors - Tables
[P-3511] 12 p2033 N67-24838

Generalization of Motzkin theorem - mathematical model for mapping and visual pattern recognition
[SR-3] 12 p2131 N67-24706
Peripheral vision aircraft attitude display for instrument flight
[REPT.-64-132] 14 p3445 N67-36811
Development of items for identification test designed to measure effects of environmental stress on human perceptual performance
[TR-200-1] 14 p3461 N67-36947
Information processing in functional visual field - relation between grouping and perceptual organization
[IZF-1967-6] 14 p3474 N67-37773
Fog chamber tests to determine effect of backscatter from aircraft beacon lights on target visibility
[SRDS-RD-66-57] 15 p3743 N67-38516
Saccadic suppression explanation of Pulfrich phenomenon
[USAMRL-718] 16 p3833 N67-39492
Pattern recognition by Fourier series transformations
[GE/EE/67A-11] 17 p3009 N67-30250
Peripheral inhibition mechanism of adjacent visual material during human discrimination of arrow directions
[TDCK-48149] 17 p3007 N67-31328
Effects of centripetal force stimulation on perception of visual horizontal in partially blind and normal vision subjects
[NASA-CR-83815] 17 p3007 N67-31380
Effect of target size and color specifications in visual search using eye movement recordings
[REPT.-13000-IR-3] 18 p3218 N67-32482
Factors influencing visual detection and recognition of low altitude aircraft
[AD-654125] 20 p3580 N67-34607
Human visual alertness determined from electroencephalogram
[NADC-MR-6618] 20 p3582 N67-34210
Motor mechanisms and theoretical model studied for perception and identification of visual images
[FTD-TT-65-1743] 21 p3770 N67-35420
Absolute errors in human visual distance estimation in relationship to acceleration rate of increasing size of solid angle representing target
[HUMRRO-PP-26-67] 21 p3771 N67-35603
Progress reviews of research in auditory and visual perception, simple motor systems, and human and animal motivation
[PRP-34NA] 23 p4186 N67-38391
Standard displacement step stimulus components effect on lateral saccadic eye movement
[PRP-38N] 23 p4186 N67-38403
Monocular brightness varied without varying monocular luminance, changing binocular brightness
[PRP-39A] 23 p4190 N67-38724
VISUAL SIGNAL
SA OPTICAL SIGNAL
Paced rehearsal in sequential short-term memory
[TM-12-66] 09 p1404 N67-19787
Correlation of performance in detecting visual and auditory signals in humans
[AMRL-713] 12 p2685 N67-24579
Recording and display of reduced bandwidth television signals
[PIBMRI-1356-66] 14 p3494 N67-27470
Shaping behavior of human trackers through use of visually displayed signal
[BBN-1456] 18 p3216 N67-31916
Artificially disturbed sensory coordination in humans - motor reactions to visual and kinesthetic signals
[AFOSR-67-1548] 21 p3770 N67-35434
Comparison of aircraft cockpit warning systems
[AMRL-TR-66-180] 22 p3956 N67-36714
Electronic computer visual image processor
[AFOSR-67-1685] 22 p4006 N67-37918
VISUAL STIMULUS
Flight personnel responses to visual, acoustics, and tactile stimuli for testing throughput capability of indicators over prolonged flight period
[62 p621/ N67-11445
Human reaction to random visual stimuli as determinant of judged complexity
[SP-2546/000/00] 07 p1018 N67-16929
Human reaction to visual stimuli to test central tendency hypothesis
[TR-61] 09 p1398 N67-19562
Stimulus variation and repetition in testing recall of noun-adjective combinations
[TR-43] 09 p1399 N67-19564
Visual stimulus redintegration in chimpanzee
[ARL-TR-66-19] 09 p1400 N67-19693
Electroretinographic reponse of dark adapted eye to weak visual stimuli
[IZF-1967-5] 14 p3465 N67-27898
Observations and measurements of Panum phenomenon
[REPT.-722] 16 p3835 N67-29668
Color matching functions for 2 deg and 10 deg fields, color perception, visual stimulus, and colorimetry
[REPT.-189] 16 p3835 N67-29970
VISUAL SYSTEM
Central nervous, cardiovascular, and visuomotor studies relating to spatial orientation during 30-day primate flight in Biosatellite D
05 p0656 N67-15147
Sensory, decision, and control systems for space exploration
[NASA-CR-83693] 13 p2299 N67-25955
Statistical models for determining human reactions to signals received by visual system
14 p3468 N67-26686
Characteristics of human visual system of importance in automatic perception systems
14 p3468 N67-26690
Functioning of human visual system studied with hypothetical model of operator-observer activity
14 p3468 N67-26691
Support services for calibration and development of optimum utilization plans for visual parameter tester applicable to manned space flight
[NASA-CR-73099] 18 p3217 N67-32371
Fast Fourier transform algorithms for improving capability of maximum sighting range computer program, and human visual system performance in detecting objects in cluttered background
[NASA-CR-86674] 19 p3388 N67-33996
Visual, contact, and decision subsystems for Mars rover
[NASA-CR-87503] 20 p3621 N67-34834
Organic binders containing soluble inorganic perchlorate oxidizers for increasing illumination of castable visual flares
[RDTR-92] 22 p4060 N67-38058
Controlled observation program to evaluate current runway visual range system and lighting methods and to establish standard
[RD-66-100] 24 p4426 N67-40014
VISUAL TASK
Human factors in design of electroluminescent display systems for aerospace equipment
[AMRL-TR-66-130] 12 p2033 N67-24724
Variables affecting information processing in short-term memory as reflected by strategies used in visual search task
[REPT.-2] 12 p2033 N67-24728
Visual techniques for astronaut determination of spacecraft altitude
[NASA-TM-X-1392] 14 p3473 N67-27206
VISUAL TRACKING
Equatorial and horizontal coordinate data for Soviet satellites compiled from visual and photographic tracking data - February 1965
01 p0156 N67-10865
Equatorial and horizontal coordinates of Soviet satellites compiled from visual and photographic tracking - January 1964
01 p0156 N67-10867
Measuring apparatus, astronomical coordinates, visual tracking, and artificial satellite research
04 p0506 N67-13545
Visual tracking at satellite station of Kirov Pedagogical Institute
04 p0509 N67-13556
Cinetheodolite method for observation and identification of satellites acquired unexpectedly
[REPT.-52A] 06 p1361 N67-18365
Visual lobe theory for air to ground target detection
[RAE-TN-ARM-715] 12 p2354 N67-26214
Experiments and models on tactile perception, visual tracking behavior, and tactile and visual choice reaction time
[NASA-CR-73135] 22 p3999 N67-37386
VISUALIZATION
SA FLOW VISUALIZATION
Visualization of turbulent flows by means of flow birefringence
[NASA-CR-88700] 23 p4025 N67-37277
VITAMIN
Food requirements and vitamin deficiencies among civilian flight personnel
02 p0218 N67-11515
Hydrazine effects on vitamin B6 levels in mouse brain
[AF-IF] 13 p2259 N67-26221
VITAMIN B 01
S THIAMINE
VITAMIN B 06
S PYRIDOXINE
VITAMIN C
S ASCORBIC ACID
VITREOUS MATERIAL
SA GLASS
Sphere-sphere technique for sintering partially vitreous arsenic-sulfur-selenium systems, and viscous flow mechanism relationships
[IS-T-80] 01 p0029 N67-10602
Thread-shaped deformation of vitreous humor studied in polarized light
05 p0648 N67-14602
Calculation of upper bounds to small angle X-ray scattering from crystalline models of amorphous materials
[TR-7] 05 p0740 N67-15063
Basic structure of infrared glasses
[REPT.-7518-8-F] 11 p1904 N67-23150
Characterization of 300-unit tetrahedral network model, and comparison with vitreous silica and liquid water
[REPT.-6353.00100] 16 p3843 N67-29228
Electron spin resonance and optical absorption in compacted vitreous silica
[ORO-3303-2] 16 p3851 N67-29851
VLASOV EQUATION
Theory based on Vlasov general variational method to analyze beams and plates on elastic foundations
[NASA-TT-F-357] 04 p0620 N67-14238
Waves in inhomogeneous plasma of cylindrical geometry
[EUR-2725.F] 07 p1164 N67-17350
Statistical averaging procedure in problems of plasma turbulence involving Vlasov equation
[NASA-CR-82524] 08 p1349 N67-19050
Kinetic description of rarefied fully ionized plasma
[FTD-HT-66-390] 09 p1492 N67-19772
Derivation of quantum Vlasov equation and dispersion relation of relativistic electron gas
[MPI-PAE/PL 2/67] 12 p2180 N67-23907
Vlasov variational method used for analysis of circular cylindrical shell under local loading
16 p2982 N67-30051
Entropy defined for weak plasma turbulence in terms of probability introduced in functional space spanned by instantaneous solutions of Vlasov equation
[IPPJ-57] 16 p2987 N67-30112
Modification and simplified application of Vlasov torsion theory for thin-walled rectangular tubes
20 p3736 N67-34597
Plasma physics, Vlasov theory, astrophysics, magnetohydrodynamics, many-body problem, and computer simulation - conference
[NASA-SP-153] 22 p4118 N67-37737
Nonlinear study of Vlasov equation for distribution function for one-dimensional rarefied plasma
22 p4119 N67-37745
Nonlinear solution of Vlasov equation by velocity space polynomial expansion for plasma instability study
22 p4119 N67-37746
Theta pinch shock implosion calculations by computer simulation of collisionless ion Vlasov equation
22 p4120 N67-37752
Grid excitation analysis for two component Vlasov plasma
23 p4322 N67-38753
Linear and nonlinear theory of grid excitation of low frequency plasma waves
[NASA-CR-89261] 23 p4325 N67-39256
VOCAL CORD
Perturbation functions for determining vocal tract area functions from vocal tract eigenvalues
20 p3586 N67-35239
VOCODER
Computer simulations of vocoded speech in absence of laryngeal frequency and its restoration by full wave rectification
[ESD-TR-67-237] 17 p3024 N67-30499
VOICE COMMUNICATION
SA ECHO SUPPRESSION
Electric connectors developed for telephone communication equipment
[AD-637831] 01 p0042 N67-11051
Feasibility of voice actuated address mechanism for use as input device to Army field telephone communications system
[REPT.-3] 02 p0236 N67-13065
Gallium-arsenide optical diode and xenon-

hydrogen discharge tube noncoherent optical sources for voice communication systems 03 p0369 N67-13084
Technique for automatic evaluation of speech intelligibility in communication channel transmission
[ECOM-0300-E-F] 04 p0511 N67-13914
Electronic system design, ear enclosures, and speech pickup system for transducer and interphone system for operation in high ambient noise
[REPT.-6] 06 p0832 N67-15418
Conference nets of operational voice communications subsystem 06 p0840 N67-15929
Phonemic transcription of speech entered into computer by microphone and analog to digital converter - classification, segmentation, pitch detection, and parameters of speech
[CS-49] 09 p1414 N67-19812
Environmental factors effect on voice communication in spacecraft and underwater operations
[REPT.-485] 09 p1416 N67-19743
Voice communication systems
[FTD-HT-66-202] 10 p1865 N67-21332
Computer analysis of speech, vowel perception by children, and articulatory activity during production of intervocalic fricative consonants 11 p1830 N67-22661
Intelligibility test methods and procedures for speech communication system evaluation
[ESD-TR-66-677] 12 p2055 N67-24824
Methods for determining intelligibility of voice communication systems
[IZF-1967-2] 13 p2278 N67-25565
Speech recognition criteria for estimating information efficiency of independent vocal signal parameters 13 p2280 N67-25763
Computer computations of errors in energy and envelope of voice signal 13 p2283 N67-25765
Analog-digital converter for vocal input to digital computers 13 p2286 N67-25766
Speech intelligibility - statistical determination of sensitivity of diagnostic rhyme test to characteristics of speaker, speech transmission channel, and listener
[SRRC-CR-67-6] 14 p2561 N67-29636
Persuasive communication effects under high and low stress conditions - interaction between fear and birth order
[TR-2] 16 p2834 N67-32634
Thin film personal communication system for Apollo astronaut use during extravehicular assignments 18 p3244 N67-31581
Speech transmission, voice perception, and musical acoustics
[STL-QPSR-4/1966] 18 p3214 N67-32570
Soviet open source abstracts on communication and data transmission systems and equipment for industrial and railroad applications
[ATD-66-96] 19 p3399 N67-32796
Correction of distortion inherent in speech uttered in helium rich atmosphere
[REPT.-4007-F-1] 20 p3580 N67-34004
Comparison of aircraft cockpit warning systems
[AMRL-TR-66-180] 22 p3958 N67-36714
Speech Communication Index Meter /SCIM/ applications and improvements
[BBN-1481] 23 p4214 N67-38565
VOICE DATA PROCESSING SYSTEM
Syllable coder communication system designed to reduce channel capacity normally required for voice transmission
[AD-656530] 24 p4406 N67-39774
VOID FRACTION
Void measurements in regions of subcooled and low quality boiling - effects of heat flux, mass velocity, and pressure
[AE-238] 01 p0163 N67-10135
Void fraction measurements in regions of subcooled and low quality boiling
[AE-239] 01 p0115 N67-10568
Electromagnetic flow meters to measure void fraction in gas-liquid two-phase flow
[JAERI-1111] 09 p1450 N67-20230
Effects of void formation on dynamic behavior and stability of two-phase flow with heat addition
[GEAP-5303] 10 p1771 N67-21604
Void fraction, permeability, and capillary rise for stainless steel bead sizes for stainless steel heat pipe
[QPR-5] 13 p2423 N67-25556
Programmed fraction collector for exact eluate volume acceptance
[AERE-R-4766] 14 p2514 N67-27623
Fast power reactor simulation of sodium void experiments and fission production
[KFK-472] 16 p2933 N67-29960
Void fraction measurement by gamma radiation attenuation method
[RT/ING/66/11] 16 p2951 N67-29620
Subcooled boiling analysis by calculation of steam volume fraction considering heat removal mechanisms
[AE-286] 19 p3554 N67-33537
Void fraction measurements in two-phase flow of sodium potassium and argon
[EUR-3486.F] 20 p3749 N67-35379
Volumetric void fraction measurement of vapor by gamma or X-ray attenuation method
[RT/ING/66/10] 21 p3904 N67-36139
Prediction of void fraction in subcooled boiling, annular flow, and ideal bubbly flow
[GEAP-5414] 21 p3951 N67-36596
New method for calculating void content in glass reinforced plastics
[NOLTR-67-90] 23 p4289 N67-38118
Methods of measuring velocity distribution, pressure loss, and voidage fraction for randomly packed beds of spheres
[AAEC/E178] 24 p4493 N67-40256
VOLATILITY
Physical and chemical properties of tellurium, tellurium oxides, tellurium fluorides, and tellurium oxyfluorides for use in support of fluid bed fluoride volatility processes
[ANL-7143] 07 p1134 N67-17586
Mathematical expression for slip ratio for up, down, and zero gravity annular two-phase flow
[ORNL-TM-1519] 07 p1066 N67-17567
Hydrogen fluoride-oxide decladding in fluidized bed volatility processes 09 p1406 N67-19615
Identification of volatile contaminants of space cabin materials
[AMRL-TR-66-53] 09 p1404 N67-19716
Volatility of antimony during evaporation of chloride and sulfate solutions
[SGAE-CH-43/1967] 16 p2853 N67-29961
Bench-scale studies on irradiated highly-enriched uranium alloy fuels in engineering development of fluid-bed fluoride volatility processes
[ANL-6994] 19 p3493 N67-33724
Compact pyrochemical processes, fluidization and volatility processes, materials chemistry and thermodynamics, chemical and energy transfer in reactors, and energy conversion
[ANL-7325] 20 p3567 N67-34079
Volatile contaminants of space cabin materials
[NASA-CR-88836] 22 p4079 N67-37551
Thermodynamic properties and volatility measurements of plutonium carbides
[LA-DC-8013] 23 p4365 N67-39079
VOLCANICS
SA LAVA
Natural volcanic gaseous systems investigated for biological precursor molecules
[NASA-CR-80965] 05 p0652 N67-14891
Rare earth fractionation in Hawaiian volcanic rocks, neutron activation procedure to determine rare earth elements in rocks and minerals, and magnetic processes
[AD-642344] 05 p0705 N67-15104
Field and laboratory investigations to identify biological precursor molecules in volcanic volatile systems
[NASA-CR-85612] 18 p3391 N67-31642
Volcanic cauldrons, ring complexes, and associated granites of Georgetown Inlier, Queensland 21 p3843 N67-36441
Investigation of cross-polarized radar on volcanic rocks
[NASA-CR-80681] 21 p3845 N67-36508
Aerial photographic and infrared surveys of areas of geothermal interest in California and Washington
[NASA-CR-70126] 23 p4249 N67-39013
VOLT-AMPERE CHARACTERISTICS
Differential recombination chamber using volt-ampere characteristics of ionization for radiation detection and dosimetry
[INR-739/XIX/D] 04 p0592 N67-14127
Multisweep cyclic voltammetry for electrochemical characterization of systems for secondary battery application
[NASA-CR-72128] 06 p0819 N67-15821
Multisweep cyclic voltammograms of electrochemical systems for secondary batteries
[NASA-CR-72181] 10 p1558 N67-21442
Volt ampere characteristics of thin cadmium sulfide single crystals with nonohmic contacts
[NASA-TT-F-10489] 18 p3781 N67-32230
Volt-ampere characteristics of p-i-n germanium photovoltaic cell
[ECOM-01970-1] 15 p3046 N67-28914
Electric arc criteria from energy relations, and applied to volt-ampere characteristics
[FTD-HT-66-397] 16 p2904 N67-29182
Volt-ampere characteristics of cylindrical and spherical Langmuir probes for various potential models
[NASA-CR-85508] 17 p3145 N67-31173
VOLTAGE
SA OVERVOLTAGE
Dynamics, and critical characteristics of voltage and energy of energy source of crossed linear plasma pinch
[LYCEN-6623] 01 p0160 N67-10705
High voltage strength of polyurethane plastic foams for encapsulant applications 06 p0897 N67-15722
Voltage measurements of oxygen/peroxide couple on bright platinum for evaluating possible use as fuel cell at deep sea ambient conditions
[MRL-TM-447/66] 06 p0829 N67-16471
Voltage margin tests, infrared scanning, and RF noise spectra measurements for digital test circuits 08 p1306 N67-18315
Gap voltage determination in cavity resonator 09 p1427 N67-19877
Electrochemical potential of transition metals and lanthanides dissolved in molten alkali metaphosphate
[SC-CR-66-2104] 10 p1573 N67-20907
Galvanostatic voltage transients of magnesium anodes
[ECOM-3763] 11 p1707 N67-23167
Underwater degradation and applied voltage effects on polyethylene insulated wire
[AD-646545] 14 p2539 N67-30091
Computing converter errors of voltage into code and of code into voltage 14 p2499 N67-28854
Resistance ladder networks for binary code to voltage converter 14 p2499 N67-28855
Voltage to code and code to voltage electronic converter for high-speed computers 14 p2500 N67-28859
Circuits for measurements of current and voltage of rod plasma gun
[INR-714/XVIII/PP] 15 p2775 N67-26586
Performance prediction and operation theory for superconducting parametric amplifier used in measurement of small direct current voltages
[R-544] 15 p3000 N67-29716
Currents and voltages of rectifier or inverter connected to synchronous machine 18 p3197 N67-31675
Construction of circuits for analog to digital converters used in voltage to code conversions 18 p3243 N67-32241
Amplitude and phase responses of lead current and voltage of ac push pull magnetic amplifier 19 p3271 N67-32549
Voltage and current distribution in star connected electric power distribution system 20 p3613 N67-34610
Design and operation of high voltage calibration facility
[NBS-TN-349] 20 p3641 N67-34549
Terminal voltage fluctuations of tandem Van De Graaff accelerator
[RLO-1986-22] 21 p3898 N67-36299
Calculation of sawtooth voltage oscillations of triangular shape for pulse width modulation pulse shaping circuit
[NASA-TT-F-11230] 22 p4015 N67-36708
Cycle life testing and evaluation of nickel-cadmium spacecraft batteries - voltage characteristics
[NASA-CR-69214] 23 p4183 N67-38985
VOLTAGE AMPLIFIER
In-phase crystal accelerometer voltage calibration system for high impedance voltage amplifiers
[SC-DC-67-1004] 23 p4238 N67-39022
VOLTAGE BREAKDOWN
Transient component in breakdown voltage of silicon p-n junction rectifiers 01 p0040 N67-10111
Ambient effect on breakdown of silicon p-n junctions 01 p0040 N67-10110
Antenna voltage breakdown and rocket

charging experiments on supersonic flight of Nike-Cajun rocket
[AFCRL-66-588] 01 p0041 N67-11039
High altitude, high voltage breakdown in electric propulsion flight test system
04 p0004 N67-12852
Capacitance, dissipation, formation voltage, current leakage, and voltage breakdown of anodized thin film hafnium capacitors
[ECOM-3758] 06 p0853 N67-16202
Tests of dielectric strength of large air gaps to determine minimum clearances for high voltage overhead transmission lines and substations
11 p1835 N67-22194
Intensity of light emitted form gap prior to breakdown measured as function of voltage
[ECOM-3781] 12 p2153 N67-23627
Binary gas breakdown potentials, MHD power conversion, lithium-boiling potassium test loop, and plasma studies in ion engine
16 p2962 N67-29125
Electronic commutator to convert slow-varying d-c voltages into proportional-amplitude pulses and combine them for common load
[FTD-HT-66-415] 19 p3418 N67-336.17
Electric conductivity of metal oxides in radiation fields and voltage breakdown in Localox
[NASA-CR-87812] 20 p3714 N67-34704
Voltage blocking capability of silicon thyristors and breakdown phenomena in p-n junctions
22 p4014 N67-37697
Second breakdown in silicon power transistors at high collector voltage
23 p4225 N67-38481
Low frequency noise measurements related to uniformity of current distribution in avalanche diode breakdown
23 p4225 N67-38483
Effect of impurity striations and bulk dislocation density on avalanche breakdown characteristics of production run planar diodes
23 p4225 N67-38484

VOLTAGE GENERATOR
Power system synthesizer for simulating power line faults, and generating, programming, and recording output voltage, frequency conversion, and transient power conditions
[F-15568] 12 p2018 N67-24367

VOLTAGE REGULATOR
Optimum charge regulator design evaluation for coupling spacecraft solar array to battery
[NASA-CR-79003] 02 p0177 N67-12215
Non-dissipative charge controller using rotary transformer to provide spacecraft power from solar array output
[NASA-CR-81345] 06 p0795 N67-16636
Synchronization of redundant low input voltage conversion and regulation systems for use with satellite energy conversion sources
[NASA-CR-81365] 07 p0994 N67-16729
Techniques and hardware for low input voltage converter-regulator system
[NASA-CR-81318] 07 p0994 N67-16730
High efficiency dc to dc converter regulators for spacecraft power supply
[NASA-CR-81663] 07 p1002 N67-17984
High current Zener diode array used as voltage transient suppressor
[ECOM-3777] 10 p1596 N67-21859
Variable ratio dc transformer regulator used to process main vehicle power from solar array battery power system in radio astronomy explorer spacecraft
[NASA-TM-X-55756] 12 p2018 N67-23970
Improved reliability of multiphase nondissipative optimum charge regulator
[NASA-CR-84021] 13 p2251 N67-26272
Nondissipative dc to dc regulator-converter study
[NASA-CR-84027] 13 p2252 N67-26540
Development of multiple source, multiple low voltage converter-regulator power supply with automatic failure sensing and redundant switching
[NASA-CR-84008] 15 p2645 N67-29776
Design and engineering developments for nondissipative voltage regulator-converter
[NASA-CR-85088] 17 p2889 N67-31469
Solar-conversion power-supply subsystem for Nimbus B, using pulse width modulated voltage regulator
[NASA-TM-X-55095] 18 p3198 N67-33691
Voltage stabilizers for high temperature furnace
[CEA-R-2656] 19 p3552 N67-34279
Electro-optical effect used for regulating voltages in electron microscope
19 p3424 N67-33804
Analyses of Marzolf tunnel diode inverter, dc to dc regulated converter, and self-regulating dc to sine wave inverter for use in spacecraft power conditioning systems
[NASA-CR-88975] 23 p4182 N67-38849
Static dc to dc regulated converter using two-core output transformer
[NASA-CR-89560] 24 p4377 N67-39799

VOLTAGE VARIATION INDICATOR
Errors in differential indicator of effective voltage values
03 p0372 N67-12408
Charge sensitivity of tunnel diode voltage threshold discriminator used in time difference measurements
[UCRL-14930-T] 10 p1592 N67-20737
Development and evaluation of voltage testers for insulated electrical coils and windings
23 p4232 N67-38769

VOLTERRA EQUATION
SA RADIATION
Mathematical description of Volterra integral equations
[NASA-CR-88543] 22 p4061 N67-36962
Volterra integral equations with nonnegative integrable resolvents
[NASA-CR-89078] 23 p4277 N67-39249

VOLTMETER
Direct current differential voltmeter and ratiometer for high precision measurements - automatic system for measuring Hall effect in semiconductors
08 p1280 N67-18258
Direct current differential voltmeter and ratiometer for high precision measurements
08 p1280 N67-18259
Pulse voltmeter for measuring strength of voltage of nanosecond pulses
[FTD-HT-66-101] 09 p1448 N67-19781
Performance prediction and operation theory for superconducting parametric amplifier used in measurement of small direct current voltages
[R-344] 15 p2880 N67-28716

VOLUME
SA BODY VOLUME /BIOL/
Extrapolating experimental thermal data to high pressures, and specific volume data for liquids and gases
[NASA-TT-F-10396] 04 p0622 N67-13789
Viscosity of blood at low shear rates and its relation to volume concentration and size of red cells
05 p0648 N67-14808
High pressure sonic velocity experiments on liquid mercury as function of temperature for volume determination
[TR-8] 05 p0739 N67-14729
Measurement of six-dimensional volume in phase space enclosing beam from linear accelerator injector
[SLAC-PUB-223] 09 p1432 N67-20201
Volume resistivity, Barcol hardness, and acetone extraction measurements of cast polyesters in advanced stages of curing reaction
[RAE-TR-66261] 09 p1412 N67-20334
Heat capacity of solid helium 4 under constant volume conditions at cryogenic conditions
[UCRL-16450] 10 p1770 N67-20685
Exact solutions for minimum volume design of axisymmetric plates
[AROD-4551-7-E] 16 p2900 N67-29649
Chemical method of astronaut urine volume measurement by tritium tracer dilution system
[NASA-CR-85682] 20 p3577 N67-34813
Method for treating pressure volume temperature data from Burnett compressibility apparatus using nonlinear least squares technique
[RI-7030] 21 p3784 N67-36193
Method for obtaining specific volumes of water at high pressures from ultrasonic propagation measurements
[TR-9] 22 p4025 N67-37272

VOLUMETRIC STRAIN
Three-dimensional analysis of microscopic and macroscopic stress conditions in closely packed granular material
[REPT.-103-A] 24 p4547 N67-40457

VON NEUMANN THEOREM
Generalizations, extensions, and applications of Von Neumann mathematical model of proportional economic growth
[REPT.-78] 10 p1774 N67-20691
Toeplitz, Hankel, Wiener-Hopf, bounded, and other operators for Hilbert space matrices statistical mechanics and von Neumann spectral theorem
12 p2131 N67-24235
Alternative definition of adiabatic electronic states not constrained by noncrossing rule
19 p3502 N67-32945

VON ZEIPEL METHOD
Convergence of Von Zeipel method
[SP-2810/000/00] 17 p3068 N67-30196
Von Zeipel method in general planetary theory
[NASA-CR-87298] 19 p3533 N67-33016
Elimination of short period terms of first order general planetary theory through Von Zeipel method
[NASA-TM-X-55872] 19 p3535 N67-33278
Convergence proof for Von Zeipels perturbation analysis of celestial mechanics
[SP-2810/000/01] 24 p4481 N67-39882

VOR SYSTEM
Low cost navigational aid capable of providing localizer-type guidance - VOR localizer
[RD-66-52] 03 p0367 N67-12953
VORTAC identification light for visual aid to VFR pilots
[RD-66-89] 14 p2572 N67-27192
Prototype double-sideband Doppler VOR carrier modulator and transmitter for ground station use
[RD-65-44] 14 p2489 N67-27213
Receivers for VHF omnidirectional range signals and localizer portion of instrument landing system signals
[SRDS-RD-67-4] 14 p2495 N67-27750
Interference predictions for VHF Omnirange, Tactical Air Navigation, and Instrument Landing System air navigation aids
[IER-26-ITSA-26] 17 p3102 N67-31234
Technical performance evaluation of VOR localizer guidance system for low density airports
[FAA-RD-66-90] 19 p3488 N67-32357
Very high frequency and ultrahigh frequency communication antennas effect on performance of VOR/VORTAC facility
[RD-66-88] 20 p3601 N67-34432

VORTEX
SA TIP VORTEX
Vortex valve performance power index
[NASA-TM-X-52257] 02 p0175 N67-11230
Pressure distribution in vortex combustion chamber
[FTD-TT-65-1712] 05 p0777 N67-15289
Vortex stabilized plasma arc used to obtain spectral energy distribution data
[NASA-TM-X-55725] 10 p1739 N67-21490
T-invariance testing in elastic scattering of electrons from polarized deuterons - magnetic form factor introduced in electromagnetic vertex of deuteron
[DESY-66/30] 13 p2378 N67-25990
Positions of leading-edge vortices above slender delta wings with various rhombic cross sections subsonic conical flow
[ARC-CP-925] 20 p3563 N67-35178
Aerodynamic design of highly efficient propeller blade based on vortex theory
[NASA-TT-F-11218] 22 p3965 N67-36705

VORTEX BREAKDOWN
Mathematical analysis of vortex breakdown in terms of swirling flow to stationary wave transition
[ARC-27945] 10 p1607 N67-20606
Breakdown of steady axisymmetric and spiral vortices
[ARC-CP-915] 13 p2308 N67-26043
Viscosity and nonlinear flow effects on transition of shock waves, hydraulic jump, and vortex breakdown
[REPT.-65-39] 15 p2892 N67-28395
Steady axial symmetric flow of turbulent jets in free vortex surroundings
[R67SD42] 23 p4239 N67-38920

VORTEX COLUMN
Spectral irradiance measurements on vortex stabilized helium and argon arcs made by solar simulators
18 p3315 N67-32597

VORTEX DISTURBANCE
Distorted front of shock wave traversed by vortex
[UTIAS-TN-98] 11 p1861 N67-23054
Instability of mode of distribution for an idealized viscous vortex model
20 p3623 N67-34185
Effects of vorticity variation on two-dimensional suction flow
[NPL-AERO-1302] 20 p3626 N67-35066

VORTEX FLOW
Experimental studies on swirling flows in cylindrical ducts
[M6117] 02 p0203 N67-12182

Vortex lift calculation for sharp-edge delta wings based on leading edge suction analogy
[NASA-TN-D-3767] 03 p0322 N67-13171
Vortex flow analysis of viscous, incompressible, electrically conducting fluid between two plates under applied axial magnetic field
[NASA-CR-646] 04 p0593 N67-13420
Mathematical points in solution of nonlinear equation for vertical component of velocity vortex 05 p0732 N67-14394
Liquid rotation and vortexing during draining 06 p0866 N67-15896
Effects of fluid mass flow rate and exit orifice diameter on radial static pressure distribution in compressible vortex flow field
[NASA-CR-82155] 06 p1266 N67-18655
Analysis of vortex flow behind stationary and oscillating circular cylinders for application to prediction of ground wind loads on launch vehicles
[NASA-CR-82504] 06 p1373 N67-19094
Hydrogen bubble technique used for visual observation measurements of critical Taylor numbers for different nonnewtonian fluids
[AD-642847] 09 p1434 N67-19749
Variable injection angle and mass flow effects on heat transfer and flow characteristics of vortex flow in centrally heated cylinder
[GAM-66A/AE/66-6] 09 p1542 N67-19820
Boundary layer and vortex flows on aft portion of blunt body, using perturbation method
[NYU-AA-66-64] 09 p1435 N67-20007
Magnetohydrodynamic stabilization experiments with jet-driven vortex flows
[ORNL-P-2724] 10 p1739 N67-21480
Electric spark technique applied to measurement of velocity in leading edge vortex flow
[RAE-TN-AERO-2947] 11 p1859 N67-22710
Characteristics of vortex devices 11 p1787 N67-23079
Hypersonic laminar boundary layer on blunt nose cone, and external vorticity of curved bow wave
[NASA-TT-F-11007] 14 p2519 N67-27536
Flow distribution between two parallel channels in vortex flow
[EURAEC-1611] 15 p2691 N67-28210
Nonlinear wing theory for aerodynamic design of small aspect ratio wing
[NASA-TT-F-10015] 15 p2838 N67-28293
Vortex flow concentration and tornado control, and mathematical model for kinetic collision 16 p2876 N67-29160
Survey of correlation length measurements of vortex shedding process behind circular cylinder
[TR-76028-1] 16 p2876 N67-29686
Characteristics of plasma vortices created by theta pinch accelerator measured by biased double and magnetic probes
[RE-264] 17 p3145 N67-31966
Drag and heat flux measurements, vertical heat flux meter comparisons, convective vortices characteristics, and particular mode of instability for idealized vortex model
[ECOM-039GI-F] 20 p3638 N67-34181
Forced convection nonboiling heat transfer coefficients and pressure drop for heating and cooling of water in tape generated swirl flow
[TR-70381-47] 21 p3945 N67-35487
Analysis of steam vapor vortex flow in submarine surface condenser
[MEL-461/66] 21 p3830 N67-35710
Nonrotating strain gauge type vorticity meter for measuring flow field behind delta wings
[NASA-CR-887] 22 p4048 N67-37453
Method of horseshoe vortices applied to design of V-shaped foils of small aspect ratio 23 p4359 N67-39179
Mountain clear air turbulence measurements by T-33 aircraft, screening principles and methods, and vortex wake measurements behind Douglas DC-8 aircraft
[DME/NAE-1967(2)/] 24 p4373 N67-40235

VORTEX GENERATION
Instability and formation of vortices in free laminar jet boundary layer 08 p1273 N67-18301
Vortex amplitude generation of helicopter rotor blade noise
[AD-634044] 15 p2840 N67-27090
Vortex generation, temperature and velocity measurements, boundary layer considerations, and other aspects of concentrated convective vortices 20 p3628 N67-34184

VORTEX GENERATOR
Superposition of helicoidal flow induced by propeller shaped vortex generators on forced axial water flow in burnout heat flux tests
[SORIN-95] 16 p2881 N67-30095

VORTEX RING
Aerodynamic characteristics in revised theory of vortex rings
[TM-66-01] 11 p1859 N67-22668
Theory of motion of vortex ring subject to gravity 21 p3823 N67-36439
Experiments on charged quantized vortex rings in superfluid helium
[COO-1112-113] 23 p4308 N67-38527

VORTEX SHEET
Analysis of vortex sheets shed from leading edges of slender wings
[NASA-CR-73048] 05 p0630 N67-14926
Flow field around delta wings and bursting of conical vortex sheet above delta wing surface
[NASA-CR-81254] 06 p0786 N67-16168
Flow of air around delta and other swept-back wings - vortices from apex and sheets 06 p0787 N67-16169
Bursting of conical vortex sheet above delta wing surface at low speeds 06 p0787 N67-16170
Vortex sheet model of primary vortices formed by separation of flow from leading edge of slender delta wing with small aspect ratio
[RAE-TR-66070] 09 p1392 N67-19976
Two-dimensional flow field near center of rolled-up vortex sheet
[RAE-TR-66234] 20 p3563 N67-35170

VORTEX STREET
Flow in wake of two-dimensional blunt trailing edge model investigated and effects of splitter plates and base bleed on vortex street studied
[NPL-AERO-1139] 07 p1064 N67-17234
Conditions of flow separation and vortex formation past circular cylinders and through cylinder gratings 08 p1218 N67-19300

VORTEX TUBE
Flow visualization of confined jet driven water vortex tube
[NASA-CR-79941] 02 p0250 N67-11830
Mixing of fluids of different enthalpy, and their thermal separation in vortex tube 08 p1217 N67-18873
Tangential velocity profile in Ranque-Hilsch vortex tube by static pressure measurements at wall
[RISO-116] 15 p2689 N67-27934

VORTICITY EQUATION
SA BALANCE EQUATION
Subtropical high in Northern Hemisphere for winter by balance equation of vorticity 11 p1915 N67-22607
Mathematical model for production of intense shear layers by vortex stretching and convection
[AGARD-514] 15 p2694 N67-28000

VORTICITY TRANSPORT HYPOTHESIS
Generalized analytic expressions for describing motion of free laminar jet
[USAAVLABS-TR-66-69] 13 p2307 N67-25439

VOSKHOD I SPACECRAFT
Postflight physiological and clinical examinations of Voskhod I astronauts 02 p0181 N67-11421
Space radiation doses absorbed by Voskhod I and Voskhod II spacecraft crews
[NASA-TT-F-10469] 14 p2451 N67-26561

VOSKHOD II SPACECRAFT
Postflight clinical and physiological examinations of Voskhod II astronauts 02 p0181 N67-11422
Physical and psychophysiological effects of spaceflight on pilot tracking performance under simulated Voskhod II conditions 10 p1588 N67-20256
Space radiation doses absorbed by Voskhod I and Voskhod II spacecraft crews
[NASA-TT-F-10469] 14 p2451 N67-26561
Respiration and cardiac contraction rate changes in cosmonauts during performance of tasks aboard Voskhod II space flight
[JPRS-46239] 14 p2468 N67-27267
Cardiovascular and respiratory reactions of crewmen during Voskhod II spacecraft orbital flight
[JPRS-46179] 14 p2484 N67-27394

VOSKHOD MANNED SPACECRAFT
Cosmic radiation hazards and biological effects on Vostok and Voskhod spacecraft 02 p0193 N67-11518
Preflight and postflight clinical and physiological observations of Voskhod manned spacecraft crew members 10 p1589 N67-20297
Sensitivity of developmental phases of Tradescantia paludosa microspores to Voskhod spaceflight conditions 10 p1589 N67-20298
Physiological measurements in cosmonauts while performing tasks aboard Voskhod spacecraft
[JPRS-46075] 14 p2464 N67-27391
Laboratory experiments and Voskhod flight data on vision sharpness, efficiency, and perception during space flights
[NASA-TM-X-66574] 24 p4390 N67-40080

VOSTOK II SPACECRAFT
Astronauts impressions during space walk from Vostok II spacecraft
[NASA-TT-F-10004] 03 p0483 N67-12317

VOSTOK SPACECRAFT
Comments by cosmonauts aboard Vostok 5 and 6 space flights
[NASA-TT-F-8508] 01 p0151 N67-10232
Vostok spacecraft design
[FTD-TT-65-1708] 01 p0157 N67-10975
Flight results of cosmonauts on Vostok ships
[FTD-MT-65-256] 04 p0491 N67-13780
Control of cosmic radiation level during flight of Vostok spacecraft
[NASA-CR-81273] 06 p0958 N67-16518
Press releases on Soviet exhibit at International Aeronautical and Astronautical Exhibit in Paris
[NASA-CR-84981] 15 p2798 N67-28929

VOYAGER PROJECT
Martian surface and atmospheric parameter measurements by means of gamma ray spectrometric instrumentation aboard Voyager mission 03 p0480 N67-12867
Sterilization plan for Voyager capsule 05 p0763 N67-14797
Reliability efforts and test facility developments summarized for Deep Space Instrumentation Facility and Surveyor, Mariner, and Voyager projects
[NASA-CR-81199] 06 p0971 N67-15685
Surveyor mission operations, and systems design engineering for Mariner, Voyager, and Surveyor space probes
[NASA-CR-81293] 06 p0980 N67-16581
Prototypes of automated soil sampling systems for use in Voyager-class capsules of 1970 decade for Mars exploration
[NASA-CR-83516] 11 p1799 N67-22222
Load relief control system design concept for Saturn V S-IC stage with Voyager payload
[NASA-CR-83727] 12 p2218 N67-24620
Guidance laws for propellant efficiency with optimum thrust program and error analysis for Voyager mission orbit insertion
[NASA-TM-X-53601] 14 p2813 N67-27229
Trajectory and navigation accuracy studies related to deep space network 17 p3160 N67-30272
Natural environment design criteria guidelines for Voyager spacecraft for Mars 1973 missions
[NASA-TM-X-53616] 18 p3348 N67-32230
Feasibility estimate, mission profile, and design Orbital Experiment Capsule /OEC/ Mars satellite to be used in Voyager Project
[NASA-CR-73126] 22 p4146 N67-36702
Recommended configuration and mission profile on Voyager orbital experiment capsule based on systems analyses and tradeoff studies
[NASA-CR-73127] 22 p4147 N67-37173
Mission planning, orbit determination, thrust vector control, and configuration management program for Voyager project - summary
[NASA-CR-89733] 24 p4388 N67-39762
Iterative risk analysis approach for assessing and comparing risks associated with proposed Voyager missions
[NASA-CR-89736] 24 p4388 N67-39763
Weighting factors combined with individual value functions for 300 candidate orbits for Voyager Mars missions to develop computer-determined overall value functions for optimum orbits
[NASA-CR-89731] 24 p4388 N67-39764
Computer program description and sample printout for orbital mission by Voyager project - users manual
[NASA-CR-89732] 24 p4388 N67-39765
Configuration identification data and

management procedures for Voyager project
[NASA-CR-89735] 24 p4529 N67-39706
Liquid insertion thrust vector control system for Voyager project
[NASA-CR-89734] 24 p4522 N67-39767
Mission objectives, design criteria, and design constraints for preferred capsule bus concept of Voyager flight capsule
[NASA-CR-89672] 24 p4535 N67-40041
Preferred design concept for capsule bus system of Voyager spacecraft
[NASA-CR-89673] 24 p4536 N67-40042
Planetary quarantine, operational support equipment, system interfaces, and implementation of preferred design concept for capsule bus system of Voyager flight capsule
[NASA-CR-89674] 24 p4536 N67-40043
Optimum capsule bus design for Voyager spacecraft based on mission analyses and system functional requirements
[NASA-CR-89675] 24 p4536 N67-40044
Configuration selection for aeroshell, lander, and terminal decelerator and propulsion for Voyager capsule bus system
[NASA-CR-89676] 24 p4536 N67-40045
Sterilization canister, adapter, aeroshell, and lander subsystem of Voyager capsule bus
[NASA-CR-89677] 24 p4536 N67-40046
Telecommunications, power subsystem, guidance and control, sequencing and timing, and radar for Voyager capsule bus system
[NASA-CR-89678] 24 p4536 N67-40047
Antenna, command, data storage, radio, telemetry, and structural/mechanical subsystems of preferred Voyager capsule bus system
[NASA-CR-89679] 24 p4536 N67-40048
Interface, test requirements, reliability, safety, and functional aspects of subsystems of Voyager space capsule bus system
[NASA-CR-89686] 24 p4537 N67-40049
Operational support equipment for Voyager space capsule bus system
[NASA-CR-89689] 24 p4537 N67-40050
Engineering reliability studies for Voyager space capsule bus system based on failure modes, mission requirements, and tradeoff studies
[NASA-CR-89690] 24 p4537 N67-40051
Aerodynamic decelerator, pyrotechnics, thermal control, propulsion, packaging and cabling, and independent data package for Voyager capsule bus system
[NASA-CR-89686] 24 p4536 N67-40234
Voyager mission study considerations including launch opportunities, trajectory design, performance capability of Saturn V launch vehicle, and vehicle load relief control
[NASA-TM-X-53854] 24 p4532 N67-40336
Redundancy at both mission and spacecraft systems level of Voyager program
[NASA-CR-89703] 24 p4532 N67-40411
Overall data management for Voyager project based on data system study and contractor data requirements, implementation, and management information studies
[NASA-CR-89704] 24 p4555 N67-40412
Technical description and systems engineering contractor data package for Voyager spacecraft
[NASA-CR-89705] 24 p4555 N67-40413
Manufacturing contractor data project for Voyager spacecraft systems
[NASA-CR-89707] 24 p4460 N67-40414
Contractor data package for Voyager spacecraft configuration management
[NASA-CR-89708] 24 p4555 N67-40415
Manufacturing verification tests for quality assurance and control data management on Voyager spacecraft
[NASA-CR-89709] 24 p4461 N67-40416
Test and mission operations contractor data package for Voyager spacecraft
[NASA-CR-89710] 24 p4532 N67-40417
Contractor data package for Voyager logistics and support in transportation, communications, supply, and maintenance
[NASA-CR-89712] 24 p4532 N67-40419
Overall management, scheduling, manpower, and financial aspects of Voyager data management
[NASA-CR-89713] 24 p4427 N67-40420
Contractor data package for administration of procurement and contracting of Voyager spacecraft systems
[NASA-CR-89714] 24 p4427 N67-40421
Contractor data management system for Voyager project
[NASA-CR-89715] 24 p4427 N67-40422
Contractor data requirements for design, testing, inspection and control of Voyager facilities
[NASA-CR-89716] 24 p4555 N67-40423
Contractor data requirements to insure safety of personnel, facilities, and equipment of Voyager operations
[NASA-CR-89717] 24 p4427 N67-40424
Contractor data requirements for site activation for Voyager spacecraft launch
[NASA-CR-89718] 24 p4427 N67-40425
Contractor data requirements for integration of scientific experiments aboard Voyager spacecraft
[NASA-CR-89719] 24 p4427 N67-40426
Technical, administrative, and managerial data documentation by contractors on interfaces between Voyager project and related space programs
[NASA-CR-89720] 24 p4555 N67-40427
Integrated test plan and implementation plan highlights for Voyager capsule - preliminary design phase B
[NASA-CR-89730] 24 p4538 N67-40442
Subsystems requirements, constraints, and configurations for preliminary design of Voyager capsule bus system
[NASA-CR-89722] 24 p4538 N67-40443
Operational support equipment preliminary design for Voyager flight capsule bus
[NASA-CR-89723] 24 p4539 N67-40444
Surface Laboratory preliminary configuration for Voyager mission - space capsule
[NASA-CR-89724] 24 p4539 N67-40445
Operational support equipment and mission dependent equipment for preliminary design of surface laboratory portion of Voyager capsule bus system
[NASA-CR-89725] 24 p4539 N67-40446
Entry Science Package preliminary design for Voyager flight capsule
[NASA-CR-89726] 24 p4539 N67-40447
Operational support equipment preliminary design for entry science package portion of Voyager flight capsule system
[NASA-CR-89727] 24 p4539 N67-40448
Hardware, software, and service interfaces between capsule bus, entry science package, and Voyager spacecraft
[NASA-CR-89728] 24 p4539 N67-40449
Hardware, software, and service interfaces between capsule bus, entry science package, surface laboratory, and Voyager spacecraft
[NASA-CR-89729] 24 p4539 N67-40450
Contractor data requirements relating to advanced missions and potential follow-up programs of Voyager project
[NASA-CR-89721] 24 p4537 N67-40552
Contractor data management package for Voyager spacecraft sterilization project
[NASA-CR-89706] 24 p4532 N67-40553
Objectives, constraints, and design of Voyager entry science package for Mars atmosphere probe
[NASA-CR-89699] 24 p4540 N67-40557
Design alternatives and systems analysis of Voyager entry science package for Mars atmosphere probe
[NASA-CR-89700] 24 p4532 N67-40558
Major equipment and subsystem descriptions of Voyager entry science package for Mars
[NASA-CR-89701] 24 p4540 N67-40559
Reliability, planetary quarantine, support equipment, and interface alternatives of Voyager entry science package for Mars atmosphere probe
[NASA-CR-89702] 24 p4534 N67-40560
Voyager capsule surface laboratory system - design concepts and objectives
[NASA-CR-89691] 24 p4540 N67-40561
Voyager capsule surface laboratory system - mission analysis, system functional requirements, and design selection and alternatives
[NASA-CR-89692] 24 p4534 N67-40562
Voyager capsule surface laboratory system - subsystem design analysis
[NASA-CR-89693] 24 p4534 N67-40563
Voyager capsule surface laboratory system - subsystem design analysis
[NASA-CR-89694] 24 p4495 N67-40564
Voyager capsule surface laboratory system - subsystem functional descriptions
[NASA-CR-89695] 24 p4541 N67-40565
Voyager capsule surface laboratory system - subsystem functional descriptions
[NASA-CR-89696] 24 p4541 N67-40566
Voyager capsule surface laboratory system - operational support equipment
[NASA-CR-89697] 24 p4428 N67-40567
Voyager capsule surface laboratory system - reliability
[NASA-CR-89698] 24 p4535 N67-40568

VTO FIGHTER AIRCRAFT
Thermodynamic, aerodynamic, mechanical, and systems studies of lift fan concepts for V/STOL transport and supersonic fan-in-wing fighter aircraft
[NASA-CR-761] 12 p2016 N67-25044

VTOL
Model technique applied to variable-stability helicopter for computer simulation of VTOL handling
[AGARD-515] 15 p2642 N67-38879
Performance prediction of VTOL propellers operating at zero forward speed
[TN-67-2] 20 p3565 N67-34494

VTOL AIRCRAFT
Articles presented in conference on VTOL aircraft stability and control, flight control systems, and system reliability
[DLR-MITT.-65-02] 01 p0006 N67-10571
Potential airline use of STOL-VTOL aircraft for intercity short-haul transportation
[FAA-ADS-74, VOL. II] 01 p0006 N67-10595
Technical and economic evaluation of STOL/VTOL aircraft as intercity short-haul transportation method
[FAA-ADS-74, VOL. I] 01 p0006 N67-10599
Pilot behavior in VTOL aircraft
[AGARD-521] 04 p0495 N67-13399
Control moment distribution for Dornier DO-31 hovering rig
[AGARD-522] 04 p0481 N67-13400
Flight tests on VTOL research aircraft for handling qualities in hover and transition
[AGARD-527] 04 p0482 N67-14110
Status of rotorcraft technology 05 p0632 N67-15185
Operational feasibility of hybrid rotorcraft at speeds up to 200 knots 05 p0632 N67-15186
Analysis of low disk loading VTOL aircraft 05 p0633 N67-15191
Stopped/folded rotor concept for high speed low disk loading applications 05 p0633 N67-15192
Helicopter autogyro for tactical utility VTOL aircraft - Turbogyro 330 05 p0634 N67-15195
Advanced flight control systems for VTOL aircraft 05 p0635 N67-15202
Calculations and experimental results of factors affecting longitudinal stability of VTOL aircraft based on XC-142a data
[USAAVLABS-TR-66-53] 06 p0790 N67-16598
Static calibration of ejector unit for simulation of jet engines in small-scale wind tunnel models of VTOL aircraft
[NASA-TN-D-3867] 06 p1263 N67-18951
Flight test of Hawker Siddeley Kestrel VTOL aircraft
[AGARD-518] 08 p1221 N67-19243
Economic problems and potentials of short-haul air transportation, and technical feasibility of VTOL aircraft 11 p2003 N67-22389
Interference factor tables for correcting data from VTOL models in wind tunnels with 7 by 10 proportions
[NASA-SP-3039] 11 p1779 N67-22897
Flight simulation study of jet-borne VTOL aircraft handling qualities
[ARC-CP-902] 12 p2015 N67-24028
Optimum guidance and stability problems in VTOL aircraft
[RAE-LIB-TRANS-1186] 12 p2015 N67-24586
Reliability of VTOL automatic flight control systems
[NASA-TT-F-10601] 13 p2344 N67-25061
Reliability of VTOL aircraft flight control systems 13 p2345 N67-25062
Reliable VTOL flight control system 13 p2345 N67-25065
Reliability achievement in VTOL automatic control systems 13 p2345 N67-25067
Automatic control of VTOL aircraft 13 p2346 N67-25068
Medico-physiological incidences on pilot for flight patterns typical of VTOL
[NASA-TT-F-470] 13 p2369 N67-25847
Full integration of VTOL lifting fans into aircraft fuselage 16 p2617 N67-29184
Requirements for jet engine used for VTOL aircraft stability and control 16 p2663 N67-29191
Attitude control system simulation and mathematical analysis for Flying Test Bed -

VTOL aircraft capabilities
[NAL-TR-120] 16 p2875 N67-30062
Thrust characteristics of air jet nozzle used for attitude control of VTOL aircraft
[NAL-TR-123] 16 p2819 N67-30101
Drag and static longitudinal and lateral stability characteristics of supersonic horizontal attitude VTOL aircraft model in wind tunnel
[NASA-TM-X-213] 18 p3192 N67-31732
Full scale wind tunnel investigation of VTOL aircraft with jet ejector system for lift augmentation
[NASA-TN-D-3725] 18 p3195 N67-32221
Free-stream interference effects on effectiveness of control jets near wing tip of VTOL aircraft model
[NASA-TN-D-4064] 19 p3365 N67-32845
State-of-the-art in manned military VTOL aircraft 19 p3365 N67-33071
Gust velocity spatial distribution effect on lateral direction response of VTOL aircraft
[AFFDL-TR-67-98] 23 p4178 N67-38182
Evaluation of advanced VTOL, STOL, and conventional takeoff and landing aircraft for short haul transportation systems
[NASA-CR-73129] 23 p4177 N67-38562
Evaluation of advanced VTOL, STOL, and conventional takeoff and landing aircraft for short haul transportation systems
[NASA-CR-73130] 23 p4177 N67-38583
Potential noise problems and operational restrictions for future VTOL aircraft
[AMRL-TR-66-245] 24 p4374 N67-39688
VULCANIZATE
SA SYNTHETIC RUBBER
Characterization of ethylene propylene vulcanizates
[RAE-TR-66388] 15 p2730 N67-27935
VULCANIZATION
Thermal conductivity of soft vulcanized natural rubber
[TR-66-49-PR] 08 p1295 N67-18296
VZ-11 AIRCRAFT
S XV-5 AIRCRAFT

W

WAFER
Knock-out coefficient of sintered uranium dioxide wafers following thermal neutron irradiation
[EUR-3058.E] 02 p0236 N67-11905
Fabrication of diffused silicon wafer diodes
[UCRL-14451] 06 p0655 N67-16388
Magnesium wafer cells for rapid and economical assembly into batteries
[QR-1] 07 p0998 N67-17242
Design parameters for construction of magnesium wafer cells
[REPT.-3] 18 p3199 N67-32514
WAKE
SA AIRCRAFT WAKE
SA DOWNWASH
SA DRAG
SA HYPERSONIC WAKE
SA LAMINAR WAKE
SA SUPERSONIC WAKE
SA SWIRLING WAKE
SA TURBULENT WAKE
Determination of time varying flow in vicinity of helicopter rotor in hovering and forward flight and having fuselage immersed in rotor wake
[CAL-BB-1994-S-3] 01 p0002 N67-10457
Lighthill method applied to incompressible laminar axisymmetric far wake
[RM-4859-ARPA] 01 p0061 N67-11188
Measurement by wake momentum surveys at Mach 1.61 and 2.01 of turbulent boundary layer skin friction on five swept wings
[NASA-TN-D-3764] 03 p0333 N67-13170
Observation methods of turbulent flow using hot wire anemometers and schlieren photography - wakes
[TP-417] 04 p0481 N67-14287
Flow in wake of two-dimensional blunt trailing edge model investigated and effects of splitter plates and base bleed on vortex street studied
[NPL-AERO-1119] 07 p1044 N67-17234
Analysis of subsonic flow past symmetrical blunt trailing edge airfoil sections at zero incidence in absence of vortex street
[ARC-R+M-3436] 07 p0998 N67-17347
Turbulent far wake mixing problems
[NYU-AA-66-63] 07 p1008 N67-17655
Lunar ion wake in solar wind interpreted on basis of IMP magnetic field and plasma measurements
[NASA-TM-X-57979] 08 p1356 N67-18715
Analysis of vortex flow behind stationary and oscillating circular cylinders for application to prediction of ground wind loads on launch vehicles
[NASA-CR-82504] 08 p1373 N67-19004
Conditions of flow separation and vortex formation past circular cylinders and through cylinder gratings 08 p1218 N67-19200
Dynamics and thermodynamics of separated wake flows - systems analysis using dissipative flow and heat transfer models 08 p1274 N67-19305
Splitter plate and suction wake effects on pressure drag behind wedge 08 p1274 N67-19310
Exact treatment of helicoidal wake in propeller lifting surface theory
[REPT.-1117] 10 p1506 N67-20557
Wakes of lifting propellers in ground effect
[BB-1665-S-3] 10 p1549 N67-20646
Wake flow mechanisms, design and aerodynamic performance of decelerators
[NASA-CR-748] 11 p1778 N67-23777
Schlieren and hot wire exploration of wakes in wind tunnel supersonic flows
[NASA-TT-F-10660] 12 p2084 N67-25097
Periodic wake flow theory and application to parameters determining base pressure
[DLR-FB-66-71] 13 p2308 N67-26149
Energy dissipation of atmospheric eddies in wake of islands
[ARL-1576-1] 14 p2525 N67-27212
Electron-sodium collision frequencies of reentry wake contaminants
[F-920440-6] 15 p2776 N67-28912
Wake produced by oscillating wing in two-dimensional noncavitating flow studied in water tunnel using small air bubbles as flow tracers
[TM-607.3441-10] 16 p2811 N67-28988
Pressure distribution measurements on cones in symmetrical incompressible flow, with and without influence of wake
[NASA-TT-F-11129] 17 p2993 N67-30922
Hotshot wind tunnel studies of ionized wake
[TP-455/1967/] 17 p3143 N67-30939
Ionization of supersonic flows by radio electric frequencies, and study of ionized wakes
[REPT.-67-1] 17 p3145 N67-31158
Two-dimensional flow of body moving with constant speed through linearly stratified fluid
[TR-22] 19 p3432 N67-33276
Computation of ionized meteor wake initial radius
[NASA-CR-81706] 21 p3983 N67-36610
Hyperballistic range projectile firings to study electron wakes in tunnel 22 p4116 N67-37528
Wake electron density measurements behind hypersonic spheres and cones 22 p4116 N67-37529
Ballistic range firing of spherically blunted models to calculate measured and predicted ablating material radiation emission in near wake 22 p4164 N67-37832
Ballistic range measurements of wake electron density and spectral emission from projectiles during reentry 22 p4117 N67-37833
Boundary layer and nonviscous wake on sharp and blunted cones at incidence in hypersonic flow 22 p4000 N67-37607
Inclination effect on Strouhal number and other wake properties of circular cylinders at subcritical Reynolds numbers
[UTIAS-TN-116] 24 p4271 N67-39787
WAKEFULNESS
SA SLEEP DEPRIVATION
Electroencephalographic baselines in astronaut candidates estimated by computer and pattern recognition techniques
[NASA-CR-82506] 08 p1232 N67-19002
Neuronal activities in regulation of feeding and satiety centers in chronically unrestrained cats
[J-195-5] 19 p3372 N67-33279
WALKING MACHINE
Feasibility and design of walking machines with servocontrol for human operator
[AD-634618] 15 p2900 N67-27972
Potential utility and feasibility of servomechanism propelled walking vehicles
[P-314] 20 p3645 N67-34111
WALL
SA NOZZLE WALL
SA POROUS WALL
SA THIN WALL
SA WIND TUNNEL WALL
Heat transfer at end wall of interblade space 02 p0321 N67-11213
Channel wall limitations in magnetohydrodynamic generator
[ANL-7148] 08 p1348 N67-18802
Temperature field in two-layer wall of section of structure under external heat-exchange conditions
[FTD-HT-66-485] 09 p1542 N67-19797
Nonisothermal wall boundary layer computer program with corner effects
[NASA-CR-82974] 09 p1291 N67-19807
Turbulent, uniform property hydrodynamic boundary layer on smooth, impermeable wall
[ARC-CP-975] 10 p1613 N67-21198
Boundary layers in compressible flows with arbitrary initial profiles and assigned wall shear
[NYU-AA-66-61] 14 p2516 N67-26967
Thermal conductivity of liquid metal heat exchanger layer adjacent to wall
[JPRS-41695] 17 p3177 N67-30820
Heat transfer between wall and loose medium moving in cylindrical tubes 18 p3255 N67-32283
Wall interference corrections for subsonic wind tunnels
[AGARDOGRAPH-109] 20 p3589 N67-34612
Generalized equation to determine tangential stresses on walls of tube during unsteady viscous fluid motion 22 p4032 N67-37839
WALL FLOW
Magnetohydrodynamic stability analysis of jet injection flow over concave wall
[ORNL-P-2740] 12 p2177 N67-23727
Characterization of turbulence and flow of liquid films on inclined walls using motion equation
[REPT.-36] 13 p2425 N67-26110
Calculation of shear stress caused by sedimentary flow at wall in closed tube using Reynolds equations for turbulent flow
[REPT.-37] 13 p2314 N67-26112
Influence of flexible walls on boundary layer turbulence
[DLR-FB-66-79] 15 p2892 N67-28687
Solution to motion equations for magnetogasdynamic flow between diverging plane walls
[AEDC-TR-67-80] 15 p2776 N67-28691
Deflection of jet flow along curved wall calculated as separation of boundary layer effect along wall
[A4] 18 p3250 N67-31834
Interaction between measuring instrument cavity and rarefied gas flow
[T-R-659] 24 p4432 N67-39845
WALL JET
Unified theory of friction, heat transfer, and mass transfer in turbulent boundary layer and wall jet
[ARC-CP-829] 09 p1433 N67-19421
Solutions based on boundary layer theory for laminar wall jet with suction and blowing
[DLR-FB-66-87] 15 p2892 N67-28870
Velocity decay, surface pressure distribution, and perturbation in two-dimensional turbulent wall jets over curved surfaces
[MERL-TN-67-1] 20 p3624 N67-34791
Numerical integration of equations of flow in initial region of turbulent wall jet
[SF/TN/Y] 21 p3830 N67-35870
Two-dimensional wall jet - slot geometry effects on film cooling effectiveness and measurements of impervious wall effectiveness
[ARC-CP-943] 22 p4023 N67-38023
WALL PRESSURE
Pressure gradient effects on turbulent boundary layer wall-pressure fluctuations
[REPT.-747] 01 p0069 N67-10889
Turbulent reattachment of supersonic jet, boundary layer thicknesses, and similarity law in wall pressure evolution 08 p1272 N67-19294
Wall pressure distribution in reattachment bubble
[A3] 10 p1611 N67-21128
Theoretical estimate for compliant coating effect on turbulent boundary layer wall pressure fluctuations
[USL-707] 11 p1861 N67-23121
Tangential velocity profile in Ranque-Hilsch vortex tube by static pressure measurements at wall
[RISO-116] 18 p3039 N67-27784

Spectroscopic measurements in quiet flow water tunnel of wall pressure fluctuations in thick turbulent boundary layers
[RT-15101] 15 p2692 N67-28547
Supersonic wall pressure measurements on rocket sled slipper
[MDC-TR-67-68] 21 p3754 N67-35623
Chemical kinetics of combustion processes examined for application in supersonic combustion ramjet engine design studies
[AEDC-TR-67-177] 24 p4522 N67-39695
General equations of turbulent flow are described and fundamental solutions demonstrated
[NYU-AA-66-69] 24 p4432 N67-40060
WALL TEMPERATURE
Discharge tube dimensions, flow rate, wall temperature, and gas mixtures defined for carbon dioxide gas laser
[NASA-CR-81332] 06 p0890 N67-16633
Fabrication, calibration, and operation of thin film heat transfer gauges for determining surface temperatures and heat transfer rates of shock tube walls 07 p1077 N67-16965
Physical processes involved in heat transfer between burning spray and thrust chamber wall 06 p1354 N67-18324
Heat transfer in walls of combustion chambers and effects on solid propellant ignition 12 p3196 N67-24393
Aerodynamic research program on space and launch vehicle development 17 p2991 N67-30579
Design equation analysis for heat transfer to cryogenic hydrogen at pressures from 600 to 1500 psia and wall-to-bulk temperature ratios to 20
[NASA-CR-87511] 20 p3747 N67-34804
Radial heat transfer at wall in packed beds of reactor system
[AAEC/TM389] 24 p4550 N67-39945
WALL TEMPERATURE DISTRIBUTION
Mathematical model of transient natural convection in vertical tubes with non-axisymmetric wall temperature calculated with finite transforms
[FTAS/TR-67-15] 24 p4550 N67-39986
WALLEYE MISSILE
Test firings to determine safety of Walleye fuse Mk 228 Mod O explosive train in SAFE and ARMED positions
[NOLC-671] 10 p1556 N67-20611
Pilot performance in air launched missile systems 19 p3383 N67-33315
WARFARE
SA ANTISUBMARINE WARFARE
SA CHEMICAL WARFARE
Methods of developing human physical endurance for different types of warfare
[JPRS-41444] 19 p3376 N67-33451
WARHEAD
Focusing blast accuracy for antiaircraft missile warheads using a sphere of Composition C-4 19 p3369 N67-33377
Effects of geometrical variations in shape of explosive device on direction of projection of metal casing parts in guided missile warheads 19 p3548 N67-33379
WARMING
Vertical air motion effects on temperature changes during stratospheric warming 15 p3760 N67-28135
WARNING DEVICE
SA COLLISION WARNING DEVICE
Performance evaluations of low cost carbon monoxide indicators for use in aircraft
[AD6-90] 01 p0073 N67-10421
Stall warning device for aircraft accident prevention
[AM-66-31] 02 p0173 N67-11837
Radiation monitoring, warning, and communication systems 09 p1444 N67-19432
Neutron sensitive detector for uncontrolled nuclear criticality accidents
[BNWL-SA-317] 10 p1687 N67-21977
WARNING SIGNAL
Comparison of fixed ratio and variable ratio punishment on pigeons with and without warning signals
[NASA-CR-86578] 18 p3211 N67-32117
WARNING SYSTEM
SA EARLY WARNING SYSTEM
Airborne digital computer and pulse code modulator for flight failure warning system
[NASA-CR-86431] 03 p0369 N67-13029
Radar warning systems
[FTD-HT-66-164] 19 p3404 N67-33369
Fiberoell sensor used for airborne overheat hazard detection system
[AFAPL-TR-67-62] 20 p3638 N67-34696
Comparison of aircraft cockpit warning systems
[AMRL-TR-66-180] 22 p3958 N67-36714
WASHOUT
Mathematical expressions for washout of particulate matter in radioactive clouds produced by nuclear explosions - Sedan event
[UCRL-14700] 03 p0392 N67-13252
Washout coefficients for inorganic iodides in process stack gases measured in three snowfalls and one rainfall 07 p1070 N67-17313
Washout coefficients for selected gases and radioactive particles as function of precipitation rate
[BNWL-SA-857] 15 p2657 N67-28218
WASP ROCKET
Flight test of WASP rocket to study slosh dynamics in near zero gravity
[NASA-TN-D-3965] 14 p2617 N67-26547
WASTE
SA HUMAN WASTE
SA LEAKAGE
SA METABOLIC WASTE
SA RADIOACTIVE WASTE
Ecological conversion cycle of urinary-fecal waste into mineral nutrient for higher plants 02 p0179 N67-11405
High pressure and temperature mineralization of urinary-fecal waste by wet burning 02 p0179 N67-11406
Energy requirements of physico-chemical methods of mineralizing human waste products 02 p0196 N67-11568
Analytical method for determining sulfur in solid products from solidification of fission product wastes
[BNWL-265] 03 p0359 N67-12870
Electrochemical reduction of carbon dioxide - oxygen generation system having only liquid waste products for application in submarine atmospheric regeneration unit
[AD-654146] 19 p3384 N67-33539
WASTE DISPOSAL
Cesium and strontium distribution beneath liquid waste disposal sites 04 p0503 N67-13758
Technological progress reported for radioactive waste disposal, radiation physics, ecology, and internal dosimetry
[ORNL-4007] 11 p1790 N67-23429
Radioactive waste disposal of cesium 137 in soil 11 p1790 N67-23430
Closed life support system research, and other conference papers on water purification, waste disposal, and food synthesis for space flights
[NASA-SP-134] 20 p3563 N67-34563
Regenerative life support system to minimize expendable materials aboard spacecraft during long manned flights 20 p3563 N67-34565
Waste stabilization in closed ecological systems of manned space environments 20 p3564 N67-34567
Spin inertia culture system in waste treatment in closed ecological system 20 p3564 N67-34568
Laboratory model waste management unit for use in space simulator
[U-413-66-145] 21 p3773 N67-36429
Feasibility of wet oxidation for spacecraft waste treatment and water recovery
[NASA-CR-66450] 22 p3978 N67-37080
Gaseous waste disposal and monitoring system for radioactive contaminant removal from nuclear plant exhaust 23 p4290 N67-38903
WASTE UTILIZATION
Use of active sludge, obtained in process of biological purification of waste water to feed various animals 02 p0202 N67-11668
Water reclamation from human waste products during manned space flights 04 p0496 N67-14346
Synthetic rubber manufacturing wastes for steel and copper corrosion decelerators in acid solutions
[FTD-TT-65-1626] 08 p1233 N67-18390
Transformation of products of human metabolism and biological complex during recirculation of substances in life support system
[NASA-TT-F-10485] 14 p2481 N67-26576
WATER
SA BODY FLUID
SA ICE
SA OVER-WATER FLIGHT
SA POTABLE WATER
SA SEA WATER
Interfacial water structure - electric conductivity of aqueous electrolyte permeated particulate solids under hydrostatic pressure
[TR-23] 02 p0225 N67-11304
Total solvation atmospheres of alkali metal cations in aqueous solution
[TR-24] 02 p0225 N67-11305
Water electrolysis subsystems for orbital test - application to spacecraft environmental control systems
[NASA-CR-648] 02 p0175 N67-11822
Forced convection burnout and hydrodynamic instability experiments with water
[EUR-2983.E] 02 p0286 N67-11972
Cavitation resistance of several materials in room temperature water and high temperature liquid metals and correlation cavitation damage with material and fluid properties
[TR-6] 02 p0277 N67-12038
Water molecule calculated in one-center approximation 03 p0355 N67-12370
Passive microwave determination of snow wetness factors 04 p0535 N67-13478
Remote sensing in soil and water conservation research 04 p0538 N67-13525
Release of noble gases from aqueous solution 04 p0503 N67-13764
Wear rates in water of 1/4-in dia flat-ended riders and 3/4 in journal bearings on stainless steel and other materials
[AECL-2603] 04 p0556 N67-13953
Slow neutron scattering kernels for water at 423 deg and 550 deg K
[IN-1019] 04 p0592 N67-14140
Water immersion technique to simulate ingress and egress maneuvers under weightlessness conditions in six degrees of freedom for astronaut in pressurized suit 04 p0498 N67-14251
Retardation effect of water on gelation and polymerization of unsaturated polyester resin
[RAE-TR-66191] 04 p0567 N67-14286
Mechanics of consolidation theory, and component behavior and coupling between water and soil 05 p0699 N67-14564
Dissociation and ionization of water molecules in cometary atmospheres 06 p0960 N67-15445
Collisions of liquid drops with liquids - new crater depth data for impacts of waterdrops with water
[WADD-TR-60-475, PT. II, I] 06 p0567 N67-16173
Ammonium molybdophosphate as sorbent for determining cesium 137 in water and urine 06 p0821 N67-16226
Weak hydraulic jumps in shallow water
[AVCO-EVERETT RES. REPT.-200] 06 p0649 N67-16658
Electrolytic dissociation of carbon dioxide-water using solid oxide electrolyte
[NASA-CR-680] 07 p1025 N67-17176
Physical properties of steam and water above 1000 psia
[NAA-SR-MEMO-12006] 07 p1138 N67-17448
Effect of water properties in thixotropic clay systems on biological activity
[NASA-CR-70970] 07 p1015 N67-17767
Stability of Freon-11 and water flow oscillations in forced convection boiling
[NASA-CR-72122] 07 p1068 N67-17839
Anechoic water tank for high frequencies, normal mode sound field in shallow water, and orthogonal wave functions of stratified medium
[JPRS-39107] 08 p1225 N67-18493
Anechoic water tank for ultrasonics research 08 p1261 N67-18494
Sound field and orthogonal wave functions of shallow water measured by continuous eigenvalues 08 p1236 N67-18495
Hubless pump inducer tested with shrouded centrifugal impeller, using water and liquid nitrogen
[NASA-TN-D-3997] 08 p1285 N67-18696
Sensitivity of water, graphite, and deuterium oxide moderating materials to scattering model for predicting thermal reactor parameters 08 p1314 N67-18782
X-ray diffraction data on scattering from free surface of liquid water in equilibrium with water vapor
[ORNL-3997] 08 p1343 N67-18878
Remote detection of lunar water deposits 10 p1759 N67-20416
Molecular interactions of water with xenon, xenon hydrate, nitrous oxide, and ethylene, using thermal neutron inelastic

scattering techniques
[AFOSR-66-2762] 10 p1561 N67-20625
Nuclear magnetic resonance study of water exchange from first coordination sphere of gadolinium ion
[UCRL-17069] 10 p1571 N67-20755
Recrystallization conditions of milled stainless steels in hot water and steam
[EURAEC-1689] 10 p1652 N67-20663
Wear and corrosion resistance of water lubricated sliding contact journal bearings
[AECL-2566] 10 p1639 N67-21014
Wear of plastics in room temperature water
[AECL-2533] 10 p1661 N67-21212
Radioactive isotopes for analyzing concentration of microcomponents in natural waters 10 p1577 N67-21314
Intracell neutron density distributions in Anna reactor core with water
[INR-724/IXA/R] 10 p1685 N67-21403
Actinometric observations of water surface made from cutter and boat, and distorting influences on incident radiation 11 p1664 N67-22923
Temperature of water surface and other natural surfaces measured by radiation method 11 p1664 N67-22938
Wear rates of metals, ceramics, carbides, and oxides in 80 deg and 160 deg F high purity water
[AECL-2662] 11 p1696 N67-23476
Corrosion of stainless steels in high temperature water and steam
[EUR-2657.E] 11 p1696 N67-22906
Sodium-water reactions from small leaks studied to determine mechanisms of reactor tube wastage
[APDA-195] 11 p1815 N67-23225
Environmental monitoring program to determine plant radioactive waste released in river water and surroundings
[DPST-66-30-2] 11 p1794 N67-23236
Decimeter wave method of measurement independent of detector characteristic for determining complex dielectric constants of water and aqueous solutions
[TIL/T-5695] 12 p2102 N67-24584
Behavior of non-Rayleigh statistics of microwave forward scatter from random water surface
[DI-82-0587] 12 p2055 N67-24872
Characteristics of mixed boiling water flow through heated vertical channel under forced circulation
[TID-23294, VOL. 2] 13 p2423 N67-25516
Digital computer subroutine for thermodynamic and transport properties of liquid, vapor, and supercritical water
[WAPD-TM-568] 13 p2423 N67-25569
Zircaloy corrosion in high pressure boiling water and steam
[JAERI-1116] 13 p2239 N67-25911
Viscosity of water alcohol mixtures and structure of water
[ISS-66/23] 13 p2271 N67-26092
Water ethanol mixtures studied using nuclear magnetic resonance
[ISS-66/26] 13 p2272 N67-26094
Pool boiling of water on stainless steel etched with hydrochloric acid
[NASA-CR-84467] 14 p2633 N67-27515
Thermodynamic property effects of water and ethyl alcohol on cavitation processes in venturi tube
[NASA-TT-F-10913] 14 p2519 N67-27523
Dynamic and thermodynamic structure of water determined from cold neutron scattering data
[INP-501/PS] 15 p2756 N67-27976
Quantitative characteristics of air-to-water shock with computation of underwater pressure
[AD-634631] 15 p2752 N67-27981
Upper limits on liquid water in Venus atmosphere due to presence of hydrogen chloride
[NASA-CR-84601] 15 p2788 N67-28001
Economic and technological characteristics of several regenerative solar stills driven by solar thermal power as compared to solar stills of hotbed type 15 p2644 N67-28199
Polarization features of light reflected by soil, sand, and water under different conditions of illumination
[SR-3] 15 p2702 N67-28248
Thermodynamic properties of liquid water at one kilobar
[NOLTR-66-217] 16 p2918 N67-29455
Selective sorption of water with swelling of ionite resins in deuterium oxide solutions 16 p2847 N67-29530
Atomic absorption spectrophotometric method for determining submicrogram quantities of mercury in water and lithium hydroxide solutions
[Y-1573] 16 p2850 N67-29771
Preparation of slow neutron scattering kernels for Brookhaven Evaluated Nuclear Data File using calculations based on models for structure of liquid water and deuterium
[IN-1065] 16 p2932 N67-29772
Neutron flux distribution in water-reflected spherical cavity
[NASA-CR-72231] 16 p2962 N67-30138
Hydraulic equation for water flow under ice 17 p3052 N67-30412
Quantitation of deuterium oxide trace levels in water using infrared spectrophotometry
[SAM-TR-67-13] 17 p3015 N67-30642
Neutron scattering models for water compared to experimental scattering law data
[KAPL-P-3179] 17 p3134 N67-31057
Corrosion of steels and alloys by high temperature water and steam
[EURAEC-1796] 17 p3063 N67-31467
Interrelationship between renal hemodynamics and sodium and water balance
[NASA-CR-86695] 18 p3210 N67-31878
Dry heat resistance of spores at controlled water activities
[NASA-CR-86610] 18 p3211 N67-32008
Reaction of molten uranium dioxide with water at various water temperatures
[BNWL-363] 18 p3294 N67-32106
Activation growth, and detachment of boiling bubbles in water from artificial nucleation sites of known geometry and size drilled in polished metal surface
[NASA-TN-D-4101] 19 p3357 N67-32560
Analysis of dielectric relaxation spectrum of pure water
[TR-1] 18 p3227 N67-32664
Dielectric constant variation of supercooled water and molecular water structure model
[NEL-1434] 18 p3228 N67-32689
Quasi-elastic scattering of slow neutrons in water
[IA-1063] 19 p3500 N67-32947
Modified two-group theory analysis of lattice experiments with heavy water moderators
[CNEA-184] 20 p3063 N67-35016
Forced convection nonboiling heat transfer coefficients and pressure drop for heating and cooling of water in tape generated swirl flow
[TR-70381-47] 21 p3945 N67-35487
Empirical and thermodynamic equilibria of sodium chloride-cesium chloride-water-ethyl acetate system 21 p3777 N67-35501
Thermodynamic equilibrium of NaCl-AgCl-ethyl acetate-water system 21 p3777 N67-35502
Integral neutron thermalization and angular scattering in water, on zirconium hydride, and on cryogenic beryllium metal
[GA-7873] 21 p3886 N67-35633
Electric conductivity of potassium chloride water alcohol solutions under hydrostatic pressure
[TR-30] 21 p3793 N67-36585
Liquid propellant rocket engine jet blast attenuation in water
[AD-654507] 22 p4146 N67-36836
Energetics of ion transport in presence of polymeric compounds altering rheological properties of water
[TR-30] 22 p3765 N67-37602
Preparation of oxygen-17 and oxygen-18 enriched water from enriched nitric oxide gas
[LA-3690] 22 p3988 N67-37432
Specific heat in coexistence region of water
[NASA-TT-F-11283] 23 p4165 N67-37579
Gamma radiation reflection from semi-infinite active water medium by air 23 p4811 N67-38972
Hydrodynamic coefficients for compressible water entry of slender cone
[ERR-FO-217-1] 23 p4329 N67-39106
Full-scale fire modeling studies of light water and protein-type foams
[NRL-6873] 24 p4471 N67-39589
Thermochemistry of water at high temperatures and pressures
[RM-4969-PR] 24 p4396 N67-39739

WATER BALANCE
Nutrition and fluid balance in high altitude mountaineering 08 p2940 N67-12482
Radioisotopic gauge for measuring water level in deep wells 06 p2881 N67-16278
Physical and chemical properties of human sweat and factors affecting water balance in confined spaces
[NASA-CR-82590] 06 p1230 N67-19216
Water vapor transfer and water balance during summer and winter months over eastern China
[EMM-65-39] 14 p3567 N67-30741
Derivation of equation for flux of atmospheric water vapor and direct measurement of atmospheric water cycle 19 p3444 N67-32471
Physical and chemical properties of human sweat and factors affecting water balance in confined spaces
[NASA-CR-87512] 20 p3578 N67-34924
WATER CONTENT
Experiments for crater modeling in controlled soil media to determine effect of moisture content on ground shock velocities, residual displacements, and rarefaction wave
[REPT.-1862] 02 p0257 N67-12189
Method for snow reserve map making and snow blanket water content forecasting 05 p0722 N67-14286
Warm fog properties and fog modification concepts
[NASA-CR-875] 07 p1117 N67-17350
Solubility of calcium sulfate in high temperature and supercritical stream
[AERE-TRANS-1056] 07 p1091 N67-17942
Airborne precipitation water content meter
[FR-1004] 11 p1883 N67-23041
Human water exchange in space suits and capsules
[NASA-CR-804] 18 p3239 N67-32938
Water content and losses measured by tracer methods in human body under physiological and some pathological conditions
[JUL-471-ME] 20 p3571 N67-34924
Microwaves used to detect and measure moisture content of gases used for cooling nuclear reactors
[BNWL-408] 20 p3681 N67-34406
Acidity measurement in water, deuterium oxide, and methanol-water solvents, and development and certification of standard references for defining acidity scales in these media
[NBS-TN-400] 20 p3268 N67-34525
Electronic circuitry for aluminum oxide detector of water content in Martian atmosphere and surface
[NASA-CR-86771] 20 p3642 N67-34759
Equations derived for relating total precipitable water and surface dew point 23 p4289 N67-38983
WATER COOLED REACTOR
SA PRESSURIZED WATER REACTOR
Burnout in water cooled reactor channel with nonuniform circumferential heat flux
[AEEW-R-477] 01 p0165 N67-10089
Comparison between burnout data for rod cluster test stations cooled by Freon or water
[AEEW-R-498] 01 p0111 N67-10851
Fuel capsule irradiation and fuel supply for aqueous homogeneous suspension reactor
[NP-16168, PT. A] 01 p0111 N67-10888
Design, instrumentation, and construction of aqueous homogeneous suspension test reactor
[NP-16168, PT. B] 01 p0111 N67-10889
Colorimetric determination of trace chloride ion quantities in reactor water cooling system 06 p0820 N67-14245
Cooling of WWR-S reactor fuel element in cylindrical channels and in channel with variable cross section in water loop 06 p0813 N67-15287
Supercritical water-cooled loop for pressure tube fuel and collapsed clad element tests in reactor environment
[WCAP-3276-4] 07 p1130 N67-17423
Shield Test and Irradiation Reactor startup and operation
[NAA-SR-11175] 08 p1280 N67-19812
Measurements to determine radioactivity in air exhaust and cooling loop of water cooled reactor
[JUL-111-RE] 10 p1662 N67-21888
Wall attachment amplifier as fluid switch for burst fuel element detection in water cooled reactors

[K5] 10 p1612 N67-21130
High flux beam reactor for neutron source
[BNL-10610] 10 p1687 N67-21561
Irradiations in experimental reactor facility
[IAN-R1] 10 p1604 N67-21836
Size defects in reactor-coolant piping required to produce unstable propagating fractures
[BMI-1793] 15 p2744 N67-27917
Fuel leakage detection in water cooled reactors
[RISO-M-496] 16 p2929 N67-29268
Improved techniques for design of water cooled and water moderated reactors by lattice spectra analyses
[GA-7378] 16 p2931 N67-29729
Brazing and corrosion tests on braze alloys for brazing Zircaloy-clad fuel elements for pressurized water reactor application
[IITRI-578P29-11] 20 p3656 N67-34679
Fuel burnup calculations for water cooled, water moderated reactor
[JPRS-42542] 22 p4090 N67-37216
Fusion welding of copper conductor for water cooled magnet coils
[SLAC-PUB-318] 22 p4058 N67-37943
Heat-treated Zr-2.5 percent Nb pressure tubes for water-cooled power reactors
[AECL-2890] 23 p4285 N67-38377
Mathematical model for fission product release during water-reactor accidents
23 p4287 N67-38881
Effect of some fabrication variables on mechanical properties of sintered aluminum powder shapes for heavy water organic cooled reactor
[AI-CE-38] 24 p4466 N67-39909
Cerenkov detectors for fission product monitoring in reactor coolant water
[AE-294] 24 p4453 N67-40190
Physical, economic, and safety analyses on use of plutonium in water cooled reactors
[EUR-3478.I] 24 p4493 N67-40324

WATER DEPRIVATION
See DEHYDRATION

WATER FLOW
Flow visualization of confined jet driven water vortex tube
[NASA-CR-79041] 02 p0250 N67-11890
Computer program for determining steady ground water flow paths and travel times
04 p0541 N67-13746
Pressure drop characteristics for subcooled water flow at atmospheric pressure in narrow heated channel
[AERE-M-1739] 04 p0523 N67-13968
Secondary water flow rates in vertical diffuser of decreasing length using rocket exhaust jet as motive fluid - model sound compressor
[NASA-TM-X-53543] 06 p0955 N67-16050
Mathematical formulations of physical water entry problems for compressible, linearized compressible, linearized incompressible, and other cases - Bibliography
[NOLTR-66-173] 06 p0668 N67-18477
Tracer method to determine bed material transport in water way
[EUR-3130.F, VOL. I] 07 p1075 N67-18060
Cooling water flow rate measurements for fuel core of fast nuclear reactor FBJ-1
[JUL-125-RE] 10 p1682 N67-21068
Induced neutron activation method to check flooding of oil deposits
10 p1625 N67-21311
Anomalous neutron parameters of chlorine nuclei in controlling flooding of oil fields
10 p1635 N67-21312
Nucleate boiling heat flux measurements on high temperature supercritical pressure water loop
[WCAP-3654, ADDEND. 1] 10 p1686 N67-21664
Design, evaluation, and water flow testing of 7 inch liquid hydrogen check valve for use in discharge ducting of liquid hydrogen feed system
[NASA-CR-54099] 13 p2396 N67-26357
Pressure drop characteristics for flow of subcooled water at atmospheric pressure in narrow heated channels
[AERE-M-1730, PT. II] 14 p2519 N67-27884
Modification of water currents by coastal structures
[AD-634637] 15 p2698 N67-27985
Adiabatic air-water and steam-water flow measurements of slip ratios and friction factors in vertical bubble flow regime
[KR-110] 15 p2693 N67-28965
Aerial photography and reconnaissance of Mississippi River outflow into and mixing with Gulf of Mexico
[AD-649697] 16 p2885 N67-29446
Superposition of helicoidal flow induced by propeller shaped vortex generators on forced axial water flow in burnout heat flux tests
[SORIN-95] 16 p2881 N67-30095
Turbulence-induced heat-transfer fluctuations in pipeflow of water using hot-film wall sensors
[ORNL-TM-1602] 17 p3177 N67-30942
Heat transfer and pressure drop effects on stainless steel inner passage of single tube heat exchanger from water boiling
[NASA-TN-D-4057] 17 p3179 N67-31214
Convective heat transfer coefficients for water flow in curvilinear short channels
[NASA-TT-F-11152] 19 p3556 N67-33934
Mechanism of water-entry whip for 20-degree cone nosed models
[NOLTR-66-148] 20 p3731 N67-34238
Gamma radiation used to determine bed load in fluvial channels
[PAECL/CHEM/MISCELL-2] 21 p3839 N67-35953
Hydraulic pumps for water flow control in power plant reservoir 21 p3840 N67-35973
Steady state and dynamic response characteristics of rotor current meter for water flow velocity measurements
[REPT.-67-33] 22 p4046 N67-37210
Colloidal graphite and colloidal alumina effects on corrosion rate of aluminum alloys by flowing high temperature water
[ANL-7227] 22 p4073 N67-37753
Design geometry of mixture-inflow axially fed steam separators located in boiling water reactor
[EURAEC-1787] 22 p4094 N67-37873
Equipment for controlling water levels in tidal river model and instrumentation for remote recording of water level and velocity
[NRC-0658] 23 p4251 N67-38136
Silvers model for saturated water flow through nozzles
[AEEW-M-733] 23 p4235 N67-38335
Theoretical investigation of atmosphere of binary stars based on analogy between gas dynamics and shallow water flow
[NASA-TM-X-55939] 23 p4346 N67-38955
Effects of dissolving gas nuclei in turbulently flowing water in pipe on cavitation and tensile strength
[S-67-1136] 24 p4431 N67-39665

WATER INJECTION
Revised computer program on feasibility of water injection-cooled diffuser for nuclear rocket engine/stage test stands
[NASA-CR-89643] 24 p4426 N67-40065

WATER INTAKE
Daily water intake, total urine output, and creatinine clearance for men exposed to simulated high altitude and pure oxygen environment
07 p1011 N67-17605
Sorption and diffusion of water in rubbery polyurethane
[NASA-CR-81901] 07 p1106 N67-18188

WATER JET
Experimental three-stage hot water ejector facility with fixed mixing tube dimensions
[DLR-FB-67-40] 23 p4233 N67-39034

WATER LANDING
Dynamic model investigation of rough-water landing characteristics of Gemini-type spacecraft
[NASA-TN-D-3774] 11 p1982 N67-23281
Water landing characteristics of winged missile scale model
[NASA-TN-D-3799] 11 p1982 N67-23282

WATER LOSS
Moisture losses and skin temperatures of humans subjected to prolonged stays at high altitudes
02 p0185 N67-11455

WATER MODERATED REACTOR
Dynamics code that solves two-group neutron diffusion equations simultaneously with thermal and hydraulic equations for average channel of water-cooled reactor
[AEEW-R-441] 01 p0107 N67-10629
Control system for water moderated reactor using helium-3 gas
[NASA-TM-X-52256] 02 p0284 N67-11337
Physics of thorium recycle in heavy water moderated reactors
[AEET-252] 02 p0285 N67-11758
Computer programs dealing with physics problems of heavy water moderated reactors
02 p0423 N67-12590
Uniform lattice experiments with thorium-uranium fuel in heavy and light water moderators
03 p0423 N67-12891
Accurate burnout prediction for increased power output from pressurized water reactor core with constant hot channel
[EUR-3113.E] 03 p0473 N67-12899
Differences between measured and calculated bucklings of light and heavy water moderated reactor cores
[AEEW-R-467] 04 p0580 N67-14182
Fortran II coded IBM 704 computer program for optimization of organic cooled heavy water moderated power reactor
[DP-1097] 07 p1134 N67-17687
Reactivity worths of neutron absorbing rods in plutonium-fueled water moderated reactors
06 p1310 N67-18507
Sensitivity of light and heavy water moderated reactor characteristics to neutron cross section uncertainties below 100 eV
06 p1313 N67-18782
Activation of emergency cooling system to prevent nuclear reactor fuel element melting during water flow breakdown
[JUL-235-RE] 10 p1681 N67-21064
Behavior of nuclear water moderated reactor during primary cooling pump failure
[JUL-407-RE] 10 p1682 N67-21071
Design and construction of water moderator for neutron standardization
[JUL-179-RX] 10 p1684 N67-21089
Forced convection heat transfer, impurities, and fouling in organic coolants of heavy water moderated reactor
[AECL-2642] 11 p1925 N67-23062
Nonlinear analog simulation of tungsten water moderated reactor to obtain steady state operating maps
[NASA-TN-D-3940] 12 p2151 N67-24634
Fuel fabrication costs and performance of reactor systems for heavy water moderated and organic cooled reactors
13 p2356 N67-25372
IBM 7094 code to calculate fast power transients due to accidents in water moderated reactors
[RT/FIMA/66/4] 14 p2577 N67-27323
Computations on intracell neutron density distributions and flux disadvantage factors for water, deuterium, and water-deuterium moderated thermal reactors
[KR-113] 14 p2580 N67-27637
Heat flux variations in Pluto water moderated reactor caused by control absorber movement
[AERE-M-1819] 15 p2743 N67-27782
Comparisons of theoretical and experimental data on control rods of water moderated uranium dioxide reactor
[RT/P1/66/10] 15 p2748 N67-28447
Improved techniques for design of water cooled and water moderated reactors by lattice spectra analyses
[GA-7378] 16 p2931 N67-29729
Gamma radiation spectrum of experimental water moderated reactor
17 p3115 N67-31264
Ionization method of measuring radiative heat transfer in water moderated reactor vessels
17 p3116 N67-31271
Flux positioning capsule for vertical thimbles of CP-5 reactor
18 p3300 N67-33435
Control system concept using helium 3 in water-moderated reactor
[NASA-TN-D-4095] 19 p3490 N67-33445
Nuclear properties of water-moderated slightly enriched uranium dioxide lattices perturbed by clusters of gold-indium-cadmium poison pins and dissolved boric acid
[BAW-3647-3] 19 p3491 N67-33653
Epoxy resin paint compatibility with heavy water moderated reactor
[AEET-274] 20 p3643 N67-34101
Determining parameters of uranium heavy water moderated lattices using few fuel rods
[AECL-2593] 21 p3897 N67-35822
High conversion critical experiments for extending range of measured nuclear parameters of light water moderated slightly enriched uranium dioxide lattices
[ANL-7300] 21 p3893 N67-36596
Fuel burnup calculations for water cooled, water moderated reactor
[JPRS-42543] 22 p4090 N67-37216
Core physics calculations and economics of water moderated thorium - uranium epithermal breeder reactor
[BNL-11463] 22 p4089 N67-37779
Corrosion and hydrogen generation of

aluminum under tungsten water-moderated reactor operating conditions
[NASA-CR-899] 23 p4262 N67-38141
Validity of computer program for water moderated lattice calculations
[AEEW-R-397] 23 p4254 N67-38229
Water moderated reactor burnup data analyzed with computer program
[AEEW-R-390] 23 p4284 N67-38230
Preliminary calculations for water-moderated lattices of uranium dioxide-4 wt. percent plutonium dioxide fuel rods
[BNWL-CC-1205] 23 p4267 N67-38652
Codes for calculating thermalization of neutrons in water moderated reactor
[EUR-3610.F] 24 p4492 N67-39939
WATER PRESSURE
Method for obtaining specific volumes of water at high pressures from ultrasonic propagation measurements
[TR-3] 23 p4025 N67-37272
WATER PURIFICATION
Bacteria destruction in sea water by self-purification processes of diatomic and peridinian algae
[FTD-TT-65-1906] 01 p0019 N67-11096
Literature survey of ion exchange materials for full flow purification of boiling water reactor feedwater
[AECL-2546] 04 p0505 N67-13918
Reduction of reactor effluent process water radionuclides by addition of sodium silicate
[BNWL-282] 07 p1130 N67-17454
High temperature water solids concentrator using evaporation process
[GEAP-5122] 08 p1311 N67-18589
Reactor and distillation plant for desalination program - fuel and tubing fabrication and adhesive bonding studies
13 p2354 N67-25366
Heat and mass transfer in flash distillation of sea water without metallic interfaces
[TAE-47] 13 p2368 N67-25563
Viscosity and shear strain behavior of sodium clay suspension in water
[NASA-CR-83852] 13 p2356 N67-25838
Laminated plastic-aluminum materials tested in humid environment for suitability as sealants for water purification tablets
[TL-1967-14] 17 p3011 N67-30913
Air and water pollution problems at manned spacecraft center and surrounding areas
[NASA-CR-85870] 17 p3183 N67-31119
Closed life support system research, and other conference papers on water purification, waste disposal, and food synthesis for space flights
[NASA-SP-134] 20 p3583 N67-34583
Spin inertia culture system in waste treatment in closed ecological system
20 p3584 N67-34588
Aromatic o-diamines used in chemical analyses to determine selenium in sources of potable water
20 p3585 N67-34748
WATER RECOVERY
Water reclamation from human waste products during manned space flights
04 p0498 N67-14348
Water recovery from human waste during prolonged confinement in life support evaluator
[AMRL-TR-65-170] 06 p0804 N67-16385
Water and carbon removal from carbon dioxide reduction systems in weightless environment
[ER-6653-5] 06 p0815 N67-16408
Conference on NASA plans, lunar logistics and bases, lunar water detection and recovery, planetary material for food synthesis and life support systems, and biological exploitation
[NASA-TM-X-54877] 10 p1759 N67-29412
Processes and energy sources for lunar water extraction
10 p1760 N67-29417
Prototype development of water recovery system for manned spacecraft based on electrochemical treatment of urine
[NASA-CR-66333] 11 p1891 N67-25834
Air conditioning, oxygen regeneration, and food and water recovery life support systems for manned space flight vehicles
13 p2366 N67-25475
Water recovery system for accumulation, storage, and release of potable water for consumption
[NASA-CR-82956] 15 p2643 N67-30005
Evaluation of hydrogen-oxygen fuel cell water for human consumption
[NASA-CR-84945] 15 p2651 N67-30829
Water recovery analysis of human urine and atmospheric condensate
[AMRL-TR-66-137] 16 p3220 N67-32690
Feasibility of wet oxidation for spacecraft waste treatment and water recovery
[NASA-CR-66450] 22 p3978 N67-37030
WATER TUNNEL
Spectroscopic measurements in quiet flow water tunnel of wall pressure fluctuations in thick turbulent boundary layers
[RT-15101] 15 p2692 N67-30547
Wake produced by oscillating wing in two-dimensional noncavitating flow studied in water tunnel using small air bubbles as flow tracers
[TM-697.2441-10] 16 p2811 N67-28988
WATER VAPOR
SA HUMIDITY
Kinetics of water vapor and carbon dioxide desorption from zeolites under vacuum
01 p0039 N67-10587
Atmospheric water vapor budget over Caribbean Sea and Gulf of Mexico
[ECOM-01540-F] 02 p0282 N67-11272
Oxygen traces in lead determined by water-steam transformation technique
[EUR-3972.f] 03 p0227 N67-11907
Absorption spectroscopic determination of water vapor abundance in Martian atmosphere
03 p0490 N67-12568
Measurement and theory, including signal to noise and transfer function calculations, of atmospheric water vapor using ruby laser optical radar
04 p0537 N67-13488
Airborne double bolometer measurements of atmospheric water vapor profiles considered for high altitude flying
04 p0570 N67-13490
Carbon dioxide reaction with powdered calcium oxide in presence of water vapor
[NASA-TT-F-10227] 04 p0503 N67-13783
Radioactive tracers used to measure exchange rate of water vapor at snow surface
[AECL-2576] 04 p0582 N67-14624
Use of infrared band models to determine water vapor and carbon dioxide concentrations at high temperatures
[NASA-CR-54914] 05 p0775 N67-15219
Water vapor observations at low, middle, and high latitudes during 1964 and 1965
[NRL-6447] 05 p0723 N67-15231
Condensation of supersaturated ammonia and water vapor in supersonic nozzles
[REPT.-66] 06 p0857 N67-16146
Water and carbon dioxide precipitation technique for manned spacecraft cabin atmosphere using thermal radiation principles
[AMRL-TR-65-118] 08 p1231 N67-18293
Global satellite measurements of thermal radiation from tropospheric water vapor
[NASA-TM-X-55685] 08 p1305 N67-18729
Effect of oxygen and water vapor on fatigue properties of titanium alloy and 4340 steel
[NASA-CR-82971] 09 p1462 N67-19962
Diurnal variation of water vapor flux in Caribbean area
10 p1672 N67-30438
Kinetics of thulium oxidation by oxygen and water vapor
[IS-T-121] 10 p1579 N67-21544
Reactions of zirconium alloys with water vapor at 300 to 600 deg C
[WERL-3202-5] 10 p1582 N67-21839
In situ method and camera for photographing air suspended fog and cloud droplets
[CRREL-TR-165] 11 p1682 N67-23578
Methods used to infer atmospheric water vapor content from Tiros satellite measurements in absorption band of water vapor
12 p2129 N67-24301
Zenith distance effects on atmospheric absorption due to water vapor and oxygen at 17 GHz frequency
13 p2311 N67-25152
Water vapor adsorption effect on wheelerite protection against chemical warfare agents - effect of wheelerite hydrophilic sites and pore structure on water vapor adsorption
[REPT.-1906-23] 13 p2355 N67-25577
Infrared solar spectra and moisture contamination in stratosphere determined with balloon probe
[AD-647801] 13 p2401 N67-25973
Water vapor permeation effect on capacitance and conductance of plastic insulated underground telephone cables
[AD-646828] 14 p2457 N67-26899
Double bolometer measurements of atmospheric radiator effects
[TR-30] 14 p2532 N67-26819
Use of Fabry-Perot interferometers for resolution of infrared water vapor spectrum in upper atmosphere
[BMWF-FB-W-66-02] 14 p2537 N67-27107
Attenuation of millimeter wavelength radiation by gaseous water
[ECOM-5007] 16 p2926 N67-28696
Feasibility of phosphoric acid water vapor electrolysis cell for spacecraft cabin air conditioning system
[NASA-CR-771] 16 p2921 N67-29620
Water droplet vaporization with heat limiting heat transfer from carrier gas
[ARL-66-0227] 16 p2965 N67-29839
Oxidation and reactivity of refractory metals with water vapor
[FDTR-TM-67-1] 17 p3078 N67-30868
Strengths of lines in nu-1 and nu-3 infrared bands of water vapor
[W+S-TR-42] 17 p3015 N67-30947
Free electron drift velocity in air and water vapor mixtures
[AERDL-1890] 17 p3142 N67-30614
Effect of optical radiations and water vapor on trapping spectrum of cadmium sulfide
[NASA-TN-D-3974] 18 p3331 N67-32122
Thermodynamics of water interaction with ground and unground beta-cyclotetramethylene tetranitramine
[PA-TR-3555] 18 p3230 N67-32499
Quantitative relationship between mean monthly values of air humidity in time and space
19 p3374 N67-32115
Derivation of equation for flux of atmospheric water vapor and direct measurement of atmospheric water cycle
19 p3444 N67-32471
Chemical reactions of uranium, uranium dioxide, and uranium carbide with air and water vapor in temperature range from 600 to 1300 deg C
[BMWF-FBK-67-13] 20 p3580 N67-34128
Experimental studies of chemical reactions of uranium, uranium dioxide, and uranium carbide with air and water vapor at high temperatures
[BMWF-FBK-67-12] 20 p3580 N67-34180
Global distribution of precipitable water over China, and characteristics of east Asia circulation
[JPRS-41850] 20 p3635 N67-34875
Flyby infrared absorption measurements in Martian atmosphere for determination of profiles of carbon dioxide, particulate matter and water vapor
[NASA-TN-D-4115] 20 p3720 N67-34894
Pyrolytic carbon coated uranium fuel particle oxidation with water vapor
[ORNL-4014] 20 p3886 N67-34388
Catalytic carburation of hydrocarbon mixtures by water vapor
20 p3898 N67-35188
Model atmospheres for cool stars and late-type stars and models simulating water vapor absorption
[SAO SPECIAL REPT.-340]
21 p3890 N67-35269
Capture coefficient of highly directed flow of gaseous carbon dioxide and water vapor on cryogenic quartz crystal microbalance
[NASA-CR-82287] 21 p3931 N67-35982
Continuum source molecular beam to provide highly directed gas flows for determining capture coefficient of gaseous carbon dioxide and water vapor
[NASA-CR-82253] 21 p3990 N67-36122
Ethanol and water admixture effects on dispersion and width of charged particle tracks in spark chamber
[ANL-TRANS-456] 22 p3994 N67-36215
Dynamics of water rejection from hydrogen-oxygen fuel cell to hydrogen stream
[NASA-TN-D-4201] 23 p4181 N67-36425
Monthly isobar chart analysis to determine total atmospheric water vapor distribution over Great Lakes basin
[RB-S-3] 24 p4440 N67-36699
Literature review on energetics of middle atmosphere
[P-3679] 24 p4443 N67-36970
Efficiency of water vapor in removing electrons from ionized gases measured in shock tubes
[NOLTR-67-79] 24 p4432 N67-36971
Simulated ruby laser radar data for analysis of atmospheric water vapor profiles
[ECOM-02297-F] 24 p4502 N67-37006

WATER VEHICLE
Dynamic pressure trace at sea bottom and surface waves created by ground effect machine of rectangular planform moving with constant velocity over quiescent water of finite depth
[TR-505-1] 06 p0066 N67-15967
Testing SK-5 hovercraft performance in rescue maneuvers and operations
[DRML-667] 20 p3565 N67-34441
Linear damping characteristics of oscillating rectangular flat plates and their effect on cylindrical water vehicle afloat in waves
[R-1183] 24 p4543 N67-39783
WATERPROOFING
Metal corrosion tests conducted to evaluate protective properties of temporary agents
[TDCK-46171] 02 p0266 N67-11997
WAVE
SA ALFVEN WAVE
SA BAROCLINIC WAVE
SA BOW WAVE
SA COMBUSTION WAVE
SA COMPRESSION WAVE
SA CONTINUOUS WAVE
SA CYLINDRICAL WAVE
SA DETONATION WAVE
SA DIFFUSION WAVE
SA DILATATIONAL WAVE
SA ELASTIC WAVE
SA ELECTROACOUSTIC WAVE
SA ELECTROMAGNETIC WAVE
SA ELECTROSTATIC WAVE
SA EXPANSION WAVE
SA GRAVITY WAVE
SA GROUND WAVE
SA IONIC WAVE
SA LAMB WAVE
SA LEE WAVE
SA LOADING WAVE
SA LONGITUDINAL WAVE
SA MAGNETOACOUSTIC WAVE
SA MAGNETOHYDRODYNAMIC WAVE
SA MICROWAVE
SA MILLIMETER WAVE
SA MODULATED CONTINUOUS WAVE
SA PLANE WAVE
SA PLASMA WAVE
SA PRESSURE WAVE
SA RADIO WAVE
SA RAREFACTION WAVE
SA RAYLEIGH WAVE
SA REFLECTED WAVE
SA S-WAVE
SA SEISMIC WAVE
SA SHOCK WAVE
SA SINE WAVE
SA SKY WAVE
SA SOUND WAVE
SA SPHERICAL WAVE
SA SPIN WAVE
SA STANDING WAVE
SA STRESS WAVE
SA SUBMILLIMETER WAVE
SA SURFACE WAVE
SA TRANSVERSE WAVE
SA TRAVELING WAVE
SA TROPOSPHERIC WAVE
SA ULTRASONIC WAVE
SA UNLOADING WAVE
Tidal periods and temperature fluctuations in deep water internal waves
[REPT.-20648] 22 p4035 N67-36923
WAVE ATTENUATION
SA ACOUSTIC ATTENUATION
SA MICROWAVE ATTENUATION
SA RADIO ATTENUATION
SA SHOCK WAVE ATTENUATION
Attenuation of transverse and longitudinal ultrasonic waves in presence of magnetic field for various values of phonon wave number and electron mean free path
[NASA-TN-D-3723] 02 p0294 N67-11810
Wall geometry effects on attenuation minimization of oversized millimeter waveguides
[NASA-CR-81718] 07 p1654 N67-19648
Radio emission temperatures of atmosphere at small angles above horizon, and refraction attenuation of antenna amplification
[NASA-CR-82894] 08 p1846 N67-18491
Attenuation of plane wave electromagnetic field by imperfectly conducting prolate spheroidal shell
[SC-R-66-966] 08 p1926 N67-18612
Atmospheric radio emission temperature, radio wave refraction, and antenna gain refraction attenuation measurements at low angles over horizon using radio astronomy methods 13 p2314 N67-26182
Embrittlement in pressure vessel steels determined with respect to neutron irradiation by stress wave attenuation tests
[EUR-3336] 16 p2908 N67-29735
Attenuation of shock in tubes by orifice plates
[ORNL-TM-1750] 17 p3121 N67-31044
Magnetohydrodynamic waves in inhomogeneous plasma cylinders, computer program for propagation in homogeneous dissipative anisotropic cylinders, and low frequency electron cyclotron waves study
[REPT.-1094.67] 19 p3513 N67-32891
WAVE CHART
Atmospheric effects, equations, and computed results considered in comparison of long wave radiation charts
[EMM-65-35] 06 p0873 N67-16130
Atlas of spectra from 1.6 to 5.4 microns recorded by Convair 990 jet aircraft measurements over wide range of natural surface and atmospheric conditions
[NASA-TM-X-55682] 20 p3675 N67-35252
WAVE DETECTION
Detection and prediction of waves in tropical inversion 10 p1671 N67-20431
Spectral estimates of seismic events, detection of nuclear explosions in presence of large natural events, and location of epicenters by beam splitting in large aperture seismic array study
[ESD-TR-67-282] 17 p3054 N67-30638
WAVE DIFFRACTION
Diffraction effects on electromagnetic field in optic resonator embedded in infinite uniaxially anisotropic media
[PIBMRI-1232-66] 01 p0080 N67-10585
Cosmic radio signal scintillations caused by radio wave diffractions on ionospheric irregularities
[NASA-CR-80188] 02 p0239 N67-12343
Integral equations for problem of diffraction of flat waves on lattice formed by arbitrary profiles
[FTD-HT-66-170] 09 p1484 N67-19469
Scattering field and reflection amplitude of surface wave diffraction on rectangular wedge 11 p1949 N67-21696
Radiation and diffraction of electromagnetic waves by moving plasma, reentry vehicle, dielectric slab, or reflecting mirror 12 p2179 N67-23645
Mathematical methods for solving various problems of wave diffraction and propagation - Conference
[FTD-MT-65-236] 13 p2304 N67-25201
Application of spectral theory of operators in relation to wave diffraction and oscillation 13 p2304 N67-25203
Methods of solving integral equations of first kind in relation to wave diffraction problems 13 p2346 N67-25204
Asymptotic methods and nonanalytic solutions for problems of wave propagation and diffraction 13 p2304 N67-25205
Integral and operational identities in relation to wave diffraction 13 p2305 N67-25207
Infinite systems of equations and electromagnetic wave diffraction 13 p2285 N67-25208
Methods of solving wave diffraction problems with antennas 13 p2377 N67-25209
Mixed moving boundary value problem solutions for three-dimensional wave equations, wave diffraction on sphere, and wave diffraction in half space 13 p2305 N67-25210
Variational method for scattering matrix through narrow slot, and direct method for internal wave diffraction and wave propagation in irregular waveguides 13 p2305 N67-25211
Electromagnetic wave diffraction and boundary value problems 13 p2305 N67-25212
Functional invariant and analytic function solutions for crack propagation, shock wave diffraction, and wave field from crack in boundary of two elastic media 13 p2415 N67-25213
Surface and sound wave diffraction, excitation of electromagnetic horn by wide waveguide, and solution of elliptic equations 13 p2346 N67-25214
Numerical integration, matrix solutions, and other calculations for wave diffractions, transition wave processes, oscillatory functions, and electromagnetic wave excitations 13 p2305 N67-25216
Electromagnetic, shock, and surface wave propagation, reflection, and diffraction 13 p2305 N67-25217
Standing, electromagnetic, acoustic-gravity, and quasi-harmonic wave propagation and diffraction in nonuniform media, and calculating methods 13 p2305 N67-25218
Tables and graphs of eigenvalues for layered ground propagation
[IER-5-ITSA-5] 14 p2488 N67-27080
Seismic diffraction by crustal discontinuities - Rayleigh wave transmission and fiber optics
[AFCRL-67-0122] 19 p3445 N67-32664
Echo area of targets analyzed using geometrical theory of diffraction and creeping wave theory
[ESD-TR-67-519] 24 p4409 N67-40213
WAVE DRAG
Supersonic aircraft wave drag analysis and correlation 18 p3185 N67-31613
Hypersonic aerodynamic performance of minimum wave drag bodies having various cross sections
[NASA-TN-D-4079] 21 p3754 N67-35728
WAVE EQUATION
SA HELMHOLTZ EQUATION
SA LAME WAVE EQUATION
Coupled wave equations for multimode inhomogeneous media
[AFCRL-66-607] 01 p0132 N67-10361
Digital computer method for solving exterior Dirichlet problem for reduced wave equation
[MRC-TSR-623] 01 p0094 N67-10371
Cauchy initial value problem extension for nonlinear wave equations in Hilbert spaces 01 p0094 N67-10461
Radio wave propagation in ionized media - signal amplification by self-oscillation, coupled wave equations in magnetoionic plasma, and transient response of isotropic medium
[AFCRL-66-504] 02 p0231 N67-11282
Coupled wave equations with variable coefficients for magnetoionic vertical signal propagation analysis 02 p0231 N67-11285
Coupling wave equations for magnetoionic signal propagation in stratified medium 02 p0231 N67-11286
Coupling wave equations for interaction field between whistler modes and electron cyclotron waves 02 p0231 N67-11287
Wave propagation in double hump, isotropic ionized medium 02 p0231 N67-11288
Very low frequency experiment and theory, and full-wave solutions of coupled wave equations 05 p0700 N67-14645
Waves in inhomogeneous plasma of cylindrical geometry
[EUR-3725.F] 07 p1164 N67-17230
Evolution of wave correlations in uniformly turbulent, weakly nonlinear systems
[NASA-CR-82471] 06 p1349 N67-19040
Decimeter wave method to measure dielectric constants of aqueous solutions that is independent of detector characteristics or disturbances in field due to probe
[TIL/T-5494] 08 p1539 N67-19071
Covariant wave equation for spin-one particle in external electromagnetic field
[18-T-95] 10 p1705 N67-20668
Class of wave equations for describing wave phenomena in physics, and methods for analyzing stability of Cauchy and mixed problems 18 p3305 N67-32471
Conservation laws derived for wave equation using Greens theorem and invariant transformations
[AFOSR-67-1644] 23 p4273 N67-38285
WAVE EXCITATION
Excitation of waves in confined plasma by modulated currents 09 p1497 N67-20246
Excitation of longitudinal waves during modulated electron beam interaction with plasma
[FTD-HT-66-305] 10 p1725 N67-20691
Nonlinear parametric excitation waves of infinitely broad electron beam 11 p1949 N67-21694
Partial wave Born approximation for analyzing excitation behavior of electrons with hydrogen atoms at high energies 11 p1983 N67-22109
Inhomogeneous sheath effect on surface current excitation of immersed plasma cylinder by electromagnetic and electrokinetic waves
[NASA-CR-83858] 13 p2365 N67-25235

Solutions of equations of motion for elastic waves assumed to be excited in 6-constant centro-symmetric cubic crystal
[AD-655149] 21 p3715 N67-35625
WAVE FRONT
SA SHOCK FRONT
Structure of multifront detonation wave in gas
[T-454-R] 01 p0164 N67-10545
Character of jet flow formation behind shock front during discharge from divergent and supersonic nozzles
[ATD-66-77] 04 p0529 N67-13711
Soil response to dynamic loadings - formation of wave fronts in sand
[RG6-32] 09 p1449 N67-19579
Measurements of luminous front velocity of plasma generated by rod plasma gun
[INR-716/XVIII/PP] 16 p2954 N67-29727
Case study of frontal wave cyclone development over midwestern United States 17 p3097 N67-30786
WAVE FRONT RECONSTRUCTION
Electro-optical image synthesis and communications by holographic wave front reconstruction methods 03 p0298 N67-13970
WAVE FUNCTION
SA BETHE-SALPETER EQUATION
Transformation properties of rigid sphere wave functions and relation to Dirac spinor
[NUP-66-13] 01 p0120 N67-10547
Computer program for atomic wave function calculations using Hartree-Fock method
[ARL-66-0109] 01 p0131 N67-11004
Classification of generalized wave function systems representing subgroup chains of L and M groups
[JINR-P-2785] 05 p0741 N67-14691
Distorted wave formalism to analyze proton-gamma correlation data in silicon nuclear reaction 06 p0921 N67-15569
Inelastic scattering of protons calculated by distorted wave method using nickel 58 06 p0925 N67-15592
Complex relativity theory and wave mechanics - attempt to show that mathematically defined complex gravitational world represents physical world and gives unified relativity field theory
[NOLTR-66-169] 06 p0937 N67-16180
Electronic structure of N1 center in alkali halides 07 p1172 N67-16752
Certain peculiarities of Schroedinger equation solutions for potentials with Coulomb tails - Asymptotic form of Coulomb potential wave function
[NP-16280] 07 p1153 N67-17569
Interpolation of wave functions in angular momentum plane
[TH/170] 07 p1156 N67-17923
Molecular orbital techniques used to find cubic field splitting 3a of certain ions in periodic group II-VI compounds of T sub d symmetry
[NASA-CR-61736] 07 p1180 N67-18100
Sound field and orthogonal wave functions of shallow water measured by continuous eigenvalues 08 p1836 N67-18495
Completeness condition and asymptotical behavior of wave function shown equivalent to nonrelativistic dispersion relations in potential scattering theory
[JINR-P-2869] 08 p1353 N67-18600
Alteration of crystal wave functions by lattice imperfections
[CU-5-66-NONR-4259/15/-EE] 09 p1500 N67-19671
Wave function, energy level, transition energy, and oscillator strength calculations for triplet and higher excited singlet states alkali halide U centers 10 p1744 N67-20470
Approximation method with expanded wave functions for solving three-nucleon problem with central interaction
[JINR-P-2930] 10 p1702 N67-20883
Ground state equilibrium deformation, electric quadrapole moment, and deformation energy calculations for heavy nuclei using projected wave functions
[JINR-E4-2994] 10 p1722 N67-21550
Dependence of ground state energy and quadrupole moment on deformation for heavy nuclei
[JINR-E4-2940] 10 p1732 N67-21551
Algorithm to calculate eigenvalues and wave functions of two-center problem of quantum mechanics
[JINR-P3-3013] 10 p1697 N67-21591
Optical model analyses of inelastic scattering
[ORNL-P-2570] 10 p1728 N67-21563
Lower bounds to overlap integral for approximate beryllium wave functions
[AD-648700] 11 p1942 N67-23165
Light atomic and ionic wave functions, and binding energies, mean radii, screening constants, charge distributions, and electron shake-off probabilities
[ORNL-4027] 12 p2169 N67-24578
Method to solve Schroedinger equations allowing calculation of energies and wave functions of deformed axially symmetric nucleus single particle states
[JINR-P4-2976] 12 p2171 N67-24688
Energy and wave function calculations for nonrotating states of deformed nuclei
[JINR-E4-3051] 13 p2376 N67-25914
Oblate radial functions for spheroidal wave functions - tables
[NRL-6472] 13 p2369 N67-26234
Improved Fortran program for single particle energy levels and wave functions in nuclear structure calculations
[NBS-TN-410] 13 p2381 N67-26318
Semi-empirical potential energy curves for interaction of two hydrogen atoms calculated using approximate wave function
[NASA-CR-84153] 14 p2583 N67-26512
Kaon capture by helium and antisymmetrization of nuclear wave functions
[TUEP-67-10] 15 p2756 N67-27817
Hartree Fock self consistent field wave functions of atoms and ions
[ARL-67-0014, SUPPL. III] 15 p2769 N67-28552
Theory of partial coherence, mainly with respect to classical second-order theory
[TR-11] 15 p2755 N67-28945
Theory, computation procedure, and tables of prolate radial functions of first and second type
[NRL-6502] 16 p2936 N67-29045
Bound state three-body problem approach for application to helium-like atom, and method of formulating total wave function
[AFCRL-67-0165] 16 p2940 N67-29204
Physical interpretation of toroidal wave functions
[REPT.-0173-SR-2] 16 p2937 N67-29414
Expansion of 2 pion wave functions and 3 pion decay amplitudes in terms of complete set of orthonormal functions on Dalitz plot
[CTS-HE-67-3] 17 p3128 N67-30513
Calculations of vibrational wave functions and excitation cross sections of carbon dioxide molecules, and infrared laser experiments
[NASA-CR-84963] 17 p3076 N67-30615
Vector model for wave functions of atomic energy levels 17 p3133 N67-31018
Natural spin orbitals and occupation numbers for six-electron carbon state for approximate and exact wave functions 17 p3135 N67-31103
Theorem and proof of spin-eigenfunctions
[ESD-TR-67-277] 19 p3499 N67-32754
Methods for normalization of Bethe-Salpeter amplitudes for bound states
[AD-651964] 19 p3501 N67-32853
Equations in momentum space representation for wave function of many body system with definite angular momentum 19 p3502 N67-32948
Sum rules in geminal expansion of many-electron wave functions
[AAEC/TM382] 20 p3691 N67-34173
Infinite component wave equation for one particle wave function
[NUP-A-67-9] 20 p3700 N67-34919
Single particle wave functions of carbon 12 nucleus from elastic and quasi-free electron scattering
[ISS-67/14] 20 p3700 N67-34924
Electron scattering cross section by strongly polar molecules
[ISAS-412, VOL. 32, NO. 5] 21 p3762 N67-35065
Coulomb and exchange integrals constructed from Slater wave functions for calculating molecular orbitals
[R67ED44] 22 p4168 N67-36871
Molecular spectroscopy and powder metallurgy experimental research accompanied by theoretical research in wave functions and atomic properties
[AFCRL-67-0686] 22 p3907 N67-37980
Contracted basis set analytic self-consistent field wave functions for transition metal atoms
[UCRL-50260] 22 p4164 N67-37988
Review of theory of oblate spheroidal wave functions and formulas and tables for numerical calculation of oblate radial functions of first and second type
[NRL-6543] 23 p4282 N67-38307
Electron radial wave function for positron beta decays
[KFK-569] 23 p4306 N67-38718
Formulae for analyzing penetration effects in internal conversion /K and L shells/, and tables of bound and free electron wave functions at nucleus appearing as normalization constants
[BNL-50082] 23 p4310 N67-38986
Symmetry matrix for construction of nucleon wave functions for mixed particle configurations
[UJV-1824] 23 p4314 N67-39089
Hartree-Fock calculation on single determinant wave function for hydrogen molecule
[TR-1091/2346-30/-15] 24 p4582 N67-40273
Linear nonsymmetric eigenvalue equations for sum-over-points approach and application to hydrogen ion
[D1-82-0644] 24 p4580 N67-40497
Semiclassical model of direct nuclear reactions exhibiting backward peaking, and relation to bound-state radial wave functions and distorted wave Born approximation
[AAEC/TM360] 24 p4584 N67-40621
WAVE GENERATION
SA SHOCK WAVE GENERATOR
Generation of water waves by air shear flows
[ASRL-TR-116-3] 02 p0253 N67-12191
Ocean wave generation by wind observed with airborne wave profiling radar 04 p0696 N67-13485
Millimeter wave generation with electron beam devices
[NASA-TN-D-3727] 06 p0697 N67-16055
Wave formation and droplet entrainment in two-phase flow system
[ARL-66-0159] 09 p1443 N67-20175
Generation and detection of coherent elastic waves in quartz at extremely high frequency
[AD-643697] 10 p1761 N67-21333
Reproduction of complex and random waveforms at various points on test item 14 p2822 N67-26547
Ion cyclotron wave generation in uniform and nonuniform plasma including electron inertia effects - radio frequency power transfer
[NASA-TN-D-4058] 17 p3145 N67-31225
Operation of ion cyclotron wave generation apparatus in radio frequency self-sustained mode
[NASA-TM-X-52265] 24 p4510 N67-40130
WAVE INCIDENCE CONTROL
Single-impulse system for generating solitary, undulating surge, and gravity shock waves in laboratory
[TR-5] 07 p1069 N67-17988
WAVE INTERACTION
SA SHOCK WAVE INTERACTION
Elastoplastic wave interaction in finite rod using approximation method 01 p0157 N67-10948
Nonlinear interaction between plasma waves in low pressure mercury vapor discharge surrounded by cylindrical waveguide
[SR-7] 01 p0122 N67-10997
Wave-plasma interactions during reentry in low layers of atmosphere
[TP-504/1966/] 02 p0272 N67-11309
Mathematical model for gas shock wave interaction with plane metallic liner
[EUR-3157.E] 04 p0522 N67-14139
Electromagnetic wave interaction with rocket exhausts 03 p0370 N67-11868
Plasma oscillations in solids - nonlinear wave interaction in plasmas, amplification of optical phonons in polar semiconductors, and ionization waves in semiconductors and gaseous plasmas
[AFCRL-66-685] 05 p0782 N67-14774
Radio wave interaction equations extended to finite width of wanted pulse
[SR-274] 06 p0975 N67-16249
Resonant combustion wave interaction in injector, steady state combustion properties, diagnostic methods for determining wave behavior, and chamber geometry effects on wave properties 02 p1281 N67-20297
Energy loss or gain per unit time by charged particle interacting with turbulent plasma 09 p1476 N67-20327

Generation of electron cyclotron half-frequency harmonics in double beam interaction experiment
[CEA-R-3975] 10 p1723 N67-21562
Nonlinear wave interaction of whistlers in plasma with sharp or diffuse boundaries
[IC/66/72] 10 p1741 N67-21763
Plasma wave interaction expressed in terms of wave-particle resonance due to particle motion in turbulent electric and magnetic fields
[IC/66/82] 10 p1741 N67-21767
Integral expressions for approximating phase shift and scattering amplitude 11 p1931 N67-22103
Interaction of longitudinal, surface, and transverse waves on plasma boundary
[NASA-TT-F-10630] 12 p2187 N67-25027
D-region time constants for electron cooling and electron density profiles from phase or amplitude wave interaction measurements
[SR-268] 14 p2522 N67-27016
Interaction of glow front in electrodynamic shock tube with transverse magnetic field
[NASA-TT-F-10628] 15 p2773 N67-28232
Polar vector analysis of wave interactions in steady flow
[AS-66-16] 16 p2876 N67-29073
Interaction between surface and internal waves in shallow water
[NEL-1432] 17 p3049 N67-31310
Electromagnetic phenomena in various type antennas and arrays - antennas and waves in dielectric conducting and plasma media 18 p3230 N67-32221
Coupled-mode analysis to determine electromechanical wave behavior of rotating and nonrotating electron beams
[MD-66-023] 19 p3414 N67-33001
Self consistent treatment of interacting spin waves at finite temperatures - ferromagnetism
[CEA-R-3821] 19 p3505 N67-33231
Simulators to facilitate experimental studies of two-dimensional interaction of jet with supersonic free stream 19 p3383 N67-33387
Proposals for high inclination satellite and for satellite for investigating particle wave interactions - magnetosphere
[ESRO-SN-29] 19 p3445 N67-33522
Dispersion relations for low frequency waves in quiescent cesium magnetoplasma
[ARL-67-0055] 20 p3706 N67-33999
Analytic description of merging of several waves
[NASA-CR-87653] 20 p3694 N67-35015
Coupled-mode theory, and computer program used in experimental evaluation of rotating electron beam and waveguide field interaction
[UTEC-MD-67-015] 21 p3830 N67-35551
Interaction of long duration Friedlander shaped blast wave with infinitely long right circular cylinder
[AWRE-O-38/67] 21 p3830 N67-35632
Interaction between longitudinal and transverse waves of infinite homogeneous isotropic collisionless plasma
[AD-654825] 21 p3911 N67-36444
Microwave radiation interaction with hypersonic air plasmas
[AFCRL-67-0301] 22 p4113 N67-36680
Wave interaction in uniform electron beam plasmas
[AFCRL-67-0375] 22 p4113 N67-36681
Nonlinear wave effects on tide gauges
[HEL-16-2] 22 p4047 N67-37427
Analytical and experimental study of interaction of waveguide with waves on rotating electron beam
[UTEC-MD-67-000] 24 p4423 N67-39419
Nonlinear wave-wave interaction between parallel transverse plasma oscillations
[AD-659736] 24 p4589 N67-39907

WAVE MOTION
General function of wave height distribution over heavy liquid surface
[TRANS-249] 01 p0000 N67-10066
Wave motion of viscous fluid in elastic tubes
[REPT.-66-5] 01 p0001 N67-11139
Near-field behavior of Green matrix in anisotropic wave motion
[MRC-661] 08 p0428 N67-13440
Wave motions in fluid-filled elastic tubes
[PUBL.-66-5] 08 p0004 N67-13950
Spherical harmonics techniques applied to dynamic equations, highly truncated systems, and large scale atmospheric wave motions
[AFCRL-66-708] 05 p0733 N67-15081
Atmospheric wave motions and energy transfer, structural aspects of earthquake engineering, and klystron focusing phase study
[JPRS-39173] 07 p1071 N67-17332
Basic wave motions and energy transfer in atmosphere 07 p1071 N67-17333
Numerical approach for wave motions in nonlinear media 11 p1991 N67-23628
Long term distributions of visually estimated wave heights and periods for sea zones on North Atlantic and North Pacific Oceans using Weibull distribution function
[REPT.-66-12-S] 11 p1971 N67-23064
Behavior of disturbing waves in smooth, transonic, two-dimensional flow past profiles
[NLR-TN-T.123] 16 p2815 N67-29650
Small amplitude low frequency waves in plasma of infinite conductivity under influence of constant external gravitational and magnetic fields
[NASA-CR-86004] 18 p3312 N67-31516
Motion effect on altitude distribution of atmospheric density
[NASA-CR-86623] 18 p3264 N67-31983
Group theoretic basis of harmonic analysis using time-like, space-like, light-like, and null representations
[IC/67/9, PT. I] 19 p3503 N67-32998
Short time interval frequency measurements of continuously changing sine wave
[UCRL-50188] 19 p3410 N67-33241
Formation of ocean waves from wind cyclones, and dynamic propagation of wind waves over ocean surface
[JPRS-41349] 19 p3449 N67-33631
Long period, time dependent wave motion in Arctic Ocean 20 p3635 N67-34864
Pressure gauge array used to measure energy dissipation of ocean waves off Rhode Island for directional wave spectrum calculations
[REPT.-1155] 22 p4034 N67-36822
Linear damping characteristics of oscillating rectangular flat plates and their effect on cylindrical water vehicle afloat in waves
[R-1183] 24 p4543 N67-39783

WAVE NUMBER
SEE WAVELENGTH

WAVE OSCILLATOR
Analysis of nonlinear wave oscillation on surface of dielectric fluid 12 p2153 N67-23706
Permanent magnet focused 10 kW pulsed distributed interaction klystron oscillating at 93.75 GHz
[ECOM-02225-2] 20 p3610 N67-34196

WAVE PROPAGATION
SEE SHOCK WAVE PROPAGATION
Propagation of small amplitude ion acoustic solitary waves
[IPPJ-51] 01 p0113 N67-10139
Infrasonic wave propagation in temperature-stratified and wind-stratified atmosphere model - acoustics
[AVSSD-0175-66-CR] 01 p0066 N67-10326
Parametric coupling between ion and electron waves
[AFCRL-66-558] 01 p0123 N67-10494
Wave velocities in partially saturated sand-clay mixtures in response to dynamic loadings
[R66-13] 01 p0115 N67-10511
Propagation of large amplitude Alfven waves in laboratory plasma
[NP-16152] 01 p0134 N67-10674
Steady state theory and low frequency perturbation leading to wave propagation and instabilities of plasma column in magnetic field
[SU-IPR-76] 01 p0134 N67-10725
Magnetohydrodynamic wave propagation in ionosphere and collisional effects of positive ions with neutral particles
[AD-637971] 01 p0136 N67-10960
Experimental and analytical methods for analysis of plastic wave propagation in rods and bars
[EMRL-TR-1007] 01 p0161 N67-10984
Seismic wave propagation and seismology data analysis
[AFCRL-66-476] 01 p0069 N67-10994
Experimental amplitude and phase measurements of electromagnetic ground wave propagation across semiinfinite strips and islands
[AFCRL-66-252] 01 p0041 N67-11014
Ground wave attenuation function for propagation over highly inductive surface
[AFCRL-66-603] 01 p0041 N67-11015
Error analysis of digital equalizing filters related to seismic wave propagation data
[REPT.-5178-64-F2] 01 p0070 N67-11068
Instability properties of periodic plasma, and transient wave propagation in Epstein layers
[SR-5] 01 p0056 N67-11068
Asymptotic behavior of transient signal propagation in lossless, isotropic plasmas
[AFCRL-66-234/II/] 01 p0042 N67-11167
Quasi-static and dynamic response of granular soils
[TR-3] 01 p0162 N67-11196
Method of compensating for effects of slot in rectangular waveguide
[NASA-CR-80130] 02 p0289 N67-12171
High frequency conductivity, carrier waves, and acoustic amplification in drifted semiconductor plasmas
[AFCRL-66-567] 02 p0296 N67-12195
Acoustic apparatus for study of acoustic wave pressure-disturbance propagation in plasma
[NASA-CR-79287] 02 p0293 N67-12223
Indian Institute of Science Journal articles on bacteriology, thermodynamics, actinomycetes isolation, wave propagation, and transport processes 03 p0477 N67-12843
Surface wave propagation through anisotropic circular, cylindrical dielectric rod waveguide 03 p0366 N67-12848
Zonal harmonics in low frequency terrestrial radio wave propagation
[NBS-TN-335] 03 p0367 N67-12948
Dispersion and polarization of hydromagnetic wave propagation in upper magnetosphere
[NBS-TN-342] 03 p0391 N67-13159
Effects of plasma produced by high altitude nuclear explosion on radar wave propagation 04 p0510 N67-13689
Macroscopic and microscopic plasma concepts, disturbances during plasma wave propagation, and techniques for production and confinement of laboratory plasmas
[RAE-TR-66073] 04 p0596 N67-13909
Propagation of electromagnetic waves through nuclear detonation produced radiation field
[GUO-2250] 04 p0546 N67-14319
Phase front distortion due to soil irregularities in attempt to put selection of sites for direction finding equipment on theoretical basis
[RAE-LIB-TRANS-1178] 04 p0582 N67-14337
Wave propagation in viscoelastic solids with measured relaxation or creep functions 05 p0769 N67-14439
Phase method used to study propagation speed and damping of wave propagated in rubber vulcanized with sulfur, rubber vulcanized with dicumyl peroxide and butyl rubber vulcanized with sulfur 05 p0723 N67-14540
Satellite technology - orbiting satellite, spacecraft stability, space vehicle control, radio wave propagation, signal reception, cosmic ray studies, and related topics
[FTD-HT-66-244] 05 p0762 N67-14881
Propagation mechanism of radio waves radiated by artificial earth satellite 05 p0674 N67-14886
Microwave-plasma wave coupling, wave propagation and nonlinear waves in plasmas, electron and gas densities, and indium antimonide instability
[RADC-TR-66-589] 05 p0745 N67-14990
Problems in propagation of elastic-plastic waves in shafts of finite length with different boundary conditions, and dependence of tension on deformation
[FTD-TT-65-1830] 05 p0773 N67-15057
Digital computer program for propagation of acoustic-gravity wave in earth atmosphere
[AVSSD-0220-66-CR] 05 p0705 N67-15101
Combined influence of electric conductivity and ionization rate on magneto-fluid dynamic wave propagation through plasma 05 p0748 N67-15244
Pressure wave propagation in snow with nonuniform permeability
[CRREL-RR-210] 05 p0706 N67-15327
Nonlinear electromagnetic wave propagation in magnetoactive finite temperature plasma
[NASA-CR-81149] 05 p0750 N67-15299
Geological and geophysical problems review in earth mode communications
[AFCRL-66-481] 05 p0677 N67-15324

Theoretical seismograms for propagation in flat and spherical earth, seismic travel times from Pacific nuclear explosions, and abstracts of papers on seismological research
[AD-641201] 06 p0070 N67-15354
Propagation of electromagnetic waves in moving gyrotropic medium 06 p0080 N67-15450
Seismic scale model study of refraction arrivals in three-layer structure
[AFCRL-66-571] 06 p0073 N67-16139
Frequency power relation validity for electromagnetic wave propagation through dielectric medium modulated with traveling acoustic wave
[AFOSR-66-2333] 06 p0918 N67-16218
Flow phenomena caused by collapse of mixed region in density-stratified medium of model ocean
[TR-331-11] 06 p0868 N67-16227
Method using motion equation for solving problems in seismic wave radiation from sources moving over finite distance
[SUDAAR-288] 06 p0875 N67-16443
Plasmas, electromagnetics, fluid dynamics, and ablation studies
[PIBMRI-1295.3-66] 07 p1159 N67-16824
Surface wave guiding and radiating systems - perturbation theory, ferroelectrics at microwave frequencies, magnetoplasmaguides, warm plasma wave propagation, and correlation radiometry
[SR-95] 07 p1162 N67-17001
Parameter space mapping of guided high frequency electromagnetic wave propagation on magneoplasma column 07 p1162 N67-17007
Nonquasistatic plasma surface wave propagation along unmagnetized plasma column 07 p1163 N67-17009
Wave propagation along homogeneous isotropic warm plasma columns 07 p1163 N67-17010
Finite amplitude elastic wave motions with only constitutive nonlinearities, and circularly polarized wave propagation in isotropic elastic medium
[AM-66-9] 07 p1201 N67-17194
Short-period propagation of infrasonic waves from nuclear explosions
[RM-5163-ARPA] 07 p1072 N67-17714
Wave propagation, plasma probe, and plasma-electromagnetic methods for measuring interplanetary and magnetospheric electron density
[MPI-PAE-EXTRATERR.-10/65] 07 p1157 N67-17854
Propagation of compression waves in isothermal atmosphere with vertical magnetic field
[MPI-PAE-EXTRATERR.-9/65] 07 p1167 N67-17816
Seismological studies of velocity structure in earth mantle and wave propagation in atmosphere-ocean system
[AFOSR-67-0178] 07 p1074 N67-17859
Basic properties of neilcon waves in metals
[NYO-2180-19] 07 p1179 N67-17889
Nature, propagation, and ducting of acoustic gravity waves in earths atmosphere
[NASA-CR-81657] 07 p1074 N67-17908
Propagation of cylindrical stress shock waves in plate beyond elastic limit 08 p1374 N67-18208
Temperature and pressure effects on elastic wave propagation velocity in monocrystalline metallic sodium
[NYO-2504-15] 08 p1239 N67-18464
Sound source displacement effect on finite amplitude wave propagation in ideal fluid 08 p1267 N67-18902
Three numerical approaches to inverse problem in wave propagation and diffusion
[RM-5173-PR] 09 p1494 N67-19651
Characteristics method applied to equations governing shear wave propagation in elastic media
[REPT.-125-10] 09 p1519 N67-19735
Photoelastic modeling techniques for seismic wave propagation
[ECOM-2769] 09 p1441 N67-19780
Cold plasma model for nonrelativistic hydromagnetic wave dissipation of finite amplitude
[IC/66/9, REV.] 09 p1498 N67-20289
Steepening of plane-polarized finite amplitude Alfven waves to shock discontinuities
[TR-19] 10 p1735 N67-20604
Ultrahigh frequency propagation in troposphere
[JPRS-39907] 10 p1565 N67-21167
Elastoplastic wave propagation in solids - conference
[FTD-HT-66-497] 10 p1766 N67-21366
Travel time and amplitude anomalies of teleseismic signals observed and corrected at Montana Large Aperture Seismic Array
[LL-1] 10 p1586 N67-21420
Propagation of linear wave motions in inviscid, stratified, ideal gas atmospheres
[MIT-2241-56] 10 p1628 N67-21761
Ultrasonic wave propagation in magnesium lead crystals
[IS-1451] 10 p1753 N67-21790
Propagation of ion cyclotron wave in plasma transition region with dispersion and wave absorption 11 p1948 N67-21889
Extraordinary transverse wave propagation for plasma measurements 11 p1907 N67-21966
Experiment guide and critique for research in electromagnetic propagation through turbulent atmosphere
[HDL-TM-66-16] 11 p1928 N67-22567
Iterative perturbation analysis using nonlinear phase progression modified and extended for gross perturbations
[ISR-92] 11 p1856 N67-22574
Research projects in radio wave propagation, noise levels, equipment, radio astronomy, and radio and space research
[CSIR-TEL-60] 11 p1823 N67-22900
Transmission loss and space diversity measurements over mountain diffraction path
[IER-12-ITSA-12] 11 p1825 N67-23159
Computer program for one-dimensional stress wave propagation in strain-rate sensitive materials
[SC-RR-65-398] 12 p2230 N67-23541
Propagation of finite shock waves in solids
[AD-645707] 12 p2153 N67-23640
Propagation of plane electromagnetic waves by cold magnetoplasma
[NP-16468] 12 p2178 N67-23779
Cavity resonance, structural design, and properties of disk loading cylindrical waveguide propagating TM-02 mode 12 p2069 N67-24091
Computer study of wave propagation, beam loading, and beam blowup in Stanford Linear Accelerator Center 12 p2167 N67-24105
Transient wave propagation in linear accelerators 12 p2079 N67-24112
Closed form solutions of stress wave propagation in nonhomogeneous elastic viscoplastic cylindrical bar 12 p2223 N67-24144
Acoustic wave propagation in non-Newtonian viscous fluid 12 p2006 N67-24145
Perturbation solution to surface wave propagation in piezoelectric quartz 12 p2191 N67-24150
Underground electromagnetic wave propagation 12 p2062 N67-24315
Propagation of elastic expansion wave from circular hole in cylindrical, anisotropic, inhomogeneous plate 12 p2236 N67-24522
Elastic wave propagation along cylindrical cavity filled with conducting fluid 12 p2227 N67-24530
Producing waves with Doppler frequency shift for use in optical heterodyne
[FTD-HT-66-674] 12 p2054 N67-24789
Dispersion equations for electromagnetic wave propagation in polar semiconductor in presence of magnetic field
[SR-14] 12 p2192 N67-24800
Near field approximations of transient elastic wave propagation in infinite anisotropic plates
[TR-4] 13 p2411 N67-25106
VLF propagation and solar microwave radio emission measurements at Brazil radio astronomical observatory
[GRAM-23] 13 p2276 N67-25141
Mathematical methods for solving various problems of wave diffraction and propagation - Conference
[FTD-HT-65-236] 13 p2264 N67-25291
Wave propagation and diffraction, wave theory in plasmas, open resonators, boundary value problems, and thermal radiation and scattering 13 p2263 N67-25302
Variational method for scattering matrix through narrow slot, and direct method for internal wave diffraction and wave propagation in irregular waveguides 13 p2265 N67-25311
Tensor Green functions of Maxwell equations, heat conduction and nonlinear oscillation equations for anisotropic bodies, and wave propagation in elastic nonuniform media 13 p2266 N67-25315
Electromagnetic, shock, and surface wave propagation, reflection, and diffraction 13 p2265 N67-25317
Standing, electromagnetic, acoustic-gravity, and quasi-harmonic wave propagation and diffraction in nonuniform media, and calculating methods 13 p2265 N67-25318
Radiation of electromagnetic waves in axisymmetric layered medium 13 p2268 N67-25777
Propagation model for plane ionization wave in uniform electric field
[NASA-CR-83662] 13 p2207 N67-25829
Calculation of Bechmanns number for harmonic overtones of thickness-twist vibrations of rotated-Y-cut quartz plates
[TR-4] 13 p2418 N67-26120
New theory of transequatorial very high frequency radio wave propagation anomalies
[WRE-TN-CPD/T/-121] 13 p2282 N67-26191
Cauchy-Poisson wave propagation studies
[NT-438] 13 p2269 N67-26206
Annotated bibliography on electromagnetic wave propagation and upper atmosphere
[ATD-66-144] 13 p2215 N67-26219
Propagation and damping of weak and strong waves in elastoplastic medium 13 p2430 N67-26288
Propagation of shock waves in ground 13 p2317 N67-26420
Propagation of asymmetric electric or magnetic wave inside circular waveguide towards its open end
[NASA-TT-F-473] 14 p2580 N67-26621
Electromagnetic pulse propagation in disturbed terrestrial waveguide
[IER-22-ITSA-22] 14 p2565 N67-26661
Electromagnetic pulse propagation in normal terrestrial waveguide environment
[IER-21-ITSA-21] 14 p2565 N67-26680
Theory and experimental confirmation of dynamic shield response, or propagating ionization front generated by intense microwave irradiation of nonuniform plasma
[GCA-TR-66-11-A] 14 p2586 N67-26948
Electron collisional effects on wave propagation in nonmagnetized plasma 14 p2586 N67-27002
Radio frequency wave propagation in Cyclops engine 14 p2580 N67-27003
Propagation of elastoplastic stress waves in one-dimensional medium analyzed by finite difference method
[RM-336] 14 p2629 N67-27756
Reflection coefficient of weak shock waves
[T-39/65] 15 p2629 N67-27813
Radio wave propagation over earth surface, electromagnetic wave impedance and behavior, and reflection of radio waves from anisotropic layers
[JPRS-40989] 15 p2966 N67-28141
Series expansion with respect to beams used to solve problem concerning propagation of long radio waves over surface of earth 15 p2966 N67-28142
Reflection coefficients of plane electromagnetic waves from flat layered and inhomogeneous anisotropic plasma 15 p2966 N67-28143
Planar, spherical, and Greenberg models used for determining properties of normal waves and eigenvalues in problems of radio wave propagation in earth ionosphere channel 15 p2966 N67-28144
Stationary and nonstationary strict solutions to problems involving propagation of radio pulse signal in Epstein ionospheric layer 15 p2966 N67-28146
Strict and approximate boundary conditions used in mathematical solutions to problems involving electromagnetic wave propagation over earth surface 15 p2966 N67-28147
Factors influencing subterranean radio wave propagation - geological formations, earth surface curvature, rock electrical parameters, and noise 15 p2967 N67-28150
Algorithm constructed for numerical calculation of structure of electromagnetic field of arbitrary emission system located above earth surface 15 p2967 N67-28151
Equivalent sources calculated for replacement of reflection interface in magnetic dipole field in two-layer medium - radio wave propagation 15 p2967 N67-28152
Green matrix applied to steady state wave propagation in homogeneous anisotropic

media
[MRC-TSR-702] 15 p2753 N67-38241
Approximate formula for determining high frequency diffraction of radiation from nearby source
[MRC-TSR-706] 15 p2753 N67-38249
Mechanisms of whistler propagation and very low frequency emission generation
[AFOSR-67-0461] 15 p2762 N67-38324
Radio meteorology and ultrahigh frequency wave propagation, atmospheric circulation, and radar antenna design
[FTD-HT-66-40] 15 p2741 N67-38385
Magnetospheric ducting of electromagnetic waves studied using line current source and atmosphere model
[REPT.-145] 15 p2703 N67-38504
Theoretical study of propagation of long-period infrasonic waves from nuclear explosions in atmosphere, including bibliography
[AVSSD-0069-67-RR] 16 p2882 N67-38984
Propagation and terrain reflection of highly stable narrow band microwave signals - radio communication
[IED-G5] 16 p2860 N67-39423
Strain wave propagation in 6-constant centrosymmetric cubic crystal
[AD-658643] 16 p2959 N67-39518
Research conducted by Soviet geophysical institute in auroras, geomagnetism and geoelectricity, ionospheric and radio wave propagation, cosmic rays, and seismology 16 p2887 N67-39570
Surface to surface and subsurface to air propagation of electromagnetic waves - electric and magnetic field component measurements for quasi-static, quasi-near, and near field ranges
[USL-761] 16 p2842 N67-39669
Theory on propagation of very long radio wave propagation around earth
[FTD-MT-65-397] 16 p2862 N67-39680
Plasma power source, large amplitude Alfven waves, compression waves, and microwave reflection and propagation
[PR-12] 16 p2955 N67-39750
Earth magnetic field effects on propagation of ultralong waves around earth
[NASA-CR-65944] 16 p2939 N67-39901
Absorption spectrum of plasma dielectric in resonant cavity and wave propagation in electron plasma near cyclotron resonance
[SURI-EE-1173-367F1] 17 p3141 N67-39496
Nonlinear second harmonic generation in lossy plasma using method of coupled modes
[RADC-TR-67-276] 17 p3142 N67-39516
Propagation of oscillations of type of wave film of quantized thickness 16 p3304 N67-31649
Stress waves in viscoplastic medium 16 p3248 N67-31653
Low frequency electromagnetic wave passage through plane-stratified magnetoactive ionospheric plasma
[NASA-CR-80634] 16 p3312 N67-31656
Wave propagation in infinite viscoelastic medium bonded to identical elastic and viscoelastic circular fibers in parallel 16 p3305 N67-31792
Complex Doppler effect of oscillating electromagnetic source moving uniformly through homogeneous dispersive medium
[NASA-CR-85624] 16 p3305 N67-31835
Nonlinear drift wave propagation in plasma
[NASA-CR-86078] 16 p3314 N67-32122
Computer programming of simple, two-dimensional, plasmas with ion and electron stimulation, and dispersion relation for wave propagation for microwave modors 16 p3314 N67-32502
Electromagnetic wave propagation of drifted semiconductor plasmas
[REPT.-3] 19 p3522 N67-32776
Stress measurements and wave propagation studies in soils subjected to dynamic loads
[CRREL-RR-129] 19 p3439 N67-33846
Time dependence of amplitude of waves propagating into homogeneous regions at equilibrium
[TR-67-14] 19 p3422 N67-33109
Ion wave propagation in plasma flow with reference to discharge tubes
[LGL-67-4] 19 p3516 N67-33283
Electromagnetic waves produced by electric dipole in warm, anisotropic, diagle-fluid, collisionless plasma 19 p3518 N67-33694
Propagation of light beam in random medium 19 p3486 N67-33696
Formation and propagation of air blasts from underwater explosions
[BBN-1434] 20 p3623 N67-34055
Hydrodynamic and Maxwell equations for describing plane wave propagation through compressible inhomogeneous plasma
[AFCRL-67-0299] 20 p3705 N67-34095
Streak interferometric measurement of transient deformation on metallic solid surfaces during wave propagation in solids and application to elastic-plastic wave propagation studies
[BRL-R-1362] 20 p3737 N67-34346
Physical model for cyclotron damping of electromagnetic wave propagating in whistler mode
[RM-5356-PR] 20 p3706 N67-34528
Electromagnetic wave propagation in non-Maxwellian nonlinear plasma
[M-65-4FR] 20 p3709 N67-34652
Mathematical analysis of transient wave propagation in two different inhomogeneous ionized media
[AFCRL-66-843] 21 p3796 N67-35449
Amplitudes and travel times calculated for first half-cycle of seismic P waves generated by nuclear explosions
[UCRL-50232] 21 p3836 N67-35454
Ultrasound effects on physical properties of solids and metals 21 p3858 N67-35579
Frequency dependence of dielectric constant and electric conductivity of water-containing rock determined to evaluate VLF and LF wave propagation through earth interior
[AFCRL-67-0362] 21 p3837 N67-35621
Finite difference solution to propagation of disturbances in infinitely wide foil bearing
[NASA-CR-86780] 21 p3856 N67-35702
Propagation of long electromagnetic waves through rock
[AFCRL-67-0361] 21 p3798 N67-35715
Characteristics of ultrasonic propagation in air
[CP-12] 21 p3897 N67-36470
Wave propagation and strain rates in three dimensional elastoplastic bodies 22 p4151 N67-36737
Microwave propagation in single carrier semiconductor including collision and diffusion effects
[ECOM-2823] 22 p4124 N67-36747
Axisymmetric stress wave propagation across plane interface between cyclindrical bounded media
[REPT.-1-67] 22 p4097 N67-36757
Theoretical studies of atmospheric condition effects on optical propagation
[NASA-CR-86386] 22 p4097 N67-36823
Source mechanisms responsible for generating geomagnetic micropulsations
[NASA-CR-86515] 22 p4234 N67-36880
Propagation of thermally generated stress waves in dispersive elastic rod
[UCRL-50252] 23 p4155 N67-37446
Plane strain elastic wave propagation for two dissimilar half spaces joined together at plane interface by thin elastic bond
[TR-1001/2340-30/-2] 22 p4156 N67-37580
Propagation and dispersion of hydromagnetic and ion cyclotron waves in plasmas immersed in magnetic fields
[NASA-CR-86535] 22 p4117 N67-37584
Electromagnetic wave propagation and upper atmosphere - bibliography
[ATD-67-36] 22 p4040 N67-37898
Shape and intensity decrease of shock waves far from originating body source moving at supersonic speed
[NASA-TT-F-11246] 22 p4032 N67-37736
Radio wave propagation experiments for measurements of extended solar corona 22 p4137 N67-37823
Nonlinear wave propagation in collisionless plasma in uniform magnetic field
[NASA-CR-77929] 23 p4123 N67-38029
Dispersion of free harmonic waves in fiber reinforced composites
[TR-67-3] 23 p4353 N67-38077
Electron energy loss in afterglow plasmas, plasma transport and stability and electromagnetic wave propagation through magnetoplasmas
[NASA-CR-906] 23 p4316 N67-38142
Synthesis of dilatation and rotation seismograms 23 p4346 N67-39157
Guided electromagnetic wave propagation along periodic structures and plasma slabs
[LU/EE/67/66] 24 p4406 N67-39567
Mathematical treatment of axisymmetric wave propagation in uniform, finite, solid electron beam
[ECOM-2868] 24 p4506 N67-39618
Point shear load method for transient elastic wave propagation analysis in transversely isotopic plate
[TR-6] 24 p4542 N67-39697
Laplace transform method for wave propagation analysis in elastic semi-infinite plate
[TR-5] 24 p4543 N67-39700
Helmholtz equations used in study of propagation at microwave frequencies in waveguides filled with warm plasma
[SR-16] 24 p4509 N67-40013
Equations of motion used in numerical analysis of weak pressure wave propagation at very low pressure
[P-338] 24 p4423 N67-40173
Radio frequency induced mechanisms for ionization wave formation and propagation are investigated in xenon, krypton, and argon gases
[AFCRL-67-0491] 24 p4510 N67-40179
Mathematical model for calculating cyclotron wave propagation in hot cylindrical plasma with inhomogeneous magnetic field
[IPP-6/60] 24 p4512 N67-40394

WAVE RADIATION
SA SHORT WAVE RADIATION
Transmission and radiation properties of V-Line, or wedge shaped surface wave structure 07 p1035 N67-17005
Computing longwave and shortwave radiation fluxes, and radiation-induced changes in temperature and geopotential 11 p1914 N67-22596
Relaxation and radiation behind normal compression shock in supersonic airflow 10 p3432 N67-33581
Radiative characteristics of waveguide antenna aperture system loaded with inhomogeneous dielectric
[TR-7695-180] 19 p3607 N67-33777
Dielectric cover effects on radiation properties of cross slots in rectangular antenna
[NASA-TN-D-4194] 23 p4211 N67-38068

WAVE REFLECTION
Reflection of electromagnetic waves from lattices and from screen-lattice systems
[FTD-TT-65-1273] 06 p0858 N67-16099
Surface and reflection effects on microwave propagation path across sea water
[NSTIC/07072/66] 08 p0844 N67-16500
Backscatter of electromagnetic waves from rough surface
[NASA-CR-81757] 07 p1042 N67-18086
Holography research in U.S.S.R., and laserless wave reflection photography technique 11 p1928 N67-22368
Formalism for wave reflection of slowly varying spatially inhomogeneous thermal plasma described by Vlasov equation
[IC/66/93] 11 p1985 N67-22392
Numerical analysis of regular and Mach reflection of shock waves in aluminum
[LA-3578] 12 p2118 N67-24153
Propagation theory for plane electromagnetic wave reflection in cold electron plasma
[REPT.-68-35] 13 p2386 N67-26210
Selection of optimal working communication frequencies through radio wave reflection from F-2 layer
[JPRS-39977] 14 p3495 N67-27740
High voltage pulse traveling wave reflection-type fanout attenuator with subnanosecond response
[UCRL-14723] 15 p2878 N67-28407
Preliminary calculations on direct transmission of light through plane water surface and return by submerged retroreflector
[NRL-6423] 16 p2938 N67-28610
Reflection from periodically composed half-space
[TR-10] 16 p2938 N67-29766
Reflected shock interaction with boundary layer in shock tube, and effect on hot gas flow duration in shock tunnel
[ARC-CP-880] 16 p2880 N67-29916
Mixed reflection of sunlight from sphere and circular cone.
[NASA-TM-X-53617] 16 p2939 N67-30143
Nonlinear problems of theory of radiative transfer, and determination of diffuse reflection for forbidden and other transitions 17 p3134 N67-31630
Randomized problem of diffuse reflection, and radiative transfer in presence of both

scattering and absorption 17 p3134 N67-31024
Reflection and scattering of meter radio waves by lunar surface - dielectric constant of lunar rocks
[NASA-CR-86662] 18 p3336 N67-31836
Normal reflection of plane gaseous detonation wave in tube
[NRC-9967] 23 p4315 N67-38138
Effect of off-path ionospheric reflections on very low frequency radio waves
[NEL-1447] 23 p4212 N67-38266
Primary shock wave reflection in shock tunnel and, surface temperatures and thermoconductivity rates 23 p4366 N67-38689
Energy loss of shock wave reflected from shock tunnel end plate 23 p4237 N67-38784
Reflected shock wave interaction with boundary layer of flow behind incident flow 23 p4238 N67-38785
Density measurement behind reflected shock wave discontinuity in nitrogen 23 p4238 N67-38786
WAVE RESISTANCE
Numerical analysis of viscous fluid effects on wave resistance of ship hull
[AD-640633] 09 p1434 N67-19580
WAVE SCATTERING
SA ATMOSPHERIC SCATTERING
Ionospheric E region irregularities produced by nonlinear coupling of unstable plasma waves
[NASA-CR-79926] 02 p0256 N67-11856
Nuclear Ramsauer effect to interpret neutron giant resonances as maxima created by interference between neutron wave components 06 p0026 N67-15604
Experimental determination of velocity distribution in surface-scattered molecular beam
[D1-820569] 07 p1140 N67-18056
Theory of magnetohydrodynamic wave scattering at end of wave guide 09 p1495 N67-20232
Electromagnetic wave scattering with dipole center system
[JINR-P-2896] 10 p1695 N67-21542
Efficiency of plasma waveguide excitation by coaxial waveguide 11 p1948 N67-21891
Transformation and scattering of electromagnetic waves in nonequilibrium plasma 11 p1957 N67-21954
Spectral characteristics of incoherent scattered electromagnetic waves for plasma probing 11 p1957 N67-21955
Parabolic coordinate method for analyzing potential of long range Coulomb interactions 11 p1931 N67-22104
Transition amplitude approximation methods 11 p1932 N67-22113
Statistical phase and amplitude characteristics of scattered radio star signals observed interferometrically
[D1-82-0575] 11 p1818 N67-22294
Statistical properties of Rayleigh wave scattering at random boundary of elastic body 12 p2223 N67-24148
Reverberation and scattered field statistics for waveforms in general geometries
[AD-648401] 14 p2487 N67-26893
Neutron reactions studied with distorted-wave Born approximation
[LYCEN-6838] 15 p2760 N67-28504
Equations and numerical solution for scattering of electromagnetic waves by finite wedge and for radar cross section backscatter
[SR-4] 16 p2854 N67-29054
Low frequency and very low frequency ionospheric attenuation calculated on basis of wave theory
[RM-5296-PR] 16 p2855 N67-29131
Electromagnetic wave scattering by expanding conducting sphere
[TR-46] 16 p2927 N67-29599
Determination of ocean bottom irregularities by sound wave scattering method 17 p3051 N67-30344
Vector-matrix method for determining intensity of diffusely scattered light from cone and paraboloid of revolution
[RE-268] 17 p3122 N67-31464
Invariant imbedding equations for dissipation functions of inhomogeneous finite slab with anisotropic scattering
[RM-5146-PR] 19 p3582 N67-33333
Multiple scattering of acoustic waves by radom distribution of isotropic point scatters
[REPT.-88-40] 19 p3499 N67-33513
Progressive surface wave motions of small amplitude and time-periodic nature in ideal fluid containing infinite submerged array of parallel and identical circular cylinders
[TR-11] 19 p3432 N67-33692
Scalar and vector Helmholtz integrals in scattering of plane waves by one-dimensional rough surfaces
[NASA-CR-65669] 20 p3587 N67-34302
Plane wave scattering by spheroids and disks
[AFCRL-67-0360] 22 p4097 N67-36799
Scattering of electromagnetic waves by vorticity fluctuations in shear generated turbulent flow
[TR-1001/2340-20/-9] 22 p4113 N67-36807
Dispersion analysis of earthquakes and study of teleseismic signals with analog model data
[AFOSR-67-1561] 22 p4034 N67-36840
Iterative method to evaluate partial wave scattering amplitude produced by spherically symmetrical multichannel potential
[NP-16644] 23 p4303 N67-38545
Electromagnetic wave scattering from nonuniform cylindrically symmetrical plasma
[CEA-R-3123] 23 p4323 N67-38817
Elastic wave scattering by rigid bodies of arbitrary shape - integro-differential equations
[REPT.-24] 24 p4541 N67-39383
WAVE SUPERHEATER
S ENERGY TRANSFER
S SHOCK HEATING
WAVEFORM
Validity boundaries examined of radar waveform concepts for multiple target resolution
[IDA/HQ-66-5086] 06 p0043 N67-16449
Radar waveforms for clutter suppression in target recognition
[TR-669/6230-46/-10] 09 p1419 N67-20004
Width-modulated pulse-Doppler waveforms for clutter rejection
[TM-364] 12 p2057 N67-24947
Reproduction of complex and random waveforms at various points on test item 14 p2823 N67-26647
Amplitude measurement of noise-masked periodic waveforms
[NEL-1469] 14 p2486 N67-26679
Eliminating redundancy in fixed frame television, and relationship between spectral properties of original sampled waveform and interpolation error 14 p2493 N67-27414
Factors contributing to ballistocardiographic waveform in healthy middle aged males
[NASA-CR-84436] 14 p2464 N67-27435
Meteorological factors and synoptic process effects on waveforms in North Atlantic 14 p2528 N67-27710
Ambiguity characteristics of high resolution radar waveforms
[RRE-TN-731] 17 p3028 N67-31469
Waveform design and resolution of multiple radar targets in clutter
[IDA/HQ-67-6117] 18 p3239 N67-33023
Improved radar system performance using random signal as transmitted waveform
[NASA-CR-86209] 21 p3799 N67-35915
High speed digital recorder for atmospheric noise waveforms
[NOLC-739] 24 p4453 N67-40191
WAVEGUIDE
SA BEAM WAVEGUIDE
SA MICROWAVE FILTER
SA PLASMAGUIDE
SA RECTANGULAR GUIDE
Nonlinear interaction between plasma waves on low pressure mercury vapor discharge surrounded by cylindrical waveguide
[SR-7] 01 p0132 N67-10687
Higher order diffraction concept applied to computation of parallel-plate waveguide aperture radiation patterns
[NASA-CR-79488] 02 p0236 N67-12042
Fluorescence and infrared absorption spectra of samarium ions in lanthanum fluoride crystals - continuous slot antenna waveguide perturbation
[NOLC-672] 02 p0452 N67-13643
Surface wave propagation through anisotropic circular, cylindrical dielectric rod waveguide 02 p0206 N67-13648
Reflection coefficient of transverse electromagnetic mode parallel plate waveguide illuminating perfectly reflecting sheet
[NASA-CR-66234] 02 p0247 N67-13804
Theoretical and engineering research on plasma measurement techniques, waveguides, transport properties, delay lines, reentry phenomena, interactions, and instabilities 04 p0594 N67-13681
Coupled mode and perturbation theories applied to gaseous plasma waveguide problems 04 p0595 N67-13689
Plasma-coated surface as waveguide 04 p0595 N67-13691
Electromagnetic propagation properties of solid state plasma waveguides, and potential for nonreciprocal devices 04 p0599 N67-13697
Transition radiation in parallel plate waveguide 07 p1161 N67-18644
Resonance measuring apparatus for diaphragmed waveguide used in linear electron accelerator systems 09 p1423 N67-19978
Waveguide dispersion effects on radiation pattern and directivity of linear antenna arrays
[REPT.-6466-27-R] 09 p1414 N67-19972
Waveguide properties of gas-electron beam system
[FTD-HT-66-172] 09 p1486 N67-20195
Design of frequency discriminator with waveguide cavity bound by inductive slot
[FTD-HT-66-157] 10 p1584 N67-21360
Mathematical analysis of modes in periodic waveguide-structures
[ABOD-4155-4] 11 p1837 N67-22971
Nonlinear coupling between slow and fast waves in waveguide partially filled with plasma slab
[SR-13] 12 p2178 N67-23828
Model study of ionospheric perturbations and propagation between two sites - excitation of curved modal waveguide, scattering coefficients, surface impedance, and volume loading
[QR-20] 13 p2276 N67-25128
Sudden ionospheric disturbances at very low frequencies, and waveguide mode propagation 13 p2277 N67-25144
Variational method for scattering matrix through narrow slot, and direct method for internal wave diffraction and wave propagation in irregular waveguides 13 p2265 N67-25211
Surface and sound wave diffraction, excitation of electromagnetic horn by wide waveguide, and solution of elliptic equations 13 p2246 N67-25214
Acceleration of plasmoids in waveguides by superhigh-frequency electromagnetic wave
[NASA-CR-83820] 13 p2304 N67-25670
Electromagnetic pulse propagation in disturbed terrestrial waveguide
[IER-22-ITSA-22] 14 p2505 N67-26061
Electromagnetic pulse propagation in normal terrestrial waveguide environment
[IER-21-ITSA-21] 14 p2505 N67-26060
Electron temperature and wave resonance effects in plasma waveguides
[NASA-CR-84419] 14 p2597 N67-27279
Radiation leakage from TM mode in circular dielectric rod aerial waveguide
[RT-27] 14 p2582 N67-27545
Power assessment of radiation from metal waveguide aperture - radiation pattern of uniform dielectric rod aerial
[RT-31] 14 p2582 N67-27548
Waveguide analog of particle tunneling through quantum potential barriers investigated by electromagnetic propagation
[AD-634067] 15 p2751 N67-27920
Variable waveguide coupler with 360 degrees of phase control for slot antenna having rapid scanning capability
[P67-61] 15 p2807 N67-28260
Electric impedance of waveguide about slots in plasma medium
[HDL-TR-1342] 15 p2777 N67-28622
Stability of modulated beam in disk-loaded waveguide
[REPT.-355/T-041] 16 p2874 N67-29108
Aperture reflection coefficient of parallel plate waveguide by wedge diffraction analysis
[NASA-CR-818] 18 p3282 N67-31982
Operation of thin film dielectric structures as electromagnetic waveguides at optical frequencies
[C7-928/801] 19 p3413 N67-32711
Nonlinear coupling between slow and fast waves in circular waveguide filled with plasma
[SR-17] 19 p3512 N67-33703
Feasibility of using waveguide devices of superhigh frequency range for construction of logic elements for high speed digital computers

[FTD-MT-67-68] 19 p3408 N67-32782
Design, fabrication, and testing of optical waveguides and components for laser applications
[NASA-CR-860] 19 p3551 N67-33158
Perturbation solution for effectively controlled ferrite phase converters - waveguides
[FTD-HT-66-391] 21 p3813 N67-35415
Maxwell equations, parameters, and elements of complex waveguide systems and resonators
[FTD-MT-64-366] 21 p3814 N67-35555
Filament and cathode assembly tests for high power klystron tubes - Arc detector for waveguide window
[ECOM-0228-1] 21 p3814 N67-35556
Design and fabrication of wideband high isolation microwave coupler using tapered line techniques
[REPT.-3772] 22 p4008 N67-36625
Axisymmetric transverse magnetic field modes of hydromagnetic or Alfven waveguide
[TR-449] 22 p4115 N67-37095
Ferrite loaded series feed system for phased arrays and E-plane parallel plate wye circulator
[NRL-MEMO-1777] 23 p4212 N67-38351
Ferrite loaded series feed system for phased arrays 23 p4212 N67-38352
E-plane parallel plate wye circulator 23 p4213 N67-38353
Definitions, standards, types, and measurement of microwave attenuation - waveguides
[NBS-MONOGRAPH-97] 23 p4230 N67-39167
Studies of guided electromagnetic waves in presence of axially nonuniform or random perturbations
[CU-EE-100] 24 p4405 N67-39656
High power limitations of four-port junction waveguide circulators to determine optimum geometry and dielectric loading
[ECOM-2941] 24 p4419 N67-39900
WAVEGUIDE ANTENNA
Application of magnetically controlled ferrite phase shifters in scanning leaky wave antennas 04 p0520 N67-13816
Particle trajectories in overlapping electric and magnetic fields, and dielectric effects in slotted waveguide antennas
[FTD-TT-65-762] 06 p0917 N67-16095
Effect of dielectric inside round waveguide on resonance lengths of slotted antennas 06 p0917 N67-16097
Admittance of wedge excited coaxial antenna with plasma sheath
[NASA-CR-66285] 07 p1041 N67-17989
Waveguide feeding techniques for log periodic antennas
[EDL-M1017] 12 p2054 N67-24750
Properties and calculation of zigzag waveguides for antennas with frequency scanning 13 p2275 N67-25109
Soviet textbook on theory of long lines, radio wave propagation and electromagnetic waves, antenna engineering, and feeder devices
[FTD-HT-66-360] 16 p2860 N67-29489
Radiative characteristics of waveguide antenna aperture system loaded with inhomogeneous dielectric
[TR-7695-160] 19 p3407 N67-33777
Radiation admittance of rectangular waveguide acting as element in infinite phased array
[ESD-TR-67-279] 22 p4011 N67-36990
Input admittance of rectangular waveguide antenna radiating into inhomogenous lossy plasma slab and dielectric constant variations
[NASA-TN-D-4197] 23 p4211 N67-38091
WAVEGUIDE TUNER
Operations, characteristics, and performance of Telstar satellite tracking facilities in Italy, France, and England
[NASA-SP-32, VOL. 4] 02 p0263 N67-12301
WAVELENGTH
Feasibility of combining wavelength dispersing and optical-mechanical line scanning techniques
[NASA-CR-79916] 02 p0259 N67-11848
Relative quantum yield dependence of spontaneous zinc oxide luminescence on excitation wavelength
[NASA-TT-F-10009] 04 p0509 N67-13785
Fabry-Perot duochromator for measurement of small wavelength displacements of spectral lines
[ORNL-4019] 06 p1263 N67-19014
Effects on visual acuity of luminance contrast and wavelength in display systems
[ERF-RR-1/67-CR] 12 p2033 N67-24712
Laser parameter measurements handbook - measurements of gain parameters and wavelength at optical frequencies
[RADC-TR-66-704, VOL. II]
16 p2904 N67-29503
Wavelength, frequency, and growth rate dependence on density, stream velocity, and magnetic field strength 19 p3517 N67-33388
WEAPON
SA AIRCRAFT
SA GUN
SA NUCLEAR WEAPON
SA ORDNANCE
SA SPACE WEAPON
Safety design criteria for structural engineering of explosive facilities and operations, scale model tests of concrete slabs, and weapon storage tests
[PA-TR-3484] 10 p1602 N67-21357
Noise measurements of small arms
[IZF-1966-21] 13 p2367 N67-25564
WEAPON SYSTEM
Maintainability, reliability, and availability of aircraft weapon system
[AD-637650] 04 p0626 N67-14241
Statistical methods for weapon system maintenance analysis
[RM-4443-PR] 09 p1545 N67-19669
Army research and development activities in electronics, theoretical and applied physics, ballistics, pyrotechnic chemistry, and weapon system technology
[AD-634616] 15 p2808 N67-27971
Mathematical model for target location accuracy requirements in weapon systems analysis
[AD-634643] 15 p2809 N67-27989
Analog simulation of ring spring recoil systems used in automatic weapons - diode and logic circuits
[BRL-MR-1826] 17 p3037 N67-30740
Field maintenance of weapons systems, service inspection, and nondestructive testing by Air Force 20 p3648 N67-34480
Chinese Peoples Republic capability for strategic employment of nuclear missiles 20 p3752 N67-35247
Computer routines, operating manual, and programmers manual for program to simulate weapon system repair shop
[RM-4660-PR, PT. II] 23 p4004 N67-36902
WEAPON SYSTEM MANAGEMENT
United States and Soviet policies on outer space and arms control
[NASA-CR-80853] 04 p0626 N67-14260
United States Army logistics support operations in Viet Nam 11 p1850 N67-21965
Naval Air Systems Command technical philosophy of logistics support 11 p1851 N67-21968
Computer systems application for engineering support in weapon system development by aerospace industry
[RM-5264-PR] 23 p4220 N67-38668
WEAPONS INDUSTRY
Government position in contracting for logistics support 11 p1852 N67-21973
WEAR
SA ABRASION
SA CORROSION
SA EROSION
SA FRICTION
Radioactive tracer technique for measuring wear life of dry film lubricants as related to coating loss percent
[RIA-66-2446] 01 p0090 N67-11199
Wear and friction of various polymer laminates in liquid nitrogen and in liquid hydrogen
[NASA-TN-D-3708] 02 p0278 N67-11346
Formation and life histories of transfer films of self-lubricating retainer materials on ball bearings operating in hydrogen gas at 22 deg K
[NASA-TN-D-3730] 02 p0285 N67-11813
Wear rates in water of 1/4-in dia flat-ended riders and 3/4 in journal bearings on stainless steel and other materials
[AECL-2068] 04 p0556 N67-13958
Antiwear properties of reactive jet fuels
[FTD-TT-65-1730] 06 p0951 N67-15790
Relative wear of low and high temperature self lubricating polytetrafluoroethylene cage materials tested in ball bearings operating at high speeds at various temperatures
[NASA-TM-X-52263] 06 p0980 N67-16043
Rubber coatings to protect metals from cavitational wear
[FTD-HT-66-510] 07 p1106 N67-17670
Heat and wear resistance of alloys for gas turbine installations
[FTD-HT-66-511] 07 p1104 N67-17751
Friction and wear effects of carbon fiber reinforced polyester resin
[RAE-TR-66247] 09 p1466 N67-20331
Wear and corrosion resistance of water lubricated sliding contact journal bearings
[AECL-2566] 10 p1639 N67-21014
Wear of plastics in room temperature water
[AECL-2532] 10 p1661 N67-21213
Applications of radioisotopes to quality control and inspection of industrial processes, and to wear studies aimed at increasing machine component and cutting tool service lives 10 p1640 N67-21222
Wear of engine and other tractor components studied by cobalt 60 10 p1642 N67-21238
Wear in upper compression rings of diesel engine studied by radioactive isotopes 10 p1642 N67-21238
Radioisotopes used to determine effect of heat treatment on hardness and wear of steel machine tools 10 p1642 N67-21239
Selecting optimum heat treatment conditions and improving wear resistance capabilities of case-hardened steel 10 p1642 N67-21241
Wear of hearth and crucible, control of charge loading, and other inspection and control processes related to blast furnace operations 10 p1644 N67-21250
Radiometric control of fritting and wear of hearths in open hearth furnaces used in steel production 10 p1645 N67-21266
Friction and wear of plastic-bonded and polycrystalline explosive materials
[UCRL-50134] 11 p1903 N67-22318
Wear rates of metals, ceramics, carbides, and oxides in 80 deg and 160 deg F high purity water
[AECL-2602] 11 p1896 N67-22478
Operation of hydrodynamic journal bearings in liquid sodium at high temperatures and high speeds
[NASA-TN-D-3928] 11 p1891 N67-22301
Vacuum environment effects on evaporation, friction, adhesion, and wear properties of lubrication system materials
[NASA-TM-X-52284] 11 p1892 N67-22312
Wear and friction of impregnated mechanical carbons at high temperatures in air or nitrogen
[NASA-TN-D-3958] 12 p2108 N67-24474
Load and temperature as related to solid film lubricant wear life
[RIA-TR-67-214] 15 p2718 N67-28271
Oil free lubricated internal combustion engine evaluated for critical wear zones
[NAEC-AML-2460] 15 p2785 N67-28836
Mathematical expectation, dispersion, and conditional density expressions derived and applied to problems of controlling wear of tools during machining 18 p3285 N67-31867
Sliding wear performance of metallic material couples in high purity water environment at 200 deg F and at 500 deg F
[WAPD-314] 23 p4286 N67-39067
WEAR TESTING MACHINE
Apparatus, methods, and results of tests to determine lubricity characteristics of corrosion preventive oils
[RIA-66-3514] 15 p2717 N67-28342
WEATHER
SA COLD WEATHER
Radio frequency refractometers and standard weather observations used in measuring atmospheric radio refractive index 01 p0099 N67-10241
Relative legibility of Leroy and teletypewriter symbols during hourly sequence weather reports
[MTR-265] 06 p0816 N67-16484
Weather bureaus meteorological satellite program objectives, and studies for improving TIROS operational satellite system 13 p2140 N67-24308
Synoptic surface observations for Greenland, 1951-1960 - tables 22 p4086 N67-36973
WEATHER CHART
Use of theta prime chart as local weather forecasting tool
[REPT.-29660001] 05 p0723 N67-14068
May 1967 world weather summary, daily, and mean ground and 850-mb charts of Northern Hemisphere 23 p4278 N67-38854

Meteorological, snow, and ice data and charts for Berlin and Germany, and articles on North Sea storms, radioactivity, arctic, and tropical meteorology, winter 1966-67 23 p4378 N67-38555
World weather summary, daily, and mean ground and 850-mb charts of Northern Hemisphere, June 1967 23 p4379 N67-38599
March 1967 world weather summary and daily, mean, 850-mb, and ground charts for Northern Hemisphere 23 p4379 N67-38601
March through June 1966 daily and monthly weather charts for 100-mb level, and stratospheric circulation data for Northern Hemisphere [QR-2] 23 p4379 N67-38602
February 1967 weather charts and meteorological data for Berlin and Germany, and articles on storm phenomena, polar and arctic research, weather radar, and heat budget of earth 23 p4379 N67-38603
March through June 1966 stratospheric circulation and meteorological charts for Northern Hemisphere [QR-2] 23 p4379 N67-38604
June through September 1966 daily and monthly mean meteorological charts and data for Northern Hemisphere [QR-3] 23 p4380 N67-38605
Monthly isobar chart analysis to determine total atmospheric water vapor distribution over Great Lakes basin [RR-5-3] 24 p4440 N67-39690
July 1967 weather charts, climatological data, and meteorological articles for Berlin, Germany, and central Europe 24 p4467 N67-39955
May and spring 1967 weather charts, climatological data, and meteorological articles for Berlin, Germany, and central Europe 24 p4468 N67-39959
Indian Ocean surface temperature distributions for January 1963-December 1964 charts and tables [HIG-67-14] 24 p4445 N67-40037

WEATHER CONDITION
Development and movement of tornadic storms over Oklahoma on 27 May 1965 07 p1116 N67-16896
Cloud photographs of severe storms in Oklahoma by U-2 aircraft 07 p1117 N67-16898
Monographs concerning climate of Iran - topography, geographic location, atmospheric movements, temperature zones, humidity, and precipitation 06 p1306 N67-19176
Development plan for all weather landing system reliability analysis and criteria, and AWLS technology bibliography [RD-66-3] 06 p1394 N67-20859
Corona loss and radio interference levels in high voltage transmission lines under different weather conditions and choice of conductor 11 p1835 N67-22191
Weather reconnaissance data-reduction program for digital computer 12 p2135 N67-23493
Weather effect on sound transmission from explosive detonation [BM-RI-6921] 13 p2370 N67-26346
Synoptic conditions of characteristic weather types analyzed for glacier region of Polar Urals 14 p2568 N67-27145
Weather conditions and synoptic situations investigated for effects on glacier melting in Polar Urals 14 p2594 N67-27151
Seasonal and regional hail intensity indices for wheat, corn, soybeans, and cotton in midwestern states - insurance risk [RR-36] 14 p2549 N67-27787
Diagnostic studies of weather systems of high and low latitudes using general balance model for small Rossby numbers [NASA-CR-85513] 17 p3097 N67-30784
Diagnostic balance model for small Rossby numbers applicable to studies of weather systems of high and low latitudes 17 p3097 N67-30785
Monthly and diurnal thunderstorm and lightning distributions for airport stations on Hawaiian Islands 21 p3883 N67-36524
United Kingdom all-weather landing systems [RAE-TR-67033] 22 p3961 N67-37884
Survey of frozen precipitation in urban areas as related to climatic conditions [CRREL-TR-163] 23 p4379 N67-38550

WEATHER CONTROL
Rain production in summer, nonorographic, convective clouds and randomized seeding effects 01 p0101 N67-10443
Location and topography, weather controls, climatic aids, and local forecast studies for Wright Patterson AFB, Ohio - tables and graphs [AD-643300] 12 p2135 N67-23515
General engineering studies on radioactive environmental conditions, weather control, cantilever deformations, and other general areas 14 p2541 N67-26907
Investigation of hail processes and methods for influencing them [PRS-41365] 16 p2926 N67-29974
National developments, plans, and research programs in weather and climate modification [NSF-67-9] 17 p3009 N67-31435

WEATHER DATA RECORDER
Daily and median meteorological data for Northern Hemisphere during June, 1965 01 p0101 N67-10442
Rocket sounding data from upper stratosphere and mesosphere [NASA-TR-R-263] 21 p3838 N67-35777

WEATHER FORECASTING
SA ATMOSPHERIC CONDITION EFFECT
SA LONG RANGE WEATHER FORECASTING
Analog computer method for determining arrival curve parameters of high water waves in channel [JPRS-38686] 01 p0101 N67-10393
Numerical weather forecasting methods used by U.S.S.R. meteorological service [JPRS-38409] 01 p0101 N67-10394
Flight weather prediction by observations of sky conditions and cockpit instrumentation [FAA-RD-66-72] 01 p0103 N67-10430
Albedo of snow and ice on sea [FTD-HT-66-183] 01 p0070 N67-11168
Theoretical principles and preliminary experiments for world-wide meteorological weather balloon system [NASA-TT-F-10227] 02 p0202 N67-11261
International weather forecasting network using satellite and computer technology 02 p0283 N67-12037
Space exploration and applications to earth sciences, weather forecasting, and related topics [NASA-TM-X-59138] 02 p0305 N67-12345
Atmospheric circulation and seasonal climatic variations, drifting radiometeorological stations, and heat balance measurements [JPRS-38779] 02 p0418 N67-12901
Tiros satellite photographs used in numerical weather prediction for Pacific Ocean area [REPT.-97434-1-T] 02 p0420 N67-13115
Vector correlation coefficients of upper winds in central Rocky Mountain range [ECOM-5061] 05 p0733 N67-14945
Nimbus II observation in visible and infrared regions to predict development of storms and frontal systems [NASA-TM-X-53638] 05 p0733 N67-15150
Three level nonlinear model in spherical coordinates to assess effect of topography on prediction of isobaric field [EMM-66-64] 06 p0897 N67-16405
Experimental use of satellite cloud photographs in numerical prediction [REPT.-50] 07 p1116 N67-16780
Motion, heights, and circulation of thunderstorms [NASA-CR-81439] 07 p1116 N67-16895
Analysis of atmospheric electric and meteorologic data to evaluate accuracy of fog forecasts using atmospheric electric recordings [NRL-6436] 07 p1117 N67-17013
Ceiling and visibility contingency probability tables for weather forecasting [AD-640974] 07 p1117 N67-17091
Forecast of aerospace thermodynamic properties above Cape Kennedy [DAC-59171] 08 p1383 N67-18657
Approximate solution of linearized barotropic model for weather pattern prediction [EMM-66-65] 08 p1396 N67-19232
Program and techniques of atmospheric turbulence research on mountainous helicopter routes [T-R-690] 09 p1478 N67-19725
Weather forecasting based on studies of cloud physics and seasonal variations during monsoon period in Arizona [ECOM-3781] 09 p1478 N67-19726
Optimum location of meteorological network stations for data acquisition and weather forecasting 11 p1912 N67-22004
Intermediate and microwave radiative measurements from weather satellites to determine reflections and surface emissions from sea water [NASA-CR-83518] 11 p1868 N67-22220
Meteorological aspects of constant level balloon operations in southwestern United States [AFCRL-66-799] 11 p1918 N67-22146
Climatology and forecasting of Taiwan low phenomena [AD-640997] 11 p1916 N67-22174
Problems of fog and stratus forecasting in Japan [AD-645068] 11 p1916 N67-22175
Utilization of radar echo pattern distribution in weather forecasting [IERTM-NRSL-28] 11 p1887 N67-22470
Computerization and technique developments for environmental data used by military [TR-188] 12 p2122 N67-23481
Six-level baroclinic model for global weather forecasting 12 p2133 N67-23485
Numerical weather prediction extended to semiautomatic computer flight plan system 12 p2134 N67-23487
Numerical weather prediction models for fine-mesh limited-area forecasting 12 p2134 N67-23489
Numerical cloud prediction technique using atmospheric moisture fields 12 p2135 N67-23494
Computer equipment and connecting circuitry for high speed weather-data communications 12 p2135 N67-23495
Midlatitude frontal cloud models for weather forecasting [AD-646031] 12 p2136 N67-24055
Method to forecast surface visibilities less than 5-miles caused by ground fog, haze, or smoke [AD-645699] 12 p2136 N67-24054
Low level turbulence forecasting for light aircraft [AD-645691] 12 p2136 N67-24053
Proposed uses of operational meteorological satellite data in weather analysis 12 p2137 N67-24371
Potentiality of satellite radiation data for synoptic analysis 12 p2138 N67-24372
Streamline analysis of motion field and wind velocity for tropical meteorological forecasts [AD-647886] 13 p2140 N67-24388
Weather forecasting and statistical meteorology studies [GR-1] 13 p2380 N67-25600
Objective weather forecasting - computation of wind fields and hydrostatic barotropic systems [AFCRL-67-0050] 13 p2380 N67-25121
Computation of initial wind fields for integration of primitive equations 13 p2381 N67-25122
Hydrostatic barotropic systems governing behavior of homogeneous and incompressible medium with free upper surface and zero vertical wind-shear 13 p2381 N67-25123
Weather information remoting and display system for air traffic control applications [RD-66-93] 13 p2382 N67-25599
Statistical analysis of clear air turbulence [SRDS-RD-66-79] 14 p2539 N67-26470
Time step variation method for forecasting atmospheric winds and temperatures [SRDS-RD-66-82] 14 p2567 N67-26478
U.S.S.R. radar techniques for meteorology and weather forecasting programs [JPRS-40499] 14 p2582 N67-27281
Rain experiment - weather satellite used to follow ceiling balloons with radiosonde responder [NASA-TT-F-10504] 14 p2582 N67-27669
Construction and quality of 24-hour barometric pressure charts [REPT.-102, VOL. 14] 14 p2582 N67-27712
Synoptic model relating surface winds, flying conditions, and rainfall at Eniwetok AB, Okinawa, to positions and intensities of tropical cyclones [AD-650236] 16 p2926 N67-29969
Synoptic world weather analysis of Tiros VII radiation data [NASA-TM-D-3707] 16 p2926 N67-29967
Test series administered to Air Force personnel to determine weather forecaster proficiency [ESD-TR-67-328] 16 p2926 N67-29968
Information processing by weather

forecasters analyzed to evaluate human functions in complex system
[ESD-TR-67-218] 16 p2340 N67-29491
Synoptic relationship between concurrent radar precipitation patterns and Tiros IX cloud photographs
[AD-649063] 16 p2925 N67-29671
Long and short term weather forecasting, clear air turbulence determinations, aerial photography of clouds, and hydrology
[JPRS-40218] 17 p3051 N67-30405
Meteorological satellite photography and weather forecasting 17 p3052 N67-30406
Forcasting clear air turbulence in troposphere for aircraft safety 17 p3052 N67-30407
Finite difference solution to partial differential equations of short-term weather forecasting 17 p3096 N67-30408
Medium range weather forecasting for mountainous regions based on expansion of natural orthogonal functions 17 p3097 N67-30411
Automatic numerical weather analysis for Australia 17 p3099 N67-31047
Computer program for northern hemisphere weather prediction
[JPRS-40669] 18 p3290 N67-32459
Approach to analysis of sea surface temperature data recorded by merchant vessels for use in hurricane forecasting in Gulf of Mexico
[AD-653369] 18 p3291 N67-32463
Sounding and temperature data used to determine snow thickness patterns for use in forecasting of rain or snow
[AD-653197] 19 p3484 N67-33878
Weather forecasting and cloud photo interpretations 20 p3672 N67-34307
Possible forecasting technique for surface wind from geostrophic wind for sea areas
[MET-O-773] 20 p3675 N67-35133
Forecasting summer occurrence of low stratus cloud cover in McChord-Seattle area
[AD-654282] 21 p3883 N67-35713
Scientific instruments for data reduction of field observations used in weather prediction 21 p3799 N67-35964
Radar, photographic, and meteorological methods for forecasting bird migration intensities to reduce aircraft hazards 21 p3758 N67-36069
Considerations in selecting optimum forecast method for various length and time scales of cloudiness
[TN-17] 21 p3883 N67-36175
Application of computer method for determining probability of cloud free line of sight for satellite reconnaissance in intermountane region of United States
[RM-5365-PR] 22 p4067 N67-37261
Typhoon formation, characteristics, and methods of forecasting along Chinese coast 24 p4494 N67-39486
Onset-duration tables of specified ceiling and visibility categories for use as supplemental aid in short period weather forecasting
[AD-658668] 24 p4485 N67-39642
Conference papers on meteorological satellite data interpretation, solar and upper atmospheric phenomena, tropical meteorology, and weather forecasting techniques
[AWS-TR-196] 24 p4485 N67-39662
Meteorological satellite data interpretation of cloud photographs for weather forecasting and analyses 24 p4486 N67-39663
ESSA and TIROS satellite data input to numerical weather analysis and forecasting 24 p4486 N67-39997
Grid telescoping by numerical integration for weather forecasting covering entire Northern Hemisphere 24 p4487 N67-39618
Dynamic models and statistical probability methods of forecasting hurricane movements 24 p4489 N67-39622
Short range, subsynoptic surface weather forecasts of cloudiness and precipitation 24 p4497 N67-39625
Synoptic processes in south China measured for March through May during 1955-1962
[ESSA-66-139] 24 p4486 N67-40018
Forecasting visibility at Suffolk County Air Force Base
[AD-655899] 24 p4489 N67-40241
Formation and development of thermal low over southwest China and related weather forecasting
[ESSA-66-141] 24 p4489 N67-40997
Soviet short-range weather forecasting method, gravimetry survey, and magnetic properties of over-critical ferromagnetic thin films 24 p4554 N67-40313

WEATHER FRONT

Visibility deterioration on approach of synoptic weather front 06 p0966 N67-15469

WEATHER MAP

Computer plotting of cloud information from Tiros-type weather satellites
[JPRS-41294] 18 p3290 N67-31861
Synoptic climatology of Hawaii - frontal passages and number of cyclonic storms 21 p3883 N67-36523
Daily and average weather maps for Northern Hemisphere during 1967 23 p4281 N67-39242
Daily weather maps and data for Northern Hemisphere during 1931 through 1960, and study on mesosphere wind circulation 23 p4281 N67-39246
Weather satellite observation data for Europe during May and June, 1966 23 p4282 N67-39243
Tabulated data and maps of precipitation and snow recordings during winter 1964-65 in Finland 23 p4282 N67-39360
European weather satellite observations for March and April, 1966 24 p4494 N67-39583
June 1967 daily weather maps for Germany and synoptic meteorological data and articles for central Europe 24 p4486 N67-40000
Daily weather maps for Germany and synoptic meteorological data and articles for central Europe for April 1967 24 p4486 N67-40038

WEATHER RADAR

Weather radar and radio signal absorption for cloud physics data
[FTD-TT-65-1855] 01 p0102 N67-11065
Pulsed microwave radar backscattering used in model tests of clear air turbulence detection
[NASA-CR-79921] 02 p0234 N67-11852
Bistatic radar pattern for drop size distribution in model precipitation volume
[P-3] 03 p0368 N67-13033
Radar observations of Caribbean hurricanes
[ML-66299] 04 p0571 N67-13611
Nature, size, and velocity distribution of random scatterers gathered by pulse radar on two wavelengths using vertical fixed beams 04 p0512 N67-13929
Motion and intensity characteristics of severe thunderstorms studied by weather radar 07 p1116 N67-16897
Radiosonde and radar sounding of troposphere and tropopause during clear weather, fall 1963
[T-R-629] 07 p1118 N67-17917
Operational evaluation of weather information remoting and display system
[RD-66-51] 08 p1303 N67-18210
Atmospheric turbulence in clear air above thunderstorms and relationship to weather radar pictures 08 p1304 N67-18254
Radar meteorology fundamentals and progress related to weather prediction and air traffic control
[SRDS-RD-66-65] 10 p1673 N67-21436
Storage circuit for improved signal to noise ratio of weather radar set 11 p1817 N67-22005
Precipitation measurement over ocean by weather radar 11 p1912 N67-22006
Selector-analyser unit for automatic evaluation of reflected weather radar signal 11 p1817 N67-22007
Weather radar applied to measurement of surface precipitation
[RCS-OSD-1366] 11 p1916 N67-22161
Quantitative determination of point and area precipitation by radar echo measurements
[ECOM-66023-F] 11 p1917 N67-23275
Low cost weather contouring device for use by high altitude radar controller
[RD-66-90] 14 p2372 N67-27190
Doppler radar applications to storm dynamics and effect of wind shear and water vapor on measurements
[AFCRL-67-0109] 15 p2741 N67-28388
Pulse-to-pulse radar backscatter measurements of precipitation above and below bright band, orographic effects on rain, and radar view of lee-wave or rotor radar echo
[ECOM-66712-4] 16 p2882 N67-29088
Moisture and radar analysis of heavy tropical storm in Florida
[ML-67088] 16 p2924 N67-29441
Rain gauge and quantitative radar observations for determining rain microwave attenuation
[ESD-TR-67-241] 18 p3289 N67-31869
Spectrum, spatial uniformity, and frequency correlation defined for radar clutter and precipitation echoes
[TG-599] 18 p3234 N67-32523
Relationship between radar signal estimators and dynamic processes, and statistical method of meteorological radar
[FTD-MT-65-34] 21 p3882 N67-35416
Weather radar rainfall measurements at range of 75 miles and analysis of raindrop size data obtained from several locations
[ECOM-02071-1] 21 p3882 N67-35609
Radar echo distributions over United States
[AFCRL-67-0232] 22 p4000 N67-37561
Reducing effects of parametric amplifier on weather clutter of surveillance radar receivers
[RD-67-41] 23 p4212 N67-38306
Radar reflectivity measurements role in identifying hail storms and tornadoes
[TM-17] 23 p4278 N67-38388
Radar observations of Hurricane Inez, October 1966
[ML-67291] 23 p4281 N67-39151

WEATHER STATION

SEE METEOROLOGICAL STATION

WEATHERING

Effect of synthetic fiber and weathering variables on tensile strength of cloths
[PR-2] 01 p0090 N67-10454
Flexible epoxy resins and coatings with improved weathering properties
[AD-645798] 11 p1904 N67-23164

WEATHERPROOFING

Evaluation of rain erosion resistant materials for helicopter rotor protective covering
[SEG-TR-65-53] 15 p2840 N67-28183

WEBER FUNCTION

Fortran program for computation of Weber functions and first derivatives
[NASA-TN-D-3833] 09 p1422 N67-19883

WEDGE

Stress distribution in orthotropic wood half-plane and wedge subjected to concentrated load
[FPL-54] 02 p0216 N67-12027
Base pressure and surface pressure measurements in conjunction with schlieren and shadowgraph observations of half angle wedges with various seperation edge shapes - lip shock
[NASA-CR-81031] 05 p0695 N67-14905
Surface currents induced on wedges under plane wave illumination
[AFCRL-66-742] 10 p1607 N67-20680
Scattering field and reflection amplitude of surface wave diffraction on rectangular wedge 11 p1949 N67-21898
Digital technique for computing position of photometric wedge when measuring optical density of sea water 11 p1879 N67-22361
Nonequilibrium supersonic flows past pointed bodies
[ARL-66-0208] 14 p2516 N67-26968
Thermo-gasdynamic characteristics of wedge-shaped supersonic aircraft or missile
[DLR-FB-66-85] 17 p3177 N67-30759
Reynolds number effects in near wake behind wedge at supersonic and hypersonic speeds 23 p4030 N67-37508
Wakes behind cylinders and wedges in rarefied gas flow, and surface and base pressurements at Mach numbers 3 and 4 23 p4030 N67-37509
Effects on injecting nitrogen through base mass on laminar wake behind 6-degree half-angle wedge 23 p4030 N67-37510

WEDGE FLOW

Hypersonic wind tunnel stagnation conditions, wedge flow measurements, transonic entry capsule configuration, and internal pressure in conical pintle nozzle 02 p0248 N67-12115
Computer techniques for calculating supersonic nonequilibrium flow of reacting and relaxing ideal gas over wedge and cone
[D1-82-0548] 06 p0987 N67-16134
Flow through three shock system in corner
[ARC-CP-727] 07 p1061 N67-16776
Splitter plate and suction wake effects on pressure drag behind wedge 08 p1274 N67-19310

Two different interpretations of measured dissociation rate constants and effects on coupled vibrational dissociational flows of oxygen over wedge
[NASA-TN-D-4028] 16 p2290 N67-30028
Laminar flow separation on flat plate-wedge compression surfaces in hypersonic strong interaction regime
[CAL-AF-1894-A-3] 19 p3432 N67-32540
Exact calculations of lift and drag produced by wedge in supersonic flow either directly or by interference
[ARC-R+M-3478] 22 p3956 N67-37046
WEIBULL DISTRIBUTION
Estimating procedure using electronic digital computers applicable to experiments in which mixed Weibull distribution is statistical model
[NASA-TM-X-53422] 02 p0230 N67-11352
Bayesian analysis of Weibull process with unknown scale parameter
[RAC-TP-215] 09 p1470 N67-19624
Long term distributions of visually estimated wave heights and periods for sea zones on North Atlantic and North Pacific Oceans using Weibull distribution function
[REPT.-66-12-S] 11 p1871 N67-23664
Basic statistical estimation methods and Weibull distribution theory applied to fatigue life experiments
[DLR-FB-67-10] 14 p2564 N67-27256
Mean square invariant forecasters for some Weibull distributions
[AD-650611] 16 p2910 N67-29409
Estimation of location parameters of Pearson type III and Weibull distributions in nonregular case and other results in nonregular estimation
[ARL-66-0233] 17 p3089 N67-30217
Methods for maximum likelihood estimation of Weibull parameter and estimation of weighted regression parameters in class of growth functions
[AD-653099] 19 p3478 N67-33838
Theory and tables for tests of hypotheses concerning mean and variance of Weibull population
[ARL-67-0059] 20 p3668 N67-34669
Weibull distribution function for extreme value distributions
[ARL-67-0023] 20 p3671 N67-34956
Optimum tests with grouped data from exponential distribution
[REPT.-66-C-396] 21 p3879 N67-35876
WEIERSTRASS FUNCTION
S ELLIPTIC FUNCTION
WEIGHT
SA LIGHTWEIGHT
SA MOLECULAR WEIGHT
SA STRUCTURAL WEIGHT
SA THRUST-WEIGHT RATIO
Data sheets on launched and projected active communications satellites, including dimensions, orbits, weights, facilities, and costs
[NASA-TT-F-10941] 12 p2218 N67-25602
Apparatus for weighing heavy loads to accuracy of 0.001 percent
[RFP-839] 19 p3454 N67-33598
WEIGHT ANALYSIS
Wiring weight for flight vehicles evaluated and use of flat cable considered
[SM-52330] 02 p0245 N67-12100
Computer program for calculating weight gain in gas-metal reactions
[NAA-SR-MEMO-11967] 07 p1100 N67-17446
Single pan balance weighing system to determine corrosion
[KAPL-M-6577] 10 p1635 N67-21648
Weight-area tradeoff evaluation of radiator used in SNAP-8
[NASA-CR-72369] 11 p1922 N67-23850
Configurations, integration, and weights of earth orbital manned space station
[NASA-TM-X-59701] 14 p2630 N67-27652
Weight optimization of flat truss-core sandwich panels under lateral loads
[NAEC-ASL-1111] 22 p4152 N67-37001
Flow through electrodes for high current density hydrox fuel cell stack
[NASA-CR-69290] 23 p4183 N67-38938
WEIGHT FACTOR
Structural weight factors in aerospace vehicle and ship performance and design materials
[ARA-304-6, PT.-1] 07 p1200 N67-17627
Fast neutron weighting factors for manrated SNAP reactor applications
[NAA-SR-MEMO-11961] 07 p1130 N67-17866
Stiffener eccentricity and location influence on minimum weight design aspects of stiffened cylinders under compression
[NASA-CR-81695] 07 p1204 N67-18030
Design, weight, and performance of new thermionic reactor concept
08 p1366 N67-18227
Minimum weight design of portal frame for alternate loading
[TR-3] 09 p1519 N67-19578
Weight scaling factor graphs for basic SNAP reactor shield configurations
[NAA-SR-MEMO-11971] 10 p1681 N67-21015
Bulk weight of coke charge determined by gamma radiation from cobalt 60
10 p1648 N67-21278
Flight tests to determine effects of altitude and weight on height-velocity diagram of single engine helicopter
[FAA-ADS-94] 11 p1784 N67-23430
Design manual for fabricating ground mounted inflatable structures with lowest possible weight
[TR-67-35-ME] 14 p2621 N67-26491
Reliability, weight, and environment requirements of electron tubes for spacecraft application
[NASA-TN-D-3723] 15 p2861 N67-28751
Spacecraft power supply system and component reliability, efficiency, weight factors, and electromagnetic compatibility
[NASA-CR-84816] 15 p2645 N67-29771
Heat balance, pressurization, and minimum weight design criteria for inflatable structures in near-planetary atmosphere
[NASA-CR-84829] 15 p2861 N67-29789
Nuclear electric spacecraft configurations effects on mass of spacecraft radiation shield, heat rejection radiators, booster adapter, and aerodynamic shroud subsystems
[NASA-CR-84906] 16 p2974 N67-29431
Age, weight, and parental longevity effects on trends in systolic blood pressure in thousand aviator cohort over 24 year period
[NASA-CR-85973] 18 p3216 N67-31643
Weight constraint influence on optimal motion parameters of variable mass body in gravitational field
18 p3230 N67-31846
Effects of weight limitations on optimal motion of variable mass body with limited velocity jet
[NASA-TT-F-10439] 22 p4145 N67-37996
Optimum antenna weight distribution curves for six techniques to erect large aperture antennas
[NASA-CR-88572] 24 p4406 N67-39726
Weight coefficients of Lukz applied to numerical evaluation of integral equation in linearized problem of impulsively-moving flat plate in rarefied gas flow
[ARL-67-0124] 24 p4422 N67-39736
Weighting factors combined with individual value functions for 250 candidate orbits for Voyager Mars missions to develop computer-determined overall value functions for optimum orbits
[NASA-CR-89731] 24 p4528 N67-39764
Preliminary power system configuration tradeoffs to select optimized systems with respect to reliability and weight - manual
[NASA-CR-89696] 24 p4279 N67-40098
WEIGHTING /MATH/
Combinatorial formula for calculating coding vector sums - weight distribution moments of binary code - communication system
02 p0238 N67-12143
Fixed-X linear multiple regression model used in conjunction with electronic computer to determine weighting of relevant variables in policy implementation problems
07 p1219 N67-18975
Tables for elementary weights of Runge-Kutta formulas of first eight orders and for relations of explicit formulas through order seven
[NASA-CR-81982] 07 p1116 N67-18187
Identification of linear time invariance stochastic dynamical systems by nonlinear weighting of noisy measurements
[NASA-CR-84389] 14 p2606 N67-27677
Synthesis of linear dynamical control systems from prescribed weighting patterns
[RADC-SP-66-11] 18 p3056 N67-31809
Weighting function in spatially dependent fission product poisoning code of IBM 7090 computer
[AWRE-O-49/66] 17 p3111 N67-31042
Recurrent relations for multiplicities of weights and multiplicities of complex semisimple Lie algebra representations
[NP-16880] 19 p3488 N67-33852
Analytical method for locating new satellite observation stations
21 p3781 N67-35867
Electromechanical weighted-area integrator, radiation configuration factors, and thermal similarity of models
[NASA-CR-66135] 21 p3849 N67-36017
WEIGHTLESS FLUID
Liquid propellant recirculation experiments in tank models under low level acceleration
[NASA-TN-D-3729] 04 p0629 N67-13899
WEIGHTLESSNESS
SA FREE FALL
Method for measuring energy expended in rowing task completed during 12-second zero gravity parabola
[AMRL-TR-65-205] 01 p0015 N67-10676
Hormone effects on plant growth in absence of gravity, and effect of weightlessness on growth and orientation of roots and shoots of monocotyledonous seedlings in biosatellite
[NASA-CR-79713] 01 p0017 N67-10678
Biosatellite A - weightlessness, radiation, and general biological experiments, Delta Launch Vehicle, tracking and recovery, and flight sequence
[NASA NEWS RELEASE-66-313] 02 p0212 N67-11350
Experimental investigations of biological, physiological, and psychological factors in aviation and space flight environments
[JPRS-36272] 02 p0176 N67-11401
Interaction between visual and vestibular analyzers during weightlessness
02 p0207 N67-11652
Behavior of propellant liquid-vapor interface outflow from cylindrical space vehicle tanks in weightlessness
[NASA-TN-D-3746] 03 p0329 N67-11859
Spatial orientation and weightlessness problems in manned space flight
[NASA-CR-80123] 03 p0223 N67-12177
Theory of coplanar two-bar zero gravity simulator
[NASA-CR-79615] 03 p0268 N67-12218
Bubble mechanics, boiling heat transfer, and propellant tank venting in zero gravity environment - storage and handling of cryogenic liquid propellants in orbit
[NASA-CR-652] 03 p0262 N67-12780
Radio antenna and radioelectric indoor of weightlessness laboratory
[TP-576/1966/] 04 p0519 N67-12844
Static and dynamic behavior of free liquid-vapor interface in weightless environment
04 p0621 N67-12943
Synergistic effect of weightlessness and radiation on white blood cells during Gemini 3 mission
[NASA-CR-86621] 04 p0483 N67-14025
Space biology and medicine - interplanetary trajectories, impact and nonimpact acceleration, weightlessness, cosmic radiation, physiological telemetry, astronaut training, and life support
[JPRS-36925] 04 p0494 N67-14143
Water immersion technique to simulate ingress and egress maneuvers under weightlessness conditions in six degrees of freedom for astronaut in pressurized suit
04 p0608 N67-14251
Lack of response to thermal stimulation of semicircular canals during parabolic flight weightlessness for study of caloric nystagmus mechanism in man
05 p0697 N67-15149
Onboard centrifuge as prophylactic and therapeutic device to prevent debilitation from effects of weightlessness during extended manned space missions
05 p0692 N67-15141
Needs, plans, and identification of pathologic effects on vestibular organs with prolonged exposure to weightlessness
05 p0697 N67-15142
Small animal space station model mechanical details and testing for application to long term space flight studies of movement freedom in weightless environment
05 p0699 N67-15143
Hydrostatic and hydrodynamic behavior of liquid propellant at low and zero gravity
06 p0851 N67-15999
Water and carbon removal from carbon dioxide reduction systems in weightless environment
[ER-6090-2] 06 p0815 N67-16005
Mathematical expression for ship rates for up, down, and zero gravity annular two-phase flow
[ORNL-TM-1819] 07 p1202 N67-17787

Motion analysis for heavy liquid enclosed in partially filled vessel under weightlessness
[NASA-CR-81711] 07 p1068 N67-18049
Integrated ergometer/lower body negative pressure chamber system for studying physiological response to weightlessness
[LMSC-4-06-66-8] 10 p1567 N67-21548
Science fiction works and propositions on space environment, life support, weightlessness, and lunar exploration
[FTD-MT-64-243] 10 p1761 N67-21431
Communication system for connecting nine personnel stations and public address system for underwater operations - zero G simulation
[NASA-TM-X-53547] 11 p1823 N67-22844
Liquid-vapor interfacial behavior following termination outflow from cylindrical tank in weightlessness
[NASA-TN-D-3697] 11 p1860 N67-22865
Neutral buoyancy zero gravity simulation method 12 p2062 N67-24278
Exercise device for astronaut physical conditioning during weightlessness 12 p2031 N67-24279
Physiological weightlessness as environmental factor in functioning of biological cell 12 p2025 N67-24431
Venting system for use with cryogenic propellants to control tank pressure during zero-gravity coast
[NASA-CR-72113] 12 p2280 N67-25068
Flight test of WASP rocket to study slosh dynamics in near zero gravity
[NASA-TN-D-3985] 14 p2617 N67-26547
Human biomechanics and space orientation during weightlessness
[NASA-TT-F-10611] 14 p2451 N67-26574
Effects of cohesion and adhesion forces on fluid motion under weightlessness
[NASA-TT-F-10668] 14 p2518 N67-27521
Classical pendulum problem in weightlessness environment of artificial earth satellite
[FTD-TT-65-1563] 15 p2795 N67-28681
Thermal, weightlessness, and corpuscular radiation environments, meteoritic damage, and vacuum equipment for spacecraft testing - conference
[ESRO-SP-13] 15 p2343 N67-32181
Zero G test facilities, and two-phase liquid-vapor fuel tank design for satellites 15 p2344 N67-32186
Physical and biochemical changes in bones of dogs in weightlessness environment simulated by water buoyancy system
[NASA-CR-97661] 15 p2215 N67-32832
Hypothermic suspended animation for protection of mammalian hearts against accelerative stress and reduced gravity
[NASA-CR-97449] 20 p3570 N67-34021
Feasibility of noninvasive venous pressure measuring methods during weightlessness
[NASA-CR-97444] 20 p3573 N67-34451
Capacitance technique of gauging orbiting spacecraft liquid propellant tanks in zero gravity environment
[NASA-CR-97496] 20 p3641 N67-34606
Frequency and viscous damping of liquids during weightlessness - liquid sloshing characteristics of liquid-vapor interface in zero Bond number environment
[NASA-TM-D-4132] 20 p3635 N67-34299
Subcritical liquid oxygen storage and supply system for use in weightless environment
[AMRL-TR-66-178] 22 p3975 N67-36979
Liquid drop dynamics and critical state of liquid in zero gravity environment
[NASA-CR-80747] 23 p4033 N67-37923
Effect of exteroreception on motor reaction of pigeons exposed to brief weightlessness 25 p4194 N67-39194
Psychomotor performance of men during weightlessness 23 p4194 N67-39199
Preliminary analysis of Biosatellite II space flight effects on variety of plant and animal species under weightlessness
[NASA NEWS RELEASE-67-239] 23 p4196 N67-39216
Weightlessness - principles, effects on manned space flight, and simulation
[NASA FACTS S-5/S-07] 24 p4523 N67-40440
WEIGHTLESSNESS SIMULATION
Physiological indices changes occurring in humans during prolonged state of physiological rest 02 p0195 N67-11497
Rotary test to determine latent forms of motion sickness in astronauts under conditions of weightlessness - vestibular effect 02 p0195 N67-11548
Vestibular changes encountered by Russians during space flights, parabolic flight of aircraft, and simulated laboratory experiments 05 p0654 N67-15122
Free fall tests to study and simulate weightlessness for aerospace application 06 p1362 N67-18667
Growth orientation of grain plants under simulated weightlessness conditions
[NASA-CR-75092] 09 p1491 N67-19673
Space environment effect on spacecraft design, and laboratory simulation of weightlessness and combination of vacuum, heat sink, and thermal radiation sources
[ESRO-TM-47] 11 p1855 N67-22500
Astronaut performance during ingress and egress through airlocks and passageways evaluated in ground, aircraft, and water immersion tests simulating weightlessness
[NASA-CR-66340] 11 p1901 N67-23238
Astronaut performance during ingress-egress maneuvers through airlocks and passageways studied by water immersion simulation techniques
[NASA-CR-66343] 11 p1901 N67-23242
Feasibility of silicone submersion for weightlessness simulation
[NADC-ME-6630] 13 p2021 N67-24056
Small diameter tanks and magnetic fluids for laboratory simulation of low-gravity liquid behavior
[NASA-CR-83856] 13 p2307 N67-25634
Air cushion vehicle and analog simulation of zero gravity satellite to determine optimum fuel consumption
[NASA-CR-83902] 13 p2409 N67-25944
Annotated bibliography of weightlessness simulation using water immersion techniques
[LMSC-5-24-65-3/5B-65-2, REV. 1] 15 p2638 N67-28573
Space vehicle and aircraft antenna study of weightlessness laboratory receiving antenna program
[NASA-TT-F-11076] 18 p2854 N67-29023
Analysis of astronaut capabilities to perform extravehicular maintenance and assembly functions under simulated weightlessness
[NASA-CR-859] 21 p3773 N67-36491
WELD STRENGTH
Low cycle fatigue strengths of dissimilar welds and superimposed fatigue-thermal cycling effects in simulated reactor conditions
[SWRI-1228-4-39] 04 p0579 N67-14067
Fatigue and crack growth of large scale uniformly loaded simply supported tee-fillet welded rectangular rib-stiffened plates
[NASL-TM-6] 10 p1767 N67-21576
Codes, specifications, and acceptance standards for weldments
[ORNL-P-2615] 12 p2106 N67-23728
Tension, compression, and impact testing of maraging and alloy steels and titanium alloy - welding materials for submersible pressure hulls
[REPT.-5-10-67-3] 13 p2341 N67-26343
Varestraint tests to determine hot cracking in welded high strength steel
[MEL-13/67] 15 p2717 N67-32246
WELDABILITY
Steel weldability criteria 06 p0716 N67-14612
Weldability and elevated temperature stability of refractory metal alloys
[NASA-CR-72073] 08 p1290 N67-18695
Electron beam welding application in fast reactor technology - weldability of reactor construction materials
[KFK-494] 12 p2106 N67-23688
Metal extrusion, weldability, time-temperature parameters for aging, brazing, creep rupture, pretest annealing, and convection loop tests in connection with high temperature materials 12 p2234 N67-25255
Thermal properties, electrical and oxidation resistance, tensile strength, hardness, and workability of niobium and tantalum alloys
[BM-RI-6984] 17 p3091 N67-31196
WELDED JOINT
Evaluation of cross-wire resistance welded joints used in electronic assemblies for aerospace applications
[NASA-TM-D-3716] 02 p0283 N67-11327
Titanium alloy studies on phase transformation and additive effects on welded joints, and hot and cold rolling
[JPRS-36376] 02 p0409 N67-13656
Phase transformations in welded titanium alloy joints 02 p0409 N67-13657
Increased plasticity in sheets and welded joints of titanium alloys with zirconium and rhenium additives 02 p0409 N67-13658
Weld repair of aluminum fuel and liquid oxygen containers for Saturn S-IVB program 03 p0462 N67-12704
Optimized composite welded joint design for Saturn booster common bulkhead
[NASA-CR-80155] 03 p0464 N67-12859
Sterilization effects on soldered and welded joints, electronic equipment, processes and materials, electric connectors, and wiring and cabling 05 p0683 N67-14783
accessories
Aging effects on dissimilar metal welded joints with multipass welding of Hastelloy X and Hastelloy W filler metal
[BNWL-390, PT. 1] 06 p0856 N67-16522
Effects of various heat input rates on steel welds
[NASA-TM-X-53537] 06 p0888 N67-16541
Mechanical properties of spot welded joints containing corrosion defects in Centaur aft bulkhead - tank 1D
[ZZL-66-060] 07 p1096 N67-17920
Resistance welding of Zircaloy end closure joints of turbular fuel elements
[AECL-2814] 08 p1222 N67-19250
Ultrasonic flaw detection in welded steel joints
[V-318-66-OE] 10 p1638 N67-20678
Gammagraphy and ultrasonic flaw detection to maintain quality control in welded joints of thick-walled vessels 10 p1641 N67-21230
Gamma flaw inspection of welded joints in gas and petroleum trunk pipelines 10 p1641 N67-21232
Cobalt 60 and cesium 137 for flaw detection of welded seams of boilers and pressure vessels 10 p1641 N67-21233
Mobile flaw detection unit that inspects welded joints and castings with iridium and europium isotopes 10 p1643 N67-21243
Welded seams inspected by flaw detection procedure using cobalt 60 and iridium 10 p1643 N67-21246
Manufacturing technology of glue-welded aluminum joints
[FTD-MT-65-279] 10 p1647 N67-21354
Welded tubular tee connections made by drawing die of circular cross section through elliptical cutout in wall of main tube followed by butt welding of extension tube to opening
[LA-3517] 11 p1889 N67-23288
Tension, torsion, and reverse bend testing of coldwelded copper to aluminum butt joint transition piece
[NASA-CR-72204] 11 p1897 N67-23851
Mechanical testing and metallographic examination of aluminum to copper coldwelded joints after thermal exposure - SNAP-8 electrical terminal
[NASA-CR-72194] 11 p1897 N67-23856
Influence of notch sharpness on welded connections of high strength steel
[EURAEC-1761] 13 p2327 N67-25691
Feasibility of pulsed argon arc welding of aluminum alloy joints in vertical and horizontal planes 13 p2329 N67-26181
Effects of added material during manual argon arc welding on structure, strength, and plasticity of welded joints 14 p2555 N67-27086
Effects of added material during automatic arc welding on structure, strength, and plasticity of welded joints 14 p2555 N67-27087
Destructive and metallographic testing of plasma arc welded titanium alloy joints
[GDC-ERR-AN-965] 14 p2544 N67-27219
X-ray indications in gaseous oxygen line longitudinal weld and effect on properties of tubing
[NASA-CR-84497] 14 p2548 N67-27630
Mechanized ultrasonic scanning system for testing butt welds in large aluminum propellant tanks
[NASA-TM-X-53598] 16 p2898 N67-30166
Bonding agents evaluated as substitutes for welded joints for acoustic scale models of ships
[REPT.-708.132] 20 p3646 N67-34223
Metal erosion in acid and alkaline solutions and mechanical properties of welded seams
[FTD-HT-66-378] 20 p3648 N67-34361
Mechanical properties of welded low alloy seams by chemical composition of

metals 20 p3657 N67-34543
Joining of refractory-austenitic bimetal tubing of niobium and stainless steel using electron beam, gas tungsten arc, and plasma arc welding techniques
[NASA-CR-72275] 21 p3860 N67-36029
Radiographic and ultrasonic testing of welds in steel thicknesses up to 300 mm
[EURAEC-1859] 23 p4259 N67-39015
Algorithm and calculation methods for programmed control in finishing longitudinal and transverse welded joints in panels of single and double curvature 23 p4361 N67-39189
Effects of metallurgical changes and geometrical discontinuities on fatigue strength of base metal and heat affected zone of mild steel welded joint
[MTB-010051] 24 p4489 N67-40375
WELDED STRUCTURE
Acoustic reliability testing of continuously welded and spot welded steel section models for ship hull construction
[TDCK-46398] 01 p0115 N67-10465
Guide for interpretation of nondestructive tests of welds in ship hull structures
[SSC-177] 01 p0079 N67-10937
Ultrasonic techniques using reradiated sound energies for nondestructive testing of weldments
[TR-66-33] 10 p1636 N67-30473
Design and development of all welded and brazed instrumentation ports for nuclear engine for rocket vehicle applications reactors
[NASA-CR-83200] 10 p1674 N67-30739
Carbon and graphite, sterilization of impact liners, nonmagnetic material for welded structures, and other materials science studies 12 p2105 N67-23649
Bibliography on high yield strength steels and weldments
[PR-5] 13 p2119 N67-24486
Prospects for ultrasonic testing of welded structures in India 13 p2329 N67-26050
Application of welded thin metal in new communication cable designs
[AD-646536] 14 p2504 N67-26788
Fatigue and crack propagation of large scale uniformly loaded tee-fillet loaded welded rectangular rib-stiffened plates
[TM-7] 14 p2636 N67-27180
Metallurgical analysis of handling tool lifting eye weldment and surface crack formation
[NASA-CR-84478] 14 p2546 N67-27510
Parent metal for use in researching brittle fracture of large weldments
[EURAEC-1409] 15 p2721 N67-27920
Reradiated ultrasonic sound energy for nondestructive testing of steel butt welds
[QPR-5] 15 p2720 N67-28062
Residual stress in welds of structural elements
[PR-2] 19 p3542 N67-33706
Controlled gas diffusion in titanium and titanium alloy welding seams 22 p4053 N67-37163
Submerged double-arc welding method for production of titanium alloy structures of medium and large thicknesses 22 p4053 N67-37163
Procedure for bonding caps to aluminum tubes by capacitor discharge magnetic forming welding
[DUN-1941] 22 p4055 N67-37513
Ultrasonic weldments inspection on equipment tower
[REPT.-6791.279] 22 p4097 N67-37765
Dispersion strengthened tantalum base alloys - development with evaluation of oxygen contaminated and welded compositions
[NASA-CR-72093] 24 p4464 N67-39595
Delta ultrasonic inspection technique using reradiated sound energies for nondestructive testing of weldments
[TR-67-33] 24 p4488 N67-40400
WELDING
SA ACETYLENE
SA ARC WELDING
SA BRAZING
SA DIFFUSION WELDING
SA ELECTRIC WELDING
SA ELECTRON BEAM WELDING
SA FUSION WELDING
SA GAS WELDING
SA PRESSURE WELDING
SA SPOT WELDING
SA ULTRASONIC WELDING
Acoustic measurements on ship models having continuously welded, and spot welded steel sections
[TDCK-46397] 01 p0115 N67-10464
Hydrogen-induced-cracking technique for studying residual stresses in weldments
[SSC-174] 01 p0161 N67-10633
Phase transformations in titanium alloys subjected to continuous cooling during welding 02 p0275 N67-11798
Delayed failures and crack formations during welding of titanium alloys and steels 02 p0275 N67-11799
Quality assurance of weldments for Saturn S-IC assembly during manufacturing 03 p0403 N67-12717
Ceramic fuel material properties, and welding techniques for small irradiation capsules
[AERE-M-1901] 04 p0554 N67-13543
U.S.S.R. research on weldability of aluminum alloys
[ATD-66-108] 04 p0560 N67-13671
Recent developments in welding and adhesive bonding, and ultrahigh strength materials for structural applications 05 p0711 N67-14862
Review of metallurgical research in Chile 05 p0799 N67-14897
Copper-cobalt silicon rotating seam-welding electrodes developed for soldering machines 06 p0885 N67-15511
Stainless steel cladding of heavy gauge steels, and welding effects
[EURAEC-1685] 07 p1101 N67-17531
Welding and inspection techniques for 2219-T81 aluminum alloy - bibliography and industry survey
[NASA-CR-72097] 07 p1092 N67-17619
Cold welding evaluation techniques studied by using beryllium-copper pellets and 321 stainless steel wear plates
[NASA-CR-65503] 08 p1385 N67-18943
Thermal conditions, operating methods, and temperature safety margins for welding of very thick steel vessels
[EUR-2690.F] 08 p1294 N67-19192
Dissimilar metal joining by solid state welding
[NASA-CR-82460] 08 p1288 N67-19274
Ultrasonic nondestructive inspection technique for evaluation of weldments
[TR-66-19] 10 p1637 N67-30501
Transformation in steel during fast heating tests for brittle fracture research on large weldments
[QR-9] 10 p1653 N67-30697
Preliminary research on breaking strength of weldments on heavy gauge tensile steels
[EURAEC-1613] 10 p1648 N67-21902
Welding parameters and elevated temperature aging and strength characteristics of transition joints between chromium molybdenum alloy steel and stainless steel
[NASA-CR-72395] 11 p1897 N67-23541
Explosive welding of aluminum liners in Zircaloy-4 tubing by mandrel and external die methods
[BMI-X-412] 11 p1891 N67-23183
Austenitic grain growth of manganese-molybdenum and manganese-nickel-molybdenum steels during heat cycle simulating vertical slag welding conditions
[EUR-2999] 11 p1990 N67-23184
Magnetic analysis of transformations in AMMO steel during heat cycles simulating welding cycle
[EUR-2511] 11 p1990 N67-23219
Welded connection made from thick high-strength steel - tests using fracture criteria based on new concepts and influence of strain rate
[EURAEC-1712] 12 p2105 N67-23529
Quantitative relationship between weldment defects and atmospheric contamination in inert gas shielding medium
[NASA-CR-83944] 13 p2325 N67-26756
High frequency resistance welding method for production of cable sheaths
[AD-646544] 14 p2504 N67-26780
Cold welding of copper and cohesion coefficient in ultrahigh vacuum
[SA-B2369-4] 14 p2548 N67-27560
Effects of welding, heat treatment, and aging methods and of added metals on physical properties of alloys
[FTD-MT-64-90] 14 p2568 N67-27021
Deformation and welding characteristics of alumin alloys 14 p2568 N67-27024
Titanium alloy solid state welding techniques for fabricating structural components
[GDC-ERR-AN-954] 14 p2544 N67-27220
Welding process with X-ray control of weld quality
[WAPD-TRANS-46] 15 p2721 N67-27922
Ultrasonic techniques using reradiated sound energies for nondestructive testing of weldments
[TR-67-21] 15 p2720 N67-28054
Welding precipitation-hardening stainless steels
[NASA-TM-X-52382] 16 p2899 N67-29178
Welding preparations and processes for stainless steels and joint quality
[NASA-TM-X-52576] 16 p2899 N67-29179
Consolidation, joining, metal removal, and forming techniques used in fabricating gas turbine components 16 p2899 N67-29899
Research on steel austenitization, superheating, structure and hardness after slag welding, and stress relaxation
[EURAEC-1891] 16 p2899 N67-29727
Welding methods for cladding of steel plates and shells with stainless steel tape
[EURAEC-1692] 16 p2910 N67-29625
High energy forming - strain in deformed blank, blank stabilization, strain gauge measurements, shock hardening, strain rate experiments, high strain rate ductility, and explosive welding
[AMRA-CR-66-05/3] 17 p3071 N67-30478
Time and temperature relationship in solution to various welding problems 17 p3072 N67-30687
Cold molecular welding characteristics of metal pellets on stainless steel wear plates
[NASA-CR-65661] 18 p3273 N67-31981
Gap welding method and application to microcircuit interconnections 18 p3273 N67-31972
Slow speed tachometer for measuring weld wire and carriage feeds
[NASA-TM-X-53615] 18 p3272 N67-32030
Mechanical properties of high-manganese low-carbon steel for welded heavy-section ship plate
[SSC-175] 19 p3467 N67-33025
Optimum compositions for ternary alloys of rhenium with tungsten and molybdenum - Alloying of molybdenum welds with rhenium to increase plastic properties
[FTD-MT-65-445] 19 p3472 N67-33026
Alloying of molybdenum welds with rhenium to increase plastic properties 19 p3472 N67-33028
Metal welding and adhesion techniques in application to aircraft and spacecraft construction 19 p3485 N67-33704
Weldability of titanium and titanium alloys using various welding methods
[TB-71] 20 p3636 N67-34230
Literature survey on fatigue properties of unwelded and welded chromium-molybdenum steel tubings used in aircraft structures
[ARL/EM-204] 20 p3720 N67-34239
Stress-relief embrittlement of AX-140 and E-11018 weld metals
[MEL-116/67] 20 p3639 N67-34260
Advanced forming, welding, and machining processes 21 p3804 N67-36266
Weld-alloy technique for overlaid weld of specific metal to produce predictable alloy with predictable mechanical properties 21 p3840 N67-36323
Welding of nonferrous metals and alloys
[FTD-MT-65-272] 22 p4060 N67-37527
Surface preparation effects on defect potential in welded aluminum alloy Saturn S-IC
[NASA-CR-66008] 24 p4492 N67-39762
Control of time temperature relationships by impingement of carbon dioxide jets in weld vicinity during welding operation for improving weldments in aluminum plate
[NASA-CR-83621] 24 p4499 N67-40154
Statistical correlation between infrared heat radiation and weld joint quality, and nondestructive inspection techniques
[NASA-CR-83649] 24 p4500 N67-40215
WELDING MACHINE
Brief survey of use of magnetic force welding techniques on ferrous, nickel-base, reactive, and refractory metals
[BNWL-422] 20 p3640 N67-34765
WELL
Semi-empirical terms in nuclear potentials - well depths, even-even nucleus, and beta stability 03 p0435 N67-12699
Radioisotopic gauge for measuring water level in deep wells 06 p0886 N67-16219
Proton and neutron single-particle level in

diffuse potential well with spin-orbit calculated for Z greater than 82 and N greater than 126
[JINR-P-2793] 07 p1151 N67-17500
Pulse neutron methods for studying geological sections of well 10 p1623 N67-21288
Petroleum industry use of radioactive isotopes for technical control of wells, and development of producing reservoirs 10 p1623 N67-21291
Induced neutron activity method for determining contact zone of oil-bearing and water-bearing carbonate collectors in cased and uncased wells 10 p1624 N67-21294
Device for recording gamma-gamma ray logs of cement distribution in annulus of cased wells 10 p1775 N67-21296
Critical dimensions of reservoir model for simulating radioactivity methods for studying wells 10 p1775 N67-21299
Radioactive isotopes and nuclear radiations for studying geological section and technical condition of wells 10 p1625 N67-21306
Economic importance of gamma ray and neutron-gamma ray logging, and radioactive isotope methods in solving oil well problems 10 p1625 N67-21310
Gamma ray counting with sodium iodide well-type scintillation detector
[REPT.-1500-562-67] 16 p2849 N67-29647
Thermochemical method using mass spectrometry to obtain well depth for weak intermolecular potentials
[AD-653314] 18 p3220 N67-31513
WEST GERMANY
Theory and experiments in plasma and particle acceleration, theta pinch, magnetic field, and related physics subjects
[JUL-266-PP] 03 p0450 N67-13341
Theory and experiments in plasma acceleration, theta pinch, and related physics subject
[JUL-381-PP] 03 p0450 N67-13342
Construction and operational development of nuclear power plant in West Germany
[EUR-3967.D] 04 p0573 N67-13440
Technical equipment and block diagrams of telemetry ground stations in West Germany
[DLR-MITT.-66-17] 06 p1351 N67-19182
West German interpretation of burden of proof problems connected with cause in radiation damage litigation
[JUL-143-JU] 10 p1776 N67-21761
Extraterrestrial biophysical and biological studies in West Germany - scientific satellite experiment, space simulation effects on animals, plants, and microorganism, and future projects 12 p2024 N67-24424
Management methods used to evaluate priorities and costs of West German space projects and long range planning
[RF-730] 14 p2616 N67-27762
Total intensity and anomaly measured in geomagnetic field of Rise area, West Germany 20 p3622 N67-34465
Yearbook on geophysical observatory in West Germany 20 p3619 N67-34483
Vertical echo soundings of ionosphere over Freiburg, Germany
[REPT.-250-F] 20 p3626 N67-34959
Tabulated ionospheric data with punched card codes as observed by vertical echo soundings at Freiburg station during April 1967
[REPT.-256F] 20 p3626 N67-35093
Flight and altitude tests of scientific instrument package for German research satellite using Nike-Apache for launch in Canada 21 p3927 N67-36150
WESTLAND WHIRLWIND HELICOPTER
Guide for interpreting statistical data on deck landing speeds of Whirlwind helicopters
[ARC-CP-854] 08 p1219 N67-18269
WET CELL BATTERY
Performance and life tests of liquid ammonia reserve primary battery in missile environment
[MOLC-656] 12 p2019 N67-24796
Potentialities of propylene glycol sulfite as electrolyte solvent for high energy battery
[NASA-TM-X-1296] 14 p2449 N67-27261
Fabrication and testing of carbon-zinc batteries capable of storage at temperatures up to 160 deg F
[REPT.-1] 18 p3200 N67-31524
Refractometer for automatic monitoring of electrolyte specific gravity in lead-acid cells
[NRL-6562] 24 p4379 N67-40211
WETTING
Wetting and bonding between aluminum alloys and sapphire
[AMRA-TR-66-19] 01 p0063 N67-10255
Factors affecting wetting and bonding of nickel to sapphire
[AMRA-CR-66-01/3] 15 p2861 N67-28607
Wetting of high and low energy surfaces by liquid adhesives and correlation to bond strength
[PA-TR-3456] 16 p2849 N67-29662
Road surface texture and change in skidding resistance with speed
[RRL-20] 16 p2939 N67-30016
Contact angle hysteresis, wetting of solidified rare gases, and surface properties of mercury
[NASA-CR-72269] 18 p3224 N67-32280
Bibliography on liquid metal wetting methods for oxides
[AERE-BIB-155] 22 p4271 N67-39307
WHALE
Morphological considerations in connection with speed, hydrodynamic structure, and adaptation of whales 20 p3574 N67-34503
WHEATSTONE BRIDGE
Capacitance bridge assembly for dielectric measurements of two terminal capacitors
[TR-201] 06 p0856 N67-16476
Bridge using Wheatstone circuit to measure high-megohm resistors
[SC-TM-66-556] 15 p1594 N67-21500
WHEEL
SA REACTION WHEEL
SA TURBINE WHEEL
Empirical equations for towing resistance to wheel in soft soil
[AD-634622] 15 p2752 N67-27974
Review of current methods for analyzing vehicle wheel performance in soft soil 18 p3363 N67-31925
Effects of springs and suspensions on railroad car wheels running on straight tracks 21 p3895 N67-35951
WHIRL INSTABILITY
Survey of propeller rotor whirl flutter
[NASA-TR-R-264] 16 p2816 N67-30127
WHIRLING TEST
Use of excitation panels to simulate flight loads in helicopter rotor blades during whirl tests
[NAEC-ASL-1100] 06 p0760 N67-16154
Whirling arm test facility for studying steady and unsteady aerodynamics of wings in ground effect
[COA-AERO-174] 21 p3826 N67-35958
WHISKER
Growth characteristics and properties of boron carbide whiskers obtained by vapor deposition method, or in graphite resistance furnace
[NASA-CR-82447] 03 p1294 N67-19132
Electroplating pressure bonding techniques for nickel alumina whisker composites
[AD-648919] 12 p2120 N67-24656
Crystal morphology and growth mechanisms of alpha iron oxide whiskers on iron
[TR-1] 12 p2121 N67-24918
Ferromagnetic domain studies in near perfect single crystal platelets and whiskers of nickel and nickel alloy
[AFCRL-67-0107] 16 p2959 N67-29585
High strength aluminum casting alloys reinforced with whiskers
[NASA-CR-87277] 19 p3474 N67-33904
Structure and growth of localized oxide films and whiskers on iron
[REPT.-67-9D6-SURFC-R1] 20 p3654 N67-34654
Whisker reinforcement of cobalt-base alloys
[NASA-CR-87811] 20 p3659 N67-34820
Aluminum-alloy-sapphire whisker composite material preparation
[REPT.-6142.00100] 22 p4060 N67-38882
WHISTLER
Equatorial hook whistler observed by Injun III
[REPT.-66-50] 05 p0703 N67-14957
Nonlinear wave interaction of whistlers in plasma with sharp or diffuse boundaries
[IC/66/72] 10 p1741 N67-21763
Natural phenomena in very low and extremely low frequency ranges - whistlers, transverse propagation, ionic plasma waves, resonance effects, and hydromagnetic wave propagation
[ESRO-SN-31] 15 p2797 N67-27930
Mechanisms of whistler propagation and very low frequency emission generation
[AFOSR-67-0461] 15 p2702 N67-28234
Observations of whistler mode signal propagation by OGO satellites from very low frequency ground station transmitters
[NASA-CR-84869] 17 p3055 N67-30631
Dispersion of proton whistler phenomena detected by Injun III and Alouette I satellites
[NASA-CR-85586] 17 p3055 N67-30691
Physical model for cyclotron damping of electromagnetic wave propagating in whistler mode
[RM-5356-PR] 20 p3706 N67-34529
WHISTLER RECORDER
Whistler data registration for 1965 through 1966 in Germany 17 p3054 N67-30679
WHITE BLOOD CELL
S LEUKOCYTE
WHITE DWARF STAR
Astrophysical evidence for direct electron-neutrino weak interaction - theoretical models of superluminous white dwarfs with and without neutrino emission process
[NASA-TM-X-57356] 06 p1360 N67-18255
Possibility of selecting quasi-stellar galaxies from blue stars by observations in near infrared
[REPT.-2] 15 p2799 N67-28627
Continuous spectra of hot white dwarfs, and color indexes of such stars with hydrogen and helium atmospheres 17 p3161 N67-31026
WHITE NOISE
Optimal filtering for correlated noise
[RM-5107-PR] 11 p1825 N67-23144
Adaptive filter with inaccuracies approximated by Gaussian white noise input and determination of covariance for most probable residual sequence
[NASA-CR-84794] 15 p2791 N67-28762
Optimum control of system governed by linear parabolic equation with white noise inputs
[NASA-CR-89568] 24 p4422 N67-39483
WHITETOP PROJECT
Rain production in summer, nonorographic, convective clouds and randomized seeding effects 01 p0101 N67-10442
Randomized convective cloud seeding tests conducted over southern Missouri - Project Whitetop 13 p2353 N67-26476
WIDE ANGLE LENS
Aerial photography using wide-angle objectives with shaded filters
[FTD-HT-66-392] 12 p2102 N67-24490
Radiation intensity field in measurements with wide angle apparatus 13 p2370 N67-26435
Cathode-ray tube electron gun incorporating two-dimensional lenses and allowing dynamic deflection defocusing correction for wide angle deflection of electron beam
[PIBMRI-1235.2-67] 21 p3812 N67-35329
Wide angle orthoscopic aerophotographic objective lens system for improving relative opening with simultaneous aligning of aerial film
[FTD-HT-66-792] 21 p3847 N67-35718
WIDEBAND COMMUNICATION
Development and performance of wideband oscilloscope with diode feeding sampling circuit, and of portable cesium beam frequency standard 01 p0072 N67-10439
Wideband receiver system frequency divider 05 p0872 N67-14436
Amplifier design evaluations in study to provide wideband receiver front end for radio astronomy purposes
[NASA-CR-81346] 06 p0857 N67-16635
Design of wideband high efficiency optical modulation system tested over 100-MHz band
[NASA-CR-82929] 09 p1436 N67-19982
Wideband waveguide-mounted ferrite-pencil phase shifters for X-band transmission
[RAE-TR-66327] 17 p3149 N67-31079
Optimal modulation pattern for wideband digital data transmission over troposcatter path
[ECOM-02542-3] 18 p3235 N67-32659
Seismic array response to wideband signals
[TN-1967-20] 22 p4091 N67-37899
Design and construction of miniaturized wideband amplitude-modulated noise generating circuit
[ECOM-3629] 23 p4091 N67-37845
Quantum effects in information transmission systems and analysis of

wideband and narrow band communication systems
[NASA-TT-F-476] 24 p4405 N67-39685
Network synthesis techniques used to determine performance characteristics of filters designed for VHF wideband crystals
[ECOM-3814] 24 p4419 N67-39958
Wideband communication experiments with COMKAS, Japan via Relay II satellite 24 p4410 N67-40330
WIDMANSTATTEN PATTERN
Crystal structure and growth of Widmanstatten ferrite and bainite
[TR-5] 12 p2122 N67-24955
Cooling rates for formation of Widmanstatten pattern in iron meteorites
[NASA-TM-X-55814] 16 p2971 N67-29991
WIDTH
S BANDWIDTH
S SPECTRAL LINE WIDTH
WIENER FILTER
Error analysis of digital equalizing filters related to seismic wave propagation data
[REPT.-5178-64-F2] 01 p0070 N67-11856
Optimal values of filter parameters in phase-lock loop 11 p1845 N67-22495
WIENER-HERMITE EXPANSION
Digital simulation of Hermite-Laguerre /Wiener-Canonical/ expansion of likelihood function for stochastic process
[TR-7] 09 p1468 N67-19742
Brownian motion and Wiener canonical analysis and synthesis applied to nonlinear systems
[REPT.-102-3] 13 p2347 N67-25334
Applicability of Wiener's canonical expansions to problems in cybernetics, intelligence and learning
[TR-8] 15 p2286 N67-31982
WIENER-HOPF EQUATION
Wiener-Hopf method used to solve diffraction of fields of point charge moving uniformly over infinite array of parallel conducting half-planes
[TR-37] 03 p0429 N67-13662
Toeplitz, Hankel, Wiener-Hopf, bounded, and other operators for Hilbert space matrices statistical mechanics and von Neumann spectral theorem 12 p2131 N67-24235
Application of Wiener integral in Euclidean quantum field theory 13 p2275 N67-25729
Wiener-Hopf integral equations with Fourier transforms as generalized functions
[TR-3] 15 p2733 N67-28190
Simultaneous Wiener-Hopf equations and their application to boundary value problems in electromagnetic theory 20 p3688 N67-34716
WIGHTMAN THEORY
Functional formulation of Bogoliubov axioms determining causal S matrix theory
[JINR-P2-3179] 17 p3134 N67-30235
WIGNER COEFFICIENT
Unitarity representations of similitude group of space-time - explicit construction of Wigner spin matrixes and new formulation of Bargmann-Wigner analysis
[IC/67/7] 11 p1936 N67-23481
New formulation of Bargmann-Wigner analysis, and explicit construction of Wigner spin matrixes 11 p1936 N67-23483
Su-3 Wigner coefficients in angular momentum space
[IC/66/108] 11 p1936 N67-23501
Continued fractions and upper and lower bounds in Brillouin-Wigner perturbation scheme
[SR-36] 24 p4490 N67-39628
WIND
SA ATMOSPHERIC CIRCULATION
SA GEOSTROPHIC WIND
SA GUST
SA SOLAR WIND
Simulation of wind fields over Point Arguello California by wind tunnel flow over topographic model
[CER65JEC-JAP66] 07 p1110 N67-17642
Tailing erosion control to prevent radioactive contamination by wind and air transport
[RMO-3600, SUPPL.] 10 p1732 N67-21830
Aruba expedition 1965 - study of air-sea interaction around flat island screen direction of trade winds 11 p1913 N67-22990
Presence of gravity waves and effect of trade wind flow over Aruba 11 p1913 N67-22998
Computerized tropical wind analysis and stream function calculation 13 p2153 N67-23484
Upper atmosphere wind statistics for Australia 12 p2126 N67-23991
Objective weather forecasting - computation of wind fields and hydrostatic barotropic systems
[AFCRL-67-0065] 13 p2350 N67-25131
Computation of initial wind fields for integration of primitive equations 13 p2351 N67-25132
Partial solutions of magnetohydrodynamic equations for flow of ideal compressible fluid for application in wind and cyclonic movements in electricity conducting atmosphere
[NASA-CR-84101] 13 p2397 N67-26405
Mathematical/statistical method for determining maximum response of aerospace vehicle to wind
[KN-67-663/FR/] 23 p4152 N67-26920
Seasonal wind statistical data applied to zonal and meridional wind components over Northern Hemisphere
[REPT.-63] 23 p4242 N67-32847
Radiosonde ascents data by aerological station in Berlin - temperature, pressure, winds, density, refractivity, and sound velocity 23 p4279 N67-32890
Meteorological tracking data from high altitude Robin balloon flights
[AFCRL-67-0433] 24 p4494 N67-39691
Dust devils in relation to Martian yellow clouds
[NASA-CR-89578] 24 p4520 N67-40004
WIND CIRCULATION
Three-dimensional structure of Santa Ana winds - California
[PSW-30] 03 p0723 N67-15317
Diurnal circulations and their climatic significance in eastern Africa 10 p1671 N67-20425
Characteristics of Atlantic trade wind system significant for radio propagation
[IER-29] 17 p3622 N67-30950
Model computations of temperature variations and wind circulations in Martian atmosphere
[NASA-CR-85569] 17 p3150 N67-30834
Diurnal and semidiurnal variations in wind circulation in lower ionosphere 19 p3438 N67-33824
Biennial oscillation in zonal wind and temperature in tropical stratosphere - planetary transport processes in upper atmosphere
[MIT-2341-31] 22 p4041 N67-37674
Contribution of infrared cooling to vertical motion field, and effect in atmospheric energetics - adiabatic cooling 22 p4280 N67-38804
WIND EFFECT
Ocean wave generation by wind observed with airborne wave profiling radar 04 p0626 N67-13485
Analysis of dynamics and changing processes of sand dunes under barren flat ground conditions and in presence of wind 05 p0642 N67-14389
Influence of variable cross wind and thrust misalignment on flight path of unguided rocket 06 p0723 N67-15371
Wind tunnel measurements on wind interference created by light tower model in atmospheric boundary layer
[AD-646838] 06 p0699 N67-15482
Design and operational considerations in establishing ground winds criteria for aerospace vehicle developments 09 p1539 N67-20215
Parallel light beam method to record particles in snow stream carried by wind 11 p1864 N67-22935
Acoustic reverberation at sea surface - wind driven sea surface statistics for determining scattering and reflection strength of surface and subsurface
[P-324] 11 p1936 N67-23540
Four level baroclinic model of steady perturbation in westerly winds 11 p1913 N67-22998
Tides and currents over continental shelf due to winds blowing at angle to coastline
[SN-134-13] 11 p1913 N67-22610
Wind distribution effects on propagation of dust and gas particles in atmosphere
[BUR-3167.D] 13 p2092 N67-25283
Ground wind-induced oscillations of Gemini-Titan air vehicle and erector 13 p2349 N67-21696
Effect of wind on unguided rocket impact predictions
[ECOM-5112] 13 p2366 N67-22324
Formation of ocean waves from wind cyclones, and dynamic propagation of wind waves over ocean surface
[JPRS-41349] 19 p3449 N67-33921
Nonstationary adjoint algorithm for determining launch vehicle flight loads due to winds and turbulence
[NASA-CR-646] 20 p3722 N67-34481
Wind tunnel investigation of ground-wind loads on Eldo launch vehicle in presence of umbilical tower
[NLR-F-251] 22 p4200 N67-38429
Guide for estimating maximum loads on anchoring systems for air-supported structures subject to winds up to 100 mph
[TR-67-54-GP] 23 p4268 N67-32949
Survey on experimental studies of forces exerted on scale model structures by wind and blast waves
[AWRE-R-4/67] 24 p4547 N67-40488
WIND MEASUREMENT
SA ANEMOMETER
SA RAWIN
Small scale features of wind field in upper stratosphere and lower mesosphere
[AFCRL-66-971] 01 p0068 N67-10974
Vector correlation coefficients of upper winds in central Rocky Mountain range
[ECOM-5061] 05 p0732 N67-14965
Upper atmosphere winds measured by gun launched projectiles
[BRL-MR-1767] 06 p0676 N67-15429
Spectral distribution of turbulent fluctuations of wind components 07 p1071 N67-17319
Real time meteorological system providing impact prediction, preliminary trajectory, and wind data for unguided rocket firing
[ECOM-5027] 07 p1113 N67-17969
Jet stream and mountain-wave turbulence measurements by aircraft 08 p1304 N67-18238
Techniques for high altitude measurements of air density, temperature, and wind
[AFCRL-66-627] 09 p1472 N67-19969
Stratospheric and mesospheric wind and temperature measurements at Sardinia, autumn 1963 and spring 1964 - tables
[DLR-FB-66-59] 09 p1474 N67-20213
Random errors in radiosonde measurements of temperature and wind 11 p1911 N67-22901
Development and design of general purpose wind measuring device with automatic recording 11 p1874 N67-22668
Wind parameter transducers with oscillographic recording and automatic printout 11 p1874 N67-22669
Performance evaluation of wind speed and wind direction recording instruments 11 p1915 N67-22910
Wind and temperature measurements from meteorological sounding rocket, firings and computed values for pressure, density, and speed of sound for July, 1966 11 p1917 N67-22417
Extreme wind gust measurements in Australia 12 p2092 N67-23130
Airborne laser techniques used to measure sea state parameters and - velocity and direction of wind adjacent to ocean surface
[EOS-7027-FINAL] 12 p2220 N67-24256
Temperature, pressure, density, and wind measurements in upper stratosphere and mesosphere - tables
[NASA-TM-X-55700] 14 p2820 N67-28284
Spurious balloon behavior and measurement of wind profiles
[NASA-TN-D-3994] 14 p2644 N67-27260
Mesospheric wind data obtained with high altitude Lapi system during summer over Fort Greely, Alaska
[ECOM-5108] 16 p2892 N67-29868
Annotated bibliography of meteorological tower and mast studies pertaining primarily to wind
[WB/BS-5] 16 p2894 N67-29840
Wind conditions, state of sea, visibility, and air temperature data collected by meteorological stations along coastline of France
[REPT.-59] 16 p2895 N67-29888
Clear air turbulence measurements during rocketsonde debris flights in Midwest area on 23 and 24 April 1966 17 p3035 N67-30350
Doppler and dual beam transparent radar spectra used for measuring wind
[AFCRL-66-901] 18 p3265 N67-32550
Rocket measurements of diurnal and semidiurnal S-N wind components in upper atmosphere 19 p3442 N67-33848

Tabulation of wind and temperature measurements from meteorological rocket network firings in September, 1966 19 p3495 N67-33592
Possible forecasting technique for surface wind from geostrophic wind for sea areas [MET-O-773] 20 p3675 N67-35133
Comparison of automatic tracking pilot balloon wind measuring radar system with double theodolite systems [ECOM-5121] 21 p3930 N67-36934
Wind measurements with sounding balloon and radar technique 21 p3991 N67-36531
Wind and temperature data measured by sounding rockets in meteorological rocket network 22 p4007 N67-37243
Wind and temperature measurements and pressure, density, and speed of sound values obtained by meteorological rocket network firings during Dec. 1966 22 p4008 N67-37264
Sodium vapor trail experiments, and wind measurements by photographic method [NASA-CR-80892] 22 p4042 N67-38031
Wind and temperature measurements from meteorological sounding rocket firings and computed values for pressure, density, and speed of sound for January 1967 23 p4261 N67-39302
Wind and temperature data measurements from meteorological sounding rocket firings during February, 1967 24 p4457 N67-39979
Integrated meteor radar system for wind and density measurements in upper atmosphere [SEL-67-046] 24 p4440 N67-39949

WIND PRESSURE
Numerical solutions for differences in ocean planetary boundary layer flow from that of steady-state spiral resulting from temporal wind variations [NASA-CR-80685] 19 p3261 N67-31530

WIND PROFILE
Temperature and wind profiles in stratosphere and mesosphere from acoustic grenade soundings [NASA-TM-X-53621] 08 p0391 N67-13165
Wind profile, climatological statistics, and diurnal variations derived from White Sands meteorological tower data [ECOM-5056] 05 p0732 N67-14709
Heat-momentum exchange coefficient in temperature and wind profiles in atmospheric boundary layer [ECOM-5059] 05 p0792 N67-14736
Atlas Centaur flight wind launch restriction backup procedure [NASA-CR-80919] 05 p0765 N67-14799
Wind and temperature data for first 62 meters of boundary layer at White Sands Missile Range [ECOM-5079] 06 p0907 N67-16440
Rawinsonde wind profile data from Santa Monica, California, used to compute percentage levels of wind speed differences [NASA-TM-X-53525] 06 p0907 N67-16523
Atmospheric wind conditions restricting launch of Atlas Centaur vehicle [NASA-CR-81273] 06 p0974 N67-16690
Tethered airfoil balloon system to measure vertical profiles of temperature, wind speed, wind direction, and humidity in boundary layer [NCAR-TN-16] 07 p1118 N67-17839
Mean wind profiles for Hawaii and Central Pacific islands [HIG-66-13] 09 p1473 N67-19691
Acoustic wind measurement technique for wind profiles from ground to 65 km 09 p1451 N67-20271
Balance equation used to generate geopotential height fields from wind fields for tropical hurricane Carla in 1961 10 p1971 N67-20432
Transponder dart for measuring atmospheric temperature and wind profiles [ESPT-/7003-1] 10 p1782 N67-20554
Improved rocketsonde parachute derived wind profiles [ECOM-5086] 10 p1972 N67-21236
Approximate theory of wind profiles over homogeneous terrain below 200-meters based on planetary boundary layer models [ECOM-01398-1] 14 p2539 N67-26564
Time and space variability of wind derived from tower-mounted anemometers and triple-theodolite pilot-balloon observations at Green River, Utah [ECOM-5099] 14 p2581 N67-26672
Prediction of wind and virtual temperature profiles for periods up to 72 hours from surface through stratosphere [NASA-CR-61170] 14 p2568 N67-27317
Wind profiles from meteorological balloons subjected to power spectral analysis [ECOM-5099] 15 p2741 N67-28272
Data analysis of wind, temperature, roughness, and heat flux profiles recorded at Antarctica meteorological stations - Little America V micrometeorology program [TR-67-46-ES] 16 p2924 N67-29130
Influence of various wind profile properties and disturbances on launch vehicle flight dynamic response [AGARD-546] 16 p2974 N67-29576
Effects of atmospheric wind profile disturbances on dynamic response of space vehicle using statistical methods [NASA-TM-X-53565] 16 p2975 N67-30031
Measurement of upper atmosphere ionization and wind profiles in E region [NASA-CR-86612] 18 p3265 N67-32115
Statistical nonparametric tests used to determine nature of time series - wind speed and direction [ECOM-5123] 21 p3877 N67-35647
Tropospheric wind profile climatology of New Orleans, Louisiana [NASA-CR-80903] 22 p4026 N67-37012
Wind, temperature and Richardson numbers profiles from Project Windy Acres [AFCRL-67-0239] 24 p4485 N67-39796

WIND SHEAR
Space vehicle flight control modes for basic wind profiles - reduction of aerodynamic loads for wind, wind shear, and gust conditions [NASA-TM-X-53397] 05 p0766 N67-14909
IGY and IGC data on vertical wind shears in jet streams over southern U.S.S.R. [T-R-612] 07 p1069 N67-16999
Turbulence climatology - aircraft measurements of jet stream and atmospheric winds, correlation between turbulence, wind, and temperature patterns, and balloon path tracking by radar [AFCRL-66-555] 08 p1303 N67-18235
Statistical correlation between clear air turbulence and high level wind and temperature patterns 08 p1304 N67-18237
Wind data smoothing effect on wind shear, and wind shear calculations for small shear layers [ECOM-5057] 09 p1472 N67-19648
Doppler radar applications to storm dynamics and effect of wind shear and water vapor on measurements [AFCRL-67-0169] 15 p2741 N67-28388
Wind shear and turbulence data for Western Test Range [AWS-TR-199] 15 p2741 N67-28391
Comparison of jimsphere and rawinsonde wind shears [AD-656824] 17 p3096 N67-30209
Distribution of wind shear from surface to 25 kilometers along 90 degree west longitude in Northern Hemisphere - charts [RE-TR-67-4] 19 p3483 N67-32730

WIND TUNNEL
SA CASCADE WIND TUNNEL
SA COMBUSTION WIND TUNNEL
SA HYPERSONIC WIND TUNNEL
SA HYPERVELOCITY WIND TUNNEL
SA LOW DENSITY WIND TUNNEL
SA LOW SPEED WIND TUNNEL
SA SHOCK TUNNEL
SA SLOTTED WIND TUNNEL
SA SUBSONIC WIND TUNNEL
SA SUPERSONIC WIND TUNNEL
SA TRANSONIC WIND TUNNEL
Smoke generator using vaporized oil for flow visualization in wind tunnel [ARL/A-233] 01 p0071 N67-10080
Wind tunnel study of methods of modifying blunt 13 deg half-cone to provide reentry configuration with adequate performance and stability for horizontal landing [NASA-TM-X-501] 02 p0171 N67-11354
Wind tunnel investigation of performance of conical pressure probe at hypersonic speeds [NASA-TN-D-3719] 03 p0362 N67-12794
Temperature measurements in small tube wind tunnel for preparing heat transfer measurements on bodies in hypersonic flow [DLR-FB-66-56] 04 p0547 N67-13459
Boundary layer transition in wind tunnel at hypersonic speed [NASA-TT-F-10362] 04 p0530 N67-13787
High speed wind tunnel tests to determine aerothermodynamic characteristics of closely coupled, high bypass lift/cruise fan propulsion system [R66FPD161] 05 p0754 N67-14432
Pressure scanner unit developed for checking all pressure leads and connections and for providing reference vacuum for transducer calibration in wind tunnel testing [BRL-TN-1616] 05 p0709 N67-15270
Wind tunnel studies of flight characteristics of model parawing utility vehicle [NASA-TN-D-3673] 06 p0790 N67-16684
Exploratory wind tunnel tests of recovery rotor concept in axial flow [NASA-CR-73065] 07 p0969 N67-17638
Wind tunnel for studying two-dimensional turbulent boundary layers in controllable pressure gradients [ARC-R+M-3437] 08 p1261 N67-18261
Controlled-fall technique for wind tunnel simulation of store release at high speeds [ARC-CP-856] 08 p1261 N67-18441
Wind tunnel tests of plane diffuser cascades with low flow rate 08 p1265 N67-18485
Contribution of flight experiments to aerospace research 08 p1289 N67-18961
Aerodynamic characteristics of several wind tunnels 08 p1303 N67-18627
Wind duct studies of blowing and drifting snow in polar regions [R-488] 09 p1472 N67-19660
Wind tunnel experiments on the flow over rectangular cavities at subsonic and transonic speeds [ARC-R+M-3438] 10 p1550 N67-21189
Response times of typical transducer tube configurations for measurement of pressures in high speed wind tunnels [ARC-CP-913] 10 p1631 N67-21304
Wind tunnels for measuring aerodynamic characteristics [NASA-TT-F-346] 10 p1602 N67-21381
Similarity criteria, coordinate systems, and aerodynamic coefficients used in wind tunnel model testing 10 p1552 N67-21382
Wind tunnel installations for aerodynamics testing 10 p1602 N67-21383
Measurement of flow parameters in wind tunnels 10 p1603 N67-21385
Measurement of aerodynamic force and moment with wind tunnel balances 10 p1603 N67-21387
Methods and testing in wind tunnels to obtain aerodynamic measurements 10 p1603 N67-21388
Automatic data recording and processing of wind tunnel measurements 10 p1633 N67-21390
Interference factor tables for correcting data from VTOL models in wind tunnels with 7 by 10 proportions [NASA-SP-3039] 11 p1779 N67-23897
Comparative data on handling qualities of low level strike aircraft based on flight tests and wind tunnel estimates [AGARD-534] 12 p2013 N67-23665
Wind tunnel tests to determine longitudinal aerodynamic characteristics of large scale semispan V/STOL tilt-wing configuration with single propeller [NASA-TN-D-3884] 12 p2009 N67-23793
Spin and wind tunnel tests in application to aircraft design [NASA-TT-F-10613] 12 p2016 N67-25002
Spin testing technique as function of spin of modern aircraft [NASA-TT-F-10611] 12 p2016 N67-25004
Schlieren and hot wire exploration of wakes in wind tunnel supersonic flows [NASA-TT-F-10660] 12 p2064 N67-25007
Wind tunnel tests of recovery parachutes designed for controllable gliding flight [NASA-TN-D-3980] 12 p2016 N67-25055
Determination of coefficients of rotational derivatives during harmonic oscillations of aircraft wing model in wind tunnel 13 p2241 N67-25895
Mach 3 to 7 blow-down wind tunnel facility for investigating boundary layer phenomena in transitional and turbulent range [NOL/TR-66-185] 13 p2201 N67-25477
Performance characteristics of high speed wind tunnels relevant to testing aeroelastic models [ARC-CP-976] 13 p2308 N67-26045
Correlation of wind tunnel and flight test aerodynamic data for five V/STOL aircraft [AGARD-520] 16 p2918 N67-29026
Wind tunnel measurements of interference loads due to interaction between mainstream

and large jet flow from lower surface of bluff body
[ARC-CP-859] 16 p2815 N67-39900
Diffusion of heat from instantaneous point source in turbulent boundary layer over wind tunnel flood
[CER66-67DK45] 17 p3176 N67-30308
Dynamic wind tunnel testing system - dynamic tests of F-104 model
[AFFDL-TR-66-153, PT. II]
17 p3043 N67-30500
Arc chamber and nozzle design for hotshot wind tunnel
[TP-447] 17 p3045 N67-30005
High-pressure high-temperature wind tunnel facility utilizing supersonic compressor rotors
[PIBAL-901] 18 p3254 N67-31514
Pressure tunnel investigation of supersonic store interference in vicinity of 22 deg swept wing fuselage configuration at mach numbers 1.61 and 2.01
[NACA-RM-L57L18] 18 p3165 N67-31546
Full-scale wind tunnel determination of effect of corrugated canister surface on static aerodynamic characteristics of reentry capsule
[NASA-TM-X-220] 18 p3189 N67-32155
Wind tunnel determination of supersonic flow properties in vicinity swept, delta, and trapezoidal wing-body combinations
[NASA-TM-X-64] 18 p3189 N67-32309
High speed wind tunnel study of separation phenomenon and deterioration in aerodynamic performance from unwanted flow detachments 19 p3264 N67-33376
Heat and pressure distribution on SNAP-19 fuel capsule in hypersonic flow
[MND-3607-93, VOL. I] 20 p3683 N67-34827
Helicopter rotor and V/STOL propeller testing system in sonic wind-tunnel
[TP-494/1967/] 23 p4020 N67-37319
Aerodynamic parameter measurement system for wind tunnel
[ECOM-5127] 22 p4021 N67-37475
Experimental and theoretical data on plasma sheath surrounding hemisphere cone models in short arc wind tunnels 23 p4116 N67-37530
Heat shield efficiency over plane surface during injection through two tangential slots studied in wind tunnel
[NASA-TT-F-11178] 22 p4165 N67-37600
Test devices for wind tunnel measurements of aerodynamic derivatives
[TP-389/1967/] 23 p3957 N67-37623
Pressure distribution measurements in wind tunnels for aerodynamic application
[TP-451] 23 p4023 N67-37900
Comparison of damping-in-pitch parameter in wind tunnel dynamic measuring techniques
[DTMB-2396] 23 p4250 N67-38066
Wind tunnel investigation of ground-wind loads on Eido launch vehicle in presence of umbilical tower
[NLR-F-251] 23 p4350 N67-38429
Aerospace research, development, test, and evaluation facilities summary including charts on environmental test chambers and wind tunnels
[NHB-8800.5, VOL. II] 23 p4234 N67-39085
Summary of aerospace research, development, test and evaluation facilities with summary charts on environmental test chambers and wind tunnels
[NHB-8800.5, VOL. I] 23 p4234 N67-39086
Advanced gas dynamics test facilities and improved wind and shock tunnel performance
[CAL-AD-1716-A-9] 24 p4435 N67-39456
Wind tunnel measurements on two wing- and plate aircraft model configurations
[NASA-TM-X-1484] 24 p4374 N67-40162
Aerodynamic characteristics of V/STOL transport model with wing-mounted lift fans large-scale wind tunnel investigation
[NASA-TN-D-4333] 24 p4375 N67-40180
Simulators for testing aircraft, spacecraft, and launch vehicles and for training pilots and astronauts
[NASA FACTS 96, VOL. IV, NO. 8]
24 p4436 N67-40439

WIND TUNNEL APPARATUS
SA SUPERSONIC WIND TUNNEL APPARATUS
Technique and apparatus for drag, lift, and pitch force measurements in hypersonic wind tunnels
[NASA-CR-66725] 04 p0526 N67-13607
Wind tunnel studies of crack propagation, and other aeroelastic characteristics 13 p2302 N67-25598
Tank in conjuction with wind tunnel used to test effect of water waves and wind on model ships 20 p3618 N67-34914
Accuracy of pressure transducers used in short duration wind tunnels
[NPL-AERO-1213] 20 p3644 N67-35123
Subsonic wind tunnel design, apparatus, operation, data recording and analysis equipment, management, and operating costs
[AD-656486] 22 p4039 N67-37484

WIND TUNNEL BALANCE
Six-component magnetic suspension and balance system for use in wind tunnels 04 p0525 N67-13584
Magnetic wind tunnel balance for studying dynamic stability of aerodynamic configurations 04 p0525 N67-13586
Performance of roll control elements in six-component magnetic wind tunnel balance 04 p0526 N67-13592
Hypersonic wind tunnel tests of magnetic model suspension and balance system, and drag measurements obtained for 30 degree cone 04 p0526 N67-13594
Six-component balance equipped with semiconductor strain gauges and inertia-compensated for wind tunnels
[TP-377/1966] 14 p2540 N67-27688

WIND TUNNEL CALIBRATION
Flow calibration in transonic wind tunnel for studying tunnel interference effects
[NPL-AERO-1043] 20 p3560 N67-34339

WIND TUNNEL MODEL
Theoretical rolling moment capacity of magnetically suspended shaped cores within wind tunnel models
[ISAV-140] 01 p0116 N67-10575
Low speed wind tunnel test of high lift wing surface model
[NOR-66-206, VOL. III] 01 p0093 N67-10934
Apollo wind tunnel test program and configuration design developments
[NASA-TN-D-3748] 02 p0248 N67-11960
Plasma sheath surrounding models in hotshot wind tunnels
[TP-376/1966/] 03 p0447 N67-12857
Summary of technical papers presented at Magnetic Wind Tunnel Model Suspension and Balance Symposium
[ARL-66-0135] 04 p0524 N67-13581
Electromagnetic suspension system to support models in hypersonic wind tunnel for studying wakes of axisymmetric bodies 04 p0525 N67-13582
Magnetic suspension system for supporting axisymmetric models in hypersonic wind tunnel 04 p0525 N67-13583
Air core, single coil, one-dimensional magnetic suspension system 04 p0525 N67-13585
Force and moment measurements using magnetically suspended models in low speed wind tunnel 04 p0525 N67-13587
Technical and operational development of magnetic suspension system for hypersonic wind tunnel applications 04 p0526 N67-13588
Design limitations of magnetic suspension systems for dynamic testing 04 p0526 N67-13589
Supersonic wind tunnel analysis of unguided sounding rocket roll lock-in
[NASA-CR-81142] 05 p0630 N67-13852
Flow through three shock system in corner
[ARC-CP-727] 07 p1061 N67-16776
Static calibration of ejector unit for simulation of jet engines in small-scale wind tunnel models of VTOL aircraft
[NASA-TN-D-3667] 08 p1263 N67-19681
Method for correcting measurements of heat transfer through skin of wind tunnel model
[ARC-CP-889] 10 p1771 N67-21169
Drag and base pressure effects of modifications to blunt base of body of revolution investigated on magnetically suspended model in low speed wind tunnel
[ISAV-139] 11 p1868 N67-23002
Effect of ground board boundary layer on air cushion vehicle wind tunnel forward speed tests
[UTIAS-TN-109] 11 p1781 N67-20737
Achieving stability in rigid body modes for flexibly supported wind tunnel model
[RAE-TN-STRUCT-340] 11 p1866 N67-22702
Ground effect in wind tunnels on slender delta wing aircraft models
[ONERA-TN-87] 11 p1779 N67-22966
Drag measurements in stream with sinusoidally fluctuating velocity in longitudinal direction
[USAAVLABS-TR-66-89] 12 p2011 N67-24958
Prediction of ground effect of aircraft or wing model takeoff and landing in wind tunnel
[ONERA-TM-87/1965/] 13 p2342 N67-25947
Wing buffet boundaries measured on wind tunnel models and in-flight
[ARC-CP-940] 13 p2343 N67-25131
Wind tunnel model tests on airfoils of small aspect ratio
[RAE-TM-AERO-1707] 13 p2348 N67-25215
Time-temperature characteristics of thin skinned models as affected by thermocouple variables
[NASA-CR-84509] 14 p2834 N67-27927
Aerodynamic characteristics of hypersonic ballistic standard model determined by wind tunnel force tests
[BRL-MR-1768] 15 p2839 N67-28509
Wind tunnel studies of supersonic gas flow past cylindrical protuberance of plate
[TG-230-T515] 16 p2813 N67-29207
Wind tunnel tests and analyses for ground mounted air supported structures
[TR-67-36-ME] 17 p3170 N67-30482
Large scale low speed wind tunnel tests of delta winged supersonic transport model to determine aerodynamic effects of forward and reverse thrust
[NASA-TM-X-1617] 18 p3194 N67-32141
Normal-force, pitching-moment and axial-force coefficients for axisymmetric models with hammerhead noses at transonic speeds in wind tunnel
[NASA-TM-X-1423] 20 p3562 N67-35113
Wind tunnel testing of aerodynamic characteristics of hyperboloidal antenna shells
[E-67-5] 23 p3994 N67-36987
Injectors for simulating jet lift engine intake and exit flows of V/STOL low speed wind tunnel models
[ARC-R+M-3664] 22 p4132 N67-37130
Stability and axial force testing of hypervelocity ballistic models
[SC-RR-67-176] 22 p3988 N67-37763
Mach number and geometry effects on level of sonic boom overpressure and applicability of Whitham theory to calculation of sonic boom
[NASA-TN-D-4214] 22 p4174 N67-38227
Wind tunnel free-flight test techniques for planar motion employed at Naval Ordnance Laboratory
[AERODYNAMICS RES. REPT.-376]
23 p4288 N67-38292
Comparison between predicted and measured profile drag for two-dimensional airfoil at incompressible speeds over whole Reynolds number range
[NPL-AERO-1062] 23 p4175 N67-38680
Methods and equipment for measuring oscillatory derivatives on sting-mounted wind tunnel models
[RAE-TR-66197] 23 p4136 N67-38821
Mass transfer effects on aerodynamic pitching moment of conical bodies supported in hypersonic wind tunnels
[REPT.-0414-9-21-67] 24 p4371 N67-38870
Static aerodynamic characteristics of variable sweep wing aircraft model studied in wind tunnel
[DTMB-AL-30] 24 p4372 N67-40008
Measurements and analytical extrapolation validity in predicting full scale flight performance from model wind tunnel tests
[NASA-CR-821] 24 p4376 N67-40431

WIND TUNNEL NOZZLE
Air injection nozzles for gust simulation in wind tunnel
[NASA-CR-66284] 02 p0250 N67-12049
Inviscid core flow and non-equilibrium effect calculation for design of high temperature wind tunnel nozzle 07 p1059 N67-17264
Flexible supersonic wind tunnel nozzle for variation of flow Mach number
[ARC-CP-982] 13 p2264 N67-24152

WIND TUNNEL STABILITY TEST
A hypersonic wind tunnel program to evaluate effects of center of gravity offset on roll damping and roll rate on stability characteristics of small angle sphere cone
[ATFB-2-66] 02 p0178 N67-12661
Limitations on reduced frequency and amplitude of motions produced in magnetic suspension system when used for dynamic stability testing 04 p0525 N67-13585
Spin calculation method and results of

vertical wind tunnel testing on delta aircraft scale model
[TP-388] 04 p0569 N67-14196
Wind tunnel tests of operating limits of high speed rotorcraft 05 p0632 N67-15184
Wind tunnel and computer studies of low drag bomb with tail stabilisers 06 p0784 N67-15375
Instrumentation and techniques for determining pitch and roll damping derivatives, Magnus force and moment coefficients, and other dynamic stability measurements in wind tunnel facility
[NOLTR-66-23] 06 p0862 N67-16464
Film showing wind tunnel stability test, test firing, and propeller tests 06 p1262 N67-18682
Low speed wind tunnel stability tests on delta wing aircraft model with blowing over trailing edge flaps and ailerons
[ARC-CP-710] 09 p1394 N67-19422
Wind tunnel tests of Apollo command module static and dynamic stability characteristics
[NASA-TN-D-3890] 09 p1514 N67-19873
Measurements of direct pitching moment derivatives for four wing planforms at transonic speeds
[ARC-R+M-3433] 09 p1393 N67-20322
Wind tunnels and hypervelocity laboratory for environmental simulation testing studies 12 p2974 N67-23552
Hypersonic wind tunnel tests of SNAP-19 capsule force and stability
[MND-2607-90] 12 p2145 N67-23736
Low speed wind tunnel measurements of yaw damping derivative on A.R.9 jet-flap complete model of V/STOL aircraft
[ARC-CP-869] 13 p2347 N67-26152
Two-dimensional panel flutter and panel divergence in subsonic flow - wind tunnel testing of two and three-dimensional panels
[NASA-TM-X-59867] 13 p2344 N67-26390
Models of Agena/Mariner C and Agena/Lunar Orbiter shroud tested in wind tunnels over Mach number range 0.56 to 3.46 for comparison of aerodynamic characteristics
[NASA-TM-X-52296] 14 p2619 N67-27284
Six component force and moment wind tunnel measurements made on jet flap complete models - effects produced by variations of wing aspect ratio, dihedral, and sweepback
[ARC-R+M-3441] 15 p2838 N67-28172
Wind tunnel studies of basic low speed aerodynamics of short-coupled canard configurations of two triangular wings of small aspect ratio
[SAAB-TN-60] 16 p2813 N67-29778
Dynamic wind tunnel tests of F-80 aircraft model
[AFFDL-TR-66-153, PT. I] 17 p3056 N67-30259
Wind tunnel stability tests of cone-shaped space capsule models up to angle of attack of 23 deg
[NASA-TM-X-21] 18 p3339 N67-31530
Microelectronic analog data and digital command control system for transonic dynamic wind tunnel tests of research aircraft models 18 p3346 N67-31595
Full scale wind tunnel investigation of VTOL aircraft with jet ejector system for lift augmentation
[NASA-TM-D-3725] 18 p3195 N67-32221
Wind tunnel testing of dorsal-fin, delta-wing and dart-wing configurations 19 p3363 N67-33366
Effects of canards in reducing launch vehicle flight loads
[NASA-TN-D-4125] 19 p3540 N67-33440
Oscillation of aeroelastic models of cathedral pinnacles in wind tunnel
[NPL-AERO-1196] 20 p3735 N67-34024
Wind tunnel tests for prediction of ground effect on slender wing aircraft of low aspect ratio
[NASA-TT-F-11969] 21 p3758 N67-35142
Low speed static aerodynamic characteristics of three ram-air inflated low aspect ratio fabric wings
[NASA-TN-D-4182] 21 p3956 N67-35725
Wind tunnel measurements on streamlined fan lift nacelle
[ARC-R+M-3479] 22 p3956 N67-37201
Hypersonic wind tunnel tests of gaseous injection effects from wall of blunt reentry body model on separation, transition, static stability, and control effectiveness
[NASA-CR-73121] 22 p3997 N67-37568

WIND TUNNEL WALL
Mathematical expressions derived for application of wind tunnel wall corrections to pitching moments caused by tail of aircraft model
[NASA-TN-D-3738] 08 p0172 N67-11814
Estimating wind tunnel wall interference effects on slowly oscillating slender wings in subsonic flow
[ARC-CP-707] 11 p1859 N67-22797
Theoretical wall-interference corrections to damping derivatives in rectangular tunnel with open boundaries
[NPL-AERO-1039] 13 p2244 N67-26220
Calculation method for wind tunnel wall interference velocities for tunnels of arbitrary cross section
[NASA-CR-845] 17 p3045 N67-30923

WIND VARIATION
Diurnal temperature and wind variation measured by instrumentation aboard meteorological rockets - detection of possible errors in temperature measurements in upper stratosphere
[NASA-TM-X-1298] 02 p0262 N67-11816
Climatological review of works dealing with radiation heat balance, atmospheric circulation, and wind variation 06 p0906 N67-15424
Time step variation method for forecasting atmospheric winds and temperatures
[SRDS-RD-66-82] 14 p2567 N67-26492
Time and space variability of wind derived from tower-mounted anemometers and triple-theodolite pilot-balloon observations at Green River, Utah
[ECOM-5095] 14 p2521 N67-26672
Eliminating short periodical wind and temperature variations in radiometer readings of radiation intensity 14 p2585 N67-27110
Fortran 63 program for computing sound ray paths in presence of wind
[SC-RR-67-53] 17 p3122 N67-31348
Morphology and circulation of intense thunderstorm with motion substantially to left of ambient winds
[ESSA-ERLTM-NSSL-31] 18 p3290 N67-31714
Cinetheodolite balloon observations on wind magnitude and direction changes at missile range
[ECOM-5130] 22 p4087 N67-37474
Multiple satellites in noncoplanar array used to define spatial and temporal variations of solar wind in interplanetary space
[NASA-CR-73142] 23 p4351 N67-38585
Effect of wind variation at Western Test Range on instantaneous impact point of launch vehicles
[TR-0158(3301/-1] 24 p4538 N67-40321

WIND VELOCITY
Mathematical points in solution of nonlinear equation for vertical component of velocity vortex 05 p0732 N67-14294
Use of fast sampling rate for computing wind velocity from pilot-balloon data
[ECOM-5068] 05 p0732 N67-14744
Acoustic anemometer that provides instantaneous visual display of wind speed
[AFCRL-66-850] 07 p1079 N67-17217
Prediction theory for motion behavior of helicopter blades at low rotor speeds in strong steady high winds
[ARC-CP-853] 08 p1230 N67-18380
Observations of Gaussian and non-Gaussian turbulent velocity distributions
[RISO-45] 10 p1833 N67-21774
Comparative study of stress, wind, and wave development at different distances from lee shore 11 p1913 N67-22397
Estimate of extreme wind speeds in Thailand
[AD-645969] 12 p2136 N67-24653
Streamline analysis of motion field and wind velocity for tropical meteorological forecasts
[AD-647586] 12 p2140 N67-24368
Approximations of recurrence of temperature and wind velocity combinations in lower 100 M layer of atmosphere
[NASA-TT-F-472] 12 p2363 N67-25849
Comparison of pilot balloon observations, radiosonde, and rawinsonde measurements of wind
[ECOM-5114] 18 p3288 N67-32543
Marine and continental climate of Point Conception to Morro Bay region of California - mesoclimatology of coastal region
[MRI67-IR-613] 20 p3637 N67-34110
Electric currents induced by nonperiodic winds in ionosphere
[NASA-TM-X-60375] 22 p4041 N67-37985
Computation of wind velocity data from high speed radar or photo trackers
[ECOM-5123] 24 p4484 N67-39482

WIND VELOCITY MEASUREMENT
Differential manometer for measuring wind velocity
[JPRS-38403] 01 p0100 N67-10337
Comparison of FPS-16 and GMD-1 radar tracking and radiosonde measurements and methods for processing wind data - time variability of atmospheric parameters
[NASA-CR-61158] 02 p0256 N67-11984
Crossed beam monitoring of atmospheric winds and turbulence with two orbiting astronomical telescopes mounted on single spacecraft
[NASA-TM-X-53538] 05 p0703 N67-14913
Acoustic wind measurement technique for wind profiles from ground to 85 km 09 p1451 N67-20271
Ground wind measurements and theoretical response of inertia-type anemometer 09 p1451 N67-20272
Wind shadow effect of meteorological tower on wind velocity around structure
[ECOM-5074] 10 p1672 N67-20973
Dyeing titanium tetrachloride smoke trails for wind velocity measurements
[NASA-CR-66360] 16 p2845 N67-29435
Frequency spectrum of small-scale temperature and wind speed pulsations
[T-R-581] 17 p3060 N67-30191
Richardson number for clear air turbulence dependent on atmosphere scale length 20 p3631 N67-34426
Mesostructure and microstructure of wind field at 6 to 12 km, and turbulence induced aircraft buffeting in cumulonimbus cloud zone
[FTD-MT-65-304] 22 p4042 N67-38030
TU-104 navigational Doppler system measurement of wind velocity and direction, mesostructure of wind field at 6 to 12 km, and structural characteristics of horizontal component 22 p4042 N67-38061
Comparisons of estimates for average wind velocities, maximum wind gusts, and gradient wind 23 p4278 N67-38538

WINDING
S FILAMENT WINDING
S HELICAL WINDING
S WIRE WINDING

WINDOW
SA LAUNCH WINDOW
Sources of instability in work of G-M window counters 06 p0821 N67-16388
Experiments on conical plexiglass deep submergence window models in range of small diameter thickness ratio of 0.5 to 2.5
[ARA-315-10] 06 p0977 N67-16378
Shielding window design for use in reactor containment structure
[ANL-7157] 12 p2146 N67-23891
Short-term loading of conical acrylic windows for external or internal hydrostatic pressure vessels
[NCEL-TR-512] 12 p2110 N67-24042
Bubble chamber optics - illumination system modification and alignment of camera port windows
[CONF-661043-1] 15 p2687 N67-28486
Flat disk-shaped acrylic windows under short-term hydrostatic loading
[NCEL-TR-527] 18 p3353 N67-32667
Exposure of Apollo window material to 500 deg F temperature cycles and solar simulation approximating Johnson spectrum
[NASA-CR-65487] 20 p3665 N67-34673

WINDSHIELD
Flat polyethylene films as wind protection for balance meter 14 p2535 N67-27114
Scattered light photoelastic method for determining tempered stresses in aircraft windshields
[D1-82-0606] 18 p3351 N67-32131
Hemispherical wind screens tested for effective wind noise reduction and improvement in signal to noise ratio
[ECOM-5119] 19 p3451 N67-33079

WING
SA AIRFOIL
SA ARROW WING
SA CAMBERED WING
SA CARET WING
SA CRUCIFORM WING
SA DELTA WING
SA DIAMOND WING
SA FLEXIBLE WING

SA GOTHIC WING
SA HELICOPTER WING
SA INFINITE SPAN WING
SA LOW ASPECT RATIO WING
SA M WING
SA OGEE WING
SA OSCILLATING WING
SA PIVOTED WING
SA RECTANGULAR WING
SA RING WING
SA ROTARY WING
SA ROTOR
SA SLENDER WING
SA SWEPT WING
SA SWEPTBACK WING
SA TAPERED WING
SA THIN WING
SA TILT-WING AIRCRAFT
SA TRAPEZOIDAL WING
SA TWISTED WING
Low speed wind tunnel test of high lift wing surface model
[NOR-66-206, VOL. III] 01 p0003 N67-10924
Method for modelling profiles on wings and propellers
[FTD-TT-65-1936] 01 p0004 N67-11146
Penetrability of bird wings
[RAE-LIB-TRANS-1143] 06 p1238 N67-19068
Structure of wing surface and significance in aerodynamics of birds
[RAE-LIB-TRANS-1142] 06 p1239 N67-19202
Air flow along wing of finite span analyzed using Prandtl integrodifferential equation
[FTD-HT-66-149] 10 p1607 N67-30639
Axisymmetric flow fields applied to wings designed with lifting upper surfaces at high supersonic speeds
[RAE-TR-65034] 11 p1777 N67-32707
Viscous flow around angular points and boundary layer calculation, and rotational coefficients for wing model during harmonic oscillations
[FTD-MT-65-322] 13 p2305 N67-35393
Determination of coefficients of rotational derivatives during harmonic oscillations of aircraft wing model in wind tunnel 13 p2341 N67-35395
Prediction of ground effect of aircraft or wing model takeoff and landing in wind tunnel
[ONERA-TN-87/1965/] 13 p2342 N67-35647
Wing buffet boundaries measured on wind tunnel models and in-flight
[ARC-CP-840] 13 p2343 N67-36131
Computer method for predicting unsteady aerodynamic characteristics of planar wings in transonic flow
[AFFDL-TR-66-121] 13 p2344 N67-36239
Lift coefficient of wing section calculated from streamline flow measurement in two-dimensional smoke wind tunnel for studying high lift device
[RAE-LIB-TRANS-1230] 20 p3560 N67-34342
Stress frequency distribution of wing lower surface of model Boeing 727 from flight tests
[RAE-LIB-TRANS-1233] 20 p3565 N67-34360
Whirling arm test facility for studying steady and unsteady aerodynamics of wings in ground effect
[COA-AERO-174] 21 p3836 N67-35956
Random and programmed load sequences fatigue tests to compare full-scale wing center sections with and without ground-to-air cycles
[NLR-TR-S.613] 21 p3942 N67-36128
Aerodynamic characteristics of wings with gated spoilers and handling quality problem in tilt-wing V/STOL aircraft
[NSRDC-3406] 22 p3955 N67-36940
Wind tunnel measurements on two wing-end plate aircraft model configurations
[NASA-TM-X-1454] 24 p4274 N67-40102
WING BODY
Aerodynamic characteristics of wing body configurations with canard controls determined in hypersonic flow apparatus
[NASA-TN-D-3728] 02 p0172 N67-11811
Analysis of hypersonic flow over wing body combinations to attain high lift-drag ratios
[AFOSR-66-1398] 06 p0788 N67-16048
Low speed wind tunnel measurements of lift, drag, and pitching moment on ogee wing and symmetrical slender wing body models
[ARC-CP-946] 07 p0939 N67-17721
Approximate method for estimating effect of aeroelasticity on longitudinal trim and quasisteady maneuverability of slender aircraft
[ARC-R+M-3436] 10 p1549 N67-30722
Inviscid supersonic flow past symmetrical wing body combination at zero incidence
[ARC-CP-704] 11 p1778 N67-32789
Interference effects on wing body combinations with sweptback and delta wings in asymmetric flow
[DLR-FB-66-77] 13 p2343 N67-36085
Semiempirical theory for estimating aerodynamic forces acting on harmonically oscillating two-dimensional wing at high angle of attack where flow separation occurs
[NAL-TR-122] 16 p2816 N67-38093
Highly swept warped-wing data from experiments on isolated wings, wing-body configurations, and complete configurations for supersonic aircraft 18 p3185 N67-31614
Digital computer program for optimizing camber surfaces for wing-body combinations at supersonic speeds
[NASA-CR-69175] 18 p3189 N67-32272
Digital computer program for analysis and design of supersonic wing-body combinations, including flow properties in near field
[NASA-CR-73107] 20 p3562 N67-34994
Aerodynamic characteristics of leading-edge sweep wing-body combinations
[NASA-TN-D-4211] 23 p4176 N67-39284
Forebody length effect on longitudinal stability of two delta-wing-body combinations determined in wind tunnel tests
[RAE-TR-66327] 24 p4272 N67-40254
WING CAMBER
Aerodynamic characteristics of high-lift wing designs
[NOR-66-206, VOL. II] 01 p0004 N67-10926
Numerical method for analysis of supersonic wing-body combinations and related flow fields, and for design of optimum wing camber surface in presence of body
[NASA-CR-73106] 20 p3562 N67-34997
WING FLAP
Swept wing and leading edge configuration modifications to improve aerodynamic characteristics of aircraft
[TP-353/1966/] 02 p0174 N67-11872
Hypersonic characteristics of flat plate wing with semicylindrical leading edge equipped with leading edge and trailing edge control surfaces
[ARL-67-0030] 23 p4174 N67-38551
Direct lift control flap system for Boeing 367-80 aircraft
[NASA-CR-73147] 23 p4180 N67-39270
WING-FUSELAGE COMBINATION
Computation of wing-body combination aerodynamic characteristics in supersonic flow
[TP-363/1966/] 02 p0172 N67-11868
Aerodynamic characteristics of wing-fuselage combination in supersonic flow
[NASA-TT-F-10430] 04 p0479 N67-13792
Force and moment measurements on delta wing-body configurations in supersonic wind tunnel
[ARC-CP-883] 06 p0788 N67-16001
Skewed wing tip control effects on variable sweep wing-fuselage configuration
[NASA-TN-D-3847] 06 p1220 N67-18962
Wing-fuselage flutter regime of XV-5A aircraft model
[REPT.-168] 11 p1761 N67-32072
Experiments and calculations to determine interference and wing effects on wing-fuselage combinations at supersonic speeds
[PROM.-3785] 11 p1779 N67-32928
Internal drag measurement of ducted air breathing installations on slender wing body combinations at supersonic speeds
[ARC-CP-914] 13 p2342 N67-36047
Cyclic loading program to test fatigue strength of distributed flange wing structure in flight simulation
[RAE-TR-66315] 20 p3738 N67-34437
Rayleigh-Ritz procedure applied to plate beam combined structures simulating wing-fuselage combinations
[NAL-TR-127] 24 p4548 N67-40697
WING-FUSELAGE-STORE
Pressure tunnel investigation of supersonic store interference in vicinity of 23 deg swept wing fuselage configuration at mach numbers 1.61 and 2.01
[NACA-RM-L57L18] 19 p3185 N67-31946
WING LOADING
Helicopter design concepts relating to wing loading and economical operation 05 p0823 N67-15187
Fatigue tests with random and programmed load sequences on full scale wing center sections
[NLR-TR-S.613] 07 p1201 N67-17372
Theory and calculations of unsteady forces on finite wings in transient motion, and comparison of initial and final aerodynamic forces
[ARC-R+M-3456] 09 p1392 N67-20082
Fatigue test results on wing center sections under different constant-gust load amplitudes
[NLR-TM-S.640] 11 p1982 N67-23020
Calculation of load distribution at supersonic speeds on sweptback wing of arbitrary planform
[RAE-TR-66350] 15 p2839 N67-36784
Calculation of warp to produce load and pressures on thin slender wings in supersonic flow
[ARC-R+M-3471] 22 p3907 N67-37637
WING PANEL
Structural design relationship in aeroelastic instability 02 p1276 N67-18680
Static, longitudinal stability, and lateral aerodynamic characteristics of variable wing sweep STOL configuration at Mach number 2.20
[NASA-TM-X-329] 18 p3193 N67-33617
WING PLANFORM
Effects of wing planform on static longitudinal aerodynamic characteristics at hypersonic speeds for several low-aspect-ratio wing body reentry configurations
[NASA-TM-X-733] 19 p3188 N67-33015
Lateral and longitudinal aerodynamic characteristics of tailless supersonic transport model having ogee, delta, and trapezoidal wing planforms in wind tunnel
[NASA-TM-X-992] 18 p3194 N67-32143
Wing pivot location effect on longitudinal aerodynamic characteristics of variable sweep wing having M planform
[NASA-TM-X-1622] 18 p3180 N67-32145
WING PROFILE
Wing profile design for aerodynamic high lift in subsonic flow
[NOR-66-206, VOL. I] 01 p0004 N67-11850
Aerodynamic coefficients of wings and fuselages in rarefied gas flow 04 p0480 N67-13847
Survey on stability and control of ground effect wings including longitudinal and lateral stability derivatives
[COA-AERO-196] 20 p3561 N67-34894
WING STALL
Exact solutions to problem of hypersonic or supersonic gas flow past slipping or delta wing with stall fence
[NASA-TT-F-10485] 06 p0788 N67-13842
Aerodynamic problems considered for improving design and operation of supersonic aircraft 14 p2447 N67-27779
WING TIP CONTROL
Skewed wing tip control effects on variable sweep wing-fuselage configuration
[NASA-TN-D-3847] 06 p1220 N67-18962
Span loading and aerodynamic characteristics for tip and trailing edge controls on 60 deg delta wing at Mach numbers 1.61 and 2.01
[NASA-TM-X-51] 18 p3187 N67-31988
Spanwise loadings and aerodynamic characteristics for trailing-edge controls on 40 deg sweptback wing at Mach numbers 1.61 and 2.01
[NASA-TM-X-732] 18 p3188 N67-32002
Static longitudinal aerodynamic characteristics at transonic speeds and angles of attack to 90 deg of reentry glider with folding wing-tip panels
[NASA-TM-X-810] 18 p3189 N67-32120
Free-stream interference effects on effectiveness of control jets near wing tip of VTOL aircraft model
[NASA-TN-D-4004] 19 p3565 N67-33645
WINGED VEHICLE
Stability, control, and response characteristics of large winged boat airborne vehicle flying close to water surface
[LR-17910] 05 p0830 N67-14963
Water landing characteristics of winged missile scale model
[NASA-TN-D-3799] 11 p1982 N67-23020
Aerodynamic stability and control of winged vehicles
[FTD-HT-66-380] 15 p2840 N67-36838
WIRE
SA HOT WIRE
Evaluation of corrosion resistant silver alloys for use in lead wires for alkaline

assemblies of Saturn guidance and control systems
[NASA-CR-80081] 02 p0286 N67-12070
Thermocouple wire tested and thermoelectric measurements verified in cryogenic temperature range
[NASA-CR-80343] 03 p0398 N67-12945
Deformation and discharge theories compared by traction and torsion tests on metal tubes and wires, and verification of reciprocal theorem 05 p0770 N67-14528
Sterilization effects on soldered and welded joints, electronic equipment processes and materials, electric connectors, and wiring and cabling accessories 05 p0683 N67-14785
Effect of quenching on ductile-brittle bend transition temperature of chromium wire 06 p0892 N67-15834
Effect of quenching on ductile-brittle bend transition temperature of Cr-55Re wire 06 p0892 N67-15835
Metal wire drawing under ultrasonic energy radiation
[NOTS-TP-4179] 07 p1089 N67-17157
Thermocouple wire size and configuration effects on internal temperature measurements in charring ablator
[NASA-TN-D-3812] 06 p1381 N67-18407
Luminescent intensity of shadow produced by thin wire 12 p2153 N67-23509
Induction annealing of aluminum filaments or wire during extraction or twisting, using toroidal transformer and guiding rollers
[FTD-HT-66-662] 12 p2109 N67-24715
Production of flux-cored filler wire from iron sheath and iron powder
[AMRA-CR-66-11/F/] 12 p2110 N67-24815
Brass, bronze, stainless steel, and copper wires for rocket retainer part tested for shear strength
[M-66-1063] 13 p2329 N67-26125
Heat resistance of enamaled wires, varnishes, and insulating materials for electric insulation
[TIL/T-5699] 13 p2295 N67-28127
Buckling response of compressively loaded reinforcing wires
[SEL-67-2] 16 p2977 N67-29094
Laminar flow and heat transfer coefficient analyses of film boiling from horizontal wire
[NASA-TN-D-4035] 18 p3355 N67-32069
Sintering wires by surface diffusion
[WAPD-T-1965] 19 p3465 N67-33846
Matching transitions between waveguides and Lecher wires in microwave region
[IPP-3/53] 20 p3710 N67-34837
Micrometeoroid impact fracture rates in wire, flat tapes, and thin-walled hollow tubes
[NASA-CR-889] 21 p3931 N67-35736
Determination of indent depth and configuration for maximum reliability connections of nickel plated copper wire in gold plated connector contacts
[NASA-CR-88481] 22 p4009 N67-36723
Static mechanical properties of beryllium wire reinforced plastic composites
[AFML-TR-66-404, PT. I] 23 p4266 N67-38090
Exploding wire, shock waves, and pinch discharge methods in plasma physics
[BMWF-FBK-67-49] 25 p4325 N67-39332
Method for improving electron microscopy image contrast in pictures of thin amorphous objects by using wire as contrast screen
[REPT.-7-13-67] 24 p4496 N67-39755
Testing of stainless steels and stainless steel wire
[EURAEC-1865] 24 p4470 N67-40801

WIRE BRIDGE CIRCUIT

SA WHEATSTONE BRIDGE
Development and performance of impedance bridge with automatic tuning feedback, plug-in unit for microwave frequency measurements, and signal frequence regulator 01 p0072 N67-10427
Hot-wire anemometers at constant temperature to measure mean velocity, fluctuations, and correlation coefficients of turbulent flows
[REPT.-66-11] 11 p1886 N67-22395
Nondestructive testing of thermal follow bridge circuit for measuring electrothermal parameters of bridge wires
[NOLTR-66-113] 16 p2864 N67-29417
Approximation method for firing wire-bridge electro-explosive device at constant power
[NOLTR-66-182] 19 p3417 N67-33529

WIRE GRID LENS

Development and testing of high frequency wire grid lens antenna
[SRDS-RD-66-20] 11 p1820 N67-22816

WIRE MESH

Heat transfer characteristics of wire gauze, surface mass transfer in falling film, and cooling of electromagnetic liquid metal pump
[TUBIK-1] 07 p1206 N67-17188
Geometry, flow friction, and heat transfer characteristics of wire gauze 07 p1206 N67-17190
Pressure loss associated with compressible flow through square mesh wire gauzes
[NGTE-R-281] 09 p1435 N67-19970

WIRE WINDING

Design and construction of double layer wire superconducting magnet 23 p4332 N67-38767
Production engineering measures for electrical stabilizing windings of stellarator 23 p4258 N67-38768
Development and evaluation of voltage testers for insulated electrical coils and windings 23 p4232 N67-38769

WIRING SYSTEM

Hydrofoil electric equipment and wiring system modifications for replacing lead-acid storage battery with alkaline cell
[FTD-TT-65-1879] 01 p0009 N67-11091
Wiring weight for flight vehicles evaluated and use of flat cable considered
[SM-52330] 02 p0245 N67-12100
Design and fabrication techniques for wiring pattern used for interconnecting network circuits of automatic mask sets 11 p1838 N67-22624
Production engineering measure for multilayer printed wiring board
[REPT.-5] 17 p3024 N67-30506

WISHART DISTRIBUTION

Monte Carlo generation of random samples from Wishart distribution used in verification of asymptotic properties of estimation procedure
[AROD-4721-8-M] 14 p2563 N67-26945
Generation of random samples from Wishart distribution - matrix algebra
[AROD-4721-7-M] 14 p2563 N67-26946

WOLF TRAP LIFE DETECTOR

Engineering model of wolf trap Mars microorganism detection device
[NASA-CR-85589] 17 p3186 N67-30742

WOOD

Wood panel laminated materials subjected to rapid and gradual changes in relative humidity
[FPL-0116] 02 p0265 N67-11833
Stress distribution in orthotropic wood half-plane and wedge subjected to concentrated load
[FPL-54] 02 p0316 N67-12027
Temperature, pressure, moisture content, and density effects on energy dissipating properties of balsa wood 02 p0318 N67-12111
Photostress analysis of wood structure under external load 03 p0469 N67-12888
Decontamination, sterilization, and preconditioning effects on energy dissipating properties of balsa wood
[NASA-CR-80018] 03 p0415 N67-13196
Radiation produced wood-plastics composite materials - process, manufacturing, commercial applications, and test and development programs
[ORNL-IIC-7] 04 p0563 N67-13361
Wood-plastic materials research - process and properties, market surveys, plant design, and applications in industry 04 p0563 N67-13362
Evacuation, impregnation, and irradiation processes to produce wood-plastics samples for physical testing 04 p0564 N67-13363
Polymerization and polymer properties as related to wood-plastic combinations and advantages of radiation processing 04 p0564 N67-13364
Test program to investigate physical and mechanical properties of wood-plastics materials 04 p0564 N67-13365
Evaluation program for samples of radiation produced wood-plastic combinations 04 p0564 N67-13366
Feasibility of wood-plastics material process and design features for monomer handling, impregnation, and irradiation equipment for pilot plant 04 p0563 N67-13367
Commercial use of radiation as related to production of wood-plastic composite material 04 p0624 N67-13368
Development, properties, and commercial future of radiation processed wood-plastic materials 04 p0564 N67-13369
Commercialization potentials of radiation produced wood-plastic composite materials 04 p0564 N67-13370
Commercial possibilities of irradiated wood-plastic materials in flooring, furniture, veneers, and plywood shapes, and suggested use of cesium 137 as radioactive source 04 p0564 N67-13371
Radiation produced wood-plastic composites - product applications, cost considerations, manufacturing interest, and plant siting 04 p0565 N67-13372
Commercial manufacture of irradiated wood-plastic composites and design of pilot plant production facility 04 p0565 N67-13373
Wood-plastic composite development program - commercialization problems, thermoplastic monomers, impregnation, dose rate effects on polymerization, properties, and testing 04 p0565 N67-13374
Application of radiation produced wood-plastics to commercial furniture 04 p0565 N67-13375
Use of wood-plastics composites in sporting goods equipment 04 p0565 N67-13376
Potential commercial manufacture and use of hardwood plywood plastic composites 04 p0565 N67-13377
Fabrication and properties of high strength irradiated wood-plastic materials
[SGAE-CH-39/1966] 07 p1107 N67-17943
Uniaxial creep of plastic adhesives in free film form measured when dead loaded in tension
[FPL-0157] 15 p2731 N67-28139
Approximate measurement of vertical deformations in wood panel surfaces using photography of shadows cast
[FPL-0159] 15 p2713 N67-28615
Review of literature on charring rate of wood
[FPL-0145] 17 p3087 N67-31370
Radiation induced polymerization of vinyl monomers impregnated in wood
[ORO-2945-8] 20 p3666 N67-35038

WORK

SA PHYSICAL WORK
Directed physical training for increasing work reliability of operators 02 p0220 N67-11611
Evaluation of airman jobs by four categories of raters
[PRL-TR-66-3] 05 p0816 N67-16643
Dynamics of role theory for workers judgement
[TR-18] 21 p3773 N67-36016
Chronology of work stoppages and statistics on man-days lost by construction contractors at KSC/NASA and AFETR
[NASA-TM-X-53556] 24 p4556 N67-40496

WORK CAPACITY

Muscular working ability in man underrepeated shock loads 02 p0189 N67-11483
Level of muscular working ability gained through physical training related to radiation resistance in white rats 02 p0189 N67-11484
Increase in work rate accompanied by decrease in quality when additional sensory information is introduced during performance of tasks which require complex coordinated movements 02 p0218 N67-11500
Poor reaction to work loads related to low scores on modified Harvard step test given to flight personnel 02 p0191 N67-11501
Work capacity of man in high temperature environment 02 p0218 N67-11514
Work capacity of human body during prolonged stay in simulated space vehicle 02 p0218 N67-11516
Effects of temperature and humidity on mental working ability 02 p0197 N67-11561
Altitude influence on anaerobic and aerobic capacities of working men
[NASA-CR-83826] 11 p1794 N67-23283
Effects of hyperthermia and hypothermia on aerobic and anaerobic work capacities of men
[NASA-CR-83929] 13 p2358 N67-25889
Dehydration effects on work capacity and aerobic capacities of men
[NASA-CR-84654] 15 p2847 N67-29006
Full mission simulation scenario in support of supersonic transport crew factors research
[NASA-CR-73096] 16 p2841 N67-30022

WORK FUNCTION

Pressurized suit feasibility for use in

workplaces at temperatures of 40 to 50 deg C
[AHSB/RP/-M-43] 01 p0024 N67-10588
Gamma radiation effects on electron work function of platinum plate as function of oxygen pressure 06 p0049 N67-16301
Marshall Space Flight Center computer and data processing system workload analysis
[NASA-CR-82570] 08 p1255 N67-19153
Absorption effect of gases and vapors on work function of germanium, gallium arsenide, and copper bromide
[FTD-HT-66-450] 10 p1747 N67-20652
Anisotropy of tungsten work functions for zero and extremely high electric fields 11 p1985 N67-22167
Work functions of monocrystalline and polycrystalline rhenium
[UCRL-16662] 12 p2188 N67-23550
Fundamental mechanisms of thermionic emission based on surface layer work function and volume work functions 12 p2155 N67-24313
Low work function cathode configurations and nickel encapsulated powder for withstanding intensive ion bombardment
[NASA-CR-54682] 12 p2300 N67-24627
Electron emission characteristics of low work function surfaces
[NASA-CR-84434] 14 p2604 N67-27437
Electron emission characteristics of low work function surfaces - coadsorption of cesium and fluorine on tungsten
[NASA-CR-84875] 15 p2772 N67-28938
Literature search of physical property data and composite surface work function models
[NASA-CR-85562] 17 p3148 N67-30836
Determination of work function distribution on metal surfaces from surface ionization
[UCRL-17437] 21 p3923 N67-36433
Thermionic work functions of refractory metal intermetallic compounds related to their crystal and electronic structures
[NASA-CR-88549] 22 p4126 N67-36970
Surface structures and work function changes in oxygen adsorption on tungsten/100/
[NYO-3830-1] 22 p4127 N67-37234
Ttermionic converter performance, electron emission and work functions of vapor-deposited rhenium samples, and electron emission microscope design and micrographs
[NASA-CR-89591] 24 p4378 N67-39498
Coadsorption of cesium and fluorine on tungsten, and analysis of mechanisms leading to decay of field emission current from low work function zirconium/oxygen coated tungsten emitter
[NASA-CR-89661] 24 p4514 N67-39579

WORK HARDENING
New ultrahigh strength steels 05 p0717 N67-14809
Work hardening mechanism in face centered cubic metal crystals
[AD-641029] 06 p0894 N67-16206
Integral equation for indeterminate elastic workhardening structural beams
[TR-4] 11 p1993 N67-23180
Integral equations for rate of change of stress fields in elastic work hardening solid solved approximation methods
[TR-10] 21 p3873 N67-35581
Stress relaxation in steel, nickel alloys, and iron alloys - thermomagnetic effects on metal friction, heat treatment and work hardening, and loading curves for steel joints
[FTD-MT-65-262] 24 p4468 N67-40111
Stress relaxation in iron-nickel alloys after work hardening and tempering 24 p4468 N67-40113

WORK-REST CYCLE
Lactic acid concentrations in plasma and red cells during work and recovery
[NASA-CR-83529] 11 p1795 N67-23255
Effects of isolation of three individuals on 18 and 24 hour work-rest cycles in sealed chamber
[NASA-TT-F-11137] 18 p3313 N67-32363
Work and rest cycles of humans exposed to relative isolation 23 p4191 N67-39017

WORKING FLUID
Potassium working fluid and refractory alloys for Rankine cycle systems 01 p0105 N67-10868
Feasibility demonstration program for organic Rankine cycle using monoisopropylbiphenyl as working fluid
[U-3673] 04 p0483 N67-14963
Size and weight computations for internally and externally finned Brayton cycle radiators using gas as working fluid
[NASA-CR-615] 10 p1858 N67-21448
Helium pressurant requirements for liquid hydrogen expulsion using submerged gas injection
[NASA-TN-D-4102] 19 p3538 N67-33441
Literature survey on corrosive effects of liquid and vapor cesium on structural materials, and compatibility of cesium as working fluid for Rankine cycle space power plant
[NASA-CR-87504] 20 p3660 N67-34838
Nitrogen condensation effects on pitot and static pressures in hypersonic gun tunnel
[ARC-CP-956] 22 p4823 N67-36883
Frequency response of forced flow single tube boiler with inserts
[NASA-TN-D-4189] 23 p4236 N67-38434

WORLD DATA CENTER
Geomagnetic data reduction program, and World Data Center information interchange
[NASA-TM-X-55661] 09 p1442 N67-20168
Catalog of earth gravity, tsunami, seismology, and longitude and latitude data received by World Data Center-A for international exchange of information 13 p2317 N67-26479
World Data Center geomagnetic data for February 1966-January 1967 and solar geophysical data for January 1967-December 1963 - tables 16 p2860 N67-29965
Catalog of cosmic ray and meteorological data submitted to World Data Center 24 p4525 N67-39963

WOUND HEALING
Vascular responses and wound repair in mice exposed to moderate and severe hypoxia
[NASA-CR-86517] 22 p3971 N67-37509

WROUGHT ALLOY
Ingot structure effects on strength and ductility of high strength wrought aluminum alloys
[R-1835] 17 p3078 N67-30238
Physical, mechanical, and nuclear properties of wrought elements of PAR-1 alloy for use in construction of EWA 10 MW nuclear reactor core
[INP-779/XIV/PS] 24 p4469 N67-40453

WURTZITE
Stability of wurtzite lattice using inverse power repulsive potential
[AAEC/TM383] 20 p3713 N67-34576
Extension of general theory of covalent bonding in elemental crystals to partially ionic crystals /III to V and II to VI semiconductors/ in zincblende and wurtzite crystal structures
[AD-657433] 23 p4226 N67-38109
X-ray diffraction measurement on thermal expansion of zinc sulfide wurtzite phase
[ARL-67-0123, PT. I] 24 p4515 N67-39769

X

X-1 AIRCRAFT
Instrumentation, transmission, and data processing of experimental aircraft testing program 08 p1221 N67-19253

X-15 AIRCRAFT
Cost data survey of X-15 as reusable spacecraft
[NASA-TN-D-3732] 02 p0311 N67-11228
Statistical analysis of landing contact conditions and sideout distances of X-15 research airplane
[NASA-TN-D-3991] 05 p0831 N67-14935
Arc tunnel evaluation of ablative heat shield materials for X-15-3 aircraft
[NASA-TN-D-3759] 06 p0963 N67-16687
X-15 flight test of skin friction gauge
[NASA-TN-D-3830] 07 p0968 N67-17173
X-15 aircraft simulation data compared to flight test results
[AGARD-530] 11 p1782 N67-23247
Analog simulation to compare pilot performance in using operational X-15 instrument panel, and vertical scale, fixed index instrument display panel
[NASA-TN-D-3967] 12 p2016 N67-23627
Test data on elastomeric silicone ablating materials for thermal protection of X-15-2 aircraft
[NASA-CR-83365] 17 p3066 N67-30017
Theoretical dynamic analysis of landing loads on vehicle with tricycle landing gear compared with X-15 aircraft data
[NASA-TN-D-4075] 18 p3186 N67-32294
Research objectives, flight aerodynamic characteristics, development problems, and systems operation of X-15 in relation to development of advanced military aircraft 19 p3364 N67-33975
Environmental simulation facilities, biplanar optical systems for nonplanar free flight tests, hypersonic boom and air radiation measurements, and X-15 and wedge wake studies 20 p3820 N67-34767

X-19 AIRCRAFT
Diagnostic noise study of X-19 power transmission systems
[C-2979] 10 p1636 N67-20658

X-BAND
Miniaturized broadband E-Tee circulator 03 p0574 N67-13092
X-band radar for detection, measurement, and identification of moving targets 04 p0513 N67-13921
X-band gain measurement of Venus Deep Space Instrumentation Facility antennas 06 p0638 N67-15913
X-band cone radio frequency instrumentation 06 p0679 N67-15914
Construction and characteristics of simple X-band electromagnetic resonance spectrometer
[FTD-TT-65-2010] 16 p2892 N67-29865
Wideband waveguide-mounted ferrite-pencil phase shifters for X-band transmission
[RAE-TR-66337] 17 p3149 N67-31078
C-band and X-band dual function oscillator design
[ECOM-02340-3] 18 p3349 N67-32124
Tube-circuit compatibility, grid structure, and circuit design of C and X band oscillators which function sequentially as transmitter and as gated local oscillator
[QR-3] 18 p3351 N67-32323
Comparison of X-band vertically pointing radar signal clear atmosphere returns with low level atmospheric convection to determine relationship between convection and radar angels
[ECOM-0025] 19 p3491 N67-32978
Three-hundred milliwatt X-band triode oscillator
[QR-5] 19 p3419 N67-32976
Lightweight focusing schemes for low noise, X-band traveling wave tube amplifiers
[RCS-OSD-1366] 22 p4010 N67-36691
X-band high power traveling wave tube and associated amplifier console
[ECOM-02324-F] 24 p4419 N67-39782
C-band and X-band oscillators functioning sequentially as transmitter and gated local oscillator
[RCS-OSD-1364] 24 p4421 N67-40290

X-RAY
SA BREMSSTRAHLUNG
SA PHOTON
Hard X-ray emission of solar flares at maximum moment of sudden ionospheric disturbance
[T-27] 01 p0147 N67-10941
Sudden ionospheric disturbances caused by X-ray emission from solar flares behind limb of disk
[T-36] 02 p0239 N67-11699
Conference papers on X-ray preferred orientation
[NLCO-946] 03 p0431 N67-12231
Measurements of X-rays produced when thick silicon targets are bombarded with 1.05 and 1.25 MeV electrons and comparison to Bethe-Heitler theory
[NASA-TN-D-3773] 04 p0503 N67-12952
Material for manufacturing ionizing chambers that measure dose of X-ray radiation
[FTD-TT-65-1362] 05 p0737 N67-13838
X-ray dose and energy determination by personal film badge monitoring 05 p0814 N67-13943
Spectral energy distribution of unfiltered beams from X-ray machine
[HASL-170] 05 p0903 N67-14238
X-ray detection of disordered orthopyroxenes in meteorites
[NASA-CR-81376] 05 p0877 N67-14900
Compilation of beta excited X-ray spectra
[TID-22981, PT. 1] 07 p1130 N67-17878
X-ray emission of solar flares related to their effects in cosmic rays
[NASA-TT-F-9843] 08 p1230 N67-19772
Sounding rocket data analyzed for X-ray

source in Scorpio constellation 09 p1510 N67-19651
X-ray emission from Sco X-1, Scorpio constellation 09 p1510 N67-19652
Location of Sco X-1, strong X-ray source in Scorpio constellation, from analysis of sounding rocket observations 09 p1510 N67-19653
Temporal and spectral features of intense auroral zone X-ray event in 4 to 8 second period range - electron precipitation [NASA-CR-82984] 09 p1507 N67-20376
Film-badges filter combinations for measuring X-ray and gamma radiation above 75 keV [CLOR-51/D] 10 p1686 N67-21466
Cosmic X-ray emissions in energy range 20 to 180 keV detected during balloon flights 10 p1758 N67-21772
Microwave and X-ray radiation from electrodeless inductive discharge in hydrogen as plasma source 11 p1950 N67-21986
Electron optics of multichannel photomultipliers for broadband X-ray recording 12 p2063 N67-23502
Characteristics of Geiger counters and ionization chambers in various radiation fields - interpreting X-ray measurements by balloon detectors in auroral zone [REPT.-20] 12 p2291 N67-23997
Definition and classification of solar flare X-ray bursts 12 p2306 N67-24464
Short wave ultraviolet image and spectrum of sun obtained during course of X-ray flare [NASA...R-84987] 13 p2400 N67-28419
Welding process with X-ray control of weld quality [WAPD-TRANS-46] 15 p2721 N67-27903
Use of nuclear photoactivation by X-rays as analysis method [EUR-3296.F] 17 p3131 N67-30749
Sounding rocket experiment to study celestial X-ray sources [NASA-CR-85787] 18 p3326 N67-31869
Pulse X-ray techniques for studying shock wave induced effects in soils 19 p3453 N67-33142
Photon-photon scattering experiments - laser beams, X-rays, synchrotron radiation, and nuclear explosions [CERN-67-15] 20 p3697 N67-34706
X-ray intensity measurements by adiabatic calorimetry [UCID-15126] 21 p3928 N67-35455
Volumetric void fraction measurement of vapor by gamma or X-ray attenuation method [RT/ING/66/10] 21 p3904 N67-36139
Universal formula for mass ionization coefficients of X-rays and gamma rays [NASA-CR-88281] 21 p3904 N67-36158
Local supergalaxy as structured aspect of X-ray background [NASA-TM-X-55955] 23 p4343 N67-38374
Solar X-ray flare observed by Geiger counter onboard Explorer XXXIII satellite [NASA-CR-89263] 23 p4340 N67-38676
Balloon observations of auroral zone bremsstrahlung X-ray microbursts [NASA-CR-89990] 24 p4429 N67-39636
ESRO TD-2 satellite experiments on solar X-ray and ultraviolet radiation [ESRO-SN-65] 24 p4525 N67-40033

X-RAY ABSORPTION
Solar X-ray and X-ray absorption measurements from satellites, balloons, and rockets [ESRO-SM-43] 03 p0456 N67-13957
Ferromagnetic domain patterns observed by anomalous transmission of x-rays in iron-silicon crystals shown to depend on choice of reflecting plane [NSF-GK791/1] 06 p0948 N67-16191
Electron temperature from X-ray continuum radiation emitted from high temperature plasmas determined from calculations of bremsstrahlung radiation passing through absorption foils [NRL-6841] 15 p2774 N67-28543
Martian and Cytherean atmospheric composition determinations using entry probe measurements of ultraviolet and X-ray attenuation [DAC-60627] 19 p3528 N67-33756
Tabulated measured data, best fit functions, and predicted attenuation coefficients for atmospheric ultrasoft X-ray absorption [AFOSR-67-1254] 21 p3928 N67-35492
Computed curves for correcting X-ray absorption in electron probe microanalysis [AWRE-O-28/67] 23 p4313 N67-39217

X-RAY ANALYSIS
X-ray method for measuring percent alpha in delta stabilized plutonium alloys [RFP-798] 01 p0084 N67-10522
X-ray analysis method during synthesis of lead, zinc, mercury selenites, and mercury selenide [FTD-TT-65-1535] 01 p0035 N67-11072
Microstructural and X-ray phase analysis of alloys of titanium niobium chromium system 02 p0270 N67-11768
Metallographic and X-ray analyses of titanium alloys 02 p0271 N67-11770
X-ray studies on structure of pyrolytic carbon coatings deposited on spherical particles of uranium dicarbide [REPT.-753/IV,II/C] 04 p0566 N67-13897
X-ray diffraction micrography data on atomic structure of magnesium oxide grain boundaries 06 p0897 N67-15714
Pulmonary function and chest X-rays of humans exposed to pure oxygen environment at 258 mm Hg pressure 07 p1013 N67-17606
X-ray studies on crystal structure of dibenzoylferrocene [FTD-HT-66-500] 10 p1570 N67-20671
Analytical applications of monoenergetic X-rays from alpha emitting isotopes [NYO-3491-1] 10 p1700 N67-20778
X-ray radiometric method and equipment for rapidly analyzing chemical composition of mineral substances 10 p1577 N67-21306
Fluorescent excitation using isotopic X-ray emission [ORO-2234-6] 10 p1724 N67-21582
Metallographic and X-ray analysis of tungsten-molybdenum-zirconium ternary system isothermal section at 1200 deg C [JPRS-39757] 11 p1900 N67-23406
Thermoanalytic and X-ray measurements for lead telluride phase diagram [AERE-TRANS-1063] 12 p2234 N67-23682
X-ray and electron microscopic techniques to compare surface topography, mosaic spread, average strain, and other structural details of oxide on several dilute copper base alloys 13 p2335 N67-25953
X-ray measurements and neutron intensity patterns for correlating liquid alloy structure [CONF-660935-3] 13 p2363 N67-25937
X-ray indications in gaseous oxygen line longitudinal weld and effect on properties of tubing [NASA-CR-84497] 14 p2546 N67-27650
Phase diagram of titanium-rich aluminum alloys, using thermal, microstructural, dilatometric, and X-ray analyses [NASA-TT-F-11011] 15 p2738 N67-28744
X-ray structural analyses on partially desulfurized molybdenite [NASA-TT-F-11061] 17 p3017 N67-31061
Heat transfer from cylinders during free movement of air in rarefied space, and X-ray analysis of surface layer of heat resisting alloys after heat treatment in various gas media [FTD-MT-65-469] 19 p3550 N67-33101
X-ray study of surface layer of two heat resisting alloys after heat treatment in various gas media 19 p3470 N67-33103
Electron microscopy and X-ray analysis indicating that initial molecular structure of crystalline polyacrylonitrile does not change with thermal treatment 19 p3477 N67-33483
X-ray powder data of T phase alloys composed of aluminum and magnesium with silver, copper, or zinc [ARL/MET-26] 20 p3657 N67-34643
X-ray analysis of atomic scattering and structural defects of titanium carbide [NASA-TT-F-10436] 21 p3870 N67-36230
Thermal, microscopic, and X-ray analyses of ytirium lead alloy system 21 p3871 N67-36356
Differential thermal, metallographic, and X-ray analyses for establishing ytterbium lead and europium lead phase diagrams 21 p3871 N67-36357
Samarium-cerium and samarium-gadolinium binary systems study by microstructural, X-ray and thermal analysis 21 p3872 N67-36361
Resettable memory circuit with pulse generator for sampling and measuring galactic X-ray [NASA-TM-X-55905] 21 p3919 N67-36402
Application of spinodal theory to palladium-iridium alloy [UCRL-17470] 23 p4265 N67-38982

X-RAY ASTRONOMY
Frequency dependence of cosmic radio noise attenuation during solar flares studied by radio astronomy method [T-28] 03 p0456 N67-13454
Stellar X-ray radiation source observation from rockets, and rocket instrumentation [ESRO-SM-59] 03 p0464 N67-13951
Radio galactic emission and cosmic X-radiation [NASA-CR-80681] 04 p0611 N67-13579
Variability in fluxes received from astronomical X-ray sources - identification of Sco X-1 in Scorpio [NASA-CR-81747] 07 p1194 N67-18091
Astronomical observations through X-ray, ultraviolet, and radio astronomy 08 p1366 N67-19023
Aerobee rocket experiment for detecting X-ray sources in Cygnus constellation - stellar radiation [NASA-CR-752] 11 p1884 N67-22780
Status of rocket and balloon borne galactic X-ray observations [NASA-TM-X-55795] 14 p2609 N67-27565
Strong X-ray source in vicinity of constellation Crux 19 p3538 N67-33720

X-RAY DENSITY MEASUREMENT
Low energy X-ray measurement of some transuranic elements with lithium-drifted silicon detector system [RFP-980] 24 p4398 N67-40106

X-RAY DIFFRACTION
Data collection and evaluation with X-ray diffractometer designed for study of spatial distribution of atoms in liquids [ORNL-3960] 01 p0028 N67-10538
X-ray studies of evaporated metal films in high vacuum X-ray diffractometer attachment [F-B2196] 01 p0139 N67-10606
Effects of electron correlation in X-ray diffraction - electron diffraction for studying xenon hexafluoride crystal structure [IS-T-93] 01 p0031 N67-10716
Investigation of crystal imperfections by X-ray diffraction analysis [ARL-66-0118] 01 p0141 N67-10930
Spectrophotometric analysis and X-ray diffraction of fine grained rocks and minerals for examining composition of Martian surface [AD-630076] 03 p0459 N67-12661
Composition of carbonaceous chondrites examined by phase contrast, fluorescence microscopy, X-ray diffraction, biological staining, and electron microprobe analysis 03 p0341 N67-12723
Standard X-ray diffraction powder patterns for 109 substances [NBS-MONOGRAPH-25, SECT. 4] 03 p0359 N67-13138
X-ray diffraction patterns of promethium compounds, preparation of promethium salts of some acids, and determination of ion radius of Pm 3 ion [NP-16254] 04 p0505 N67-13978
Preparation of single crystals of rare earth tungsten bronzes and uranium tungsten bronzes - X-ray diffraction, and electrical and magnetic properties of samples 07 p1175 N67-16973
X-ray diffraction study of atomic ordering in two sigma phases formed by transition metal alloys [COO-1198-365] 07 p1152 N67-17580
X-ray diffraction data on scattering from free surface of liquid water in equilibrium with water vapor [ORNL-3997] 08 p1343 N67-18879
Dynamic X-ray diffraction technique for crystal structure studies [ONR-TR-86] 09 p1484 N67-19569
Graphs of functions of interplanar spacings for 5184 inorganic X-ray powder diffraction patterns [UCRL-50115] 11 p1869 N67-22338
Conference papers pertaining to electron probe microanalysis, electron microscopy, X-ray diffraction, and optical metallographic methods [RFP-850] 12 p2118 N67-24341
Nondestructive X-ray diffraction method for quantitatively measuring percent alpha in delta stabilized plutonium alloys 12 p2118 N67-24343
Metallographic and Laue X-ray diffraction studies of strain in large grains of alpha plutonium 12 p2119 N67-24361
X-ray diffraction and spectral analyses to

determine aging and improve reliability of quartz resonators
[A-680-11] 12 p3066 N67-24799
X-ray diffraction and oxygen coordination about beryllium in yttrium and other beryliates 13 p3366 N67-25354
X-ray diffraction data on liquid carbon tetrachloride
[ORNL-4068] 14 p3475 N67-26825
Metallographic and X-ray diffraction analyses, stress rupture and low cycle fatigue testing, nitrogen gradient and loop analyses, and kinetics of bimetallic liquid metal systems
[GMAD-3643-8] 14 p3556 N67-27243
Nuclear reaction materials studied by X-ray and neutron diffraction
[SORIN-103] 14 p3568 N67-27348
Sodium chloride crystal as thermal standard for X-ray diffraction analysis of substances at varying temperatures
[NASA-TT-F-11068] 14 p3599 N67-27567
X-ray diffraction determination of crystal structure of alpha manganese
[AMRA-TR-67-08] 15 p3726 N67-28535
Two new intermetallic compounds found when studying uranium iron silicon ternary system
[LFEN.72/ALPHA/] 17 p3062 N67-31315
Crystal structure of dipotassium tetranitrooothide determined by single crystal X-ray diffraction techniques
[NASA-CR-80060] 18 p3234 N67-32276
Control system for X-ray diffractometer scanning
[DP-900] 18 p3271 N67-32332
Cubic iron-carbon martensite examined by X-ray diffraction
[TR-1] 19 p3469 N67-32990
Safety attachments for X-ray diffraction apparatus
[AWRE-O-102/66] 19 p3454 N67-33377
X-ray diffraction for determining structural changes associated with aging of aluminum magnesium alloy with small silver additions
[ARL/MET-62] 20 p3657 N67-34458
Sample mounting techniques and design of diffractometer sample containment using nitrogen/argon two-gas system
[TRG-1209/D/] 20 p3641 N67-34630
X-ray stress analysis of Bauschinger effect in metals
[PA-TR-3564] 20 p3740 N67-34939
Structures and chemical bondings in hafnium sulfides studied by single crystal and powder X-ray diffraction
[IS-T-151] 21 p3776 N67-35457
Pentakis-2,8,9-trioxa-1-phosphaadamantane nickel/III/ perchlorate crystal structure determined by X-ray diffraction
[IS-T-153] 21 p3913 N67-35456
Physical and mechanical properties of Teflon film by X-ray diffraction, differential thermal analysis and infrared spectrophotometry
[NASA-CR-88136] 21 p3861 N67-36115
Synthesis and identification of intermetallic compounds in iron-holmium system 21 p3871 N67-36356
Phase equilibria in cerium-iron and cerium-nickel binary systems from differential thermal analysis, metallography and X-ray diffraction 21 p3871 N67-36359
Phase relations for samarium-gadolinium system from X-ray diffraction, microscopy and thermal analysis 21 p3872 N67-36360
Analysis of optical inhomogeneity of quartz crystals by X-ray diffraction topography
[NASA-TT-F-11197] 22 p4123 N67-38697
X-ray diffraction and electron probe analyses of alloy filamentary crystals grown from solids
[REPT.-67-26] 23 p4363 N67-38130
X-ray diffraction analysis of stress in thin gold films
[ORO-3430-38] 23 p4328 N67-38406
X-ray diffraction analysis of equilibrium stacking fault energy in tensile test on polycrystalline brass
[OR-8744] 24 p4465 N67-39698

X-RAY EQUIPMENT

Basic experiments in radiation chemistry
[NP-TR-1490] 13 p3270 N67-33923
Need in U.S.S.R. for increased production of nuclear geophysical and X-ray spectral analyses instrumentation and equipment
[JPRS-40824] 14 p3537 N67-27304
X-ray diffractometer for single crystal damage studies, and theoretical evaluation of cesium gas scattering problem
[NASA-CR-86112] 21 p3916 N67-35944

X-RAY FLUORESCENCE

Impurities in elemental boron determined by X-ray fluorescence
[UCRL-14879] 07 p1628 N67-17488
Construction of beta-X fluorescence gauge for chemical analysis, and phenomena that occur when beta radiation from radioactive source causes X-fluorescence
[CEA-R-2970] 07 p1682 N67-17688
Electron microprobe for X-ray fluorescence chemical analysis
[NASA-TM-X-57063] 08 p1236 N67-18797
Lunar X-ray emission measured by Lunik X lunar probe
[NASA-CR-82097] 08 p1364 N67-18741
Atomic absorption, flame emission, cathodic etching, spectrophotofluorimetry, X-ray fluorescence, gas chromatography, densitometer, mass spectrometer, and coulometer
[UCID-15066] 15 p3659 N67-28402
Balanced filters evaluated for performance in X-ray fluorescence analysis of lunar and planetary surface materials
[NASA-CR-87164] 19 p3453 N67-33229
Sensitivity of photoelectric diode detector for soft fluorescent X-rays
[UCID-15164] 22 p4646 N67-37225

X-RAY FLUORESCENCE SPECTROSCOPY

X-ray fluorescence spectrometric determination of thulium in plutonium-thulium alloys
[LA-3549] 08 p1239 N67-19064
Thin layer and gas chromatography, Mossbauer and atomic absorption spectrometry, fission track analysis, X-ray fluorescence spectroscopy, and other methods employed in geochemistry 09 p1440 N67-19586
Nuclear radiation in X-ray fluorescence spectrometry, and application to identifying minerals 10 p1577 N67-21307
X-ray fluorescence instrumentation for spectrochemical analysis 11 p1816 N67-23453
Chemical analyses by helium analyser, atomic absorption spectrophotometry, mass spectrometer, X-ray fluorescence spectroscopy, coulometer, vacuum fusion device, and gas chromatography
[UCID-15079] 15 p3659 N67-28483
X-ray fluorescence spectrometric determination of yttrium using solution method
[NASA-TT-F-10975] 16 p3243 N67-29007

X-RAY INSPECTION

SA FLAW DETECTION

X-ray inspection of titanium hydride using Debye-Scherer and diffractometer methods
[AWRE-O-60/66] 10 p1655 N67-21506
Nondestructive testing and inspection methods using infrared microscopy, X-ray television, and ultrasonic measurements - Conference
[NASA-SP-3022] 12 p3105 N67-23687
Semiautomated X-ray television for nondestructive testing and inspection 12 p3106 N67-23674
Field maintenance of weapons systems, service inspection, and nondestructive testing by Air Force 20 p3648 N67-34480

X-RAY IRRADIATION

X-ray gamma ray irradiation effect on auditory apparatus
[NASA-TT-F-10552] 01 p0013 N67-10226
Effects of gamma radiation and X-radiation on cis and trans stilbene in benzene, and isomeric compositions of irradiated samples
[NYO-3243-13] 01 p0030 N67-10622
X-ray irradiation effects on phospholipid metabolism and blood plasma of men and rats
[NYO-1864-23] 01 p0016 N67-10644
Relative effectiveness in rats of repeated X-ray irradiation and proton irradiation simulating solar flares 02 p0295 N67-11430
Spatial distribution of absorbed dose and X-ray radiation injury to dogs 02 p0298 N67-11632
Damage and defense of bone marrow in mice from proton and X-ray irradiation 02 p0299 N67-11671
Effects of low dose X-ray irradiation on brain wave activity recorded from temporal lobe structures during condition behavior of cat
[UCLA-34P66-1] 03 p0349 N67-12272
X-irradiation effects and radionuclide toxicity in dogs - clinical observations, reproductive ability, survival, and pathology
[UCD-472-118] 04 p0490 N67-12681
High resolution spectrometric studies of gamma and X-ray radiation from fission products
[UCRL-70945] 04 p0589 N67-14023
Pathological process of X-ray injuries to skin
[NASA-TT-F-10830] 06 p0782 N67-15550
Deficient mammalian cells isolated from X-ray irradiation cultures 06 p0862 N67-15849
Inactivation and recovery of Escherichia coli and DNA after treatment with ultraviolet, X-rays, and nitrogen mustard 06 p0882 N67-15882
Inactivation of bacteriophage alpha by single strand DNA breakage, and sensitivity to X-ray irradiation 06 p0882 N67-15883
Chromosomal damage in humans produced by X-rays
[AD-641585] 06 p0904 N67-16366
Energy transfer mechanisms in dielectrics, and X-ray radiation effects on electric behavior of organic materials
[ECOM-00128-F] 08 p1252 N67-19221
Premack theory applied in rat experiments of classically conditioned sucrose aversion induced by X-ray exposure
[USNRDL-TR-67-2] 19 p3259 N67-25971
Electron, X-ray, and ultraviolet radiation effects on oxidized silicon surfaces and planar devices
[SR-2] 14 p3504 N67-26788
Deficient mammalian cells isolated from X-irradiation cultures 14 p3457 N67-26789
Single strand breakage in deoxyribonucleic acid of X-irradiated phages 14 p3457 N67-26773
X-ray irradiation, and replication of deoxyribonucleic acid during episomal transfer 14 p3457 N67-26774
Scintillation dosimeter for X-ray and gamma radiation dosage rate measurement
[ORNL-TR-1478] 14 p3588 N67-27260
Reactions of hydrated electron and short-lived species in aqueous solutions irradiated with X-ray pulses
[AD-634692] 15 p3655 N67-27970
X-ray irradiation of Escherichia coli B to determine sensitivity to minimum dosages 15 p3659 N67-28617
Acute X-irradiation effects on venous circulation in cerebral vessels of rabbits 16 p3239 N67-29251
Effect of vibration and vibrotuned noise, both in combination with X-ray irradiation, on conditioned reflexes of rats 16 p3239 N67-29252
Effects of various X-ray doses during infancy on development of nervous system of rats
[COO-1201-10] 17 p3085 N67-31071
Preferential recombination of ions in X-ray irradiated oxygen and liquid hydrocarbons
[EMWF-FRK-66-45] 17 p3019 N67-31078
Photoconductivity of X-ray irradiated cadmium sulfide single crystal and annealing of intrinsic defects
[NASA-CR-80629] 18 p3217 N67-31813
Production and annealing of intrinsic defects in X-ray irradiated CdS single crystals
[NASA-CR-80611] 18 p3217 N67-31864
X-ray induced mutations in Drosophila germ cells
[SAN-580-1] 18 p3211 N67-32106
X-ray and electron damage and photochemical reactions in CdS single crystals and layers with defect annealing
[NASA-CR-80609] 18 p3218 N67-32506
X-ray effects on electric behavior of dielectric materials
[REPT.-1] 19 p3521 N67-32772
Production and annealing of intrinsic defects in X-ray irradiated cadmium sulfide single crystals
[NASA-CR-87230] 19 p3522 N67-32801
Directional characteristics and neutron sensitivity of ionization chamber dosimeters for measuring X-rays, neutrons, and gamma radiation
[NP-16701] 19 p3521 N67-32805
Fibrinogen deposition and tissue thrombosis in X-irradiated rats
[NYO-2200-2] 19 p3502 N67-32718
X-irradiation effect on mammalian retina
[AD-652048] 20 p3570 N67-33100
Trajectory and experiments for Mariner V Venus flyby mission
[NASA-CR-84973] 22 p4183 N67-38068

Effect of X-ray irradiation on condition reflex action of dogs
[JPRS-43077] 24 p4384 N67-39961
X-ray irradiation effects on potassium chloride crystals containing potassium hydrosulfite impurities
[AD-657804] 24 p4399 N67-40244

X-RAY PHOTOGRAPHY
X-ray analysis of multicomponent titanium alloy to provide data for production of sheets with uniform mechanical properties 02 p0274 N67-11793
Enhanced digital computer processing of X-ray photographs by image subtraction or filtering
[NASA-CR-80521] 03 p0348 N67-13197
X-ray analysis of mosaic structure of aluminum single crystals under fast neutron bombardment 06 p0948 N67-16272
Aerobee rocket instrumentation, including glancing incidence telescopes for soft X-ray photography of sun
[NASA-TM-X-55671] 08 p1262 N67-18919
X-ray photography-television system for monitoring biodynamic experiments
[AMRL-TR-66-104] 16 p2837 N67-29991
X-ray photographic determination of monkey blood circulation under exposure to physiological accelerations
[NASA-TT-F-11061] 17 p3007 N67-31294
Pulsed X-ray television fluoroscope for biodynamics research
[AMRL-TR-66-189] 18 p3230 N67-32691
Design and capability of pulsed high energy X-ray emitter for flash radiography
[LA-3341] 23 p4021 N67-37841
X-ray television system for use in inspection and evaluation of spacecraft electronic parts
[TG-920] 23 p4251 N67-38336

X-RAY SCATTERING
Calculation of upper bounds to small angle X-ray scattering from crystalline models of amorphous materials
[TR-7] 05 p0747 N67-15063
Fluctuation phenomena near phase transitions in condensed systems
[TR-3] 05 p0667 N67-15080
Small angle X-ray scattering patterns of polyoxymethylene fibers 11 p1902 N67-22226
Small angle X-ray scattering of polyoxymethylene obtained by radiation-induced polymerization of trioxane and formaldehyde 11 p1902 N67-22227
Diffuse X-ray scattering measurements from nickel-palladium single crystals to determine relation between physical and thermal properties and local atomic arrangements
[NASA-CR-83928] 13 p2338 N67-25890
High speed monochromator for studying small angle X-ray scattering
[NASA-TM-X-53656] 13 p2379 N67-26079
Dual detector facility for measuring scattered gamma or X-radiation
[USNRDL-TR-67-14] 15 p2860 N67-28947
Radiation damage to silica structures
[COO-1255-4] 16 p2915 N67-29719
Analytical approximations for photoelectric, incoherent scattering, and energy transfer X-ray cross sections
[SC-RR-66-452] 16 p2949 N67-29940
Characteristics of modulated energetic electron precipitation occurring during auroral substorms
[NASA-CR-85984] 17 p3057 N67-31465
Bibliography on incoherent and coherent scattering of X-rays
[KN-736-67-2/R/] 22 p4163 N67-37089

X-RAY SPECTROGRAPHY
X-ray collectors and detectors evaluated for use as spectrography experiment in Orbiting Astronomical Observatory /OAO/
[NASA-CR-98346] 03 p0443 N67-12564
Automation of Philips X-ray spectrograph
[AERE-R-4534] 17 p3069 N67-30419

X-RAY SPECTROMETRY
Processing of data issued from gamma spectrometer
[CEA-R-2991] 01 p0044 N67-10456
Measurements in plutonium L X-ray emission spectrum using electron probe microanalyzer
[CEA-R-2921] 01 p0128 N67-10699
Contour rocket photometric and spectrometric measurements of intensity and spectral distribution of solar soft X-ray flux
[ESRO-SR-26 /ESLAB/] 07 p1185 N67-17988
Simple X-ray spectrometer to analyze light elements
[NASA-CR-61778] 07 p1668 N67-18123
Balloon-borne scintillation spectrometer used in auroral X-ray measurements over Iceland 11 p1972 N67-22932
OGO III spectrometric determination time history and differential intensity of solar X-rays
[NASA-TM-X-55846] 19 p3321 N67-31542
X-ray spectrochemical methods for analysis of copper alloys
[RIA-67-849] 18 p3223 N67-32021
Selection and biasing of field effect transistors for low energy X-ray and gamma ray spectrometers
[UCRL-17598] 23 p4227 N67-38947

X-RAY SPECTROSCOPY
Publications listed and progress reported in studies of single crystals, crystal growth, material analyses, and solid compounds
[AD-637846] 02 p0295 N67-12091
Solar X-ray ultraviolet spectroscopic observations from stabilized Skylark rockets
[ESRO-SM-67] 07 p1185 N67-17918
Design notes on intermediate resolution experiment for ultrasoft X-ray measurements of solar corona
[AFOSR-66-2446] 11 p1971 N67-22681
X-ray fluorescence spectroscopic method of chemical analysis
[AMXMR-P-715-903] 13 p2266 N67-25128
Revised energy levels and wavelengths for M series X-ray emission lines of rare earths 21 p3919 N67-36316

X-RAY TELESCOPE
Balloon telescopic measurements of strongest X-ray source in Scorpius
[NASA-CR-79717] 01 p0148 N67-10873
Grazing incident double reflection X-ray telescope
[NASA-CR-717] 07 p1869 N67-18180
Radio and X-ray astronomy research on X-ray polarization, X-ray telescope and planetary atmosphere 14 p2611 N67-26620
Design, fabrication, and optical properties of X-ray telescope for 10 angstrom region
[NASA-CR-87440] 20 p3832 N67-34304
Balloon-borne X-ray survey of central region of galaxy
[NASA-TM-X-55807] 21 p3923 N67-36394
Theory and design of glancing incidence X-ray telescope
[NASA-TM-X-55952] 23 p4296 N67-39127

X-Y PLOTTER
Frequency response testing of ac and dc amplifiers, and single parameter testing of X-Y plotter
[NASA-CR-61171] 16 p2888 N67-29426

XB-70 AIRCRAFT
Flight mechanics conference on data transmission instrumentation, and flight test data acquisition system for XB-70 aircraft
[AGARD-507] 06 p1221 N67-10352
Performance and flight test data acquisition system for XB-70 aircraft 06 p1221 N67-10354
Multiple shaker ground vibration test system designed for XB-70A aircraft 14 p2511 N67-26648
Statistical determination of landing contact conditions for XB-70 aircraft - frequency histograms and cumulative frequency probability distributions
[NASA-TN-D-4007] 14 p2447 N67-27617
XB-70 flight tests to determine effect of clear air turbulence
[NASA-TN-D-4209] 24 p4373 N67-39719

XC-142 AIRCRAFT
Calculations and experimental results of factors affecting longitudinal stability of VTOL aircraft based on XC-142a data
[USAAVLABS-TR-66-53] 06 p0790 N67-16895

XENON
Time optimal reactor xenon shutdown on xenon boundary layer
[BNWL-186] 03 p0425 N67-12807
Energy, angular, and multiplicity distributions of gamma quanta produced by negative pi meson interactions with xenon nuclei
[JINR-P-2736] 03 p0443 N67-12370
Effect of xenon on safety of high flux beam reactor
[CONF-660606-16] 04 p0576 N67-13976
Xenon induced space-time variation of reactor neutron flux investigated in adiabatic approximation 07 p1134 N67-17050
Radiative emit and critical energy in xenon
[JINR-P-2868] 07 p1180 N67-17491
Molecular interactions of water with xenon, xenon hydrate, nitrous oxide, and ethylene, using thermal neutron inelastic scattering techniques
[AFOSR-66-2762] 10 p1561 N67-20825
Nonlinear analysis of xenon stability in high temperature gas-cooled reactor, and effect of fuel zoning on axial stability of reactor
[GAMD-6924] 10 p1675 N67-20821
Calculation of vapor pressure and heats of vaporization and sublimation for xenon
[TR-3] 11 p2001 N67-23462
Vacuum-enclosed Fabry-Perot interferometric observations of krypton 86 and xenon 136 infrared spectra 13 p2154 N67-23783
Digital computer program for neutron flux stability in reactor cores with xenon 135
[LA-3568] 13 p2300 N67-25557
Viscosity and thermoconductivity coefficients of dilute neon, krypton, and xenon
[NASA-CR-83899] 13 p2425 N67-25941
Control of xenon instabilities in large pressurized water reactors
[WCAP-3680-1] 15 p2749 N67-28471
Linear analysis of xenon induced spatial power oscillations in reactor core
[KAPL-M-6596] 17 p3105 N67-30317
Fission gas release loop to study behavior of fission Xe, Kr and I and other impurity gases
[JAERI-1121] 17 p3110 N67-30901
Mass spectrometric determination of krypton and xenon fission product retention in irradiation fuel elements
[TRG-1283/D/] 17 p3111 N67-30926
Reactivity balance and xenon poisoning in Molten-Salt Reactor /MSRE/
[ORNL-TM-1796] 17 p3118 N67-31400
Helium-xenon continuous wave gas lasers for space communications - testing of ultrahigh vacuum system and cascade pumping techniques
[NASA-CR-83577] 18 p3277 N67-31788
Proportional counter filled with mixture of isopentane
[NASA-CR-87328] 19 p3509 N67-33741
Digital and analog studies on xenon spatial stability in large seeding reactor
[WAPD-TM-696] 21 p3887 N67-35708
Correlated proton pair emission during negative pion interaction with xenon nuclei
[INR-787/VI/PH] 22 p4112 N67-37999
Accuracy of gamma quanta energy determination in xenon bubble chamber
[JINR-P1-3317] 22 p4112 N67-38031
Radio frequency induced mechanisms for ionization wave formation and propagation are investigated in xenon, krypton, and argon gases
[AFCRL-67-0491] 24 p4510 N67-40179
Gas flow method and charged electrode technique for determining half-lives of krypton and xenon isotopes 24 p4504 N67-40480

XENON COMPOUND
Effects of electron correlation in X-ray diffraction - electron diffraction for studying xenon hexafluoride crystal structure
[IS-T-93] 01 p0031 N67-10716
Chemical reactions of xenon hexafluoride, germanium tetrafluoride, and silicon tetrafluoride systems
[TR-80] 14 p2477 N67-27072
Formation kinetics of xenon fluorides
[UCRL-17169] 15 p2850 N67-28409

XENON LIGHT
Operating and maintenance instructions for Zeiss photocoagulator 04 p0547 N67-12486
Improvement of communication arc lamps for visible and infrared signaling equipment - self-starting xenon lamp
[PR-3] 07 p1038 N67-17740
Xenon arc discharge for simulated solar radiation in biophysical space research 12 p2083 N67-24446
Searchlight using 20-kW xenon arc lamp with internally water-cooled electrodes
[REPT.-2] 16 p2927 N67-29935
Immediate and delayed changes in retina and its vascular bed in pigs exposed to intense unfocused light from xenon lamp 16 p2831 N67-29945

XENON 129
Preparation of xenon 131, xenon 129, and krypton 79 from radioisotopes of inert gases
[ORNL-3939] 06 p0941 N67-16522

XENON 133
Radioactive xenon 133 used in determining inequality of ventilation and perfusion in flying personnel studies
[FYRC/1236] 13 p2355 N67-25580
Posture effect on distribution of

ventilation and perfusion within lung measured with xenon 133
[FPRC/1238] 13 p3256 N67-35600
Fission gas diffusion in pyrocarbons
[SORIN-106] 14 p3560 N67-37251
Specific surface measurements of sintered uranium oxide samples by BET method using xenon 133
[EURAEC-1863] 23 p4370 N67-39221
XV-5 AIRCRAFT
Stability augmentation system evaluation by hovering XV-5 aircraft flight simulation
[REPT.-157, VOL. II] 03 p0333 N67-13094
XV-5A AIRCRAFT
Flight test results on XV-5A aircraft hovering, transition, and conventional regimes
[REPT.-166, VOL. I] 03 p0333 N67-13030
Flight test results for XV-5A aircraft on thermodynamics, stability and control, and systems performance
[REPT.-166, VOL. II] 03 p0333 N67-13031
Graphs depicting flight test parameters of XV-5A lift fan
[REPT.-166, VOL. III] 04 p0483 N67-13907
Wing-fuselage flutter regime of XV-5A aircraft model
[REPT.-168] 11 p1781 N67-23672
XV-9A AIRCRAFT
Design, fabrication, engine and whirl tests, ground test, and flight test of XV-9A hot cycle research aircraft
[HTC-AD-65-27] 01 p0005 N67-10508
Additional flight test data for XV-9A hot cycle research aircraft - evaluation of propulsion system performance and operating characteristics
[USAAVLABS-TR-66-81] 13 p3241 N67-25460

Y

YAG
S YTTRIUM-ALUMINUM GARNET /YAG/ CRYSTAL
YANG-MILLS QUANTUM
Generalization of Stueckelberg formalism to massive Yang-Mills field
17 p3139 N67-30549
YAW
Nonlinear Magnus moment, and yaw cameras and sondes for studying stability of spinning projectiles
06 p0784 N67-15378
Technique for measuring spin and yaw of shell along entire trajectory
06 p0877 N67-15379
Polar equation of yawing motion for analysis of nonplanar and near-circular motions of missiles
[NASA-CR-73007] 07 p0988 N67-17186
Piloted simulator study of yaw coupling in turning maneuvers of supersonic transport compared with flight test data on large variable stability jet transport
[NASA-TN-D-3910] 12 p3013 N67-23706
Catastrophic yaw and roll lock-in at supersonic and subsonic speeds
[AGARD-551] 16 p3813 N67-29535
Method for solving equations representing three-dimensional compressible laminar boundary layers on yawed infinite cylinders
[LB-32760] 20 p3561 N67-34734
Aerodynamic forces and yawing moments on water-line ship model
[NPL-AERO-1109] 20 p3561 N67-35028
YAW ATTITUDE
Statistical analysis of yaw steering law required to optimize propellant combustion for space missions
[TR-1601/2121-10/-1] 24 p4527 N67-39505
Stability derivatives evaluated from free flight yawing motion of statically stable test models
[AEDC-TR-67-154] 24 p4373 N67-39681
YEAST
Effect of gamma radiation and protons with energies of 127 to 660 MeV on yeast cells
02 p0183 N67-11441
Hexitol and sugar effect on carbon dioxide production by irradiated and unirradiated starved yeast cells
[REPT.-682] 13 p3031 N67-23933
Effects of inert nitrogen, helium, and argon on oxygen consumption of yeast cells and rat liver
[SAM-TR-66-109] 12 p3020 N67-24810
Relation of radiation induced respiration deficiency to cell survival in yeast Saccharomyces cerevisiae
[RM-349] 13 p3266 N67-25353
Simple controlled nutrient supply in continuous cultivation of fodder yeasts
20 p3577 N67-34824
YIELD
Reactor yield calculations for radioisotopes using computer program ISOTOPES
[ORNL-IIC-8] 06 p0915 N67-16527
Significance level in statistical hypothesis testing of production method
07 p1050 N67-17184
Yielding effects on shock spectra
13 p3412 N67-25164
Independent yields in thermal fission of uranium 235, plutonium 239, plutonium 241, and uranium 233
[AERE-R-5488] 20 p3697 N67-34699
YIELD POINT
Dynamic yield point of metals at high impact velocities and comparison of stress measurement methods
06 p0898 N67-15935
Relationships between temperature and yield point, strain hardening coefficient, and grain size of polycrystalline zirconium
[ITRI-578P27-20] 07 p1102 N67-17573
Yield-point load of circular plate sealing by incompressible fluid
[DOMIIT-1-22] 09 p1519 N67-19790
YIELD STRENGTH
SA STRESS
Review of Russian fiber optics, deterioration of metal strength under effect of liquid metals, Soviet biosatellite program, laser ranging of moon, and satellite and meteor tracking
01 p0112 N67-10096
Relationship between interatomic reactions and adsorption induced strength deterioration under effect of liquid metal
01 p0062 N67-10098
Impact strength of titanium unaffected by heating time during vacuum heating
02 p0275 N67-11796
Strength characteristics of industrial melts of multicomponent titanium alloys with .02 to .075 aluminum content
02 p0276 N67-11807
Stiffness and strength analyses on composite cross-ply and helical wound cylinders and flat laminate structures
[NASA-CR-630] 02 p0315 N67-11948
Relationship between Petch friction stress and thermal activation rate equations used to describe temperature and strain rate dependence of yield stress of iron
[AD-646235] 08 p0894 N67-16978
Strengthening mechanisms of ultrahigh strength austenitic steel - aging temperatures, mechanical processing, and deformation effects on yield and tensile strengths
[UCRL-16913] 07 p1101 N67-17080
Texture strength and fracture toughness of titanium alloy sheet biaxial stress fields at room and cryogenic temperatures
[NASA-TM-X-53273] 07 p1104 N67-17822
Fiber-reinforced metal matrix composites for strengthening core and cladding elements in advanced nuclear fuels
08 p1324 N67-19235
Automatic calculations of strengths of force transmitting components of thin-walled aircraft structures
09 p1537 N67-20135
Experimental check of theoretical methods of calculating strength
[FTD-MT-66-25] 10 p1766 N67-21737
Low temperature strength measurements on aluminum and copper coils under pulsed loads of different magnitude and repetitiveness
11 p1894 N67-21952
Bibliography on high yield strength steels and weldments
[PB-5] 12 p2110 N67-24486
Discontinuous yielding of commercially pure aluminum under slowly applied deadweight loading
[MML-4] 14 p3551 N67-30813
Limit analysis of plasticity applied to strength evaluation of fiber reinforced composites
[NASA-CR-84450] 14 p3427 N67-37421
Tensile properties of aluminum alloy when thermal stress relieved after solution treatment and prior to aging
[NASA-CR-84481] 14 p3560 N67-37513
Strength properties of organic glass sheets under explosive loading
14 p3548 N67-37720
Test method and results of installation torque versus plastic and elastic strain, angular nut rotation, and deformation for turbine rotor bolt
[R66FPD849] 16 p3781 N67-38560
Modifications of simple descriptions of yielding at crack tips
[NASA-CR-84460] 17 p3175 N67-31470
Yield and fracture characteristics of silver brazed drill rod determined as function of base metal yield strength and joint thickness to diameter ratio
[SU-DMS-67-5] 18 p3273 N67-31540
Origin of low-temperature macroscopic elastic limit of body-centered cubic metals
[NASA-TT-F-11048] 18 p3317 N67-31841
Experimental observations of slightly impure aluminum to determine dislocation mechanisms of repeated discontinuous yielding of metals
[MML-6] 18 p3280 N67-32192
Free dislocations effect of yielding and fracture in body-centered cubic metals
[ARL/MET-56] 20 p3658 N67-34849
X-ray stress analysis of Bauschinger effect in metals
[PA-TR-3564] 20 p3740 N67-34920
Dynamic strength measurements of human vertebrae under axial compression
[NASA-CR-89610] 22 p3969 N67-37980
Yield strength studies of steel to determine degrees of hydrogen absorption in neutral electrolytes
[NASA-TT-F-11280] 24 p4497 N67-40000
YIG
S YTTRIUM-IRON GARNET /YIG/ CRYSTAL
YO-YO DEVICE
Three-dimensional analysis of tangential yo-yo despin device on rotating rigid body
[NASA-TN-D-3945] 09 p1533 N67-19694
Polaris missile handling and loading analysis of standard equipment with and without shock absorbers and of Yo-Yo device
18 p3280 N67-31701
Design considerations and performance features of yo-yo despinning mechanisms
21 p3927 N67-38289
Two-stage yo-yo and nutation damper for despinning ATS gravity gradient stabilized synchronous satellite
21 p3928 N67-38292
YTTERBIUM
Particle decay of thulium 176 and energy level of ytterbium 176
03 p0488 N67-13965
Heats of formation for ytterbium and thulium trichlorides
[BM-RI-6982] 06 p1342 N67-15849
Differential angular correlation and application to four-detector apparatus, and ytterbium 172 measurements
[BMWF-FBK-66-39] 14 p3539 N67-37488
Absorption spectrum of ytterbium-doped calcium tungstate at liquid helium temperature
[HDL-TR-1326] 15 p3760 N67-38187
Low energy transitions in lutetium and ytterbium isotopes
[NP-16494] 15 p3760 N67-38282
Estimation of relative concentration of trivalent ytterbium ions in multiple site symmetries of calcium tungstate using paramagnetic resonance method
[HDL-TR-1348] 17 p3146 N67-30277
Hydrostatic pressure coefficients of electrical resistivity for carbon and ytterbium pressure transducers
[NASA-CR-97161] 19 p3430 N67-32940
Optical absorption spectra of trivalent ytterbium ion in cadmium fluoride crystals
[TR-2] 20 p3714 N67-36051
Cerium, lanthanum, erbium, and ytterbium sorption from lithium chloride solutions by anion exchange resin
21 p3930 N67-38294
Electric and magnetic properties of 7 intermediate phases in ytterbium-antimony binary system
21 p3930 N67-38299
Crystal structure of ytterbium sulfide and manganese ytterbium sulfide
21 p3927 N67-38289
Differential thermal, metallographic, and X-ray analyses for establishing ytterbium lead and europium lead phase diagrams
21 p3971 N67-38297
Optical and electrical properties of ytterbium thin films
21 p3923 N67-38273
Structure and magnetic properties determined for manganese ytterbium sulfide spinel
[RED-TR-67-349] 23 p4281 N67-39567
YTTRIUM
Ion exchange separation of curie quantities of yttrium-90 from strontium-90 with DTPA and HEPTA
[ORNL-3909] 03 p0230 N67-12585
Mass spectrometric studies of samarium, yttrium, lanthanum, and rare-earth fluorides
[ORO-2907-12] 12 p3008 N67-23696
Effect of yttrium addition on physical

properties of stainless steels
[TRG-1345] 12 p3116 N67-23684
Preparation and purification of thorium, yttrium, vanadium, and refractory metal systems for reactor materials
[IS-RD-9] 13 p2363 N67-25907
Design and calibration with strontium 90 and yttrium sources of high beta dose rate detector
[AERE-M-1830] 15 p2714 N67-29854
X-ray fluorescence spectrometric determination of yttrium using solution method
[NASA-TT-F-10975] 16 p2842 N67-29907
Internal bremsstrahlung measurement on yttrium and resulting transition probabilities
[BMWF-FBE-67-10] 17 p3126 N67-36328
Addition of yttrium to stainless steels for improved high-temperature corrosion resistance
[TRG-1345/S/] 17 p3082 N67-31373
Hall effect of gadolinium, lutetium, and yttrium single crystals in magnetic fields
[IS-T-139] 19 p3523 N67-33907
Isotope dilution technique for determination of yttrium in alloy steels
[AERE-AM-104] 20 p3568 N67-34088
Reaction rate of yttrium metal with molten lithium fluoride in lithium fluoride-yttrium fluoride mixtures
[BM-RI-7008] 20 p3590 N67-34259
Electrorefining of yttrium
[BM-RI-7018] 20 p3590 N67-34300
Magnetic properties and structures of cobalt intermetallic compounds containing rare earth metals or yttrium 21 p3920 N67-36336
Preparation of thorium dicarbonate, uranyl carbonate, and sesquicarbonates of lanthanum, cerium, praseodymium, terbium, and yttrium from corresponding anhydrous acetates 21 p3788 N67-36348
Permanent magnet properties of yttrium-cobalt powders 21 p3922 N67-36375
Temperature effect on EDTA-elution positions of yttrium in rare earth sequence 21 p3790 N67-36382
Commercial ion exchange separation of yttrium using HEDTA and EDTA elutions 21 p3790 N67-36383

YTTRIUM ALLOY
Accelerated life tests of iron chromium aluminum yttrium alloy for electrical heating elements
[GEMP-440] 08 p1290 N67-18566
Thermal, microscopic, and X-ray analyses of yttrium lead alloy system 21 p3871 N67-36356
Amalgamation process for preparation of magnetic intermetallic yttrium cobalt powder
[SR-1] 24 p4487 N67-39922

YTTRIUM-ALUMINUM GARNET /YAG/ CRYSTAL
Development, fabrication, and evaluation of neodymium doped YAG laser rods
[NASA-CR-80510] 23 p4059 N67-35542
Threshold computed for laser cutoff effect in rare earth doped crystals used in solid state lasers
[AFAL-TR-67-213] 24 p4461 N67-39604

YTTRIUM COMPOUND
X-ray diffraction and oxygen coordination about beryllium in yttrium and other beryllates 13 p2366 N67-25854
High temperature neutron and X-ray diffraction analyses on lanthanum carbide and yttrium carbide lattice structures
[LA-DC-8451] 16 p2948 N67-29793
Growth of single crystals of doped and undoped yttria and yttrium aluminate in hollow cathode zone refiner
[AFML-TR-67-51] 21 p3915 N67-35657
Thermoelectric properties of yttrium monoarsenide, yttrium monoantimonide, and other yttrium binary and ternary compounds and systems
[RI-7025] 21 p3917 N67-36143
High temperature neutron diffraction of yttrium and lanthanum diarsenides 21 p3787 N67-36341
Three-dimensional diffractometer analysis of yttrium lanthanate structure and phase transformation at low and high temperatures
[TR-1001/2250-10/-5] 22 p3901 N67-37949

YTTRIUM-IRON GARNET /YIG/ CRYSTAL
Indeterminacy of molecular field coefficients in ferrimagnets for alpha and beta values for YIG and lithium ferrite
[AFCRL-66-280] 01 p0127 N67-10001
Production engineering measure for single crystal yttrium-iron-garnet spheres and limiters
[SJ-223-0045-11] 01 p0054 N67-10957
Magnetic relaxation in rare earth doped yttrium iron garnet
[AFCRL-66-304] 01 p0117 N67-10958
Liquid rotation and vortexing during draining 06 p0886 N67-15896
Single crystal yttrium-iron garnet rod as magnetoacoustic delay line
[AD-634640] 15 p2677 N67-27987
Measurements of elastic and magnetoelastic constants of yttrium-iron garnet crystal as function of temperature
[AFCRL-67-0356] 21 p3915 N67-35630
Shock induced demagnetization of nickel ferrite, yttrium-iron garnet, and iron
[UCRL-70240] 23 p4196 N67-39118

YTTRIUM OXIDE
Pressure effect on formation of compounds in yttrium oxide-aluminum oxide system
[LA-TR-66-64] 10 p1572 N67-30834
Fabrication and mechanical properties of sintered zirconium yttrium oxide dispersions - morphology and powder metallurgy
[AECL-2623] 16 p2913 N67-30118
Two-photon stepwise absorption in trivalent erbium cation in yttrium oxide and lanthanum trifluoride crystals - fluorescence
[TR-1001/2230-25/-2] 21 p3914 N67-35544
Cathodoluminescence of rare earth activated yttrium oxide 21 p3920 N67-36334

YUKAWA POTENTIAL
Series for Green functions obtained of scalar and spinor fields in strong interaction of Yukawa type - quantum field theory
[JINR-P-2761] 04 p0583 N67-13378

Z

Z TRANSFORM
Z-transform theory in simplifying analysis and synthesis of unequally spaced antenna arrays
[AFCRL-67-0230] 19 p3403 N67-33182

ZEEMAN EFFECT
High field Zeeman effect measurements using scanning device and pulsed magnetic fields
[TR-5] 05 p0752 N67-15086
Hyperfine interaction and Zeeman effect in atomic hydrogen
[NOLTR-66-47] 07 p1141 N67-17014
Magnetic and related stars examined by photoelectric narrow-band photometry for Zeeman effect 11 p1980 N67-23443
Zeeman effect on absorption spectrum of solids
[NT-155] 13 p2192 N67-24579
Design and development of instrument for measuring and recording local displacements on spectrogram 14 p2532 N67-26787

ZENER DIODE
Reliability data and test arrangements for zener diodes used in Saturn program
[NASA-CR-80078] 04 p0520 N67-13677
High current Zener diode array used as voltage transient suppressor
[ECOM-2777] 10 p1596 N67-21859

ZEOLITE
Kinetics of water vapor and carbon dioxide desorption from zeolites under vacuum 01 p0029 N67-10587
Space cabin atmosphere regeneration by physiochemical sorption and catalytic cycling through zeolite 04 p0496 N67-13433
Unit cell size and cesium loading on A and X type zeolites 04 p0503 N67-13754
Experimental determination of zeolite absorbing power at low pressures and for clean vacuum 11 p1901 N67-21955
Decontamination of effluents by zeolites
[EUR-3452.F] 17 p3020 N67-31365

ZERO GRAVITY
& WEIGHTLESSNESS

ZERO LIFT
Pressure distribution at zero lift on slender delta wings at supersonic speeds
[ARC-CP-774] 11 p1778 N67-23799

ZERO POWER REACTOR III /ZPR-III/
Fuel and other core materials procured for experimental fast oxide reactor critical experiments in Zero Power Reactor III /ZPR-III/
[GEAP-5133] 01 p0111 N67-10910
Southwest Experimental Fast Oxide Reactor development program
[GEAP-5166] 04 p0577 N67-14002

ZERO POWER REACTOR /ZPR/
Measurement of spatial dependent transfer function in zero power reactor
[KR-107] 01 p0109 N67-10727
Measurement of effective delayed neutron fraction for Zero Power Reactor I
[NASA-TN-D-3709] 01 p0110 N67-10769
Research, design, fabrication, and safety of liquid-metal fast breeder reactors and zero power reactors
[ANL-7245] 07 p1134 N67-17388
Direct zero power reactor measurements of neutron capture-to-fission ratio, and results of uranium 235 measurements 08 p1342 N67-18871
Delta 28 parameter measurements in water-graphite moderated pitches, and graphite moderated pitches of zero power reactor lattice
[INR-748/IXA/PR] 11 p1925 N67-23008
Transport computer program for calculating real and adjoint flux for NASA zero power reactor
[NASA-TN-D-3900] 14 p2573 N67-26510
Neutron counting statistics of zero power reactor treated on basis of Kolmogoroff theory of branching processes
[KR-114] 15 p2743 N67-27965
Reactor physics experiments on coupled fast thermal zero power reactor
[KFK-482] 16 p2921 N67-29734
Epithermal and thermal spectrum indices in deuterium oxide lattices in zero power reactor
[AE-277] 17 p3166 N67-30732
Techniques for measurement of neutron flux and power generation distribution in lattices of zero energy reactor Hero and sub-critical stack Fifi
[TRG-1338/W/] 17 p3118 N67-31349
Reactivity properties of Agesta nuclear power reactor at zero power
[AE-289] 21 p3887 N67-35780
Physical measurements on critical experiments in tungsten based, aluminum reflected fast reactors - Zero Power Reactor /ZPR/
[ANL-7007] 21 p3891 N67-36537
Physics measurements with modified diluent compositions in tungsten based aluminum reflected fast reactors
[ANL-7207] 22 p4006 N67-38045
Measurements and calculations of effective fission cross section ratios in zero power fast reactor
[AEEW-R-526] 23 p4285 N67-38361
Heterogeneous perturbation theory and computer code for zero power reactor neutronic calculations
[AI-67-91] 23 p4292 N67-39023
Determination of reactivities using pulsed neutron techniques for highly subcritical solution reactors
[NASA-TM-X-52369] 24 p4493 N67-40366

ZERO SOUND
Low temperature properties of liquid helium 3, and zero sound observations 10 p1694 N67-21681
Dispersion relations for zero sound and spin waves in low temperature liquid helium 3
[SR-629] 19 p3499 N67-33954

ZETA MACHINE
Phenomena associated with buildup of noncylindrical focused Z pinch 12 p2182 N67-24177

ZINC
Neutron radioactivation determination of antimony, silver, copper, gallium, molybdenum, and zinc
[CEA-R-2965] 01 p0086 N67-10697
Galvanostatic study of electrodeposition processes and anode dissolution of zinc in zinc perchlorate solution 02 p0355 N67-13378
Diffusion of zinc-65 in copper-zinc beta, gamma, and epsilon intermetallic phases
[INR-729/XIV/PS] 04 p0601 N67-14171
Angular distribution of protons elastically scattered by calcium, nickel, and zinc isotopes 06 p0944 N67-15691
Angular distribution of elastically scattered 6.8 MeV protons on chromium, cobalt, nickel, copper, and zinc nuclei targets 06 p0938 N67-15814
Refining, filtration, and centrifugation process for iron contaminated zinc melt
[BM-RI-6889] 06 p0890 N67-15892
Losing potentials of compounds prepared from elements of group II and group IV in periodic table 07 p1174 N67-16592
Growth and properties of lithium fluoride

and zinc single crystals
[TID-22369] 07 p1092 N67-17564
Spectrometric resonance line identifications in nickel, copper, and zinc spectra
[NASA-TM-X-55684] 06 p1237 N67-18648
Newly identified lines of highly ionized nickel, copper, and zinc in sodium I isoelectronic sequences
[NASA-TM-X-55693] 06 p1238 N67-18752
Spectrographic determination of silver and zinc in silicates chemically similar to tektite glass 09 p1405 N67-19508
Whole-body counter used to measure Zn-65 in cyclotron workers 13 p2255 N67-35469
Diffusion kinetics of beta, gamma, and epsilon intermetallic phases in copper-zinc system
[NASA-TT-F-10943] 15 p2734 N67-38383
Air-flow polarization study of zinc-air depolarized batteries
[ECOM-01814-5] 15 p2645 N67-38831
Fabrication and testing of carbon-zinc batteries capable of storage at temperatures up to 160 deg F
[REPT.-1] 18 p3200 N67-32524
Zinc paints and galvanizing for corrosion prevention 20 p3657 N67-34538
Low angle boundaries in large single crystals of zinc
[INR-663/11/PS] 20 p3715 N67-34967
Electric furnace smelting of complex lead zinc sinter
[BM-RI-6999] 20 p3651 N67-35136
Carbon zinc battery with capacity for prolonged storage at high temperatures developmental progress
[ECOM-02391-F] 21 p3762 N67-35888
Improving high temperature storability of zinc-manganese dioxide battery
[ECOM-02394-1] 22 p3962 N67-36744
Improving zinc electrodes for spacecraft electrochemical cells - control of zinc penetration through separators
[NASA-CR-66521] 22 p3964 N67-37197
Dislocation velocity in copper and zinc
[CALT-473-13] 22 p4074 N67-38013
Absorption and transport of zincate in separator membranes for improved electrodes in spacecraft electrochemical cells
[NASA-CR-89512] 23 p4182 N67-38923
Secondary rechargeable zinc-oxygen battery for spacecraft
[NASA-CR-89311] 23 p4183 N67-39070
Zinc electrode improvement work for use in spacecraft electrochemical cells
[NASA-CR-89239] 23 p4184 N67-39303
Distribution of dithizone detectable zinc in cells and tissues of Vicia faba during growth
[CNAEM-42] 23 p4196 N67-39230

ZINC ALLOY
SA BRASS
Solid state device concepts pertaining to diodes, p-n junctions, and properties of selenium, cadmium selenide, cadmium sulfide, sodium, zinc, silicon, and telluride
[SR-6] 06 p0947 N67-18629
Cathode process mechanism in preparing thorium zinc alloys in fused salt 06 p0821 N67-16324
Interdiffusion in zinc-uranium system, and determination of activation energy and coefficient
[INR-782/XIV/PS] 11 p1930 N67-32959
Ultrasonic radiation effects on electrodeposition of copper zinc, copper cadmium, and copper tin alloys from cyanide electrolyte baths
[BM-RI-6936] 14 p2480 N67-37399
Al-Zn-Mg system alloys heat treated and studied for phase precipitation, decomposition, and mechanical properties as thin films
[T-1901-67] 16 p2907 N67-39486
Polygonal structure in aluminum and aluminum-zinc alloys
[TN-431] 16 p2854 N67-39045
Improved zinc electrode for silver-zinc battery
[NASA-CR-72265] 17 p3009 N67-31486
Uranium monocarbide prepared by reaction of uranium and carbon in liquid zinc magnesium alloy medium
[ANL-7361] 20 p3593 N67-34486
X-ray powder data of T phase alloys composed of aluminum and magnesium with silver, copper, or zinc
[ARL/MET-36] 20 p3687 N67-34643
Torsional fatigue deformation of two aluminum zinc magnesium alloys in various conditions of heat treatment
[RAE-TR-66201] 20 p3683 N67-35188
Study of alloy theory - structure and properties of metastable phases of copper, zinc, and silver alloys
[F-C1069] 22 p4070 N67-37257
Neutron irradiation of pure metals and aluminum zinc alloys
[ANL-7185] 23 p4071 N67-37510
Heat-treated Zr-2.5 percent Nb pressure tubes for water-cooled power reactors
[AECL-2690] 23 p4235 N67-38377

ZINC ANTIMONIDE
Free carrier absorption, valence band effective masses and relaxtion times in zinc antimonide cadmium antimonide alloys
[NASA-CR-85879] 17 p3149 N67-38867

ZINC COMPOUND
Optimum constituent concentration and operating conditions for room temperature zinc phosphating process
[RIA-66-1856] 01 p0077 N67-10838
X-ray analysis method during synthesis of lead, zinc, mercury selenites, and mercury selenide
[PTD-TT-65-1585] 01 p0035 N67-11072
Theoretical and measured oscillator strengths for atomic transitions in zinc iodine, cadmium iodine and mercury iodine 07 p1141 N67-16967
Purification and single crystal growth of cadmium compounds and zinc compounds
[QPR-6] 09 p1500 N67-19714
Epitaxial growth of single crystal ingots of cadmium arsenide, zinc arsenide, and alloy system by Bridgman technique - properties of infrared detectors
[NRL-MR-1743] 12 p2193 N67-34648
Testing and performance evaluation of primary zinc alkaline - mercuric oxide cells and batteries
[ECOM-76230-F] 16 p2899 N67-39655
Vapor pressures measured of selected mixtures in binary system stannous chloride-zinc chloride
[RI-7022] 21 p3782 N67-36474

ZINC OXIDE
Electronic structure of zinc oxide and related crystals
[QSR-1] 03 p0452 N67-12458
Relative quantum yield dependence of spontaneous zinc oxide luminescence on excitation wavelength
[NASA-TT-F-10990] 04 p0598 N67-13785
Luminescence spectra of zinc oxide subjected to thermal processing
[NASA-TT-F-10454] 04 p0600 N67-13800
Solar absorptance and emittance of candidate zinc oxides/silicone and zinc oxide/potassium silicate coatings measured at room temperature for application to space radiators
[NASA-CR-72060] 05 p0736 N67-14914
Zinc oxide-potassium silicate thermal coating tested under various vacuum, temperature, solar electromagnetic, and proton environments to determine their effects on solar absorptance
[NASA-CR-73628] 06 p0774 N67-14922
Current and light storage effects in lithium and sodium doped zinc oxide single crystals following optical or thermal stimulation 07 p1175 N67-16971
Thermal control coatings, cathodic processes on semiconductor zinc oxide, and semiconductor electrolyte interface capacitance
[NASA-CR-82160] 08 p1227 N67-18549
Cathodic reduction of aqueous ferricyanide ion on single crystal zinc oxide electrode 09 p1527 N67-19588
Evaluation of aluminum silicate - potassium silicate, and zinc oxide - potassium silicate emissive coatings for spacecraft radiators
[NASA-CR-72181] 09 p1542 N67-19971
Ultraviolet interactions with zinc oxide type pigmented thermal control coatings used on spacecraft 12 p2237 N67-34645
Development and performance characteristics of secondary zinc-oxygen test cell
[NASA-CR-81663] 13 p2349 N67-35837
Optical and electrical parameters of zinc oxide degradation during exposure to spectral radiation
[NASA-CR-66234] 17 p3002 N67-31269
Low energy electron diffraction analysis of surface properties of zinc oxide single crystals cleaned by argon ion bombardment and annealing treatment
[ECOM-02511-1] 17 p3130 N67-31399
Photoconductivity and electric conductivity of polycrystalline zinc oxide thin film under low intensity irradiation
[NASA-CR-67187] 19 p3421 N67-32766
Grinding effects on zinc oxide, zinc boride, and antimony crystalline structures
[CEA-R-3008] 19 p3463 N67-33042

ZINC SELENIDE
Photoconductivity in zinc selenide telluride p-n junctions 06 p0947 N67-18622
Electroding technique for self-starting zinc selenide telluride diodes 06 p0947 N67-18623
Infrared and Raman active lattice vibrations in zinc selenide 10 p1743 N67-30443
Cadmium sulfide and zinc selenide purification and crystal growth
[QPR-7] 17 p3014 N67-30955
Model for explaining chalcogen self-diffusion data in II-VI compounds 19 p3325 N67-33431

ZINC-SILVER BATTERY
S SILVER-ZINC BATTERY

ZINC-SILVER OXIDE BATTERY
Gamma radiation effects determined on silver and zinc battery electrodes and silver-cadmium cells
[NASA-CR-79489] 02 p0175 N67-11732
Chemical reactions pertaining to zinc-silver and cadmium-silver batteries
[NASA-CR-80139] 02 p0229 N67-12163
Dry process divalent silver oxide electrodes and electrode mechanical strength, for guided missile zinc-silver oxide batteries
[ECOM-2749] 05 p0636 N67-14716
Tritium tracer and thermogravimetric analysis used to investigate reactions of zinc-silver and cadmium-silver batteries
[NASA-CR-84215] 13 p2267 N67-35922
Primary zinc, silver oxide battery design 17 p2995 N67-30690
Heat sterilizable, impact resistant cell development, and electrochemical system
[NASA-CR-84866] 17 p2998 N67-31126
Separators for silver oxide-zinc and silver oxide-cadmium cells - modification of methyl cellulose and effects of radiation, dry heat, and standing in charged cell on membranes
[NASA-CR-85597] 17 p2999 N67-31174
Separators for zinc-silver oxide battery and cadmium-silver oxide cells for spacecraft applications
[NASA-CR-87022] 20 p3569 N67-34429
Wrapping and prewetting techniques, and materials for improved separators for zinc-silver oxide and cadmium-silver oxide cells
[NASA-CR-89615] 24 p4280 N67-40680

ZINC SULFIDE
Errors in sampling zinc sulfide particles with nozzles designed to achieve isokinetic flow 04 p0620 N67-13781
Beechcraft 90 aircraft with detection system used for atmospheric sampling of zinc sulfide tracer 07 p1070 N67-17317
Direct current quenching of alternating current electroluminescence in zinc sulfide 08 p1328 N67-18827
Bleaching effect of cobalt doped zinc sulfide crystals under influence of extremely large pulses of ruby laser
[NASA-TT-F-469] 11 p1894 N67-32608
Optical, electrical, and magnetic properties of zinc sulfide manganese chloride powders - electroluminescent materials for space vehicle surfaces
[NASA-CR-66236] 11 p1927 N67-32972
Infrared stimulation of luminescence in zinc sulfide at wavelengths longer than 2.5 microns
[REPT.-6480-116-1] 11 p1930 N67-33141
Dynamic ionic charge of sphalerite type crystals
[TR-10] 14 p2694 N67-37173
Electroluminescent characteristics of evaporated zinc sulfide layer and doped zinc sulfide crystals 20 p3715 N67-34190
Thin film electroluminescent display fabricated on glass substrate using vacuum deposition procedures and manganese doped zinc sulfide phosphor
[AMRL-TR-67-1] 22 p4012 N67-37606
X-ray diffraction measurement on thermal expansion of zinc sulfide wurtzite phase
[ARL-67-0130, PT. I] 24 p4218 N67-39760

ZINC TELLURIDE
Photoconductivity in zinc selenide telluride p-n junctions 06 p0947 N67-18622
Electroding technique for self-starting zinc selenide telluride diodes 06 p0947 N67-18623
Hole mobility and electric properties of

thin film diodes, gallium arsenide, and zinc telluride semiconductor devices
[S-67-1186] 23 p4222 N67-38159
ZINCBLENDE
Extension of general theory of covalent bonding in elemental crystals to partially ionic crystals /III to V and II to VI semiconductors/ in zincblende and wurtzite crystal structures
[AD-657433] 23 p4226 N67-38160
ZIRCALOY
Fuel assembly experiments, hydride orientation and mechanical properties of thin walled Zircaloy tubing, and in-core flux monitors
[DPST-66-83-5] 01 p0106 N67-10606
Effect of preferred orientation on mechanical properties and deformation behavior of Zircaloy-2 fuel sheathing
[AECL-2627] 03 p0425 N67-12690
Pressure bonding of Zircaloy cladding components to reactor core fuel plates
[WAPD-385] 03 p0486 N67-13315
Critical crack length measurements in hydrided Zircaloy-2 pressure tubes
[TRG-1363/C/] 04 p0574 N67-13544
Mechanical property changes in Zircaloy 2 Inconel and Incoloy for fast neutron exposures above 1 MeV
[GEAP-5100-9] 04 p0561 N67-14066
Zircaloy braze alloy and brazing procedure for pressurized water reactor fuel element assemblies
[ITTRI-578P29-2] 04 p0537 N67-14092
Fabrication of Zircaloy-4 clad zirconium-2.5 niobium pressure tubing by extrusion and cold drawing process
[REPT.-1] 07 p1094 N67-17885
Resistance welding of Zircaloy end closure joints of turbular fuel elements
[AECL-2814] 08 p1322 N67-19250
Brazing of Zircaloy in nuclear fuel
[AECL-2813] 08 p1323 N67-19254
Thermal diffusion of hydrogen in finned Zircaloy 2 pressure tubes
[AECL-2634] 08 p1323 N67-19256
Fluorine contamination and depth distribution in Zircaloy studied by proton irradiation and detection of gamma radiation from nuclear reaction
[AE-237] 10 p1699 N67-20743
Forming uniform thick oxide layers of Zircaloy 2 for friction and wear applications in high temperature water
[AECL-2542] 10 p1638 N67-20928
Friction tests between thorium and uranium alloys and Zircaloy 4
[KAPL-3166] 10 p1678 N67-20930
Hydrogen effect on fracture toughness of Zircaloy and zirconium-niobium alloy pressure tubes
[AECL-2623] 10 p1655 N67-21561
Test preparation of Zircaloy braze binary alloys
[ITTRI-578P29-5] 10 p1656 N67-21534
Chemical and electrochemical milling of spiral lands on Zircaloy tubing
[KAPL-3139] 10 p1648 N67-21567
Dynamic steam corrosion tests on Zircaloy-4 clad uranium dioxide to determine amount of oxide, oxygen-saturated metal, and unaltered metal at various temperatures 11 p1802 N67-22091
Explosive welding of aluminum liners in Zircaloy-4 tubing by mandrel and external die methods
[BMI-X-413] 11 p1891 N67-23183
Zircaloy corrosion in high pressure boiling water and steam
[JAERI-1116] 13 p2239 N67-25011
Physical properties of Zircaloy-4 tubing
[WAPD-TM-585] 14 p2545 N67-27251
Examination of failed Zircaloy sheathed fuel rod operating with molten uranium dioxide zirconium dioxide calcium oxide fuel
[WAPD-TM-593] 16 p2931 N67-29721
Fundamental and applied research and development in metallurgy - development of fabrication process for Zircaloy-aluminum composite pressure tubing
[NMI-2300.11] 16 p2910 N67-29781
Production of braze alloy for joining Zircaloy clad fuel elements
[ITTRI-578P29-8] 16 p2910 N67-29782
Gas hydriding Zircaloy-2 at 400 deg C
[TRG-1446/C/] 20 p3593 N67-34560
Corrosion and hydriding tests of Zircaloy under heat transfer conditions to determine operation limits of Zircaloy fuel cladding
[BAW-3765-2] 23 p4073 N67-37922
Design of Zircaloy-2 uranium oxide nuclear fuel elements for Canadian heavy water power reactor
[AECL-2949] 23 p4283 N67-38101
Irradiation of uranium-silicon alloy specimens clad in Zircaloy 2
[AECL-2684] 23 p4263 N67-38370
Specific heats and heats of transformation measured for Zircaloy-2 and low-nickel Zircaloy-2
[BMI-1905] 23 p4264 N67-38669
Behavior of Zircaloy-2 and Zr-2.5 percent Nb clad uranium dioxide fuel in organic coolant
[AECL-2661] 23 p4287 N67-38844
ZIRCONATE
S STRONTIUM ZIRCONATE
ZIRCONIUM
Thermal and dilatometric effects during annealing of deformed zirconium
[FTD-TT-65-1488] 01 p0087 N67-11071
Niobium 92 decay, and energy levels in zirconium 92 03 p0437 N67-12583
Generalized Hartree-Fock calculation for zirconium 90 using effective interaction
[CONF-660906-6] 04 p0526 N67-13964
Krypton ion irradiation damage in thin foils of zirconium 07 p1173 N67-16761
Formation of uranium, zirconium, and thorium oxide microspheres by ammonium hydrolysis of sols
[ORNL-TM-1508] 07 p1038 N67-17543
Relationships between temperature and yield point, strain hardening coefficient, and grain size of polycrystalline zirconium
[ITTRI-578P27-20] 07 p1102 N67-17573
Sensitivity of SNAP reactor calculations to zirconium absorption cross section uncertainties 08 p1314 N67-18787
Deuteron and proton optical models, excitation energies for 23 levels of Zr 94, stripping and other direct reactions, and neutron capture and fission cross sections of uranium 08 p1346 N67-19322
Solubility parameters for niobium and zirconium in lithium and potassium, and calcium solubility in eutectic sodium potassium alloy 09 p1406 N67-19586
Determination of silver and indium in magnesium-base alloys, lead in indium, and zirconium in hafnium
[NRL-6427] 09 p1410 N67-19794
Mixing and spraying methods for radioisotope labeling of refractory material in casting process
[EUR-3169.F] 09 p1455 N67-20283
Updated sixteen group Hansen Roach structure library for Zr, Be, Pu 239 cross sections and SNAP reactor application
[NAA-SR-MEMO-11907] 10 p1705 N67-20853
Temperature gradient effect on distribution of hydrogen in zirconium
[BNL-TR-161] 10 p1705 N67-20854
Explosion free combustion of zirconium droplets
[SC-DC-66-1127] 10 p1770 N67-20859
Calibration of zirconium 95, niobium 95 mixtures by gamma spectrometry
[CNEA-177] 10 p1575 N67-21144
Desensitization process for zirconium powder used in primers
[T60-24-4] 11 p1811 N67-23468
Metallographic preparation of irradiated zirconium 10 w/o uranium hydride 13 p2168 N67-34347
Spectrophotometric determination of zirconium in bismuth-lead alloys using Alizarin Red S method
[AECL-2829] 13 p2269 N67-25579
Effect of titanium, zirconium, and hafnium on heat resistance of molybdenum-carbon alloys
[NASA-TT-F-10859] 14 p2550 N67-26579
Relation between modifications observed in zirconia during electrotransport tests and during zirconium oxidation
[NP-TR-1467] 15 p2781 N67-28452
Tensile tests in liquid helium and role of twinning in plastic deformation of zirconium
[ORO-3262-3] 15 p2735 N67-28487
Thermal expansion coefficients of alpha zirconium
[WAPD-TRANS-45] 16 p2960 N67-29819
Fabrication and mechanical properties of sintered zirconium yttrium oxide dispersions - morphology and powder metallurgy
[AECL-3033] 16 p2915 N67-30118
Process developed for recycling sintered uranium dioxide and zirconium dioxide fuel wafers 17 p3105 N67-30505
Physical properties of plutonium uranium zirconium ternary system reactor fuel
[MLM-1346] 18 p3293 N67-31717
Zirconium oxidation at moderate temperatures, and electronic control of oxidation
[ANL-7252] 19 p3393 N67-33414
Electrochemical measurement of corrosion and film growth rates of crystal-bar zirconium in oxygenated potassium sulfate solution
[ORNL-TM-1834] 20 p3591 N67-34336
Diffusion of carbon into zirconium and zirconium carbide 20 p3656 N67-34277
Spectroscopy of proton ground state configurations in zirconium isotopes
[ORNL-TM-1866] 23 p4108 N67-37909
Textures produced in hot-extruded zirconium plate
[CEA-R-3127] 23 p4264 N67-38649
Coadsorption of cesium and fluorine on tungsten, and analysis of mechanisms leading to decay of field emission current from low work function zirconium/oxygen coated tungsten emitter
[NASA-CR-89861] 24 p4514 N67-39579
Investment Co-25W-3Cr-0.1B cast alloy for studying effect of Ti, Zr and C on structure and stress rupture properties at 1850 deg F in air
[NASA-CR-89650] 24 p4485 N67-39637
ZIRCONIUM ALLOY
Thick oxide layers on zirconium-titanium alloys for enhanced wear resistance in water lubricated mechanisms
[AECL-2537] 01 p0081 N67-10031
Oxygen influence on mechanical properties of niobium-zirconium alloys
[IS-T-92] 01 p0084 N67-10630
Oxidation resistance of zirconium boride and zirconium boride-molybdenum disilicide alloys
[ATD-66-73] 01 p0088 N67-11124
Hydriding of zirconium alloys by gaseous hydrogen
[TRG-1255/C/] 02 p0228 N67-11741
Deformation processing of anisotropic metals - superplasticity in aluminum-copper, zirconium, titanium, and magnesium alloys, and in electroplated lead and tin composites
[AD-639214] 03 p0409 N67-12673
Isothermal tension testing of titanium and zirconium alloys for examining superplasticity property 03 p0410 N67-12675
Hydrogen supersaturation in zirconium and zirconium-2.5wt percent niobium alloy
[AECL-2599] 03 p0411 N67-12836
Zirconium alloy nuclear fuel cladding
[GEAP-5134] 03 p0427 N67-12380
Heat treatment effect on corrosion properties of zirconium-copper-molybdenum alloys
[NP-16239] 03 p0413 N67-12246
Zirconium alloy properties in organic coolants
[AECL-2619] 04 p0574 N67-13617
Examination and analysis of bimetallic - stainless steel and Nb-1 per cent Zr - liquid metal systems to define design limits for long life system applications
[EDR-4719] 04 p0556 N67-13633
Transmission electron microscopy used to study formation of athermal and isothermal omega in Zr-Nb alloys
[ITE-9] 04 p0560 N67-13979
Contamination exposures of columbium, zirconium, and tantalum alloys under conditions of low pressures and high temperatures
[NASA-CR-54924] 06 p0896 N67-16673
Structure of zirconium carbon niobium alloys
[NASA-TT-F-10493] 07 p1101 N67-17515
Structure of zirconium carbon tantalum alloys
[NASA-TT-F-10646] 07 p1101 N67-17517
Phase transformation of titanium-zirconium alloys studied after heat treatment 08 p1226 N67-18207
Sintered aluminum product and zirconium alloy for organic cooled reactors
[AECL-2640] 08 p1323 N67-19246
Precipitation of chromium and zirconium from beryllium-chromium and beryllium-zirconium alloys during aging process
[ATD-66-104] 09 p1460 N67-19619
Hydrogen effect on fracture toughness of Zircaloy and zirconium-niobium alloy pressure tubes
[AECL-2622] 10 p1656 N67-21561
Static testing in Santowax-OM of zirconium alloys in alpha-annealed state to determine compatibility

[AEET-260] 10 p1635 N67-21504
Effect of interstitial addition on phase equilibrium of niobium-rich region of niobium tungsten hafnium and niobium tungsten zirconium alloy systems
[DRI-1092-235] 10 p1656 N67-21568
Evaluation of zirconium alloy as water reactor fuel cladding
[EURAEC-1738] 10 p1657 N67-21685
Reactions of zirconium alloys with water vapor at 300 to 600 deg C
[WERL-3203-5] 10 p1582 N67-21820
Effect of fast neutron irradiation on tensile properties of cold worked zirconium-niobium pressure tubes
[AECL-2625] 11 p1934 N67-22965
Effects of dissolved oxygen on mechanical properties of zirconium-2.5 weight percent niobium alloy
[AECL-2623] 11 p1896 N67-22994
Mechanical properties and corrosion behavior at high temperatures of zirconium niobium tin alloy used for cladding in water cooled reactors
[EURAEC-1725] 12 p2116 N67-23689
Tests and analysis of experimental assembly of nuclear fuel with sintered uranium dioxide cores in zirconium alloy jackets with maximum uranium burnup
[IAE-1161] 12 p2145 N67-23724
Workability, heat treatment characteristics, and corrosion resistance for pressurized water of zirconium molybdenum chromium and zirconium molybdenum nickel alloys
[NSJ-TR-24, REV.] 12 p2119 N67-24310
Development of zirconium alloy for use as cladding material in water cooled nuclear reactors
[EURAEC-1725] 12 p2150 N67-24590
Temperature and notch radius effects on mechanical properties of titanium alloyed aluminum, vanadium, tin, and zirconium
[AMRA-TR-66-28] 12 p2120 N67-24653
Orientation and hydride content on directional precipitation of hydride, texture development, oxidation-corrosion mechanisms and anisotropy, and basal pole figures in zirconium alloys 13 p2336 N67-25364
Extrusion and cold drawing fabrication of zirconium, niobium pressure tubes, and metallurgical evaluation
[AECL-2652] 14 p2547 N67-27764
Phase and microhardness data on hafnium niobium tungsten zirconium alloy systems containing interstitial carbon or dioxide
[DRI-2369] 15 p2723 N67-28317
Absorption technique for determining concentration of selenium in zirconium selenium alloys
[AERE-R-5293] 15 p2663 N67-28856
Oxidation rate of niobium and niobium-zirconium alloys under low pressures and high temperatures
[NASA-CR-72264] 16 p2914 N67-30151
Rectification by oxide films on zirconium alloys
[AECL-2690] 17 p3079 N67-30936
Electrical methods for determining growth and breakdown of oxide films on zirconium alloys
[AECL-2668] 17 p3090 N67-30945
In-reactor oxidation of zirconium alloys in pH-10 lithium hydroxide and pH-10 ammonium hydroxide
[BNWL-SA-822] 20 p3678 N67-34075
Neutron irradiation effects on mechanical properties and corrosion behavior of zirconium alloy and Zircaloy 2
[EUR-3335.E] 20 p3656 N67-34696
Development and control of texture in zirconium alloy tubes
[AECL-2696] 20 p3685 N67-35138
Surface treatment of zirconium alloys by oxidizing fused salts
[EUR-3476.F] 20 p3662 N67-35272
Tensile creep irradiation equipment for zirconium alloy creep rate measurements 21 p3892 N67-36549
Solid solutions of titanium aluminum zirconium system for high temperature alloys 22 p4062 N67-37126
Phase equilibria, hardness, density, and electric resistance of titanium aluminum zirconium ternary alloy system 22 p4063 N67-37127
Alloy phase structures in ternary titanium aluminum zirconium system along binary titanium alloy section 22 p4063 N67-37130
Metastable polymorphic transformations in niobium and zirconium alloys during quenching in beta region 22 p4083 N67-37131
Creep of alloys in titanium zirconium aluminum tin system 22 p4067 N67-37152
Small-quantity additions of molybdenum, zirconium, and niobium considered for improving behavior of uranium under neutron irradiation
[EUR-3479.I] 23 p4265 N67-38837
Screening tests of hydrogen barrier coating for zirconium alloys used in heavy water organic cooled reactor
[AI-CE-27] 24 p4491 N67-39720
Oxidation of zirconium-aluminum alloys
[AECL-2776] 24 p4470 N67-40546
Rate controlling processes during oxidation of zirconium alloys
[AECL-2777] 24 p4470 N67-40599

ZIRCONIUM CARBIDE
High density zirconium carbide thin plates by rolling and pressing methods, with subsequent high temperature baking
[JPRS-38834] 02 p0265 N67-11831
Dependence of specific resistance, absolute thermoelectromotive force, and Hall coefficient on carbon content in samples of zirconium monocarbide
[NASA-TT-F-10448] 06 p0946 N67-15845
Spin-casting and property evaluation of high temperature Hf, Zr, Ti, and Ta carbide alloys 13 p2107 N67-23954
Plastic deformation effects on refractory titanium carbide, zirconium carbide, titanium boride, and molybdenum silicate
[NASA-TT-F-10775] 13 p2338 N67-25820
Evaporation rates of thermal cathodes made of zirconium carbide, uranium carbide, and solid solutions
[JPRS-40060] 14 p2604 N67-27385
Band structure model for thermal conductivity of zirconium and niobium carbides
[NASA-TT-F-11118] 17 p3019 N67-31226
Diffusion of carbon into zirconium and zirconium carbide 20 p3656 N67-34377
Physical properties of pyrolytic Group IV metal carbides and nitrides
[NASA-TT-F-11180] 21 p3934 N67-36535

ZIRCONIUM COMPOUND
Irradiation stability of uranium oxide-zirconium oxide in comparison to uranium oxide and uranium oxide-beryllium oxide fuels
[BMI-1762] 06 p0914 N67-16265
Conversion of uranium halides and uranium-zirconium fluorides to carbides
[EUR-3170.F] 10 p1574 N67-21019
Zirconyl arsenate ion exchanger and sorption of cesium 21 p3779 N67-35514

ZIRCONIUM HYDRIDE
Stress reorientation of hydride precipitates in cold drawn zirconium-niobium pressure tubes
[AECL-3634] 03 p0412 N67-12295
Experimental results and calculations of reactivity effects in uranium-zirconium hydride fueled power excursions for SNAP reactor safety 07 p1125 N67-17985
Multiphonon neutron scattering study of hydrogen bonding in zirconium hydride 10 p1576 N67-21036
Certain diffusion constants determined by neutron single scattering experiments
[JUL-60-NP] 10 p1716 N67-21206
Scattering of low energy neutrons in zirconium hydride
[BMWF-FBK-66-46] 15 p2769 N67-28537
Experiment design, assembly, and operation of uranium zirconium hydride fuel element irradiations in large Hanford-type reactor 18 p2390 N67-32435
Integral neutron thermalization and angular scattering in water, on zirconium hydride, and on cryogenic beryllium metal
[GA-7673] 21 p3898 N67-35633
Neutron angular scattering by methylene group, zirconium hydride, and benzene
[GA-8080] 24 p4502 N67-40282

ZIRCONIUM NITRIDE
Solid phase deposition of zirconium nitride on graphite sphere 18 p2330 N67-32297

ZIRCONIUM OXIDE
Determination of oxygen content of refractory oxides by sulfur monochloride method
[EUR-3077.I] 04 p0591 N67-13736
Interaction of zirconium dioxide with titanium, niobium, and chromium carbides
[NASA-TT-F-10649] 07 p1088 N67-17618
Recrystallization and electropolishing methods for preparing zirconium dioxide foils suitable for electron microscopy transmission
[EURAEC-1600] 13 p2339 N67-25882
Phase diagram and relationships for zirconium oxide-scandium oxide system
[ARL-66-0230] 15 p2720 N67-28089
Spectral reflection coefficient, emittance, and true temperature of zirconium dioxide and magnesium oxide determined in reflector furnace 15 p2882 N67-28187
Examination of failed Zircaloy sheathed fuel rod operating with molten uranium dioxide zirconium dioxide calcium oxide fuel
[WAPD-TM-589] 16 p2981 N67-29721
Feasibility of aqueous reprocessing of zirconium dioxide-uranium dioxide fuels
[IN-1089] 17 p3111 N67-30827
High burnup effects on uranium dioxide cerium dioxide and uranium dioxide zirconium dioxide reactor fuels 18 p3285 N67-32359
Production engineering for cylindrical seed and blanket type nuclear fuel pellets
[WAPD-TM-578] 21 p3899 N67-36297
Theory of epitaxial zirconium - zirconium oxide crystalline film
[AECL-2751] 22 p4071 N67-37350
Mass spectrometric study of zirconium, hafnium and thorium dioxides vaporization
[NASA-TT-F-11306] 23 p4316 N67-38648

ZODIACAL DUST CLOUD
Flux-mass distribution of zodiacal dust particles near Mars measured by Mariner IV space probe 03 p0443 N67-12752
Zodiacal dust cloud models
[NASA-CR-66679] 18 p3219 N67-31997

ZODIACAL LIGHT
General characteristics of comets, meteors, and zodiacal light 00 p0063 N67-15498
Gemini IX experiment to photograph airglow, zodiacal light, and Milky Way 06 p0965 N67-16022
Interplanetary dust model ensemble derived for analysis of zodiacal light observations
[NASA-CR-82926] 09 p1512 N67-19921
Geocentric dust belt symmetry and zodiacal light
[RAE-TR-66257] 11 p1977 N67-22694
Satellite measurements of penetration rate for particles causing Zodiacal light 11 p1979 N67-22430
Relationship of zodiacal light to gegenschein - comet tails
[NASA-TT-F-11094] 15 p2789 N67-28234
Zodiacal light as indicator of nature of interplanetary dust, and interpreted in terms of small solid particles in solar system 18 p3232 N67-32050
Brightness of zodiacal light at ecliptic pole 18 p3232 N67-32060
Interplanetary particle study involving zodiacal clouds, meteoritic complex, and radio meteors
[NASA-CR-83988] 23 p4247 N67-38210
Phase function and particle distribution of zodiacal cloud 23 p4248 N67-38212

ZONAL HARMONICS
Zonal harmonics in low frequency terrestrial radio wave propagation
[NBS-TN-335] 00 p0057 N67-13948
Long period perturbations in motion of small eccentricity satellites and analysis of Alouette I and Tiros VIII satellites - zonal harmonics
[NASA-TM-X-55647] 00 p0060 N67-16549
Development of earth gravitational potential from sixth through twenty-fifth zonal harmonic
[NASA-TM-X-53695] 00 p1277 N67-18754
Differential corrections applied to Vinti accurate reference satellite orbit with inclusion of third zonal harmonic
[NASA-TM-X-53619] 00 p1305 N67-18765
Odd zonal harmonics in Earth gravitational potential
[RAE-TR-66217] 00 p1443 N67-20020
Zonal gravity harmonics estimates for moon up to order eight
[D1-82-0060] 12 p2360 N67-23788
Geodetic parameters, astrophysical observations, and satellite orbit positioning
[SAO SPECIAL REPT.-280, VOL. 1] 21 p3889 N67-36033
Baker-Nunn camera used in determining zonal harmonic coefficients 21 p3890 N67-36036
Geodetic parameters for 1966 Smithsonian Institution standard earth
[SAO SPECIAL REPT.-280, VOL. 2] 21 p3945 N67-36052
Baker Nunn camera observations from

satellites used in study of zonal harmonic coefficients 21 p3844 N67-36467
ZOND II SPACE PROBE
Flow of solar plasma on Zond II interplanetary space station
[FTD-TT-65-1946] 04 p0609 N67-14239
Kilometer cosmic radioemission measurements in interplanetary space from Zond 2, Zond 3, and Venera 2 probes
[NASA-CR-83524] 11 p1972 N67-33250
Cosmic radiation measurements obtained by Soviet Zond and Luna space probes
[NASA-CR-88982] 23 p4341 N67-39222
ZOND III SPACE PROBE
Depressions on far side of lunar surface observed by automatic interplanetary station Zond III
[NASA-CR-82003] 06 p1361 N67-18490
Cosmic ray intensity variation measured by Zond 3 and Venus 2 interplanetary probes
[NASA-CR-82437] 06 p1358 N67-18956
ZONE
S AURORAL ZONE
S BRILLOUIN ZONE
S RECOVERY ZONE
ZONE MELTING
New electron beam optics for preparation of refractory insulating crystals by floating zone method
[AFCRL-66-539] 06 p0687 N67-16133
Growth of optical crystals by float zone technique
[REPT.-67-9F6-MIOPT-R1] 10 p1503 N67-21852
Floating zone process used to prepare refractory materials
[NAEC-AML-2550] 15 p2727 N67-28601
Nuclear technology application of column crystallization and comparison with zone melting methods
[KFK-502] 19 p3396 N67-33726
ZONE REFINING
Temperature dependence of internal friction of monocrystalline boron obtained by zone refining 01 p0061 N67-10062
Chemical analysis of zone refined plutonium gallium alloy rods, and growth of delta stabilized plutonium single crystals
[NUMEC-3439-21] 05 p0710 N67-14693
Relative hardness of grains and grain boundaries of zone refined aluminum alloy with 0.0124 atomic percent copper in presence of solutes
[TR-2] 12 p2116 N67-23678
Preparation and purification of zone refined tungsten crystals with mosaic block angles
[AD-648375] 14 p2561 N67-28886
Variation of resolved proportional limit with mosaic angle from 77 deg to 973 deg K in zone refined tungsten
[AROD-4917-2] 16 p2909 N67-29753
Lithium mobility in boron and gallium doped silicon single crystals grown either by zone floating or Czochralski methods
[INR-899/II/P5] 20 p3641 N67-34697
Uranyl nitrate purification by zone refining 21 p3777 N67-35504
Growth of single crystals of doped and undoped yttria and yttrium aluminate in hollow cathode zone refiner
[AFML-TR-67-51] 21 p3915 N67-35657
ZONING TECHNIQUE
Nonlinear analysis of xenon stability in high temperature gas-cooled reactor, and effect of fuel zoning on axial stability of reactor
[GAMD-6934] 10 p1675 N67-22823
Topographic zoning technique for Antarctica 11 p1988 N67-22252
ZOOLOGY
SA ICHTHYOLOGY
Planning, organization, and proceedings of International Congress of Zoology
[NASA-CR-81249] 06 p0607 N67-16616
Evolutionary history relations of major groups of animals 07 p1004 N67-16717
ZPR
S ZERO POWER REACTOR /ZPR/

☆ U.S. GOVERNMENT PRINTING OFFICE : 1968 300-505/3

Collections of NASA Documents

Collections of NASA Documents

NASA is depositing its technical documents and bibliographic tools in eleven Federal Regional Technical Report Centers. Each center, located in one of the organizations listed below is prepared to furnish the general public such services as personal reference, interlibrary loans, photocopy service, and assistance in obtaining retention copies of NASA documents.

California: University of California, Berkeley
Colorado: University of Colorado, Boulder
District of Columbia: Library of Congress
Georgia: Georgia Institute of Technology, Atlanta
Illinois: The John Crerar Library, Chicago
Massachusetts: Massachusetts Institute of Technology, Cambridge
Missouri: Linda Hall Library, Kansas City
New York: Columbia University, New York
Pennsylvania: Carnegie Library of Pittsburgh
Texas: Southern Methodist University, Dallas
Washington: University of Washington, Seattle

NASA publications are currently being forwarded to the public libraries in the cities listed below:

California: Los Angeles and San Diego
Colorado: Denver
Connecticut: Hartford
Massachusetts: Boston
Michigan: Detroit
Minnesota: St. Paul and Minneapolis
Missouri: Kansas City and St. Louis
New Jersey: Trenton
New York: Brooklyn, Buffalo, Rochester and New York
Ohio: Cleveland, Cincinnati, Dayton, Toledo and Akron
Oklahoma: Oklahoma City
Tennessee: Memphis
Texas: Fort Worth and Dallas
Washington: Seattle
Wisconsin: Milwaukee

In addition, NASA regularly sends its publications to the Enoch Pratt Free Library located in Baltimore, Maryland and the Wilmington Institute Free Library, Wilmington, Delaware.

An extensive collection of NASA and NASA-sponsored scientific and technical publications available to the public for reference purposes is maintained at the Technical Information Service, American Institute of Aeronautics and Astronautics, 750 Third Avenue, New York, New York 10017.

"The aeronautical and space activities of the United States shall be conducted so as to contribute . . . to the expansion of human knowledge of phenomena in the atmosphere and space. The Administration shall provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof."

—NATIONAL AERONAUTICS AND SPACE ACT OF 1958

NASA SCIENTIFIC AND TECHNICAL PUBLICATIONS

TECHNICAL REPORTS: Scientific and technical information considered important, complete, and a lasting contribution to existing knowledge.

TECHNICAL NOTES: Information less broad in scope but nevertheless of importance as a contribution to existing knowledge.

TECHNICAL MEMORANDUMS: Information receiving limited distribution because of preliminary data, security classification, or other reasons.

CONTRACTOR REPORTS: Scientific and technical information generated under a NASA contract or grant and considered an important contribution to existing knowledge.

TECHNICAL TRANSLATIONS: Information published in a foreign language considered to merit NASA distribution in English.

SPECIAL PUBLICATIONS: Information derived from or of value to NASA activities. Publications include conference proceedings, monographs, data compilations, handbooks, sourcebooks, and special bibliographies.

TECHNOLOGY UTILIZATION PUBLICATIONS: Information on technology used by NASA that may be of particular interest in commercial and other non-aerospace applications. Publications include Tech Briefs, Technology Utilization Reports and Notes, and Technology Surveys.

Details on the availability of these publications may be obtained from:

SCIENTIFIC AND TECHNICAL INFORMATION DIVISION

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Washington, D.C. 20546